

1. Legal Ad

Documents: [PB LEGAL AD 5-17-16.PDF](#)

2. City Of Westbrook Memo

Documents: [CITY OF WESTBROOK MEMO.PDF](#)

3. Dirigo Plaza

3.I. Memo

Documents: [PB MEMO 5-17-16.PDF](#)

3.II. Staff Comments

Documents: [DIRIGO PROJECT \(STAFF COMMENTS\).PDF](#)

3.III. Attachments 1-7

Documents: [DIRIGO PROJECT \(ATT. 1-7\).PDF](#)

3.IV. Attachment 8

Documents: [DIRIGO PROJECT \(ATT. 8\) INITIAL TRAFFIC IMPACT STUDY \(FEB. 2016\).PDF](#)

3.V. Attachment 9

Documents: [DIRIGO PROJECT \(ATT. 9\) INITIAL TRAFFIC IMPACT STUDY TECHNICAL APPENDIX VOLUME 1.PDF](#)

3.VI. Attachment 10

Documents: [DIRIGO PROJECT \(ATT. 10\) INITIAL TRAFFIC IMPACT STUDY TECHNICAL APPENDIX VOLUME II.PDF](#)

3.VII. Attachment 11

Documents: [DIRIGO PROJECT \(ATT. 11\) DRAINAGE ANALYSIS, SEDIMENT AND EROSION CONTROL PLAN.PDF](#)

3.VIII. Plans

Documents: [DIRIGO PLAZA \(PLANS\).PDF](#)

**LEGAL ADVERTISEMENT
PORTLAND PLANNING BOARD MEETING**

The Portland Planning Board will hold a joint meeting with the Westbrook Planning Board on Tuesday, May 17, 2016, in room 114 at the Westbrook High School, 125 Stroudwater Street, Westbrook, ME. **Public comments will be taken at this meeting.**

Workshop – 7:00 p.m.

- i. **Site Plan, Subdivision & Special Exception – Dirigo Plaza – 58 & 80 Main Street, Westbrook.** Jones & Beach Engineers, Inc. on behalf of J & J Gove Development, LLC has proposed a 495,915 sq. ft. regional retail shopping center. Applicant has a Purchase and Sale with Pike Industries. Tax Map: 42B Lots: 9, 10, 11, & 14. Zone: Gateway Commercial. A proposed trail and utility substation are proposed on the portion of the site located within the B-4 and IL zones in Portland at 1190 Brighton Avenue. Where lands associated with project cross municipal boundaries into the City of Portland, a joint meeting with the Portland Planning Board and the Westbrook Planning Board will occur at this meeting. Topics of discussion at this meeting will be limited to/focused on the MDOT Traffic Movement Permit and overview of the Maine DEP submitted stormwater report.

ELIZABETH BOEPPLE, CHAIR - PORTLAND PLANNING BOARD



City of Westbrook

DEPARTMENT OF PLANNING & CODE ENFORCEMENT

2 York Street

Westbrook, Maine 04092

(207) 854-0638

Fax: (207) 854-0627

MEMO

DATE: May 12, 2016

TO: Planning Board

FROM: Jennie Franceschi, City Planner & Alex Kee Asst. Planner

Cc: Plan Review Team

RE: May 17, 2016 Planning Board Meeting – Joint Workshop with City of Portland

Items in this memo:

1. 2106.12 – Site Plan, Subdivision & Special Exception – Dirigo Plaza – 58 & 80 Main Street

1. Agenda Item #1 – 2016.12 - Site Plan, Subdivision & Special Exception – Dirigo Plaza – 58 & 80 Main Street

Tax Map: 42B Lots; 9, 10, 11 & 14 Zone: Commercial Gateway

Project Description: Jones & Beach Engineers, Inc. on behalf of J & J Gove Development, LLC has proposed a 495,915 sq. ft. regional retail shopping center. The current owner is Pike Industries. The subject property is located on Larrabee Road and Main Street.

Meeting history and proposed schedule:

- i. **March 1st Workshop** provided a general overview of the project and focused on architecture and landscaping.
- ii. **March 15th Workshop** continued to discuss site circulation, and layout.
- iii. **April 5th Workshop** –Reviewed updates to the architecturals, site layout, site amenities and provide information related to natural resources and utilities.
- iv. **May 3rd Workshop** - Reviewed of stormwater report, landscaping and other related topics.
- v. **May 17th – Joint Meeting with Portland – Recap of overall stormwater report and review of Traffic report**
- vi. **June 7th – Tentative workshop on items to clarify before a public hearing**
- vii. **June/July – Tentative Public Hearing, if voted on by the Board.**

Preliminary Stormwater Comments:

1. Snow Storage areas will need to be shown on the final plans.
2. A salt management plan will need to be provided in the final submission.
3. Update on MDEP process needs to be provided as well as any draft recommendations/conditions that are currently being discussed.
4. Fueling station location in close proximity to the stormwater treatment feature – SPCC plan needs to be developed to avoid contamination.

Preliminary Traffic Comments:

1. Speed on Arterial in vicinity of the new intersection – Would like MDOT's feedback on the Arterial speed with the introduction of a new traffic light.
2. Number of curb cuts at Walmart parking section along main access drive should be reduced to limit conflicts.
3. Internal signage package is necessary to show how traffic will be directed through the site.
4. Provide transition of Larrabee Rd sidewalk on South end into shoulder.
5. Can a pedestrian crosswalk be installed at Larrabee?
6. Sidewalk system in South campus will need to be incorporated.
7. Main Street slip lane proximity to Larrabee intersection is of concern. Can this be eliminated as an access point?
8. Pedestrian equipment to be provided at the Main St/Kohl's intersection? It is not stated on plans.
9. City has engaged the services of John Adams, PE to review the traffic report as a peer review on behalf of the City of Westbrook, who has been working with the applicant on providing feedback on the study and working with MDOT staff on the process.
10. Westbrook and Portland staff are currently reviewing the details of the report and will be providing their feedback to MDOT during the month of May for consideration in the permit process.

Chairman Reidman will be running the joint meeting and we will look to facilitate a placement of the Portland Board members and staff so that they can be afforded the right to comment and have a dialog with the applicant and the Westbrook Board.

The Board has been provided with the executive summary of the traffic report which includes the proposed mitigation package for traffic improvements to the transportation system in the vicinity as well as other public transportation resources that will be incorporated into the permit and the post construction monitoring program.

The applicant's traffic engineer will be providing an overview presentation on the traffic report and provide plans of the proposed intersections around the site parcel.

A brief overview of the stormwater report will be provided at the meeting as a courtesy to the City of Portland, as part of the joint meeting.

We will be accepting public comment at this meeting, but we are asking the public for those comments to be related to the topics of discussion for this evening which are traffic and stormwater.

As a topic for the Board's consideration, the applicant is requesting to hold the formal public hearing on the project in the near future. We can discuss thoughts on dates that could be appropriate.

Memorandum
Planning and Urban Development Department
Planning Division



To: Elizabeth Boepple, Chair, and Members of the Portland Planning
From: Richard Knowland, Senior Planner
Date: May 13, 2016
Re: Dirigo Plaza; 1190 Brighton Avenue; J & J Gove Development
Project #: 2016-073 **CBL:** 264-A-2-4; 265-A-3-5
Meeting Date: May 17, 2016

I. INTRODUCTION

A joint workshop has been scheduled with the Westbrook Planning Board to discuss the proposed Dirigo Plaza in the vicinity of 1190 Brighton Avenue. Dirigo Plaza is a large retail project whose buildings and parking areas are located entirely within Westbrook but the site also extends beyond the municipal border thus the need for Portland review. Joint municipal reviews are required when a subdivision crosses a municipal boundary.

The Portland Planning Board will be responsible for reviewing the portion of the project within Portland. The project is subject to subdivision and site plan review including a Stormwater Management Permit (Chapter 500).

The workshop will be held at the Westbrook Planning Board meeting, Westbrook High School (room 114), 125 Stroudwater Street in Westbrook.

A focus of Tuesday's workshop will be on traffic and a brief overview of stormwater management will be provided. The Westbrook Planning Board held a workshop on May 3rd to consider stormwater management plan and the Portland staff had submitted review comments for that workshop and Rick Knowland attended the meeting. The intent of this workshop is to inform the Boards of project updates and provide the opportunity for questions and comments. This discussion will help advance a traffic mitigation plan.

Dirigo Plaza is located on the former Blue Rock (Pike Industries) site which includes a large quarry.

The development application is under the name of J & J Gove Development. The lead consultant is Jones & Beach Engineers.

State permits for the Westbrook development include DEP Site Location Development Law Permit; Natural Resources Protection Act Permit and Maine DOT Traffic Movement Permit.

Seventy-two notices of the workshop were sent to area property owners. A legal notice also appeared in the May 5th and May 9th editions of the Portland Press Herald.

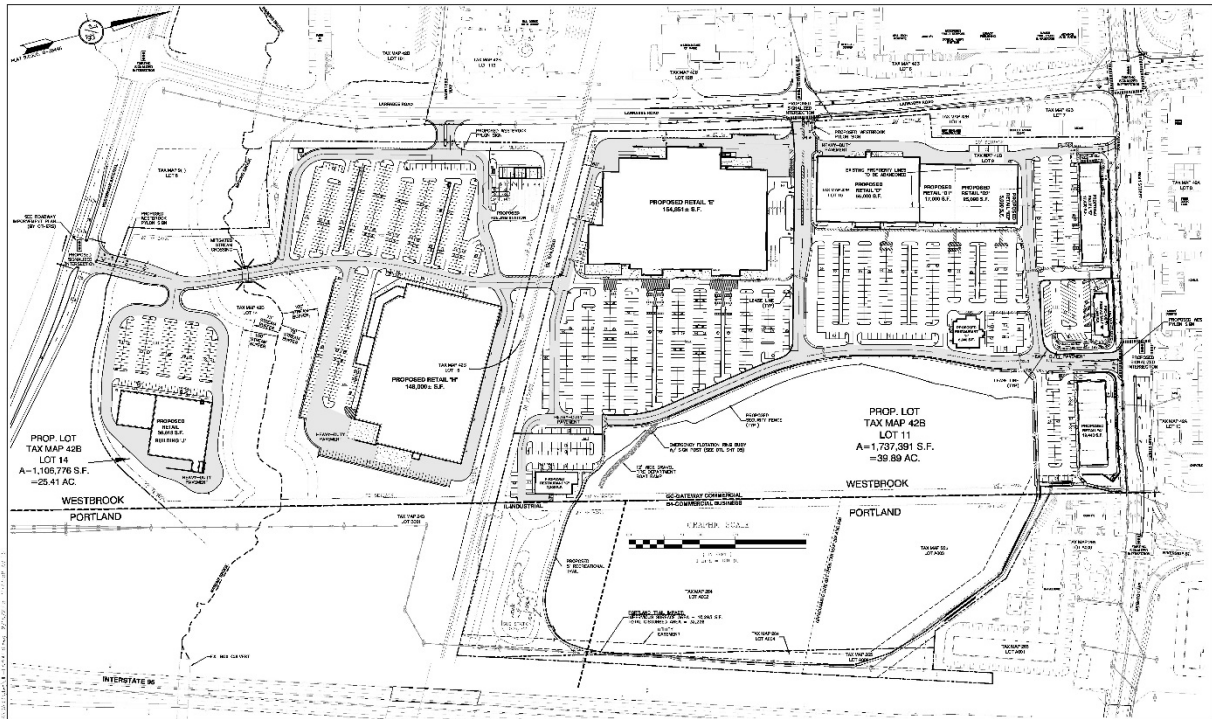
Dirigo Plaza Site



II. FINDINGS

	Portland	Westbrook
Site Area	16.5 acres	65.3
Total Disturbed Area	0.74 acre	52.5 acres
Impervious Area (existing)	0.44 acre	3.9 acres
Impervious Area (proposed)	0.67 acre	43.2 acres
Building Footprint (proposed)	11.2 acres	0 acre
Building Footprint (total)	11.2 acres	0 acre

III. PROPOSED DEVELOPMENT



Proposed Development Site in Westbrook

Dirigo Plaza's buildings and parking areas are located entirely within Westbrook. The development is described as a regional retail shopping center with mixed use retail development with a total floor area of 495,915 SF among about 10 buildings. Vehicle access into the site is from Westbrook (Main Street, Larrabee Road and Westbrook Arterial). The land area of the site within Westbrook is 39.89 acres.

The site is split by rail road tracks which divides the development to what is referred to as a "South Campus" and "North Campus".

The project will be also reviewed by the Westbrook Planning Board for site plan and subdivision review

Proposed Development Site in Portland

The portion of the site within Portland (16.48 acres) abuts Interstate 95 and is located behind Denny's and the Travel Lodge as viewed from Brighton Avenue. There is no vehicle access into the project site from Portland.

Nason's Brook runs through development site and into Portland which will be the primary stormwater outlet for the project. Nason's Brook is an urban impaired stream, as identified by DEP, and eventually flows into the Stroudwater Sanctuary and the Fore

River. A prominent feature on the Portland side of the parcel is the 100 foot plus deep Blue Rock (Pike Industries) quarry.

Specific improvements within Portland include a 5 foot wide pedestrian trail and safety fence around the rim of the quarry. The trail connects into the Dirigo development and loops back into Brighton Avenue near the Travel Lodge motel.

The Portland side of the property is zoned B-4 Business (12.66 acres) and IL Light Industrial (3.82 acres).

I. DEVELOPMENT REVIEW ISSUES

An assessment of the relevant development review standards indicates from the Portland perspective, traffic and stormwater appear to be the most significant issues.

Traffic/Transportation Study

Vanasse & Associates on behalf of the developer submitted an initial traffic impact study in April which includes two volumes of technical data (Attachments 8 to 10). An updated study was submitted on May 6th. In terms of reading time it is suggested the Board focus on the updated traffic study (Attachment 5). City Staff attended a meeting with the Applicant's consultant and the City of Westbrook on May 10th. The project is subject to a Traffic Movement Permit with review by the Maine DOT.

The submitted traffic report predicts the proposed project will generate 351 new vehicle trips during the weekday morning peak-hour, 1,217 new vehicle trips during the weekday evening peak-hour and 1,853 new vehicle trips during Saturday midday peak-hour.

A team of City Staff are reviewing traffic considerations associated with the Dirigo project. Aside from Planning staff, Jeremiah Bartlett (Transportation Systems Engineer), Bruce Hyman (Transportation Program Manager) and Tom Errico (Traffic Review Consultant) have been reviewing the site plan and related traffic studies. Staff also met with Westbrook representatives and the developer on May 10th. A summary of key points raised on May 10th are listed below, followed by more detailed review comments from Thomas Errico, P.E. and Jeremiah Bartlett, P.E. Additional comments are likely once the traffic study is updated. The comments below are intended to identify the broad picture issues.

Key Points Raised at May 10, 2016 Meeting

1. Appropriate traffic mitigation measures should be developed that are consistent with Portland's plans and goals.
2. Traffic signals including appropriate timing, coordination and equipment replacement/upgrades are important concerns.

3. Increased traffic on Westbrook Street through Stroudwater Village is a sensitive neighborhood issue. Mitigation measures need to be thoughtfully considered.
4. The Brighton Avenue Corridor from the site to Nason's Corner offers the opportunity for mitigation measures to blend with City resources to address long standing City corridor goals.

Additional information requested by Portland staff at the May 10th meeting include:

1. Review of updated crash data through 2015 and crash diagrams to the extent available through MDOT
2. Synchro files for all analysis conditions
3. Vehicle queue summary by lane group for all analysis conditions.

Tom Errico (Traffic Review Consultant) Comments

Mr. Errico's initial big picture comments on the updated traffic report are contained in Attachment A. Those comments were updated on Friday, May 13th. Mr. Errico's updated comments, which include priority issues for Portland, are listed below in their entirety.

Tom Errico's Review Comments and Priority Issues

1. The applicant should investigate mitigation strategies at all locations that are estimated to have level of service E and F conditions overall and for individual movements. This doesn't necessarily correlate to capacity expansion, but reviewing those locations for providing a balanced multi-modal intersection. 95th percent vehicle queue information should be provided for all study locations
2. The Riverside/Exit 48 intersection needs to be improved from a safety, congestion, and pedestrian/bike perspective. A detailed plan needs to be developed for consideration. I know Jeremiah has developed a concept for consideration).
3. Specific mitigation recommendations are needed for High Crash Locations. The applicant seemed to be asking for direction for which locations to investigate. In my professional opinion all High Crash Locations should be reviewed for contributing factors for identification of mitigation factors. I haven't reviewed the crash data in detail, but there may be locations that are not statistically a HCL, but have high crash occurrence numbers. We may want to ask for a review of these types of locations.
4. Specific Pedestrian and Bicycle recommendations need to be detailed, including opportunities for extending on-road bikeways on Brighton Avenue, as has been suggested on Main Street in Westbrook.

5. As Jeff and Bruce noted Brighton Avenue (Nasons Corner area) will be an area for identifying improvements. Specific details shall be provided.
6. Westbrook Street impacts need to be quantified by the applicant and whether any mitigations or improvements are warranted.
7. Riverside Street from Brighton Avenue to Exit 48 needs to be specifically reviewed for improvements. This will be similar to the Nasons Corner work. Pedestrian facilities are disjointed and likely what happens at the Riverside Street/Brighton Avenue and Riverside Street/Exit 48 intersection will inform any needed improvements.
8. The applicant should review the multi-modal function and safety implication of keeping the channelized free-flowing right-turns at the Riverside Street/Brighton Avenue intersection. Providing standard urban right-turn lanes is suggested. This location will be directly impacted by the project given its close proximity to the site driveway. The analysis must demonstrate that vehicle spillback issues will not occur.
9. The Exit 47 approach to Rand Road is projected to operate poorly. The applicant should review conditions and offer mitigation suggestions.
10. Jeremiah will be providing potential traffic signal equipment needs for the study area. I would note that coordination of the signals in close proximity of the site drive on Main Street (the Brighton/Riverside intersection) will be very important. In my opinion this will not be a timing exercise, but include technology equipment upgrades. They note that it will occur – but specific coordination and controller specifications should be determined. I would add that I observed conditions during the mid-day weekday time period and traffic signals in the study area were operating inefficiently and thus upgrades are clearly warranted.
11. The applicant notes the requirement for a post-development monitoring program with a scope of validating project trip generation and signal warrant needs at the Larrabee Road/Site Drive intersection. The scope may need to include other objectives, such as traffic signal operations or safety outcomes.

Jeremiah Barlett (Transportation Systems Engineer) Comments

Initial comments from Mr. Bartlett are shown below and on Attachment B.

1. Figure 2A: The graphic suggests a continuous sidewalk facility on the east side of Riverside Street from Brighton Avenue to Forest Avenue. This is not based on existing conditions: is it proposed as part of the off-site mitigation?

2. Traffic volume adjustments, Page 14: The seasonal adjustments were based on Maine DOT adjustment factors, which typically indicate greater seasonal fluctuation than the City has observed, albeit anecdotally. As such, the predevelopment volumes, if anything, are conservative.
3. High Crash Locations, Page 17: There should be greater analysis and discussion with crash problems. From my perspective, this is potentially a topic of greater concern than level of service impacts. In addition, the 2013-2015 data is available from Maine DOT.
4. Background Growth, Page 20: A one percent background growth in addition to the other development should have more documentation as to why it is needed. From Portland's perspective, many locations have seen flat or declining peak hour volumes, particularly weekdays.
5. Trip generation, Pages 21-23: I generally concur with the idea of utilizing the appropriate LUC 820 for a development of this nature. However, the fueling facility, while utilizing the appropriate LUC, suggests no internal capture between uses, which one would expect to be a not insignificant percentage. In addition, there is no use of diverted trips in this study, which in my previous experience with a number of large retail developments is a major component in trip distribution and assignment. A cursory review of the ITE Trip generation Handbook indicates that diverted trips may compose as much as a third to 40 percent of total trips, particularly on a Saturday.
6. Off-site mitigation: Very little detail on this topic in the report, and I don't have a lot to offer until the other items are addressed. I will be providing a list of needed signal equipment modifications within the study area that will go a long way toward satisfying the report's goal of providing an updated signal timing and coordination plan.

Stormwater

Nason's Brook runs through development site and into Portland which will be primary stormwater outlet for the project. Nason's Brook eventually flows into the Stroudwater Sanctuary and the Fore River. Nason's Brook is listed as a DEP impaired stream. The stream is subject to the Statewide Impervious Cover TMBL and the Impaired Streams Priority List in the Maine Nonpoint Source Management Plan.

A key element of the stormwater plan is the use of the quarry for stormwater detention and treatment.

Comments from Mike Farmer (Project Engineer) on stormwater issues are shown below. These comments were coordinated with the City's Stormwater Coordinator. Other stormwater related comments follow in this section from Lauren Swett of Woodard & Curran.

Mike Farmer (Project Engineer) Comments

Mr. Farmer's comments are shown below and Attachment C.

1. The site drains to Nason's Brook and the wetland complex at Pine Tree Industrial Parkway, both of which are DEP-list impaired waters. In addition, the area near the intersection of Brighton Ave and Riverside St drains to Capisic Brook, another impaired stream. Nason's Brook is subject to the Statewide Impervious Cover TMDL and is on the Impaired Streams Priority List in the Maine Nonpoint Source Management Program Plan 2015-2019 (September 15, 2014).
2. The applicant's conceptual designs for post-construction stormwater management (i.e.: Under drained grassed swales, wet ponds, gravel wetlands and sand filters) appear to provide both water quantity and quality controls to help protect Nason's Brook. If the project is required to meet the Urban Impaired Stream Standard under the Chapter 500 stormwater regulations, the City of Portland has an approved Compensation Fee Utilization Plan and dedicated fund for Nason's Brook.
3. A construction site erosion & sediment control plan will be an important part of protecting both impaired streams from the potential impacts of construction activity. Best Management Practices should be utilized to prevent construction vehicles from tracking sediment onto roadways which is a potential source of illicit discharges to the MS4 of either community.
4. Regular inspection and maintenance of the stormwater management system is critical for protecting the health of Nason's Brook. A site-specific stormwater management system inspection and maintenance plan, as well as a legal maintenance agreement between the owner/operator and the City of Westbrook, is highly recommended.
5. In order to protect the integrity of the existing stream channels and floodplains, and to allow for future adaptive management & mitigation under a watershed management plan, stream and wetland setbacks of at least 75' should be preserved. Experience in the Long Creek Watershed has shown that confinement and channelization of a brook can result in significant stream bank destabilization and channel erosion, which can cause property damage and make restoration of the brook more expensive and challenging for both the regulated communities and landowners in the watershed. Culverts or stream crossings should be designed to prevent impediments to stream flow or fish passage.

6. Given the growing regional concern about the impact of using chlorides for winter snow and ice management, has any consideration been given to the potential impacts of winter operations on the streams, wetlands and ground water? One of the few effective BMPs for preventing water quality impacts from chlorides is to minimize their use. See the Maine Environmental Best Management Practices (BMP) Manual for Snow and Ice Control: <http://baswg.org/wp/wp-content/uploads/2015/11/Maine-Winter-Maintenance-BMP-Manual-Distributed-at-2015-Roundtable.pdf>.
7. Designated snow storage areas should be established on the site with water quality protection in mind. Snow should not be stored in, or on, stormwater treatment systems, brook channels or wetlands. This should have added benefits in the way of reducing maintenance requirements (e.g.: sediment & trash removal, plow damage, plant replacement, etc.) and prolonging the functional life span of the stormwater infrastructure.
8. The proposed fueling station appears to be located next to a stormwater treatment unit. If this is the case, the fueling station should be designed to prevent spills from impacting the stormwater treatment system. A Spill Prevention, Control and Countermeasure.

Lauren Swett (Development Review Engineer) Comments

Other related stormwater comments from Lauren Swett of Woodard & Curran are shown below and Attachment D.

- 1) As the project's extensive stormwater management system discharges to the City of Portland, we have performed a general review of the stormwater model to verify continuity and consistency throughout the model as it impacts the overall model outcome. In general, we are in agreement with the modeling approach. We have the following comments:
 - a) The Applicant should clarify the source of the rainfall amounts that were utilized for the modeled storm events. The latest version of the Maine DEP Chapter 500 regulations, identify rainfall for Cumberland County SW with different values than those listed in the application. It is noted that the Applicant has utilized more conservative rainfall amounts than the Maine DEP for all storms except for the 100-year storm.
 - b) The Applicant has noted that TR-55 methodology was utilized for time of concentration (TC) calculations. TR-55 typically considers a minimum TC of 6 minutes. One of the pre-development subcatchments has a TC of 0, and one pre-development and a number of post-development subcatchments have TC values less than 6 minutes. The applicant should clarify their TC calculation approach.
 - c) The Applicant should evaluate the open channel stream reaches that have been included in the stormwater model. Many of these channels show very large and unrealistic for surrounding topography (i.e. greater than 30') average flow depths in both the existing and proposed condition.

- d) Two reaches located downstream of the quarry could not be found on the drainage plans. Please clarify where reaches 9 and 18 are located.
 - e) The model identifies that some existing and proposed pipe reaches will be full during the 25-year storm event. The Applicant should clarify that no capacity/flooding issues will result from these full pipes.
- 2) The proposed project will result in approximately 10,293 square-feet of new impervious area in the City of Portland and is located within the watershed of an Urban Impaired Stream (Nason's Brook). As such, it would be required to demonstrate compliance with the Basic, General, Urban Impaired Stream, and Flooding Standards of the MaineDEP Chapter 500 Rules in accordance with Section 5 of the City of Portland Technical Manual. We understand that this Subdivision application is for only a portion of the overall project area, and the entire project is being reviewed for stormwater compliance by the City of Westbrook and the Maine DEP. We offer the following comments with regards to the portion of the project that is located in the City of Portland:
- a) Basic Standard: Plans, notes, and details should be provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500.
 - b) General & Urban Impaired Stream Standards: The Applicant is required to provide stormwater treatment throughout the entire project area and is proposing an extensive network of bioretention cells, underdrained filters, and sand filters throughout the development site. The existing quarry pit will be utilized as a wet pond. This wet pond will provide treatment for the entire new impervious area added in the City of Portland.
 - c) Flooding Standard: The Applicant is required to provide flood control throughout the entire project area. Flood control will be provided by stormwater features throughout the site, primarily through the use of the existing quarry pit as a wet pond. Runoff from the portion of the project located in the City of Portland will be managed by the wet pond. The overall project will result in a reduction in peak discharge in all storm events based on the submitted model. The Applicant should consider the general stormwater modeling comments provided previously in this memo, and verify that any changes to the model do not change the flooding results.
- 3) The pre-development and post-development HydroCAD model nodes for the quarry pond indicate a significant change in the water storage elevation. Based on a review of the model, it appears that pumping contained water in the existing condition at an elevation of -140, but in the proposed condition, groundwater will fill the pond to elevation +60 with stormwater storage above that elevation up to elevation +75. Has the hydrogeological impact of this change in water elevation on the surrounding area been evaluated?

Other Issues

1. The proposed trail is shown as having a width of 5 feet. Staff recommends a width of 8 feet.
2. The Applicant has provided a cross section of the proposed paved recreation trail, including a schematic view of a security fence. Additional detail should be provided on the proposed fencing, including height, fencing material type, and fence post foundations. It appears from the large-scale grading plan that the fencing will be installed in areas that have varying grade changes that may transition quickly from steep to shallow. It is noted that the Applicant should consider the constructability of the fencing in these conditions.
3. Will any gate access be provided along the trail for future maintenance or for safety access? The Applicant should provide additional detail as applicable.
Portions of the trail and fence are located within an existing Central Maine Power easement for transmission lines. The Applicant should confirm with CMP that pedestrian access will be acceptable in these areas. The Applicant should also clarify if additional fencing or other security measures will be required around the transmission lines, utility poles, or the adjacent substation
4. Construction Management Plan should be provided for the site. It is understood that a plan may be provided for the overall site, including impact on both Westbrook and Portland.

Attachments:

Staff Comments

- A. Tom Errico (Traffic Review Engineer Memo) dated May 11, 29016
- B. Jeremiah Bartlett (Transportation Systems Engineer) dated May 10, 2016
- C. Michael Farmer (Project Engineer) dated April 21, 2016
- D. Lauren Swett (Development Review Engineer) dated April 28, 2016
- E. Various material and submissions from received from Westbrook Planning Department

Applicants Submittal

1. Application
2. Project Description
3. Title, Right and Interest
4. Easements, Covenants, Public or Private Right-of-Way
5. Updated Traffic Impact Study (May 2016)
6. Drainage Summary
7. Financial Capacity

8. Initial Traffic Impact Study (Feb. 2016)
9. Initial Traffic Impact Study Technical Appendix – Volume 1 (Feb. 2016)
10. Initial Traffic Impact Study Technical Appendix – Volume II (Feb 2016)
11. Drainage Analysis, Sediment and Erosion Control Plan

Plans

- P1 CS Cover Sheet
- P2 A1 Existing Conditions Plan
- P3 A2 Subdivision – Lot Consolidation Plat
- P4 A3 Subdivision – Lot Consolidation Plat
- P5 C2 Overall Site Plan (updated 4-28-16)
- P6 C2 Overall Site Plan (3-4-16)
- P7 C3 Overall Grading and Drainage Plan (updated 4-28-16)
- P8 C3 Overall Grading and Drainage Plan (3-4-16)
- P9 L1.0 Landscape Legends and Notes
- P10 L2.0 Landscape Overall Plan
- P11 L3.0 Hardscape Plan
- P12 L3.1 Hardscape Plan
- P13 L3.2 Hardscape Plan
- P14 L4.0 Hardscape Details 1
- P15 L4.1 Hardscape Details 2
- P16 L5.0 Planting Plan
- P17 L5.1 Planting Plan
- P18 L5.2 Planting Plan
- P19 L5.3 Planting Plan
- P20 L5.4 Planting Plan
- P21 L5.5 Planting Plan
- P22 L5.6 Planting Plan



ATT. A

Rick Knowland <rwk@portlandmaine.gov>

RE: Dirigo Plaza - Westbrook

1 message

Tom Errico <thomas.errico@tylin.com>

Wed, May 11, 2016 at 5:13 PM

To: Rick Knowland <rwk@portlandmaine.gov>

Rick – I think the email from Jeffrey Dirk notes the list of technical information we are requesting. Some big picture items.

- The Riverside/Exit 48 intersection needs to be improved from a safety, congestion, and pedestrian/bike perspective.
- Specific mitigation recommendations are needed for High Crash Locations.
- Specific Pedestrian and Bicycle recommendations need to be detailed.
- Brighton Avenue (Nassons Corner area) will be an area for identifying improvements. The City has \$200K that may allow for a City/Developer partnership.
- Westbrook Street impacts need to be quantified and whether any improvements are warranted.
- Riverside Street from Brighton Avenue to Exit 48 needs to be specifically reviewed for improvements.
- The Exit 47 approach to Rand Road is projected to operate poorly. Review of this conditions is needed.
- Jeremiah put together a list of traffic signal needs. Let me know if you don't have a copy of it.

I'll be putting my red flag list together by Friday and many of the above will be included. I'll be sure to copy you.

Thanks

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
TYLIN INTERNATIONAL T.Y. Lin International

12 Northbrook Drive

Falmouth, ME 04105

207.781.4721 (main)

207.347.4354 (direct)

207.400.0719 (mobile)

207.781.4753 (fax)

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | YouTube

"One Vision, One Company"

Please consider the environment before printing.

From: Rick Knowland [mailto:rwk@portlandmaine.gov]

Sent: Wednesday, May 11, 2016 9:48 AM

To: Tom Errico <thomas.errico@tylin.com>

Subject: Re: Dirigo Plaza - Westbrook

Hi Tom, Thanks. When you have a chance to forward the material regarding updated traffic info that would be helpful. Thanks.

On Wed, May 11, 2016 at 9:34 AM, Tom Errico <thomas.errico@tylin.com> wrote:

FYI

Sent from my iPhone

Begin forwarded message:

From: "Jeffrey S. Dirk, P.E.,PTOE" <jdirk@rdva.com>

Date: May 11, 2016 at 9:14:17 AM EDT

To: "Soucie, Timothy" <Timothy.Soucie@maine.gov>

Cc: Bernie Guen <bguen@rdva.com>, "Jennie Franceschi (jfranceschi@westbrook.me.us)" <jfranceschi@westbrook.me.us>, "jadams@mminc.com" <jadams@mminc.com>, "Jeremiah Bartlett (JBartlett@portlandmaine.gov)" <JBartlett@portlandmaine.gov>, "Thomas A. Errico (thomas.errico@tylin.com)" <thomas.errico@tylin.com>, "szografos@maineturnpike.com" <szografos@maineturnpike.com>, "psaucier@bernsteinshur.com" <psaucier@bernsteinshur.com>, "jlevine@portlandmaine.gov" <jlevine@portlandmaine.gov>, "rnorwood@maineturnpike.com" <rnorwood@maineturnpike.com>, "bhyman@portlandmaine.gov" <bhyman@portlandmaine.gov>, "jeffreygove@yahoo.com" <jeffreygove@yahoo.com>, "bonnie1720@msn.com" <bonnie1720@msn.com>, "wmorill@jonesandbeach.com" <wmorill@jonesandbeach.com>, "Stephen J. Powers" <spowers@greenbergfarrow.com>

Subject: Dirigo Plaza - Westbrook

Tim:

Following-up on our meeting yesterday, in advance of receipt of "red flag" comments by next Tuesday (5/17) which may generate additional requests for information, we will be providing the following additional information:

1. Review of updated crash data through 2015 and crash diagrams to the extent available through MDOT
2. Synchro files for all analysis conditions
3. Vehicle queue summary by lane group for all analysis conditions

We will provide the above information to MDOT with copies to MTA, the Cities of Westbrook and Portland, and their respective consultants. I anticipate that this information will be compiled and sent on or before 5/20, with the Synchro files and crash data likely to be available and sent by 5/17.

If you should have any questions in the interim, please feel free to contact me.

Jeffrey S. Dirk, P.E., PTOE, FITE

Principal

Vanasse & Associates, Inc.

35 New England Business Center Drive

Suite 140

Andover, MA 01810-1066

Office: 978-474-8800 x830 || Mobile: 508-414-7924 || Fax: 978-688-6508

Email: jdirk@rdva.com

Web: www.rdva.com

THIS EMAIL MESSAGE MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL OR EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. ALL RECIPIENTS ARE NOTIFIED THAT IF THIS MESSAGE COMES TO YOUR ATTENTION BY MISTAKE, ANY DISSEMINATION, USE, OR COPYING OF THE INFORMATION IS PROHIBITED. IF YOU RECEIVE THIS MESSAGE IN ERROR, PLEASE NOTIFY THE SENDER AT ONCE.

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested.



ATT B
Rick Knowland <rwk@portlandmaine.gov>

Fwd: Dirigo Plaza Amended TIS: Comments

1 message

Barbara Barhydt <bab@portlandmaine.gov>
To: "Knowland, Rick" <rwk@portlandmaine.gov>

Tue, May 10, 2016 at 10:27 AM

Barbara Barhydt
Development Review Services Manager
Planning Division
389 Congress Street 4th Floor
Portland, ME 04101
(207) 874-8699
Fax: (207) 756-8256
bab@portlandmaine.gov

----- Forwarded message -----

From: **Jeff Levine** <jlevine@portlandmaine.gov>
Date: Tue, May 10, 2016 at 10:06 AM
Subject: Fwd: Dirigo Plaza Amended TIS: Comments
To: Barbara Barhydt <bab@portlandmaine.gov>, Stuart O'Brien <sgo@portlandmaine.gov>

----- Forwarded message -----

From: **Jeremiah Bartlett** <jbartlett@portlandmaine.gov>
Date: Tuesday, May 10, 2016
Subject: Dirigo Plaza Amended TIS: Comments
To: Jeff Levine <jlevine@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>, "Thomas Errico@tylin.com" <thomas.errico@tylin.com>, Katherine Earley <kas@portlandmaine.gov>

Hi All,

I have taken an initial look at the updated Traffic Impact Study prepared by VAI. I am offering the following comments, noting that they only apply to topics that impact the City of Portland:

- 1.) Figure 2A: The graphic suggests a continuous sidewalk facility on the east side of Riverside Street from Brighton Avenue to Forest Avenue. This is not based on current conditions: is it proposed as part of the off-site mitigation?
- 2.) Traffic volume adjustments, Page 14: The seasonal adjustments were based on MaineDOT adjustment factors, which typically indicate greater seasonal fluctuation than the City has observed, albeit anecdotally. As such, the predevelopment volumes, if anything, are conservative.
- 3.) High Crash Locations, Page 17: There should be greater analysis and discussion of the areas with crash problems. From my perspective, this is potentially a topic of greater concern than level of service impacts. In addition, the 2013-2015 data is available from MaineDOT.
- 4.) Background Growth, Page 20: A one percent background growth in addition to the other development should have more documentation as to why it is needed. From Portland's perspective, many locations have seen flat or declining peak hour volumes, particularly on weekdays.
- 5.) Trip Generation, Pages 21-23: I generally concur with the idea of utilizing LUC 820 for a development of this

nature. However, the fueling facility, while utilizing the appropriate LUC, suggests no internal capture between uses, which one would expect to be a not insignificant percentage. In addition, there is no use of diverted trips in this study, which in my previous experience with a number of large retail developments is a major component in trip distribution and assignment. A cursory review of the ITE Trip Generation Handbook indicates that diverted trips may compose as much as a third to 40 percent of total trips, particularly on a Saturday.

6.) Off-site mitigation: Very little detail on this topic in the report, and I don't have a lot to offer until the other items are addressed. I will be providing a list of needed signal equipment modifications within the study area that will go a long way toward satisfying the report's goal of providing an updated signal timing and coordination plan.

Thank you,
Jeremiah

Jeremiah J. Bartlett, PE, PTOE
Transportation Systems Engineer
Department of Public Works
City of Portland, Maine
jbartlett@portlandmaine.gov

—

Jeff Levine, AICP
Director
Planning & Urban Development Department
389 Congress Street 4th Floor
Portland, Maine 04101
Phone (207)874-8720
Fax (207)756-8258
[@portlandplan](http://www.portlandmaine.gov/planning)

ATT C

ENGINEERING DIVISION
Portland Department of Public Services
55 Portland Street
Portland, ME 04101

M E M O

TO: Barbara Barhydt
Rick Knowland
FROM: Mike Farmer, Project Engineer
DATE: 4/21/2016
RE: Dirigo Plaza

I am submitting some general comments regarding the potential water quality impacts of this project on two streams in Portland. These comments were written, for the most part by The City's Stormwater Coordinator.

1. The site drains to Nason's Brook and the wetland complex at Pine Tree Industrial Parkway, both of which are DEP-list impaired waters. In addition, the area near the intersection of Brighton Ave and Riverside St drains to Capisic Brook, another impaired stream. Nason's Brook is subject to the Statewide Impervious Cover TMDL and is on the Impaired Streams Priority List in the Maine Nonpoint Source Management Program Plan 2015-2019 (September 15, 2014).
2. The applicant's conceptual designs for post-construction stormwater management (i.e.: Under drained grassed swales, wet ponds, gravel wetlands and sand filters) appear to provide both water quantity and quality controls to help protect Nason's Brook. If the project is required to meet the Urban Impaired Stream Standard under the Chapter 500 stormwater regulations, the City of Portland has an approved Compensation Fee Utilization Plan and dedicated fund for Nason's Brook.
3. A construction site erosion & sediment control plan will be an important part of protecting both impaired streams from the potential impacts of construction activity. Best Management Practices should be utilized to prevent construction vehicles from tracking sediment onto roadways which is a potential source of illicit discharges to the MS4 of either community.
4. Regular inspection and maintenance of the stormwater management system is critical for protecting the health of Nason's Brook. A site-specific stormwater management system inspection and maintenance plan, as well as a legal maintenance agreement between the owner/operator and the City of Westbrook, is highly recommended.
5. In order to protect the integrity of the existing stream channels and floodplains, and to allow for future adaptive management & mitigation under a watershed management plan, stream and wetland setbacks of at least 75' should be preserved. Experience in the Long Creek Watershed has shown that confinement and channelization of a brook can result in significant stream bank destabilization and channel erosion, which can cause property damage and make restoration of the brook more expensive and challenging for both the regulated communities and landowners in the watershed. Culverts or stream crossings should be designed to prevent impediments to stream flow or fish passage.

6. Given the growing regional concern about the impact of using chlorides for winter snow and ice management, has any consideration been given to the potential impacts of winter operations on the streams, wetlands and ground water? One of the few effective BMPs for preventing water quality impacts from chlorides is to minimize their use. See the Maine Environmental Best Management Practices (BMP) Manual for Snow and Ice Control: <http://baswg.org/wp/wp-content/uploads/2015/11/Maine-Winter-Maintenance-BMP-Manual-Distributed-at-2015-Roundtable.pdf>.
7. Designated snow storage areas should be established on the site with water quality protection in mind. Snow should not be stored in, or on, stormwater water treatment systems, brook channels or wetlands. This should have added benefits in the way of reducing maintenance requirements (e.g.: sediment & trash removal, plow damage, plant replacement, etc.) and prolonging the functional life span of the stormwater infrastructure.
8. The proposed fueling station appears to be located next to a stormwater treatment unit. If this is the case, the fueling station should be designed to prevent spills from impacting the stormwater treatment system. A Spill Prevention, Control and Countermeasure plan should be developed and implemented for the fueling station.



MEMORANDUM

TO: Rick Knowland, Planner
FROM: Lauren Swett, PE
DATE: April 28, 2016
RE: Dirigo Plaza Subdivision Application

Woodard & Curran has reviewed the Subdivision Application submitted for the Dirigo Plaza project located at 58 and 80 Main Street in Westbrook, Maine. A three lot subdivision, including retail buildings, parking and site features is proposed in Westbrook. The project crosses the Portland/Westbrook line, and includes a one-lot subdivision in Portland. The work in Portland includes primarily the construction of a paved pathway surrounding the existing quarry pit on the property.

Documents Reviewed by Woodard & Curran

- Subdivision application submission and attachments for Dirigo Plaza, dated March 25, 2016, prepared by Jones & Beach Engineers, Inc., on behalf of J&J Gove Development.

Comments

As the project's primary development area is located within the City of Westbrook, it is our understanding that the primary review will be completed by others. Our review focuses on the proposed trail feature, the pond, and the stormwater management system as it has an impact on the City of Portland's Nason's Brook Watershed.

- 1) The Applicant has provided a cross section of the proposed paved recreation trail, including a schematic view of a security fence. Additional detail should be provided on the proposed fencing, including height, fencing material type, and fence post foundations. It appears from the large-scale grading plan that the fencing will be installed in areas that have varying grade changes that may transition quickly from steep to shallow. It is noted that the Applicant should consider the constructability of the fencing in these conditions.
- 2) Will any gate access be provided along the trail for future maintenance or for safety access? The Applicant should provide additional detail as applicable.
- 3) Portions of the trail and fence are located within an existing Central Maine Power easement for transmission lines. The Applicant should confirm with CMP that pedestrian access will be acceptable in these areas. The Applicant should also clarify if additional fencing or other security measures will be required around the transmission lines, utility poles, or the adjacent substation.
- 4) As the project's extensive stormwater management system discharges to the City of Portland, we have performed a general review of the stormwater model to verify continuity and consistency throughout the model as it impacts the overall model outcome. In general, we are in agreement with the modeling approach. We have the following comments:
 - a) The Applicant should clarify the source of the rainfall amounts that were utilized for the modeled storm events. The latest version of the Maine DEP Chapter 500 regulations identify rainfall for Cumberland County SW with different values than those listed in the application. It is noted that the Applicant has utilized more conservative rainfall amounts than the Maine DEP for all storms except for the 100-year storm.
 - b) The Applicant has noted that TR-55 methodology was utilized for time of concentration (TC) calculations. TR-55 typically considers a minimum TC of 6 minutes. One of the pre-development subcatchments has a TC of 0, and one pre-development and a number of post-development subcatchments have TC values less than 6 minutes. The applicant should clarify their TC calculation approach.
 - c) The Applicant should evaluate the open channel stream reaches that have been included in the stormwater model. Many of these channels show very large and unrealistic for surrounding topography (i.e. greater than 30') average flow depths in both the existing and proposed condition.



- d) Two reaches located downstream of the quarry could not be found on the drainage plans. Please clarify where reaches 9 and 18 are located.
- e) The model identifies that some existing and proposed pipe reaches will be full during the 25-year storm event. The Applicant should clarify that no capacity/flooding issues will result from these full pipes.
- 5) The proposed project will result in approximately 10,293 square-feet of new impervious area in the City of Portland and is located within the watershed of an Urban Impaired Stream (Nason's Brook). As such, it would be required to demonstrate compliance with the Basic, General, Urban Impaired Stream, and Flooding Standards of the MaineDEP Chapter 500 Rules in accordance with Section 5 of the City of Portland Technical Manual. We understand that this Subdivision application is for only a portion of the overall project area, and the entire project is being reviewed for stormwater compliance by the City of Westbrook and the Maine DEP. We offer the following comments with regards to the portion of the project that is located in the City of Portland:
 - a) Basic Standard: Plans, notes, and details should be provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500.
 - b) General & Urban Impaired Stream Standards: The Applicant is required to provide stormwater treatment throughout the entire project area and is proposing an extensive networks of bioretention cells, underdrained filters, and sand filters throughout the development site. The existing quarry pit will be utilized as a wet pond. This wet pond will provide treatment for the entire new impervious area added in the City of Portland.
 - c) Flooding Standard: The Applicant is required to provide flood control throughout the entire project area. Flood control will be provided by stormwater features throughout the site, primarily through the use of the existing quarry pit as a wet pond. Runoff from the portion of the project located in the City of Portland will be managed by the wet pond. The overall project will result in a reduction in peak discharge in all storm events based on the submitted model. The Applicant should consider the general stormwater modeling comments provided previously in this memo, and verify that any changes to the model do not change the flooding results.
- 6) The pre-development and post-development HydroCAD model nodes for the quarry pond indicate a significant change in the water storage elevation. Based on a review of the model, it appears that pumping contained water in the existing condition at an elevation of -140, but in the proposed condition, groundwater will fill the pond to elevation +60 with stormwater storage above that elevation up to elevation +75. Has the hydrogeological impact of this change in water elevation on the surrounding area been evaluated?
- 7) A Construction Management Plan should be provided for the site. It is understood that a plan may be provided for the overall site, including impact on both Westbrook and Portland.



City of Westbrook

DEPARTMENT OF PLANNING & CODE ENFORCEMENT

2 York Street

Westbrook, Maine 04092

(207) 854-0638

Fax: (207) 854-0627

MEMO

DATE: April 28, 2016

TO: Planning Board
FROM: Jennie Franceschi, City Planner & Alex Kee Asst. Planner
Cc: Plan Review Team

RE: May 3, 2016 Planning Board Meeting

Items in this memo:

1. 2016.24 – Amended Site Plan – Woodfords Family Service – 15 Saunders Way
2. 2016.23 – Amended Site Plan – Willow Creek Condominiums – 59 Falmouth Street
3. 2016.28 – Amended Site Plan – Lake Creek Properties Inc. – 48 Spiller Drive
4. 2016.27 – Amended Site Plan, Subdivision and Special Exception – Risbara Properties, LLC – 121 Blue Spruce Farm Road
5. 2106.12 – Site Plan, Subdivision & Special Exception – Dirigo Plaza – 58 & 80 Main Street

1. **Agenda Item #3** – 2016.24 – Amended Site Plan – Woodfords Family Service – 15 Saunders Way
Tax Map: 042B Lot: 013 Zone: Industrial District.

Project Description: The proposed project consists of a two story 4,680 sq. ft. (2,340 sf footprint) building addition to an existing building on the site with associated parking improvements, re-striping, landscaping and minor drainage relocations.

Staff Comments:

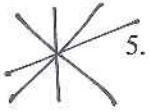
Please find attached application package for project with details & response to City Staff Comments generated during the review process.

- 1) Please provide more details on elevation views –materials

Site Plan Review:

Finding of Facts and conclusions for the Westbrook Planning Board,

Motion: The Amended Site Plan application for Woodfords Family Service Tax Map: 042B Lot: 013 Zone: Industrial District is to be (**approved with conditions/denied**) and the following findings of fact, conclusions, and conditions as stated on pages 1 through 4 of the Staff Memo dated April 28, 2016 and as amended by the Board:



5.

Agenda Item #8 - 2016.12 - Site Plan, Subdivision & Special Exception – Dirigo Plaza – 58 & 80 Main Street

Tax Map: 42B Lots; 9, 10, 11 & 14 Zone: Commercial Gateway

Project Description: Jones & Beach Engineers, Inc. on behalf of J & J Gove Development, LLC has proposed a 495,915 sq. ft. regional retail shopping center. The current owner is Pike Industries. The subject property is located on Larrabee Road and Main Street.

Meeting history and proposed schedule:

- i. March 1st Workshop provided a general overview of the project and focused on architecture and landscaping.
- ii. March 15th Workshop continued to discuss site circulation, and layout.
- iii. April 5th Workshop – Proposed to review updates to the architecturals, site layout, site amenities and provide information related to natural resources and utilities.
- iv. May 3rd Workshop - Review of stormwater report, landscaping and other related topics.
- v. May 17th – Joint Meeting with Portland – Recap of overall stormwater report and review of Traffic report

Preliminary Stormwater Comments:

1. In general, the report appears to show that the project will reduce the flow rate up to the 100 year storm event which will reduce current downstream flooding issues.
2. For the 100 yr event – At Reach 32 – why is the inflow at 12.32 cfs and the outflow at 3.54? What is holding back the flow?
3. For the 100 yr event – Why does SF#1 have a higher outflow than inflow? 15.23 in 18.59 out.
4. Is Biofilter #7 shown on plan W2-2-1 actually #17?
5. Please provide acreage of treatment (% of site treated).
6. Provide maintenance plan for BMPs with proposed maintenance logs
7. Provide in future submission construction sequence with stormwater BMPs for temporary use of sediment basins to avoid illicit discharge of silt laden waters.
8. On future site plans, e/s needs to be shown clearly.
9. Discharge into resource areas should be pulled back to allow for sheet flow through buffers with level lip spreaders at outlets.



City of Westbrook

DEPARTMENT OF PLANNING & CODE ENFORCEMENT

2 York Street

Westbrook, Maine 04092

(207) 854-0638

Fax: (207) 854-0627

WESTBROOK PLANNING BOARD **TUESDAY, MARCH 1, 7:00 P.M.** WESTBROOK HIGH SCHOOL, ROOM 114

AGENDA

PUBLIC HEARINGS

2016.07 – Site Plan – Convenient MD – 942 Main Street - Storage Realty Corp. NCS has proposed the development of a 5,000 sq. ft. Convenient MD, Medical Office Building. The subject property, approximately 1.65 acres is located at 942 Main Street with access off William Clarke Drive & Main St. Tax Map: 32 Lots: 38, 46, & 47. Zone: Contract Zone #10.

2016.10 – Contract Zone #10 Amendment – 942 Main Street – On behalf of Convenient MD, Richard Uchida has proposed an amendment to Gateway West Contract Zone #10 regarding building signage for the Convenient MD medical office building. Tax Map: 32 Lots: 38, 46, & 47. Zone: Contract Zone #10.

REGULAR MEETING

1. Call to Order.
2. Approval of Minutes.

New Business

3. **2016.08 – Shoreland Zoning Permit - Site Plan Amendment – Subdivision & Special Exception Amendment – Blue Spruce Farm – 6 Jacqueline Way** – Waterside Apartments, LLC has proposed revisions for their approved site plans located at 6 Jacqueline Way. This site is part of Blue Spruce Farm Subdivision. Specifically addressing changes to the layout of the Apartments. Tax Map: 8 Lot: 256 Zone: Residential Growth Area 1.
4. **2016.07 – Site Plan – Convenient MD – 942 Main Street** - Storage Realty Corp. NCS has proposed the development of a 5,000 sq. ft. Convenient MD, Medical Office Building. The subject property, approximately 1.65 acres is located at 942 Main Street with access off William Clarke Drive & Main St. Tax Map: 32 Lots: 38, 46, & 47. Zone: Contract Zone #10.

Disclaimer: Deliberation of agenda items, including workshops, that have not been commenced by the Planning Board as of 10:00 p.m. may be rescheduled to the next regularly scheduled meeting.



City of Westbrook

DEPARTMENT OF PLANNING & CODE ENFORCEMENT

2 York Street

Westbrook, Maine 04092

(207) 854-0638

Fax: (207) 854-0627

5. **2016.10 – Contract Zone #10 Amendment – 942 Main Street** – On behalf of Convenient MD, Richard Uchida has proposed an amendment to Gateway West Contract Zone #10 regarding building signage for the Convenient MD medical office building. Tax Map: 32 Lots: 38, 46, & 47. Zone: Contract Zone #10.
6. **2016.11 – Site Plan Amendment – Bill Dodge Infinity – 1 Saunders Way** – Bill Dodge Auto Group and WWs Properties, LLC has proposed building and site renovations to the property located at 1 Saunders Way. The property is currently home to the Bill Dodge Used Vehicle Superstore, and is proposed to be occupied by Bill Dodge Infinity following a building expansion and minor site redevelopment. Tax Map: 42B Lot: 113 Zone: Gateway Commercial.
7. **Adjourn.**

WORKSHOP



8. **2106.12 – Site Plan, Subdivision & Special Exception – Dirigo Plaza – 58 & 80 Main Street** Jones & Beach Engineers, Inc. on behalf of J & J Gove Development, LLC has proposed a 495,915 sq. ft. regional retail shopping center. The current owner is Pike Industries. Located on Larrabee Road and Main Street Tax Map: 42B Lots: 9, 10, 11, & 14. Zone: Gateway Commercial.

- a. **This item will be reviewed in two workshops.**
 - i. **March 1st Workshop will provide a general overview of the project and focus on landscaping, architecture, site amenities, site circulation.**
 - ii. **March 15th Workshop will discuss traffic, stormwater, utilities, and natural resources.**

Disclaimer: Deliberation of agenda items, including workshops, that have not been commenced by the Planning Board as of 10:00 p.m. may be rescheduled to the next regularly scheduled meeting.

JONES & BEACH ENGINEERS, INC.

85 Portsmouth Avenue
Post Office Box 219
Stratham, NH 03885
Telephone: (603) 772-4746
Fax: (603) 772-0227

REC'D APR 29

Post Office Box 484
Alton, NH 03809
Email: jbe@jonesandbeach.com
<http://www.jonesandbeach.com>

April 26, 2016

City of Westbrook Planning Board
Attn: Jennie Franceschi
2 York Street
Westbrook, ME 04092

RE: Site Plan Review Response Letter
58 & 80 Main Street, Westbrook, ME
Tax Map 42B, Lots 9, 10, 11 & 14
JBE Project No. 14110

Dear Board Members:

On behalf of our client, J&J Gove Development, LLC, Jones & Beach Engineers, Inc., has received review comments from Michael Corey, Westbrook Fire & Rescue Department dated February 23, 2016. Review comments are italicized and we offer the following responses in bold below:

- 1. The roadway within the project will be designed to permit fire apparatus with a 234 inch wheelbase to access, operate and maneuver with 50 ft. of the proposed building. Any degrees of incline will be designed to permit emergency vehicle access along all points of the roadway based upon Westbrook Fire / Rescue apparatus Approach / Departure and Breakover angles. Auto turn shall be conducted to show safe operations of fire apparatus entering and exiting the property, as well as operating within the property.*

RESPONSE: AutoTurn software has been used to show fire truck access through the site.

- 2. Fire hydrants shall be installed within the development with the location and number to be determined by the Fire / Rescue Department. Fire flows for the project will be in accordance with NFPA 1 standards. The fire hydrants shall be tested and accepted prior to any building construction, and will be flow tested by the Portland Water District or another acceptable authority, prior to the issuance of the first Certificate of Occupancy for the project. These hydrants will be private hydrants and the owner's responsibility to maintain and keep clear during winter months. Hydrants shall have protection provided in traffic areas.*

- 1 Hydrant to be added on plan C4-1-1 match line 2-1 at the main street entrance adjacent to building "B" to the left of building "C" in the small island.

- 1 Hydrant to be moved on plan C4-1-1 match line 2-1 t from the front of building "D" to the parking lot in front of building "D-1" the island to the left of the proposed restaurant.

- 1 Hydrant shall be added on plan C4-2-2 match line 2-2 to the rear of building "H"

- 2 Hydrants shall be added on plan C4-2-2 match line 2-2 one in front of building "J", the other to the rear of building "J".

- 1 Hydrant shall be added on plan C4-2-1 match line 2-1 at the entrance from the Westbrook Arterial right after the entrance to Building "J"

- 1 Hydrant to be added C4-2-1 match line 2-1 in the island directly across from the proposed gas station.

RESPONSE: Hydrants have been added in the requested locations.

3. *Access to the site for fire apparatus in accordance with NFPA 1 and NFPA 241 shall be established prior to any building construction. Fire apparatus access will be maintained throughout the course of construction.*

RESPONSE: A note has been added to site plan notes.

4. *The structure will be designed and built in accordance with the Maine Uniform Building and Energy Code (MUBEC) Section (IRC) R501.3 and all other state and local codes, ordinances and standards.*

RESPONSE: A note has been added to utility plan notes.

5. *Addressing for the project will be in accordance with E-911 and City of Westbrook standards. All buildings on the property shall have address numbers clearly mark on the building.*

RESPONSE: A note has been added to site plan notes.

6. *The proposed building will meet the fire protection requirements as determined by the Fire / Rescue Department, upon submittal of building plans.*

RESPONSE: A note has been added to utility plan notes.

7. *The Fire Department shall approve all Fire Protection and Life Safety systems equipment and materials.*

RESPONSE: A note has been added to utility plan notes.

8. *Fire lanes shall be Marked per City of Westbrook Ordinance section 31-115 Though 31-12. This includes all signage with "No Parking Fire Lane" "Tow Away Zone".*

RESPONSE: A note has been added to site plan notes.

9. *Final Fire Department connection to be shall be coordinated with the Fire Chief or his designee prior to any sprinkler installations.*

RESPONSE: A note has been added to utility plan notes.

10. *Site lighting shall be installed in the parking lot area. The site lighting shall be sufficient enough to light the parking area.*

RESPONSE: Lighting plans have been provided and more detailed cut sheets have been provided to address City Planner comments.

11. *The existing quarry shall remain fenced off from the public, till such a time that the safety of the public can be maintained. No entrance will be made into the quarry without first notifying the Westbrook Fire Department. Flotation ring buoys with attached life ropes shall be mounted on 4x4 post around the quarry, marked for Emergency use only.*

RESPONSE: A note has been added to site plan notes.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,

JONES & BEACH ENGINEERS, INC.



Wayne G. Morrill
Vice President

cc: J&J Gove Development, LLC

JONES & BEACH ENGINEERS, INC.

85 Portsmouth Avenue
Post Office Box 219
Stratham, NH 03885
Telephone: (603) 772-4746
Fax: (603) 772-0227

REC'D APR 29

Post Office Box 484
Alton, NH 03809
Email: jbe@jonesandbeach.com
<http://www.jonesandbeach.com>

April 27, 2016

City of Westbrook Planning Board
Attn: Jennie Franceschi
2 York Street
Westbrook, ME 04092

**RE: Planners Memo Review Response Letter
58 & 80 Main Street, Westbrook, ME
Tax Map 42B, Lots 9, 10, 11 & 14
JBE Project No. 14110**

Dear Board Members:

On behalf of our client, J&J Gove Development, LLC, Jones & Beach Engineers, Inc., has received review comments from the Westbrook Planning Department dated March 10, 2016. Review comments are italicized and we offer the following responses in bold below:

General comments:

1. *Infill islands/entrance areas where there is nothing shown around the site with landscaping.*
RESPONSE: Landscape plans have been modified to address this concern.
2. *Landscape plan is hard to read with all the other layers on – unable to determine where landscaping is.*
RESPONSE: Landscape plans have been modified to address this concern.
3. *Landscaping along the Main St side and through the accessways – use salt tolerant.*
RESPONSE: Landscape plans have been modified to address this concern.
4. *No elevations provided for Undesignated Building (which we will call Building "F").*
RESPONSE: Building "F" is on the South Campus which will not be part of the Phase I approval. Building "F" elevations will be submitted to the Board as part of Phase II.
5. *No elevations provided for South Campus buildings – if none are provided during the review this would be a condition of approval that prior to any permits being issued for these buildings that an architectural review/site plan would be required by the Board. If the uses were to change then any changes would need to be reviewed by the Board as well.*
RESPONSE: Agreed.

6. *No Landscaping provided for South Campus. If still conceptual, can be part of a future approval process for Board review of the Landscaping.*
RESPONSE: We will be providing some Landscaping detail for the South Campus, but it will be considered Conceptual and we agree that it should be part of future approval process for South Campus with Architectural Elevations.
7. *Provide more detailed cuts sheets on lighting with colors for housing/pole stated.*
RESPONSE: Detailed cut sheets attached from Charron Inc..
8. *Pedestrian pathways around the site need to be added to provide access to all Larrabee Rd intersections.*
RESPONSE: Accessway has been added to the site plans.
9. *Pedestrian path needed from Building J to H and connect to path to Larrabee & to North Side of center.*
RESPONSE: to be part of the South Campus/Phase II Design. A pedestrian crossing over the existing railroad is designed to connect the South Campus to North Campus.
10. *Cross walks needed to get pedestrians to building H & G.*
RESPONSE: Designed at the vehicular crossing of the existing railroad.
11. *The 10 parking spots to the North end of the site by the right in access – concerned about proximity to the intersection – could you move the spaces behind D-1 and use for employee parking?*
RESPONSE: These 10 spaces have been moved to the rear of Building “D” and will be designated as employee parking.
12. *Access way around parking associated with building H – Is the road necessary?*
RESPONSE: Yes, this is the required path for delivery trucks to access the building. This will be updated as part of South Campus/ Phase II Design.
13. *Request sidewalk to be installed along Larrabee Road on subject parcel side from intersection with Saunders Way to the sidewalk at Main Street.*
RESPONSE: A sidewalk has been added along Larabbe Road on the site plans.

Building A

1. *Dumpster location on Main St side need to be screened*
RESPONSE: The Landscape Architect have been modified to address the comments.
2. *Additional landscaping along walkway from Main Street to screen dumpster area.*
RESPONSE: The Landscape Architect have been modified to address the comments.
3. *Architectural treatments seem to be conflicting when you compare to the flow of Bldg D. Appears to be too many elements included with too many colors. Would suggest removal of the brick piers.*
RESPONSE: Architectural Elevations have been modified to address the comment.
4. *Contrasting colors of black and blue awnings – would suggest working with black consistently.*

RESPONSE: Architectural Elevations have been modified to address the comment.

5. *The tenant signage band color appears to detract from the other elements. Where you are going to have many different signs with many different colors in the band, would suggest a white/cream color which would blend with the other elements shown.*

RESPONSE: Architectural Elevations have been modified to address the comment.

6. *Appears that the plan view is missing the column elements on the parking lot side.*

RESPONSE: Architectural Elevations have been modified to address the comment.

Building B

1. *Dumpster location on Main St side need to be screened*

RESPONSE: The Landscape Architect have been modified to address the comments.

2. *Additional landscaping along walkway from Main Street to screen dumpster area.*

RESPONSE: The Landscape Architect have been modified to address the comments.

Building C

1. *Dumpster location on Main St side need to be screened*

RESPONSE: The Landscape Architect have been modified to address the comments.

2. *Additional landscaping along walkway from Main Street to screen dumpster area.*

RESPONSE: The Landscape Architect have been modified to address the comments.

3. *Architectural treatments seem to be conflicting when you compare to the flow of Bldg D. appears to be too many elements included with too many colors. Would suggest removal of the brick piers.*

RESPONSE: Architectural Elevations have been modified to address the comment.

4. *Contrasting colors of black and blue awnings – would suggest working with black consistently.*

RESPONSE: Architectural Elevations have been modified to address the comment.

5. *The tenant signage band color appears to detract from the other elements. Where you are going to have many different signs with many different colors in the band, would suggest a white/cream color which would blend with the other elements shown.*

RESPONSE: Architectural Elevations have been modified to address the comment.

6. *Appears that the plan view is missing the column elements on the parking lot side.*

RESPONSE: Architectural Elevations have been modified to address the comment.

7. *Ext elevation 3 – material appears to be EIFS – would suggest the continuation of hardie plank that is around the building.*

RESPONSE: Architectural Elevations have been modified to address the comment.

Building D

1. *Would suggest an alternative building material to EIFS.*
RESPONSE: Architectural Elevations have been modified to address the comment.
2. *Ext Elevation 4 does not have a 4 sided appearance. Would ask to have side similar to elevation 3 as this is a major access point into the center.*
RESPONSE: Architectural Elevations have been modified to address the comment.
3. *Elevation 2 – Color in print appears to be in error – shown in black?*
RESPONSE: Architectural Elevations have been modified to address the comment.

Building E

1. *Architectural elements provided do not blend with the complex. Suggest compatible themes to be utilized as well as looking at other prototypes to be offered for the Board's consideration.*
RESPONSE: Building "E" will be looking at the design elements and landscaping to address City Planner comments.

Building G

1. *Would suggest an alternative building material to EIFS. Continuation of hardie plank as on the other buildings.*
RESPONSE: Architectural Elevations have been modified to address the comment.
2. *On the vertical elements – would suggest a consistent element such as the brown hardie plank columns.*
RESPONSE: Architectural Elevations have been modified to address the comment.

Preliminary Stormwater Comments:

1. *In general, the report appears to show that the project will reduce the flow rate up to the 100 year storm event which will reduce current downstream flooding issues.*
RESPONSE: No response necessary.
2. *For the 100 yr event – At Reach 32 – why is the inflow at 12.32 cfs and the outflow at 3.54? What is holding back the flow?*
RESPONSE: This reach has been revised.
3. *For the 100 yr event – Why does SF#1 have a higher outflow than inflow? 15.23 in 18.59 out.*
RESPONSE: The model has an anomaly for SF#1 in the 100-year event. We are still working to correct this issue.
4. *Is Biofilter #7 shown on plan W2-2-1 actually #17?*
RESPONSE: The watershed plan has been updated to depict the correct Biofilter number.
5. *Please provide acreage of treatment (% of site treated).*
RESPONSE: Total treatment is shown on sheet W2-2. The proposed design treats 95% of 52.3 acres.

6. *Provide maintenance plan for BMPs with proposed maintenance logs*
RESPONSE: A Stormwater O&M manual is provided with the revised drainage report.
7. *Provide in future submission construction sequence with stormwater BMPs for temporary use of sediment basins to avoid illicit discharge of silt laden waters.*
RESPONSE: Erosion Control sheets detailing the location of Sediment Basins have been added to the plan set.
8. *On future site plans, e/s needs to be shown clearly.*
RESPONSE: Erosion & Sediment Control measures have been included on the Erosion Control sheets in the updated plan set.
9. *Discharge into resource areas should be pulled back to allow for sheet flow through buffers with level lip spreaders at outlets.*
RESPONSE: Level spreaders have been added to the design of these outlets. The outlets have been located further from the resource areas as requested.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.



Wayne G. Morrill
Vice President

cc: J&J Gove Development, LLC

JONES & BEACH ENGINEERS, INC.

85 Portsmouth Avenue
Post Office Box 219
Stratham, NH 03885
Telephone: (603) 772-4746
Fax: (603) 772-0227

REC'D APR 29

Post Office Box 484
Alton, NH 03809
Email: jbe@jonesandbeach.com
<http://www.jonesandbeach.com>

April 26, 2016

City of Westbrook Planning Board
Attn: Jennie Franceschi
2 York Street
Westbrook, ME 04092

RE: Public Safety Review Response Letter
58 & 80 Main Street, Westbrook, ME
Tax Map 42B, Lots 9, 10, 11 & 14
JBE Project No. 14110

Dear Board Members:

On behalf of our client, J&J Gove Development, LLC, Jones & Beach Engineers, Inc., has received review comments from the Westbrook Public Safety Department dated April 6, 2016. Review comments are italicized and we offer the following responses in bold below:

1. *Speed limit on Arterial – will that be dropped from 45 to 35 with the introduction of the new light?*
RESPONSE: We have consulted with our Traffic Engineer, there will not be a modification in off site improvements.
2. *Speed limit on Larrabee – is there any consideration on changing the speed from 35 to 30 with the introduction of the new light?*
RESPONSE: We have consulted with our Traffic Engineer, there will not be a modification in off-site improvements.
3. *Security – will there be video surveillance? Will you have a security company providing coverage?*
RESPONSE: There will be video surveillance and the developer will have full time management on-site.
4. *Fire Department has provided comments on FDCs, hydrants. They will want Knox Boxes – will provide details on this to be incorporated.*
RESPONSE: We have recently received comments from the Fire Department and will provide a response to their comments.
5. *Parking lot layout for Wal-Mart Lot – too many curb cuts into the main access drive. Can we re-align the parking to be in similar fashion to the Building D parking layout to avoid the extreme number of access points- reduce this to 1 or 2 max.*
RESPONSE: The parking lot in front of Building “E” has a number of curb cuts for traffic calming. This has a different traffic flow then the area in front of Building “D”. The roadway that connects Main Street to Larrabee Road is

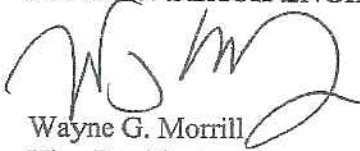
designed to allow traffic to flow freely between the two intersections and for customers to access parking areas for Buildings A-D. The main drive lanes for Building "E" is designed to be an extension of the parking area. While there is a connection from the North Campus to the Westbrook Arterial thru the South Campus, Building "E" is considered the anchor tenant for the shopping area and needs to have multiple cuts to reduce traffic flow.

6. *A barrier is needed at the end of the access drive from the Larrabee Rd Traffic light at the Lake. Please provide a detail on what this would look like. The guardrail barrier along the Lake is an important element in containing the traveling public and protection of the pedestrians on the path system.*

RESPONSE: As part of the design of the roadway along the lake, we are proposing guardrails and security fencing for the entire length of the roadway/lake section.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.



Wayne G. Morrill
Vice President

cc: J&J Gove Development, LLC

McGraw-Edison

DESCRIPTION

The Ventus™ LED area luminaire provides uncompromising optical performance and outstanding versatility for a wide variety of area and roadway applications. Patent pending modular LightBAR™ technology delivers uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and any security lighting application. UL/cUL Listed for wet locations.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Construction

Die-cast aluminum frame secures thermally conductive, extruded aluminum heat sink to independent electrical chamber. Heavy-wall, die-cast aluminum housing and door isolates driver components for cooler operation. The unique construction allows for passive cooling and natural cleaning of the extruded heat sink ensuring reliable operation at 40°C high ambient conditions. Stainless steel fasteners and hinging allow access to electrical components for installation and maintenance. Optional tool-less hardware available for ease of entry into electrical chamber.

Optics

Choice of twelve patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2, SL3 or SL4 optics.

Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 60/60Hz), 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common - and differential - mode surge protection. LightBARs feature an IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Occupancy sensor and dimming options available.

Mounting

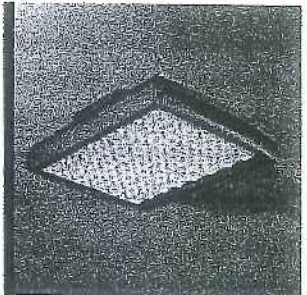
Cast aluminum 6" arm includes bolt guides allowing for easy positioning of fixture during installation to pole or wall surface. Standard single carton packaging of housing, square pole arm and round pole adapter for contractor friendly arrival of product on site. Optional internal mast arm mount accepts a 1-1/4" to 2" O.D. horizontal tenon, while a two-bolt clamping mechanism secures fixture. Cast-in leveling guides provide +/-5° vertical leveling adjustment. Tenon adapters available to slipfit over poles equipped with 2-3/8" or 3-1/2" O.D. tenon. 3G vibration rated.

Finish

Cast components and arm finished in super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, gray, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.

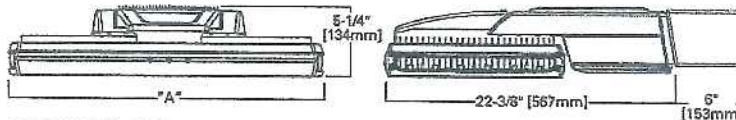


VTS VENTUS LED

2 - 12 LightBARs
Solid State LED

AREA LUMINAIRE

DIMENSIONS



DIMENSIONAL DATA

Number of LightBars	"A" Width	Weight		EPA [Square Feet]	
		Without Arm	With Arm	Without Arm	With Arm
2-4	12-7/8" [328mm]	24 lbs. [10.91 kgs.]	29 lbs. [13.18 kgs.]	0.94	1.00
5-8	16" [458mm]	30 lbs. [13.64 kgs.]	35 lbs. [15.91 kgs.]	1.10	1.20
9-12	25-7/8" [658mm]	89 lbs. [17.73 kgs.]	44 lbs. [20.00 kgs.]	1.31	1.44



CERTIFICATION DATA

UL/cUL Listed
LM79 / LM80 Compliant
IP66 LightBARs
3G Vibration Rated
DesignLights Consortium™ Qualified*
ISO 9001

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50Hz & 60Hz, 347V/60Hz,
480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating
50°C Ambient Temperature Rating (HA option)

SHIPPING DATA

Approximate Net Weight:
(See Tabulated Reference Data)



*www.designlights.org



TD500008EN
2018-01-13 14:00:05

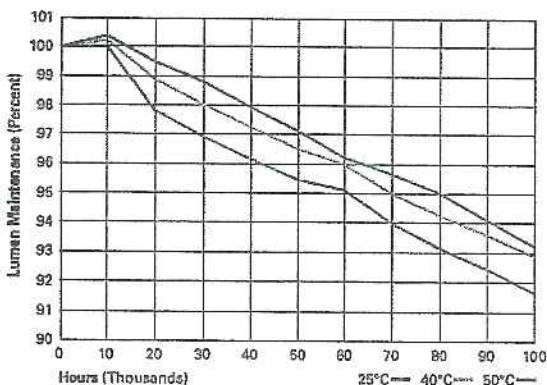
POWER AND LUMENS BY BAR COUNT (21 LED LIGHTBAR)

Number of LightBARs	E02	E03	E04	E05	E06	E07	E08	E09	E10	E11	E12
Drive Current	350mA Drive Current										
Power (Watts)	52W	75W	97W	127W	149W	173W	195W	226W	247W	270W	292W
Current @ 120V (A)	0.44	0.63	0.82	1.07	1.28	1.45	1.63	1.89	2.08	2.26	2.45
Current @ 277V (A)	0.20	0.28	0.36	0.49	0.59	0.64	0.71	0.84	0.92	0.99	1.07
Power (Watts)	58W	82W	99W	132W	159W	174W	196W	227W	247W	271W	293W
Current @ 347V (A)	0.19	0.28	0.29	0.39	0.48	0.50	0.57	0.68	0.76	0.85	0.86
Current @ 480V (A)	0.15	0.20	0.21	0.30	0.36	0.41	0.42	0.51	0.57	0.62	0.63
T2	Lumens	6,173	9,260	12,347	15,434	18,520	21,607	24,694	27,780	30,867	33,954
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T3	Lumens	6,117	9,175	12,233	15,292	18,350	21,409	24,467	27,525	30,584	33,642
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T4	Lumens	5,953	8,929	11,905	14,882	17,858	20,835	23,811	26,787	29,764	32,740
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SMQ	Lumens	6,398	9,597	12,795	15,994	19,193	22,392	25,591	28,790	31,989	35,187
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4
5WQ	Lumens	6,315	9,472	12,630	15,787	18,945	22,102	25,260	28,417	31,575	34,732
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
5XQ	Lumens	6,325	9,488	12,650	15,813	18,975	22,138	25,301	28,463	31,626	34,788
	BUG Rating	B3-U1-G2	B3-U1-G3	B4-U1-G3	B4-U1-G3	B4-U1-G4	B5-U1-G4	B5-U2-G5	B5-U2-G5	B5-U2-G5	B5-U2-G5
SL2	Lumens	6,018	9,028	12,035	15,044	18,053	21,061	24,070	27,079	30,088	33,096
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4
SL3	Lumens	6,034	9,051	12,067	15,084	18,101	21,118	24,135	27,152	30,169	33,186
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL4	Lumens	5,802	8,703	11,604	14,505	17,406	20,307	23,207	26,108	29,009	31,910
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
RW	Lumens	6,231	9,346	12,462	15,577	18,692	21,808	24,923	28,039	31,154	34,270
	BUG Rating	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
SL/SLR	Lumens	5,375	8,062	10,749	13,436	16,124	18,811	21,498	24,186	26,873	29,560
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5

LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.



LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.98

LIGHTBAR OPERATION WITH 21 BI-LEVEL SWITCHING OPTION

Number of LightBars	Circuit 1	Circuit 2
2	1	1
3	2	2
4	2	2
5	3	2
6	3	3
7	4	3
8	4	4
9	5	4
10	6	4
11	7	4
12	8	4

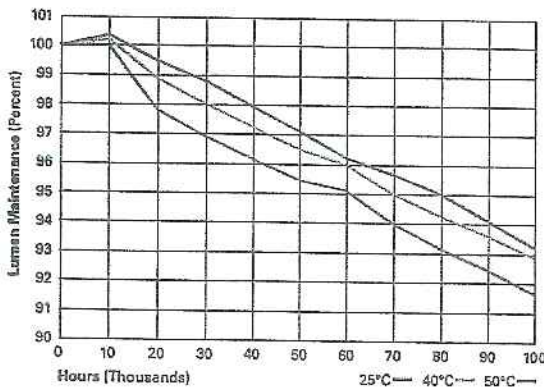
POWER AND LUMENS BY BAR COUNT (7 LED LIGHTBAR)

Number of LightBARs	F02	F03	F04	F05	F06	F07	F08	F09	F10	F11	F12
Drive Current	1A Drive Current										
Power (Watts)	55W	78W	102W	133W	157W	180W	204W	235W	259W	283W	307W
Current @ 120V (A)	0.46	0.66	0.86	1.12	1.31	1.51	1.71	1.97	2.17	2.37	2.57
Current @ 277V (A)	0.21	0.29	0.37	0.50	0.58	0.66	0.74	0.88	0.98	1.04	1.12
Power (Watts)	60W	85W	105W	137W	164W	181W	204W	235W	259W	284W	308W
Current @ 347V (A)	0.19	0.28	0.30	0.41	0.49	0.58	0.60	0.71	0.79	0.88	0.90
Current @ 480V (A)	0.15	0.21	0.22	0.31	0.37	0.43	0.44	0.53	0.59	0.65	0.68
T2	Lumens	5,096	7,644	10,193	12,741	15,289	17,837	20,385	22,933	25,482	28,030
	BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4
T3	Lumens	5,050	7,574	10,099	12,624	15,149	17,673	20,198	22,723	25,248	27,772
	BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T4	Lumens	4,914	7,371	9,828	12,285	14,742	17,189	19,656	22,114	24,571	27,028
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
5MQ	Lumens	5,281	7,922	10,563	13,204	15,844	18,485	21,126	23,767	26,407	29,048
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
5WQ	Lumens	5,213	7,820	10,426	13,033	15,640	18,246	20,853	23,459	26,066	28,672
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
5XQ	Lumens	5,222	7,832	10,443	13,054	15,665	18,276	20,886	23,497	26,108	28,719
	BUG Rating	B3-U1-G2	B3-U1-G3	B4-U1-G3	B4-U1-G3	B4-U1-G3	B4-U1-G4	B5-U1-G4	B5-U2-G4	B5-U2-G5	B5-U2-G5
SL2	Lumens	4,998	7,451	9,905	12,419	14,903	17,387	19,870	22,354	24,838	27,322
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
SL3	Lumens	4,981	7,471	9,962	12,452	14,943	17,433	19,924	22,414	24,905	27,395
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL4	Lumens	4,790	7,184	9,579	11,974	14,369	16,764	19,158	21,553	23,948	26,343
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
RW	Lumens	5,144	7,716	10,287	12,859	15,431	18,003	20,575	23,147	25,719	28,290
	BUG Rating	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
SL1/SLR	Lumens	4,437	6,655	8,874	11,092	13,311	15,529	17,747	19,966	22,184	24,403
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5

LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 95%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.



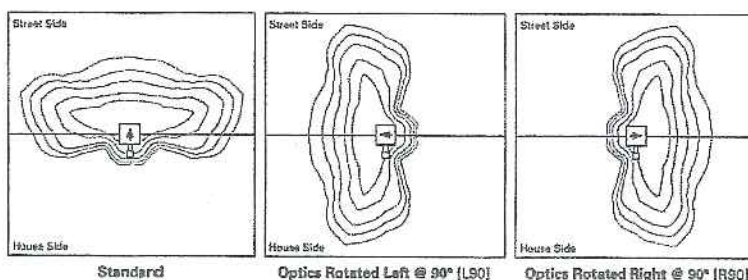
LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96

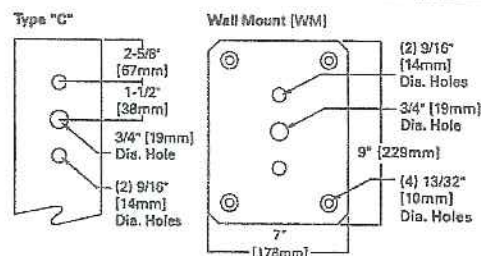
LIGHTBAR OPERATION WITH 2L BI-LEVEL SWITCHING OPTION

Number of LightBars	Circuit 1	Circuit 2
2	1	1
3	2	2
4	2	2
5	3	2
6	3	3
7	4	3
8	4	4
9	5	4
10	5	4
11	7	4
12	8	4

OPTIC ORIENTATION



DRILLING PATTERNS



ORDERING INFORMATION

Sample Number: VTS-E12-LED-E1-T3-GM

Product Family ^{1,2}	Number of LightBARs ^{4,5}	Lamp Type	Voltage	Distribution	Color
VTS=Ventus	E02=(2) 21 LED LightBARs E03=(3) 21 LED LightBARs E04=(4) 21 LED LightBARs E05=(5) 21 LED LightBARs E06=(6) 21 LED LightBARs E07=(7) 21 LED LightBARs E08=(8) 21 LED LightBARs E09=(9) 21 LED LightBARs E10=(10) 21 LED LightBARs E11=(11) 21 LED LightBARs E12=(12) 21 LED LightBARs F02=(2) 7 LED LightBARs F03=(3) 7 LED LightBARs F04=(4) 7 LED LightBARs F05=(5) 7 LED LightBARs F06=(6) 7 LED LightBARs F07=(7) 7 LED LightBARs F08=(8) 7 LED LightBARs F09=(9) 7 LED LightBARs F10=(10) 7 LED LightBARs F11=(11) 7 LED LightBARs F12=(12) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V) 347=347V ^{6,7} 480=480V ^{6,12}	T2=Type II T3=Type III T4=Type IV 5MQ=Type V Square Medium 5WQ=Type V Square Wide 6XQ=Type V Square Extra Wide SL2=Type II with Spill Control SL3=Type III with Spill Control SL4=Type IV with Spill Control RW=Rectangular Wide SLR=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Gray BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic Wt=White
Options (Add as Suffix)			Accessories (Order Separately) ²²		
P=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) ⁶ R=NEMA Twistlock Photocontrol Receptacle PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle ⁶ HA=50°C High Ambient Temperature Rating ^{7,11} 2L=Two Circuits ^{7,12,13,14} L90=Optics Rotated 90° Left ¹⁵ R90=Optics Rotated 90° Right ¹⁵ 7030=70 CRI / 3000K CCT ¹⁶ 7050=70 CRI / 5000K CCT ¹⁶ 7060=70 CRI / 5700K CCT ¹⁶ 8030=80 CRI / 3000K CCT ¹⁶ TH=Tool-less Door Hardware LCF=LightBAR Cover Plate Matches Housing Finish WG=Wire Guard WM=Wall Mount with Arm IM=Integral Mast Arm MS-LXX=Motion Sensor for On/Off Operation ¹⁷ MS/X-LXX=Motion Sensor for Bi-Level Operation ¹⁸ MS/DIM-LXX=Motion Sensor for Dimming Operation ^{18,23} DIM=0-10V Dimming Drivers ²¹ HSS=Factory Installed House Side Shield ²⁴			VA1033-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon VA1034-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon VA1035-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon VA1036-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon VA1037-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon VA1038-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon VA1039-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon VA1040-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon VA1041-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon VA1042-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon VA1043-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon VA1044-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon VA1045-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon VA1046-XX=2 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor ²⁵ OA/RA1016=NEMA Photocontrol - Multi-Tap OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V MA1263=10kV Circuit Module Replacement LB/HSS=Field Installed House Side Shield ²²		

NOTES:

- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
- DesignLights Consortium™ Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- 6" arm and round pole adapter included with fixture.
- 21 LED LightBAR powered at 350mA, 7 LED LightBAR powered at 1A.
- Standard 4000K CCT and nominal 70CRI.
- Not available with HA option.
- Must specify voltage.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Must specify DIM option to add dimming driver(s). Only available in E02-E06 and F02-F06.
- Not available with DIM option or MS/DIM-LXX.
- Not available with button photocontrol or motion sensor, 120 - 277V only.
- Requires two electrical circuits to luminaire. See LightBAR operation table for additional information.
- Consult factory before ordering in combination with MS-LXX or MS/X-LXX options.
- Not available in 347V or 480V.
- Not available with 5MQ, 5WQ or 5XQ distributions. Not available with HSS option.
- Extended lead times apply.
- Sensor housed in external box mounted to the luminaire. Available in E02-E12 and F02-F12 configurations. Replace XX with mounting height in feet for proper lens selection, (e.g., MS-L25). Consult factory for additional information.
- Sensor housed in external box mounted to the luminaire. Available in E02-E12 and F02-F12 configurations. Replace X with number of bars operating in low output mode and replace XX with mounting height for proper lens selection, (e.g., MS/L25). Maximum 4 bars in low output mode. Consult factory for additional information.
- Not available with HA option. Only available in F02-F06 and E02-E06. Includes Dimming Drivers. Not available in 347V or 480V.
- Replace XX with mounting height in feet for proper lens selection, (e.g., MS/DIM-L25).
- Available in E02-E06 and F02-F06 only.
- Only for use with SL2, SL3 and SL4 distributions. Not available with L90 or R90 options.
- Replace XX with color suffix.
- Only compatible with MS/DIM-LXX motion sensor.
- Ons required for each LightBAR. Not available with L90 or R90 options.

DESCRIPTION

The Impact Elite family of wall luminaires is the ideal complement to site design. Incorporating modular LightBAR™ technology, the Impact Elite luminaire provides outstanding uniformity and energy-conscious illumination. Combined with a rugged construction, the Impact Elite luminaire is the ideal facade and security luminaire for zones surrounding schools, office complexes, apartments and recreational facilities. UL/cUL listed for wet locations.

SPECIFICATION FEATURES

Construction

Heavy-wall, die-cast aluminum housing and removable hinged door frame for precise tolerance control and repeatability. Hinged door inset for clean mating with housing surface and secured via two captive fasteners. Optional tamper-resistant Torx™ head fasteners offer vandal resistant access to the electrical chamber.

Optics

Choice of six patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT.

Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and are suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature an IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Emergency egress options for -20°C ambient environments and occupancy sensor available.

Mounting

Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" J-box or wall with the Impact Elite "Hook-N-Lock" mechanism for quick installation. Secured with two captive corrosion resistant black oxide coated allen head set screws concealed but accessible from bottom of fixture.

Finish

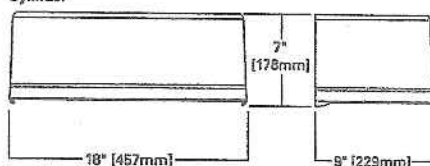
Cast components finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

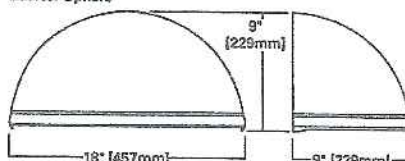
Five-year warranty.

DIMENSIONS

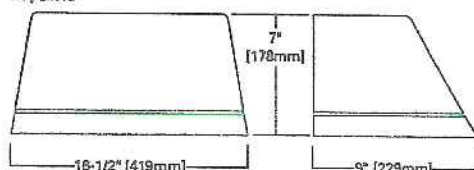
Cylinder



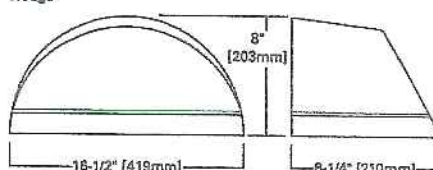
Quarter Sphere



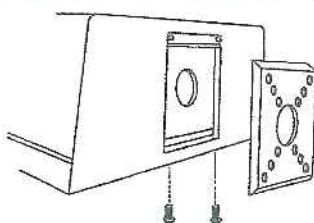
Trapezoid



Wedge



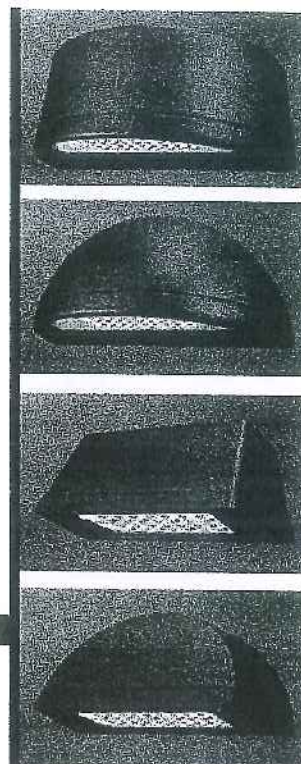
HOOK-N-LOCK MOUNTING



EATON
Powering Business Worldwide

McGraw-Edison

Catalog #		Type	
Project			
Comments		Date	
Prepared by			



ISC/ISS/IST/ISW
IMPACT ELITE LED



1 - 2 LightBARs
Solid State LED

WALL MOUNT LUMINAIRE

CERTIFICATION DATA

UL/cUL Listed
LM79 / LM80 Compliant
IP66 LightBARs
ISO 9001
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz,
480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

SHIPPING DATA

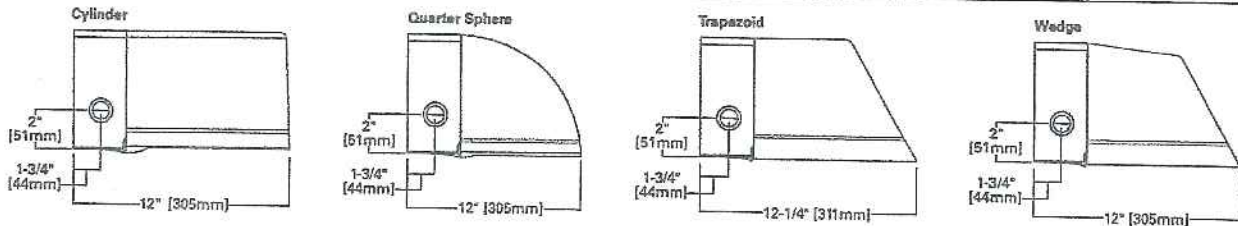
Approximate Net Weight:
18 lbs. (8 kgs.)



*www.designlights.org

TD514002EN
2015-06-03 10:00:35

THRUWAY BACK BOX



POWER AND LUMENS BY BAR COUNT

Number of LightBARs		E01	E02	F01	F02
		21 LED LightBAR	7 LED LightBAR		
Drive Current		350mA		1A	
Power (Watts)	120-277V	25W	47W	26W	50W
Current (A)	120V	0.22	0.40	0.22	0.42
	277V	0.10	0.18	0.10	0.19
Power (Watts)	347V or 480V	31W	52W	32W	55W
Current (A)	347V	0.11	0.16	0.11	0.17
	480V	0.16	0.19	0.16	0.18
Optics					
BL2	Lumens	2,738	5,476	2,260	4,521
	Bug Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1
BL3	Lumens	2,702	5,405	2,231	4,462
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
BL4	Lumens	2,613	5,225	2,157	4,313
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
GZW	Lumens	2,785	5,570	2,299	4,598
	Bug Rating	B2-U0-G2	B3-U0-G3	B1-U0-G1	B2-U0-G2
SLR/SLL	Lumens	2,435	4,869	2,010	4,020
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2

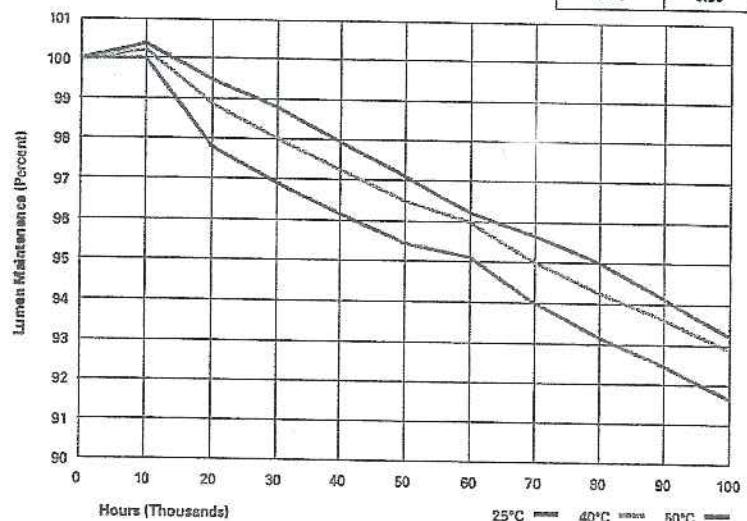
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99



ORDERING INFORMATION

Sample Number: ISC-E02-LED-E1-BL3-GM

Product Family ¹	Number of LightBARs ^{2,3}	Lamp Type	Voltage	Distribution	Color ⁵
ISC=Impact Elite LED Small Cylinder ISS=Impact Elite LED Small Quarter Sphere IST=Impact Elite LED Small Trapezoid ISW=Impact Elite LED Small Wedge	E01=(1) 21 LED LightBAR E02=(2) 21 LED LightBARs F01=(1) 7 LED LightBAR F02=(2) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V) 347=347V 480=480V ⁴	BL2=Type II w/Back Light Control BL3=Type III w/Back Light Control BL4=Type IV w/Back Light Control GZW=Wall Grazer Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)				Accessories (Order Separately) ¹¹	
2L=Two Circuits ⁶ 7030=70 CRI / 3000K CCT ⁷ 7050=70 CRI / 5000K CCT ⁷ 7060=70 CRI / 5700K CCT ⁷ 8030=80 CRI / 3000K CCT ⁷ P=Button Type Photocontrol (Available in 120, 208, 240 or 277V. Must Specify Voltage) OSB=Occupancy Sensor with Back Box (Specify 120V or 277V) ⁸ BBB=XX=Battery Pack with Back Box (Specify 120V or 277V) ⁹ CWB=XX=Cold Weather Battery Pack with Back Box (Specify 120V or 277V) ¹⁰ DIM=0-10V Dimming Drivers LCF=LightBAR Cover Plate Matches Housing Finish ULG=Uplight Glow TR=Temper Resistant Hardware				MA1253=10kV Circuit Module Replacement MA1254=XX=Thruway Back Box - Impact Elite Trapezoid MA1255=XX=Thruway Back Box - Impact Elite Cylinder MA1256=XX=Thruway Back Box - Impact Elite Quarter Sphere MA1257=XX=Thruway Back Box - Impact Elite Wedge	

NOTES:

- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and greater than 70 CRI. LightBARs for downlight use only.
- 21 LED LightBAR powered by 350mA and 7 LED LightBAR powered by 1A.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Custom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
- Low-level output varies by bar count. Consult factory. Not available with 347V or 480V. Available with two bars (E02 or F02) only.
- Extended lead times apply.
- Available with E02 or F02, only one bar on street side will be wired to sensor. Time delay factory setting 15-minutes. When ordered with PC option, both bars are connected to photocontrol as primary switching means. Standard sensor lens covers 8" mounting height, 90° coverage, maximum 48" diameter. Not available in all configurations or with BBB or CWB options.
- Specify 120V or 277V. LED standard integral battery pack is rated for minimum operating temperature 32°F (0°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
- Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
- Replace XX with color suffix.

EATON
Powering Business Worldwide

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-485-4900
www.eaton.com/lighting

Specifications and
dimensions subject to
change without notice.

TD514002EN
2015-06-03 10:00:35

DESCRIPTION

The EPIC Collection delivers custom luminaire flexibility with high quality, yet availability expectations of standard specification grade product. The EPIC Collection can be dressed to suit any application. Recognizing evolving environmental and legislative trends, the EPIC Collection delivers world class LED optical and performance solutions to the decorative luminaire marketplace.

SPECIFICATION FEATURES

Construction

TOP: Cast aluminum top housing attaches to cast aluminum mounting arm hub with four stainless steel fasteners. One-piece silicone gasket between mounting hub and top casting seals out moisture and contaminants. (See the mounting accessories section for a full selection of mounting arms. (Only these arms are compatible with the Epic luminaire). **MIDSECTION:** Continuous silicone gaskets seal lens to top casting and shade. The mid section features cast aluminum construction and stainless steel assembly. **SHADES:** Heavy gauge precision spun aluminum shades offer superior surface finish and consistency in form. **DOORFRAME:** Die-cast aluminum 1/8" thick door and doorframe seal to underside of shade with a thick wall continuous silicone gasket. Mounting hub ships attached to mounting arm.

Optics

Choice of twelve patented, high-efficiency AccuLED Optic™ technology manufactured from

injection-molded acrylic. Optics are precisely designed to shape the optics, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and nominal 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2, SL3 or SL4 optics.

Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard

with 10kV/10kA common -- and differential -- mode surge protection. LightBARs feature and IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Occupancy sensor and dimming options available.

Finish

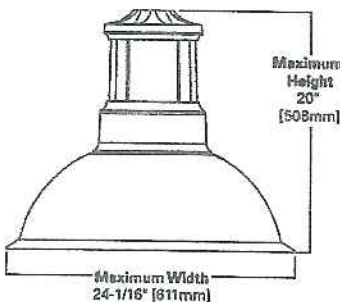
Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

Warranty

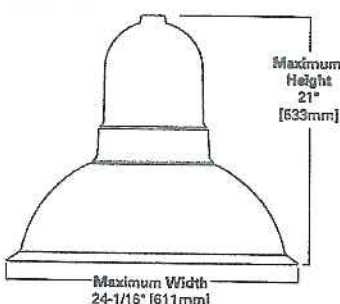
Five-year warranty.

DIMENSIONS

ECM Classical

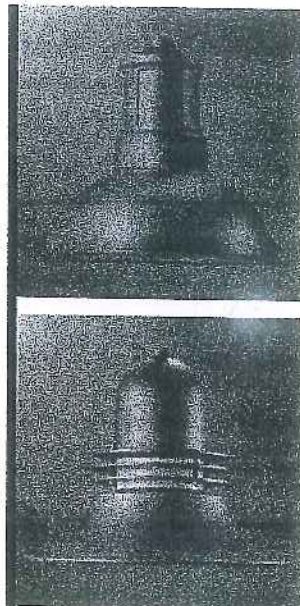


EMM Modern



See configurations for more detailed information.

Catalog #	Type
Project	Date
Comments	
Prepared by	



ECM/EMM EPIC MEDIUM LED

1 - 4 LightBARs

Solid State LED

DECORATIVE AREA LUMINAIRE

CERTIFICATION DATA

ULcUL Listed
IP66 LightBARs
LM79 / LM80 Compliant
2G Vibration Tested
ISO 9001

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz,
480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

EPA

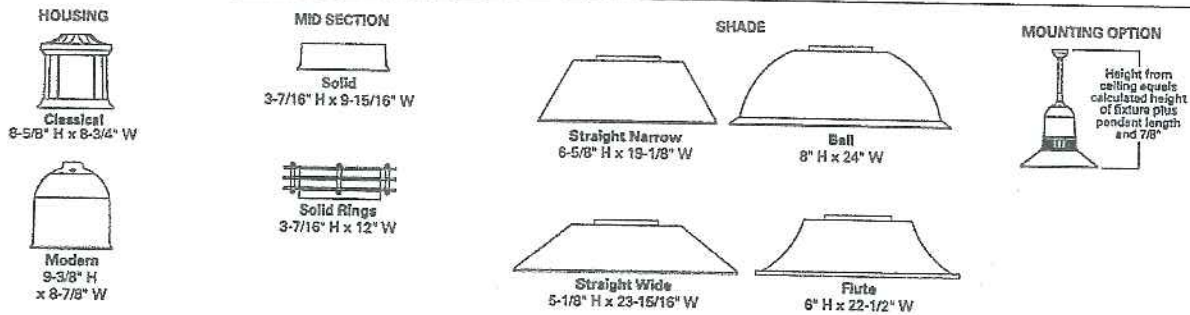
Effective Projected Area: (Sq. Ft.) 0.94

SHIPPING DATA

Approximate Net Weight:
45 lbs. [20 kgs.]



CONFIGURATIONS



POWER AND LUMENS BY BAR COUNT (21 LED LIGHTBARS)

Number of LightBARS	E01	E02	E03	E04
Drive Current	350mA Drive Current			
Power (Watts)	25W	52W	75W	97W
Current @ 120V (A)	0.22	0.44	0.63	0.82
Current @ 277V (A)	0.10	0.20	0.28	0.36
Power (Watts)	31W	58W	82W	99W
Current @ 347V (A)	0.11	0.19	0.28	0.29
Current @ 480V (A)	0.09	0.15	0.20	0.21
T2	Lumens	2,948	5,896	8,844
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3
T3	Lumens	2,936	5,873	8,809
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3
T4	Lumens	2,876	5,752	8,627
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3
5MQ	Lumens	3,054	6,108	9,161
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2
5WQ	Lumens	2,987	5,975	8,962
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2
5XQ	Lumens	2,982	5,963	8,945
	BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G3
SL2	Lumens	2,878	5,756	8,634
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2
SL3	Lumens	2,884	5,768	8,682
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2
SL4	Lumens	2,823	5,647	8,470
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2
RW	Lumens	2,957	5,915	8,872
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3
SLI/SLR	Lumens	2,616	5,231	7,847
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3

POWER AND LUMENS BY BAR COUNT (7 LED LIGHTBARS)

Number of LightBARS	F01	F02	F03	F04
Drive Current	1A Drive Current			
Power (Watts)	26W	55W	78W	102W
Current @ 120V (A)	0.22	0.46	0.66	0.86
Current @ 277V (A)	0.10	0.21	0.29	0.37
Power (Watts)	32W	60W	85W	105W
Current @ 347V (A)	0.11	0.19	0.28	0.30
Current @ 480V (A)	0.09	0.15	0.21	0.22
T2	Lumens	2,434	4,867	7,301
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3
T3	Lumens	2,424	4,848	7,272
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3
T4	Lumens	2,374	4,748	7,122
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2
5MQ	Lumens	2,521	5,042	7,563
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2
5WQ	Lumens	2,468	4,932	7,398
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2
5XQ	Lumens	2,461	4,923	7,384
	BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G3
SL2	Lumens	2,376	4,752	7,127
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2
SL3	Lumens	2,389	4,778	7,167
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2
SL4	Lumens	2,331	4,662	6,993
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2
RW	Lumens	2,441	4,883	7,324
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3
SLI/SLR	Lumens	2,159	4,318	6,478
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3

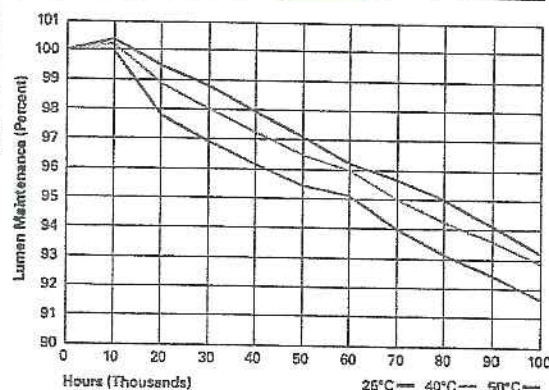
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96



EATON
Powering Business Worldwide

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-8800
www.eaton.com/lighting

Specifications and dimensions subject to change without notice.

TD500028EN
2015-11-02 15:38:12

ORDERING INFORMATION

Sample Number: ECM-E04-LED-E1-T2-FL-GM

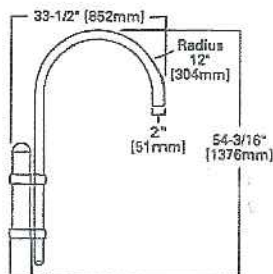
Product Family ¹	Number of LightBARs ^{2,3}	Lamp Type	Voltage	Distribution	Mid Section Type	Shade Type	Color ⁵
ECM=Epic Classical Medium EMM=Epic Modern Medium	E01=(1) 21 LED LightBARs E02=(2) 21 LED LightBARs E03=(3) 21 LED LightBARs E04=(4) 21 LED LightBARs F01=(1) 7 LED LightBARs F02=(2) 7 LED LightBARs F03=(3) 7 LED LightBARs F04=(4) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V) 347=347V 480=480V ⁴	T2=Type II T3=Type III T4=Type IV SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SMQ=Type V Square Medium SWQ=Type V Square Wide SXQ=Type V Square Extra Wide RW=Rectangular Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	SO=Solid SR=Solid Rings	SN=Straight Narrow SW=Straight Wide BL=Bell FL=Flute	AP=Gray BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)		Accessories (Order Separately) ¹⁵					
2L=Two Circuits ⁶ 7030=70 CRI / 3000K CCT ⁷ 7050=70 CRI / 5000K CCT ⁷ 7080=70 CRI / 5700K CCT ⁷ 8030=80 CRI / 3000K CCT ⁷ LCF=LightBAR Cover Plate Matcha Housing Finish MS-LXX=Motion Sensor for ON/OFF Operation ⁸ MS/X-LXX=Motion Sensor for Bi-Level Switching ⁸ PH48=Pendant Mount 48" Length or Specify Pendant Length in Inches (XX) ¹⁰ HSS=Factory Installed House Side Shield ¹¹ DIM=0-10V Dimming Driver ¹²		Classical VA6150-XX=Bishop Wall Mount Arm VA6151-XX=Bishop Wall Mount Arm with Cross Rod VA6152-XX=Traditional Wall Mount Arm VA6153-XX=Traditional Wall Mount Arm with 45° Strap VA6154-XX=Bishop Single Pole Mount Arm VA6155-XX=Bishop Single Pole Mount Arm with Cross Rod VA6156-XX=Bishop Twin Pole Mount Arm VA6157-XX=Bishop Twin Pole Mount Arm with Cross Rods VA6158-XX=Traditional Single Pole Mount Arm VA6159-XX=Traditional Single Pole Mount Arm with Rounded Upper Bar VA6160-XX=Traditional Single Pole Mount Arm with Rounded Lower Bar ¹⁴ VA6161-XX=Traditional Single Pole Mount Arm with 45° Upper Bar VA6162-XX=Traditional Single Pole Mount Arm with 45° Lower Bar ¹⁴ VA6163-XX=Traditional Single Pole Mount Arm with 45° Upper Strap VA6165-XX=Traditional Twin Pole Mount Arm VA6166-XX=Traditional Twin Pole Mount Arm with Rounded Upper Bars VA6167-XX=Traditional Twin Pole Mount Arm with Rounded Lower Bars ¹⁴ VA6168-XX=Traditional Twin Pole Mount Arm with 45° Upper Bars VA6169-XX=Traditional Twin Pole Mount Arm with 45° Lower Bars ¹⁴ VA6170-XX=Traditional Twin Pole Mount Arm with 45° Upper Straps VA6171-XX=Master Arm Adapter Modern VA6101-XX=Bishop Wall Mount Arm VA6102-XX=Bishop Wall Mount Arm with Cross Rod VA6103-XX=Traditional Wall Mount Arm VA6104-XX=Traditional Wall Mount Arm with 45° Strap VA6105-XX=Bishop Single Pole Mount Arm VA6106-XX=Bishop Single Pole Mount Arm with Cross Rod VA6107-XX=Bishop Twin Pole Mount Arm VA6108-XX=Bishop Twin Pole Mount Arm with Cross Rods VA6109-XX=Traditional Single Pole Mount Arm VA6110-XX=Traditional Single Pole Mount Arm with Rounded Upper Bar VA6111-XX=Traditional Single Pole Mount Arm with Rounded Lower Bar ¹⁴ VA6112-XX=Traditional Single Pole Mount Arm with 45° Upper Bar VA6113-XX=Traditional Single Pole Mount Arm with 45° Lower Bar ¹⁴ VA6114-XX=Traditional Single Pole Mount Arm with 45° Upper Strap VA6116-XX=Traditional Twin Pole Mount Arm VA6117-XX=Traditional Twin Pole Mount Arm with Rounded Upper Bars VA6118-XX=Traditional Twin Pole Mount Arm with Rounded Lower Bars ¹⁴ VA6119-XX=Traditional Twin Pole Mount Arm with 45° Upper Bars VA6120-XX=Traditional Twin Pole Mount Arm with 45° Lower Bars ¹⁴ VA6121-XX=Traditional Twin Pole Mount Arm with 45° Upper Straps VA6122-XX=Master Arm Adapter					
		OA/RA1016=NEMA Twistlock Photocontrol - Multi-Tap OA/RA1027=NEMA Twistlock Photocontrol - 480V OA/RA1201=NEMA Twistlock Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap LB/HSS-21=Field Installed House Side Shield for "E" LightBARs ^{11,13} LB/HSS-07=Field Installed House Side Shield for "F" LightBARs ^{11,13} Accessory Options ¹⁵ V=Victorian Finial ¹⁷ M=Modern Finial ¹⁷ A=Architectural Finial ¹⁷ N=Nostalgic Finial ¹⁷ R=NEMA Twistlock Photocontrol Receptacle ¹⁸					

NOTES:

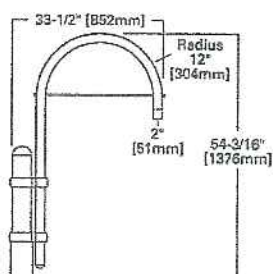
- Arm not included. Order separately. See accessories.
- Standard 4000K CCT and greater than 70 RL.
- 21 LED LightBAR powered by 350mA and 7 LED LightBAR powered by 1A.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Custom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
- Low-level output varies by bar count. Consult factory. Requires quantity of two or more LightBARs.
- Consult customer service for lead times and multiplier.
- Sensor mounted to the luminaire. Available in E01-E04 and F01-F04 configurations. Replace "XX" with mounting height in feet for proper lens selection, (e.g., MS-L25). Consult factory for additional information.
- Sensor mounted to the luminaire. Available in E02-E04 and F02-F04 configurations. Replace "X" with number of LightBARs operating in low output mode and replace XX with mounting height in feet for proper lens selection, (e.g., MS-L25). Maximum four bars in low output mode. Consult factory for additional information.
- Pendant mount option "PH48" must be used with Inverse Pendant mount kit only. Includes 48" long pendant pipe, swivel hanger and canopy cover. Other pendant lengths can be specified in inches (XX). Minimum pendant length is 9-1/2". For lengths above 48", consult your lighting representative at Eaton for more information.
- Only for use with SL2, SL3 and SL4 distributions.
- Dimming leads provide for external 0-10V control system (by others).
- Replace XX with color suffix.
- Only available with traditional arms.
- One required for each LightBAR.
- Add as suffix to accessory. Example: VA6109-BK-RL.
- Not available with finials, pendant mount "PH48" or bishop wall mounts.
- Requires use of 4" O.D. round straight pole.

MOUNTING ACCESSORIES

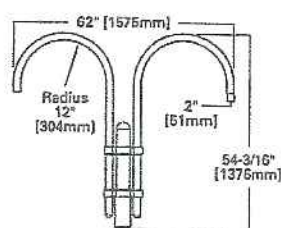
Pole mount arms are designed to fit both medium ECM/EMM housings. (Only these arms are compatible with the Epic luminaire). Arms feature a precision welded cast aluminum mounting hub for attachment of fixture head to arm with four stainless steel fasteners. Wall mount arms compliment pole mount luminaires and attractively transition fixture scale in lower mounting height pedestrian environments. Wall mount arms are designed to fit both medium ECM/EMM housings. Arms feature a precision welded cast aluminum mounting hub for attachment of fixture head to arm with four stainless steel fasteners.



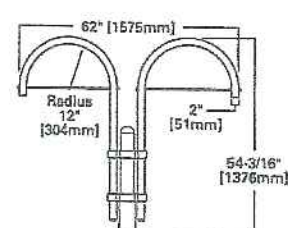
BISHOP SINGLE POLE MOUNT ARM
VA6105 (Modern), VA6154 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 24 lbs. E.P.A.: 0.92



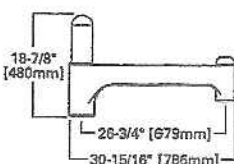
BISHOP SINGLE POLE MOUNT ARM WITH CROSS ROD
VA6106 (Modern), VA6155 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 25 lbs. E.P.A.: 0.98



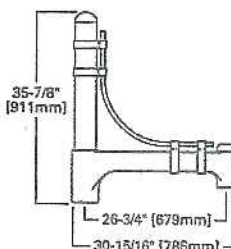
BISHOP TWIN POLE MOUNT ARM
VA6107 (Modern), VA6156 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 37 lbs. E.P.A.: 1.43



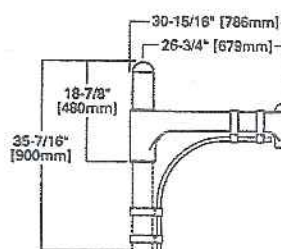
BISHOP TWIN POLE MOUNT ARM WITH CROSS RODS
VA6108 (Modern), VA6157 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 39 lbs. E.P.A.: 1.55



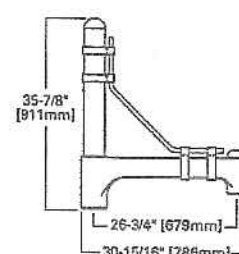
TRADITIONAL SINGLE POLE MOUNT ARM
VA6109 (Modern), VA6158 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 20 lbs. E.P.A.: 0.88



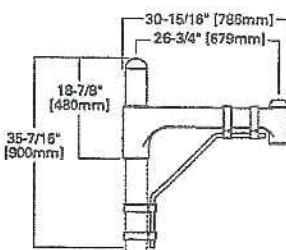
TRADITIONAL SINGLE POLE MOUNT ARM WITH ROUNDED UPPER BAR
VA6110 (Modern), VA6159 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 28 lbs. E.P.A.: 1.4



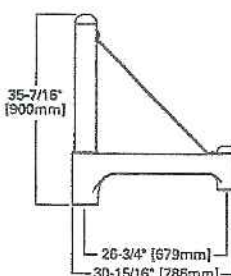
TRADITIONAL SINGLE POLE MOUNT ARM WITH ROUNDED LOWER BAR
VA6111 (Modern), VA6160 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 25 lbs. E.P.A.: 1.16



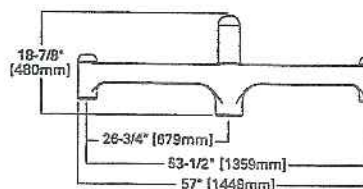
TRADITIONAL SINGLE POLE MOUNT ARM WITH 45° UPPER BAR
VA6112 (Modern), VA6161 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 28 lbs. E.P.A.: 1.38



TRADITIONAL SINGLE POLE MOUNT ARM WITH 45° LOWER BAR
VA6113 (Modern), VA6162 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 24 lbs. E.P.A.: 1.17

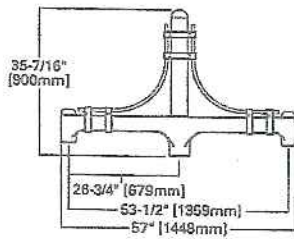


TRADITIONAL SINGLE POLE MOUNT ARM WITH 45° UPPER STRAP
VA6114 (Modern), VA6163 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 24 lbs. E.P.A.: 1.17

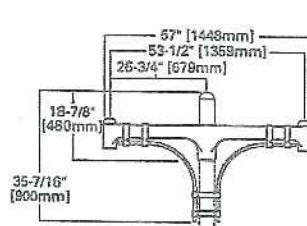


TRADITIONAL TWIN POLE MOUNT ARM
VA6116 (Modern), VA6165 (Classical)
Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
Weight: 30 lbs. E.P.A.: 1.44

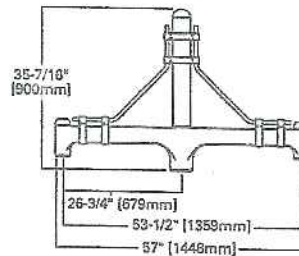
MOUNTING ACCESSORIES



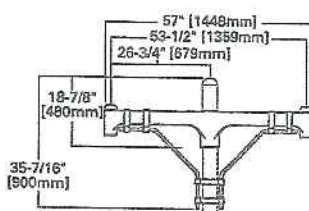
TRADITIONAL TWIN POLE MOUNT ARM WITH ROUNDED UPPER BARS
 VA6117 (Modern), VA6166 (Classical)
 Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
 Weight: 43 lbs. E.P.A.: 2.28



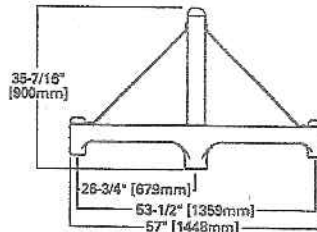
TRADITIONAL TWIN POLE MOUNT ARM WITH ROUNDED LOWER BARS
 VA6118 (Modern), VA6167 (Classical)
 Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
 Weight: 40 lbs. E.P.A.: 2.04



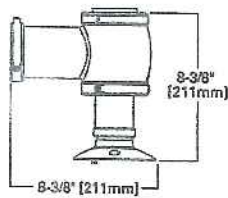
TRADITIONAL TWIN POLE MOUNT ARM WITH 45° UPPER BARS
 VA6119 (Modern), VA6168 (Classical)
 Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
 Weight: 43 lbs. E.P.A.: 2.24



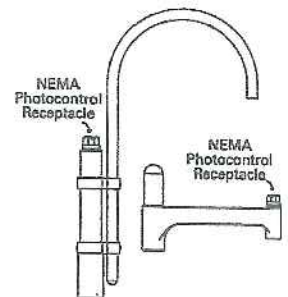
TRADITIONAL TWIN POLE MOUNT ARM WITH 45° LOWER BARS
 VA6120 (Modern), VA6169 (Classical)
 Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
 Weight: 40 lbs. E.P.A.: 2.0



TRADITIONAL TWIN POLE MOUNT ARM WITH 45° UPPER STRAPS
 VA6121 (Modern), VA6170 (Classical)
 Slipfits over 4" round straight pole, or 4" O.D. by 6" tall tenon.
 Weight: 37 lbs. E.P.A.: 1.81

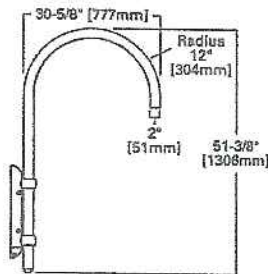


MAST ARM ADAPTER
 VA6122 (Modern), VA6171 (Classical)
 Secures fixture to nominal 2" pipe (2-3/8" horizontal O.D.)
 Weight: 4 lbs.

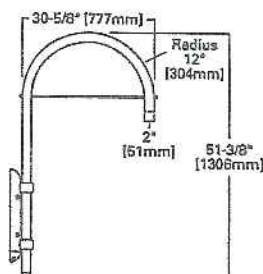


NEMA TWISTLOCK PHOTOCONTROL (R)
 Order separately (Not compatible with finials or wall mount bishop arms)

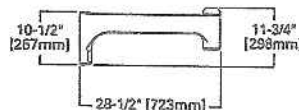
Wall Mount Accessories



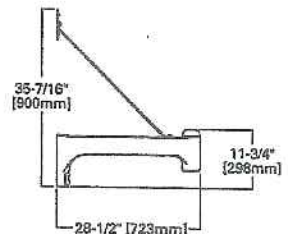
BISHOP WALL MOUNT ARM
 VA6101 (Modern), VA6150 (Classical)
 Mounts to wall with four stainless steel lag bolts (provided by other).
 Weight: 16 lbs.



BISHOP WALL MOUNT ARM WITH CROSS ROD
 VA6102 (Modern), VA6151 (Classical)
 Mounts to wall with four stainless steel lag bolts (provided by other).
 Weight: 17 lbs.



TRADITIONAL WALL MOUNT ARM
 VA6103 (Modern), VA6152 (Classical)
 Mounts to wall with four stainless steel lag bolts (provided by other).
 Weight: 17 lbs.



TRADITIONAL WALL MOUNT ARM WITH 45° STRAP
 VA6104 (Modern), VA6153 (Classical)
 Mounts to wall with four stainless steel lag bolts (provided by other).
 Weight: 18 lbs.

Calvin Wall

Quickship



Features

- Provides excellent coverage and uniformity, suitable for general and localized lighting
- Versatile with several lamp types and finishes
- Quality components for extended lamp and component life
- Maintenance is simple; easy to clean and re-lamp

Applications

The Calvin wall-mount luminaire is ideal for illuminating areas where localized distribution is necessary, such as doorways and entrances, laneways, patios and could provide adequate night time security lighting. It lends itself to commercial, and industrial applications that could benefit from materials and maintenance cost reductions. Calvin could either augment the existing lighting, or illuminate a small to medium-sized area. Calvin is also available as a pendant-style model.

TMS LIGHTING

ESTABLISHED 1923

Construction

High grade aluminum, with stainless steel mounting hardware.

Lamp

The Calvin Wall is designed to operate with compact fluorescent (42W max.), incandescent (150W max.), metal halide (100W max.), or Cree™ 19W LED light sources.

Incandescent and metal halide models use a medium base socket (E26).

Specify 3000°K, 3500°K or 4000°K CCT LED.

Ballast/LED Driver

Ballast are integral and electronic. They are efficient with a high power factor greater than 90%, and quiet with an "A" sound rating.

The LED source is controlled by an advanced electronic driver that delivers consistent power.

Options

Globe: Clear and prismatic, glass globes are available.

Wire Guard: A chrome-plated wire guard is available for indoors, a silver powder coat for outdoors.

Mounting

Mount directly to a standard 4" electrical junction box, with 3.5" holes c -c. Follow the installation instructions and adhere to your local electrical code.

Finish

Available in several TMS standard, brushed, and premium powder-coated finishes. A clear coat is applied to copper yet patina will form over a period. Custom or RAL finishes are available by special order. See the [Finishes-Diffusers Chart TMS v1.00.pdf](#).

Compliances

QPS-C/US, or UL-C/US certified to UL1598 standards. Rated IP23 for use in dry to wet locations, indoor and outdoor. The Consultants Europe (CE) listing is available upon request.

UL US cULPS CE IP23



Calvin Wall Quickship

TMSI LIGHTING

ESTABLISHED 1923

QS-2W

1 2 3 4 5 6 7 8 9

1 • Location

I: Indoor
O: Outdoor

2 • Lamping

150IN: 150W Incandescent
26CF: 26W PL-T
32CF: 32W PL-T
42CF: 42W PL-T
70MH: 70W MH E-17
100MH: 100W MH E-17
17LED: 17W LED screw-in supplied
(60° beam, 4000°K)
15LED: 15W LED
19LED: 19W LED

3 • LED CCT (color temp.)

30K: 3000°K (CRI 80)
35K: 3500°K (CRI 80)
40K: 4000°K (CRI 80)

4 • Voltage

120: 120V
277: 277V
347: 347V (n/a with LED)

5 • Ballast/Driver

—: None
WM: Wall mount (Integral)
N1: Remote indoor mount (NEMA 1)
N4: Remote outdoor mount (NEMA 4)

6 • Finish

AN: Anodized (bright)
BR: Brushed aluminum
F05: White
F08: Midnight blue
F09: Pewter
F10: Fire red
F13: Forest green
F14: Sunshine yellow
F15: Matte black
F16: Gloss black
F18: Flat aluminum
F19: Mirror silver
F21: Architectural bronze
F24: Melted platinum (textured)
F25: Melted gold (textured)
F26: Melted copper (textured)
F31: Silver metallic
F33: Pyrite bronze

7 • Globes

—: None
G1: Clear, elongated globe
G3: Prismatic, elongated globe
LNS: Clear, flat lens

8 • Wire Guard

—: None
W16: 16" Wire guard (nickelplated)

9 • Supplied Lamp(s) CF/MH

—: None
35K: Lamp supplied 3500°K (CRI 80)
41K: Lamp supplied 4100°K (CRI 80)

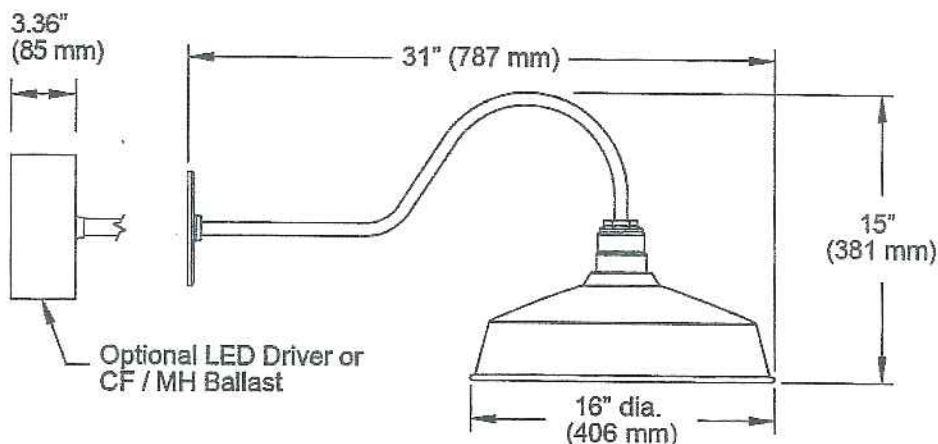
Project: _____
Type: _____
Quantity: _____
Notes: _____



Calvin Wall Quickship

TMS LIGHTING

ESTABLISHED 1923



Custom

TMS Lighting can customize this and many of our standard fixtures. The dimensions, lamp types, enclosure and colors could be modified to suit your lighting and architectural requirements. Contact your local representative for more details: <http://www.tmslighting.com/infoagents>

TMS Lighting Ltd.
247A Summerlea Road,
Brampton, Ontario,
Canada. L6T 4E1

North America: (905) 793-1174
Toll-free: (866) 793-1174
Fax: (905) 793-1175

UK & Europe: 44-1474-250-654

Specifications are subject to change without notice.

Section 2 - Completed Application and Fees



Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

☐

Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐

Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☒

I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.

Applicant Signature:

WAYNE MORRILL

I have provided digital copies and sent them on:

3-29-16

Date:

3-29-16

Date:

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.



Level III – Preliminary and Final Site Plans Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sq. ft. or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sq. ft. or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sq. ft. or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sq. ft. of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sq. ft. and/or facilities encompassing 20,000 sq. ft. or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

Engineer Name: Wayne Morrill, Jones & Beach Engineers, Inc. Address: 85 Portsmouth Avenue City/State : Stratham, NH Zip Code: 03885	Engineer Contact Information Work # 603-772-4746 Cell # Fax# e-mail: wmorrell@jonesandbeach.com
Surveyor Name: David Hislop Address: 34 Old Post Road City/State : Newington, NH Zip Code: 03801	Surveyor Contact Information Work # 603-436-1330 Cell # Fax# e-mail: dave@khlandsurveying.com
Architect Name: Address: City/State : Zip Code:	Architect Contact Information Work # Cell # Fax# e-mail:
Attorney Name: James Katsiaficas Address: One Canal Plaza, PO Box 426 City/State : Portland, ME Zip Code: 04112	Attorney Contact Information Work # 207-774-2635 ext. 8108 Cell # Fax# e-mail: jkatsiaficas@perkinsthompson.com

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews) ☐ Less than 50,000 sq. ft. (\$500.00) ☐ 50,000 - 100,000 sq. ft. (\$1,000) ☐ 100,000 - 200,000 sq. ft. (\$2,000) ☐ 200,000 - 300,000 sq. ft. (\$3,000) ☐ over 300,00 sq. ft. (\$5,000) ☐ Parking lots over 11 spaces (\$1,000) ☐ After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) ☐ Planning Staff Review (\$250) ☐ Planning Board Review (\$500) The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) ☐ Traffic Movement (\$1,000) ☐ Stormwater Quality (\$250) ☒ Subdivisions (\$500 + \$25/lot) # of Lots <u>1</u> x \$25/lot = \$525.00 ☐ Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots <u> </u> x \$200/lot = <u> </u> ☐ Other <u> </u> ☐ Change of Use ☐ Flood Plain ☐ Shoreland ☐ Design Review ☐ Housing Replacement ☐ Historic Preservation
---	---

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan and each document submitted as separate files. Naming conventions for the individual files can be found on the **Electronic Plan and Document Submittal** page of the City's website at <http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal>
2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

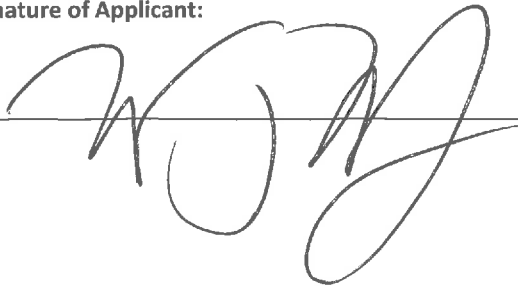
1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level III Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	Date: 3-29-16
--	------------------

PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	717,869 (Portland)	sq. ft.
Proposed Total Disturbed Area of the Site	32,226 (Portland)	sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.		
Impervious Surface Area		
Impervious Area (Total Existing)	19,166	sq. ft.
Impervious Area (Total Proposed)	29,459	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	0	sq. ft.
Building Footprint (Total Proposed)	0	sq. ft.
Building Floor Area (Total Existing)	0	sq. ft.
Building Floor Area (Total Proposed)		sq. ft.
Zoning		
Existing	Business (B4), Industrial (IL)	
Proposed, if applicable		
Land Use		
Existing	Industrial Operations	
Proposed	Recreation Area	
Residential, If applicable	N/A	
# of Residential Units (Total Existing)		
# of Residential Units (Total Proposed)		
# of Lots (Total Proposed)		
# of Affordable Housing Units (Total Proposed)		
Proposed Bedroom Mix	N/A	
# of Efficiency Units (Total Proposed)		
# of One-Bedroom Units (Total Proposed)		
# of Two-Bedroom Units (Total Proposed)		
# of Three-Bedroom Units (Total Proposed)		
Parking Spaces	N/A	
# of Parking Spaces (Total Existing)		
# of Parking Spaces (Total Proposed)		
# of Handicapped Spaces (Total Proposed)		
Bicycle Parking Spaces	N/A	
# of Bicycle Spaces (Total Existing)		
# of Bicycle Spaces (Total Proposed)		
Estimated Cost of Project	\$145,000	

**WESTBROOK
PROJECT DATA**

The following information is required where applicable, in order to complete the application.

Total Area of Site	2,844,468 (Westbrook)	sq. ft.
Proposed Total Disturbed Area of the Site	2,289,949 (Westbrook)	sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.		
Impervious Surface Area		
Impervious Area (Total Existing)	172,933	sq. ft.
Impervious Area (Total Proposed)	1,883,534	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	21,500	sq. ft.
Building Footprint (Total Proposed)	489,500	sq. ft.
Building Floor Area (Total Existing)	21,500	sq. ft.
Building Floor Area (Total Proposed)	489,500	sq. ft.
Zoning		
Existing	Gateway Commercial District	
Proposed, if applicable		
Land Use		
Existing	Industrial Operations	
Proposed	Mixed-Use Retail	
Residential, if applicable		
# of Residential Units (Total Existing)	N/A	
# of Residential Units (Total Proposed)		
# of Lots (Total Proposed)		
# of Affordable Housing Units (Total Proposed)		
Proposed Bedroom Mix		
# of Efficiency Units (Total Proposed)	N/A	
# of One-Bedroom Units (Total Proposed)		
# of Two-Bedroom Units (Total Proposed)		
# of Three-Bedroom Units (Total Proposed)		
Parking Spaces		
# of Parking Spaces (Total Existing)	51	
# of Parking Spaces (Total Proposed)	2,215	
# of Handicapped Spaces (Total Proposed)	65	
Bicycle Parking Spaces		
# of Bicycle Spaces (Total Existing)	0	
# of Bicycle Spaces (Total Proposed)	5+	
Estimated Cost of Project	\$70,000,000	

PRELIMINARY PLAN (Optional) - Level III Site Plan

Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST
X		1	Completed Application form
X		1	Application fees
X		1	Written description of project
X		1	Evidence of right, title and interest
N/A		1	Evidence of state and/or federal approvals, if applicable
X		1	Written assessment of proposed project's compliance with applicable zoning requirements
X		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
N/A		1	Written requests for waivers from site plan or technical standards, if applicable.
X		1	Evidence of financial and technical capacity
N/A		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST
		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
		1	Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)
			Proposed grading and contours;
			Existing structures with distances from property line;
			Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;
			Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);
			Preliminary infrastructure improvements;
			Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;
			Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b) (1);
			Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);
			Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;
			Exterior building elevations.

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
X		1	* Completed Application form
X		1	* Application fees
X		1	* Written description of project
X		1	* Evidence of right, title and interest
N/A		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
X		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
X		1	* Evidence of financial and technical capacity
N/A		1	Construction Management Plan
X		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
N/A		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
N/A		1	Stormwater management plan and stormwater calculations
N/A		1	Written summary of project's consistency with related city master plans
N/A		1	Evidence of utility capacity to serve
N/A		1	Written summary of solid waste generation and proposed management of solid waste
N/A		1	A code summary referencing NFPA 1 and all Fire Department technical standards
N/A		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
N/A		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
X		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
N/A		1	Final Site Plans including the following:
			Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
			Existing and proposed structures on parcels abutting site;
			All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
			Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
			Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
			Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;
			Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;
			Location of all snow storage areas and/or a snow removal plan;
			A traffic control plan as detailed in Section 1 of the Technical Manual;
			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
			Location and proposed alteration to any watercourse;
			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
			Proposed buffers and preservation measures for wetlands;
			Existing soil conditions and location of test pits and test borings;
			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
			A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
			Grading plan;
			Ground water protection measures;
			Existing and proposed sewer mains and connections;

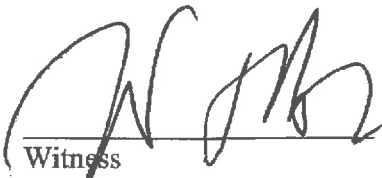
- Continued on next page -

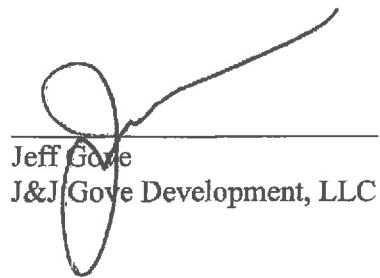
		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

Letter of Authorization

I, Jeff Gove, J&J Gove Development, LLC, 7 Swain Drive, Hampton Falls, New Hampshire, developer of property located in Westbrook, ME, known as Tax Map 42B Lots 9, 10, 11 & 14, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned property. The parcel is located on 58 & 80 Main Street in Westbrook, ME.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.


Witness


Jeff Gove
J&J Gove Development, LLC

7-1-14
Date

Section 7 - Abutters

**ABUTTERS LIST (500 FT)
MAIN STREET
WESTBROOK, ME
JBE PROJECT No. 14110
October 29, 2014
Revised January 4, 2016
Revised January 27, 2016
Revised February 15, 2016
Revised March 2, 2016**

OWNER OF RECORD/SUBJECT PARCEL:

WESTBROOK TAX MAP 42B LOTS 10, 11 (58 MAIN ST) & 14 (LARRABEE RD)
PIKE INDUSTRIES INC.
3 EASTGATE PARK ROAD
BELMONT, NH 03220
BK 23578/PG 296 (LOT 10& 11)
BK 29536/PG 273 (LOT 14)

PORTLAND TAX MAP 264 LOTS A002001 (1190 BRIGHTON AVE) & A004001 (1176
BRIGHTON AVE)
PORTLAND TAX MAP 265 LOT A003
PIKE INDUSTRIES INC.
95 WARREN AVENUE
FAIRFIELD, ME 04937
BK 23504/PG 113

TAX MAP 42B/LOT 9 (80 MAIN ST)
LL LATHROP INC.
10 MOULTON STREET, SUITE 4
PORTLAND, ME 04101
BK 21632/PG 224

WESTBROOK ABUTTERS:

TAX MAP 9(1) LOT 5 (STROUDWATER ST)
PORTLAND WATER DISTRICT
PO BOX 3553
PORTLAND, ME 04104-3553

TAX MAP 9(1) LOT 6
LLEWELLYN A. RANDALL, JR
681 STROUDWATER STREET
WESTBROOK, ME 04092
BK 31997/PG 76

TAX MAP 9(1) LOT 8B (STROUDWATER ST)
MAINE TURNPIKE AUTHORITY
430 RIVERSIDE STREET
PORTLAND, ME 04103
BK 16036/PG 331

TAX MAP 42A LOT 7 (95 MAIN ST)
MCDONALD'S REAL ESTATE COMPANY
PO BOX 182571
COLUMBUS, OH 43218-2571
BK 24263/PG 155

TAX MAP 42A LOT 8 (91 MAIN ST)
WALLACE E. CAMP, SR., TRUSTEE
CAMP SIBLING TRUST
PO BOX 109
WESTBROOK, ME 04098
BK 30134/PG 136

TAX MAP 42A LOT 10 (MAIN ST)
PORTLAND ASSOCIATES, LLC
C/O WS ASSET MANAGEMENT INC.
33 BOYLSTON STREET, SUITE 3000
CHESTNUT HILL, MA 02467
BK 25490/PG 39

TAX MAP 42A LOT 13 (140 LARRABEE RD)
KENNERSON REALTY ASSOCIATION, LLC
655 ROOSEVELT TRAIL
WINDHAM, ME 04062
BK 12490/PG 139

TAX MAP 42B LOT 5 (120 MAIN ST)
SAMYCADAM CO. LLC
2602 59TH STREET S.
GULFPORT, FL 33707
BK 15390/PG 57

TAX MAP 42B LOT 6 (100 LARRABEE RD)
WE 100 LARRABEE ROAD LLC
C/O WINSTANLEY ENTERPRISES LLC
150 BAKER AVENUE EXT., SUITE 303
CONCORD, MA 01742
BK 26693/PG 280

TAX MAP 42B LOT 7 (95 LARRABEE RD)
MIDAS PROPERTIES, INC.
C/O MARVIN F. POER & COMPANY
PO BOX 52427
ATLANTA, GA 30355
BK 8662/PG 169

TAX MAP 42B LOT 8 (91 LARRABEE RD)
SHOEMAKER LLC
C/O CHARLOTTE SHOEMAKER
5100 SW 111 LANE ROAD
OCALA, FL 34473
BK 20854/PG 0074

TAX MAP 42B LOT 12 (10 TERMINAL ST)
BRENDA L. THORNTON TRUSTEE
JOSEPH H. CYR
683 MAIN ROAD
MILFORD, ME 04461
BK 30281/PG 237

TAX MAP 42B LOT 12B (50 LARRABEE RD)
DAVID B. MOORE REVOC. TRUST
DAVID B. MOORE, TRUSTEE
C/O HARCROS CHEMICAL INC.
5200 SPEAKER ROAD
KANSAS CITY, KS 66106
BK 20960/PG 218

TAX MAP 42B LOT 15 (MAINE CENTRAL RAILROAD)
PORTLAND TERMINAL COMPANY
GUILFORD TRANSPORTATION
IRON HORSE PARK
NORTH BILLERICA, MA 01862-1681
BK 2590/PG 301

TAX MAP 42B LOTS 101 (2 SAUNDERS WAY) & 113 (1 SAUNDERS WAY)
WWS PROPERTIES LLC
C/O BILL DODGE AUTO GROUP INC.
PO BOX 9567
WESTBROOK, ME 04098-5067
BK 30156/PG 199 (LOT 101)
BK 30156/PG 197 (LOT 113)

PORTLAND ABUTTERS:

TAX MAP 243 LOT B001001 (1819 WESTBROOK STREET)
TAX MAP 253 LOT A001 (1819 WESTBROOK STREET)
TAX MAP 254 LOT X001 (0 PINE TREE INDUSTRIAL PARKWAY) (1000 FT)
TAX MAP 269 LOT B001001 (1125 BRIGHTON AVENUE)
CITY OF PORTLAND
389 CONGRESS STREET
PORTLAND, ME 04101

TAX MAP 253 LOT A004 (111 PINE TREE INDUSTRIAL PARKWAY)
MEGCO REALTY II LLC
75 PINE TREE INDUSTRIAL PARKWAY
PORTLAND, ME 04102
BK 14185/PG 146

TAX MAP 264 LOT A001 (1150 BRIGHTON AVENUE)
TAX MAP 265 LOT B002
SAI PRASAD LLC
1150 BRIGHTON AVENUE
PORTLAND, ME 04102
BK 29899/PG 331

TAX MAP 262 LOT A001 (7 RAND ROAD) (1000 FT)
TAX MAP 264 LOT A005 (0 BRIGHTON AVENUE)
TAX MAP 264 LOT B001 (7 RAND ROAD) (1000 FT)
RAND ROAD HOLDINGS LLC
7 RAND ROAD
PORTLAND, ME 04104
BK 31342/PG 191

TAX MAP 265 LOT A001 (1210 BRIGHTON AVENUE)
TAX MAP 265 LOT A008 (1200 BRIGHTON AVENUE)
TAX MAP 265 LOT A009 (1220 BRIGHTON AVENUE)
PORTLAND HOTELS REALTY INC.
1200 BRIGHTON AVENUE
PORTLAND, ME 04102
BK 20821/PG316 (LOT A001) (LOT A009)
BK 26152/PG 307 (LOT A008)

TAX MAP 265 LOT A007 (1188 BRIGHTON AVENUE)
ANTHONY P. DEPALMER ET. AL.
103 GORE ROAD
RAYMOND, ME 04071
BK 32307/PG 021

TAX MAP 265 LOT B004 (1140 BRIGHTON AVENUE)
1140 BRIGHTON AVENUE ASSOCIATES INC.
1140 BRIGHTON AVENUE
PORTLAND, ME 04102
BK 17988/PG 304

TAX MAP 265 LOT B005
PORTLAND INN INC.
1150 BRIGHTON AVENUE
PORTLAND, ME 04102

TAX MAP 266 LOT A001 (1 RIVERSIDE STREET)
G6 HOSPITALITY PROPERTY LLC
PO BOX 117508
CARROLLTON, TX 75011
BK 30055/PG 225

TAX MAP 266 LOT C002 (6 RIVERSIDE STREET)
TAX MAP 266 LOT C004 (18 RIVERSIDE STREET)
TAX MAP 266 LOT C010 (24 RIVERSIDE STREET)
CENTRAL MAINE POWER CO.
LOCAL TAX
70 FARM VIEW DRIVE
NEW GLOUCESTER, ME 04260

SPINNAKER TRUST
ATTN: CHRIS O'NEIL
PO BOX 7160
PORTLAND, ME 04112

MAINE DEPT. OF TRANSPORTATION
REGION 1
51 PLEASANT HILL ROAD
SCARBOROUGH, ME 04070-0358

MAINE DEPT. OF TRANSPORTATION
REGION 3
PO BOX 817
ROUTE 2
DIXFIELD, ME 04224

ADDITIONAL ABUTTERS 1000 FT.

TAX MAP 253 LOT A002 (0 PINE TREE INDUSTRIAL PARKWAY)
TAX MAP 254 LOT A006 (0 PINE TREE INDUSTRIAL PARKWAY)
ALCO PARTNERS
75 PINE TREE INDUSTRIAL PARKWAY
PORTLAND, ME 04102
BK 11925 PG 316

TAX MAP 253 LOT A005 (131 PINE TREE INDUSTRIAL PARKWAY)
TAX MAP 254 LOT A004 (131 PINE TREE INDUSTRIAL PARKWAY)
RYDER TRUCK RENTAL INC.
#0680
PO BOX 025719
MIAMI, FL 33102
BK 9233 PG 310

TAX MAP 254 LOT A003 (106 PINE TREE INDUSTRIAL PARKWAY)
JLTS VIII LLC
73 INDUSTRIAL PARK ROAD
SACO, ME 04072
BK 26448 PG 071

TAX MAP 254 LOT A009
122 PTIP LLC
PO BOX 4894
PORTLAND, ME 04112
BK 24528 PG 078

APPLICANT:

J & J GOVE DEVELOPMENT
7 SWAIN DRIVE
HAMPTON FALLS, NH 03844

SURVEYORS/ENGINEERS:

JONES & BEACH ENGINEERS, INC.
ATTN. WAYNE MORRILL
PO BOX 219
STRATHAM, NH 03885

**Subdivision Application
City of Portland, ME**

**Project:
"Dirigo Plaza"
58 & 80 Main Street
Westbrook, ME 04092**

**Applicant:
J&J Gove Development
7 Swain Drive
Hampton Falls, NH 03844**

Table of Contents

Section 1 - Project Description

Section 2 - Completed Application and Fees

Section 3 - Drainage Summary

Section 4 - Title, Right, and Interest

Section 5 - Financial Capacity

Section 6 - Easements, Covenants, and Public or Private Right-Of-Ways

Section 7 - Abutters

Section 8 - Plans

Section 1 - Project Description

JONES & BEACH ENGINEERS, INC.

85 Portsmouth Avenue
Post Office Box 219
Stratham, NH 03885
Telephone: (603) 772-4746
Fax: (603) 772-0227

Post Office Box 484
Alton, NH 03809
Email: jbe@jonesandbeach.com
http://www.jonesandbeach.com

March 25, 2016

Barbara Barhydt, Development Review Manager
Planning Division
City of Portland
389 Congress Street
Portland, ME 04101

Re: Proposed Subdivision Application -- Dirigo Plaza, Mixed-Use Retail and Restaurant Development, 58 & 80 Main Street, Westbrook, ME 04092
JBE Job No.: 14110

Dear Ms. Barhydt:

Our client, J&J Gove Development, proposes a one-lot subdivision and construction of a recreation trail which is located partially within the City of Portland. A three-lot subdivision is proposed in the City of Westbrook, consisting of two long-term lease lots and one lot representing the remainder of the property. The lot that contains the remaining non-leased land extends over the City of Westbrook/City of Portland boundary line. The Portland portion of this lot is approximately 16.48-acres in area. A 5' wide asphalt recreational trail is proposed around the perimeter of the existing quarry and is shown on the attached plan titled "Overall Site Plan". The recreational trail will be sloped to direct surface runoff towards the existing pit across a grassed buffer area (see trail detail within Section 3 of this application). The proposed new impervious area in Portland is approximately 10,293 S.F. with a total land disturbance of 32,226 S.F. The Portland portion of the lot contains approximately 3.82-acres of Industrial zoned land while the remaining 12.66-acres is zoned as Commercial Business (B4).

There will be no new structures erected as part of the proposed trail construction. A traffic analysis has been prepared for the development in Westbrook and has been submitted to the Planning Division and Department of Public Works. The proposed construction also will not disturb any identified significant natural areas. As part of the Westbrook development, several state permits will be obtained including MDEP Site Location of Development Application (SLODA) Permit, Natural Resources Protection Act Permit, and MDOT Traffic Movement Permits. Included in this application is a copy of correspondence from MDEP confirming that the SLODA permit has been accepted for review. The real property tax map and lot numbers that correspond to this Portland portion of the parcel are Tax Map 264/Lot A002, Tax Map 264/Lot A004, Tax Map 265/Lot A003, and Tax Map 265/A005

As required by Sec. 14-495 of the City of Portland Code of Ordinances ("Code"), enclosed please find a completed application form and five copies of the existing conditions plan, subdivision-lot consolidation plat and overall site plan. The plat is prepared in conformity with Sec. 14-436 of the Code. A plan titled "Subdivision - Lot Consolidation Plat" has been included with this application and other supplemental materials will be provided to the Planning Board as the review process continues.

Very truly yours,
Jones & Beach Engineers, Inc.


Wayne Morrill
Vice President

cc: Jeffrey Levine, Director of Planning and Urban Development
Stuart O'Brien, Planning Director
Jon Jennings, City Manager
Jeffrey Gove, J & J Gove Development, LLC
James N. Katsiaficas, Esq.

Section 4 - Title, Right, and Interest

J&J Gove Development, LLC has definitive purchase/option agreement in full force and effect with Pike Industries for the following parcels in Westbrook and Portland, Maine:

Tax Map 42B Lots 10, 11 and 14 in Westbrook, ME
Tax Map 264 Lots A002 and A004 in Portland, ME

The original agreement dated August 25, 2014 has been amended by the First Addendum to Purchase and Sale with an effective date of March 1, 2015 executed by both parties and a certain letter agreement dated June 3, 2015 executed by the parties respective counsel. The outside date to close under these documents is September 24, 2016.

J&J Gove has definitive purchase/option agreement in full force and effect with L.L. Lathrop for the following parcel in Westbrook, Maine:

Tax Map 042B Lot 9

The agreement is dated July 28, 2015 and has an outside closing date of July 28, 2016 with the option to extend to October 2016.

J&J Gove has a definitive purchase/option agreement with the Portland Terminal Company for a permanent easement across its property of 2,640 square feet in Westbrook, Maine, and more fully described in Exhibit A of the agreement dated February 2, 2016. The outside date for closing is September 24, 2016.

All of these purchase/option agreements may be extended by mutual agreement of the parties if deemed necessary.

Attachments: Purchase Option Agreements
Letter of Authorization from J&J Gove Development

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (the "Agreement") is made and entered into as of the 25th day of August, 2014 (the "Effective Date"), by and between PIKE INDUSTRIES, INC., a Delaware corporation, with a mailing address of 3 Eastgate Road, Belmont, New Hampshire 03220 (the "Seller"), and J&J GOVE DEVELOPMENT, LLC, a New Hampshire limited liability company, with a mailing address of 7 Thornton Street, Seabrook, New Hampshire 03874 (the "Buyer").

WITNESSETH:

In consideration of the mutual promises contained herein, and for other good and valuable consideration, the receipt and the sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Subject to the terms and provisions hereof, the Seller agrees to sell and convey to the Buyer, and the Buyer agrees to purchase, those certain parcels of land located in Westbrook, Maine, known as Lots 10, 11 and 14 on Tax Assessor's Map 42B of the City of Westbrook, Maine, together with those certain parcels of land located in Portland, Maine adjacent to the above referenced lots and known as Lots 264-A002001 and 264-A004001 of the City of Portland, Maine Tax Assessor's Office, all as shown on the plan (the "Plan") attached hereto as Exhibit A, and containing approximately 81.27 acres of land in the aggregate, together with any improvements thereon and all rights and appurtenances thereunto (collectively, the "Premises").

2. The Premises are to be conveyed by a good and sufficient statutory limited warranty deed running to the Buyer, or to such nominee as the Buyer may designate to the Seller at or prior to the Closing (as that term is hereinafter defined), and said deed shall convey a good, clear, record, marketable and insurable title thereto, free from all mortgages, liens, restrictions, easements or other encumbrances or matters of record (the "Deed"). If the Deed conveying the Premises refers to a plan necessary to be recorded in the Registry of Deeds or other recording office for real estate conveyances (the "Registry"), the Seller shall deliver such plan with the Deed in form adequate for recording in the Registry.

3. The agreed purchase price (the "Purchase Price") for the Premises is [REDACTED]

- (a) [REDACTED] will be paid herewith as a deposit (the "Deposit") to be held in escrow in an interest-bearing account by Atlantic Coast Title Company, as agent for First American Title Insurance Company, 76 Atlantic Place, South Portland, Maine 04106 (the "Escrow Agent"); and
- (b) the balance of the Purchase Price, subject to the adjustments to be made by the parties as hereinafter set forth, is to be paid at the time of delivery and recording of the Deed by a wire transfer of immediately available funds.

IN WITNESS WHEREOF this Agreement has been executed as a sealed instrument the day and year first set forth above.

SELLER

PIKE INDUSTRIES, INC.,
a Delaware corporation

By: 
Name: Christian Zimmerman
Title: President

BUYER

J&J GOVE DEVELOPMENT, LLC,
a New Hampshire limited liability company

By: _____
Name: _____
Title: _____

IN WITNESS WHEREOF this Agreement has been executed as a sealed instrument the day and year first set forth above.

SELLER

PIKE INDUSTRIES, INC.,
a Delaware corporation

By: _____
Name: _____
Title: _____

BUYER

J&J GOVE DEVELOPMENT, LLC,
a New Hampshire limited liability company

By:  _____
Name: JEFFREY F. GOVE
Title: MANAGER

To Toolan
7/14/15

FIRST AMENDMENT TO PURCHASE AND SALE AGREEMENT

This Amendment to Purchase and Sale Agreement (the "**Amendment**") is entered into as of July 7, 2015 by Pike Industries, Inc., a Delaware corporation (the "**Seller**") and J&J Gove Development, LLC, a New Hampshire limited liability company (the "**Buyer**").

Reference is hereby made to that certain Purchase and Sale Agreement (the "**Agreement**") with an Effective Date of August 25, 2014 with respect to real estate located in Westbrook, Maine and Portland, Maine, which real estate is more particularly described in the Agreement. Reference is further made to that certain First Addendum to Purchase and Sale Agreement (the "**Addendum**") with an Effective Date of March 1, 2015 executed by the parties and that certain Letter Agreement (the "**Letter Agreement**"), dated June 3, 2015, executed by the parties by their respective counsel.

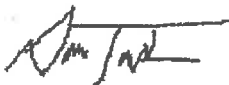
This Amendment is intended to amend the Agreement, as previously amended by the Addendum and the Letter Agreement. For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Any capitalized terms used in this Amendment but not defined herein shall have the definition set forth in the Agreement.
2. In addition to the extension of the Closing Date pursuant to the Letter Agreement for two (2) periods of ~~3~~ ^{three (3) JL (J)} (6) months each as provided therein, the Seller agrees that the Buyer shall be entitled to further extend the Closing Date for six additional monthly extension periods provided the Buyer pays to the Escrow Agent the amount of \$5,000.00 per month for each such extension. Each such amount shall be deemed added to the Deposit and shall be applied to reduce the Purchase Price at the Closing. The Buyer will be deemed to have exercised each such monthly right to extend the Closing Date unless the Buyer provides the Seller with written notice at least five (5) days prior to the commencement of each such monthly extension period notifying Seller that the Buyer is not exercising such extension right.
4. This Amendment may be executed in counterpart signatures which together shall constitute the original Amendment.

5. Except as amended hereby and as previously amended, the parties hereby ratify, confirm and approve of the Agreement as a binding and enforceable document in accordance with its terms.

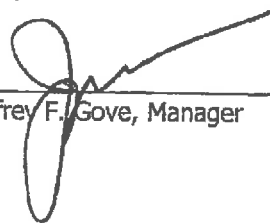
Executed as a sealed instrument as of the date set forth above.

PIKE INDUSTRIES, INC.,
a Delaware corporation



By:
Name: David M. Toolan
Title: Assistant Secretary/Corporate Counsel

J&J GOVE DEVELOPMENT, LLC,
a New Hampshire limited liability
company



By:
Jeffrey F. Gove, Manager

Jun. 3. 2015 11:49AM

No. 0749 P. 2

J & J GOVE DEVELOPMENT, LLC
7 Thornton Street
Seabrook, NH 03874

SENT VIA FACSIMILE (603-527-5101) and
ELECTRONIC MAIL (czimmerman@pikeindustries.com)
And
FIRST CLASS MAIL

June 3, 2015

Pike Industries, Inc.
3 Eastgate Road
Belmont, NH 03220
Attn: Christian Zimmerman

Re: Westbrook and Portland, Maine Real Estate Transaction

Gentlemen:

Reference is hereby made to that certain Purchase and Sale Agreement (the "Agreement"), dated as of August 25, 2014 and executed by and between Pike Industries, Inc., a Delaware corporation (the "Seller") and J & J Gove Development, LLC, a New Hampshire limited liability company (the "Buyer"). Any capitalized terms used in this letter but not defined herein shall have the definition set forth in the Agreement.

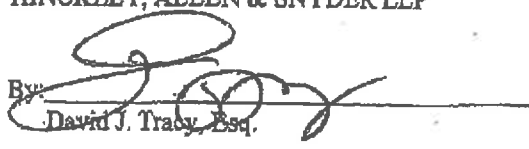
Pursuant to Section 4 of the Agreement, the Buyer is entitled to extend the Closing Date for two (2) periods of three (3) months each upon receiving the Seller's consent thereto, which consent shall not be unreasonably withheld or delayed. Due to the status and timing of the permits and approvals being obtained by the Buyer as contemplated pursuant to Section 19 of the Agreement, the Buyer does hereby request the Seller's consent to such extensions of the Closing Date. As provided in said Section 4, the Buyer will tender to the Escrow Agent on a monthly basis an additional Deposit payment of \$5,000 for each month the Closing Date is so extended when the applicable monthly periods for which the foregoing extensions apply are in effect.

Please confirm your agreement to the foregoing in the space provided below and provide a fully-executed copy of this letter agreement to the Buyer.

Sincerely yours,

J & J GOVE DEVELOPMENT, LLC,
a New Hampshire limited liability company

By its counsel,
HINCKLEY, ALLEN & SNYDER LLP

By: 
David J. Tracy, Esq.

Jun. 3. 2015 11:50AM

No. 0749 P. 3

Pike Industries, Inc.
June 3, 2015
Page 2

AGREED TO:

PIKE INDUSTRIES, INC.
a Delaware corporation

By: 
Name: DAVID M. TOOLIN
Title: ASST. SECRETARY / COUNSEL

cc: Oldcastle, Inc.
900 Ashwood Parkway
Suite 600
Atlanta, GA 30338
Attn: David M. Toolin, Esq.
Facsimile: 770-392-5305
Email: david.toolin@oldcastlelaw.com
Sent via facsimile, email and First Class Mail

Jeffrey F. Gove
Christopher F. Nash

Section 6 - Easements, Covenants, and Public or Private Right-Of-Ways

The property within Portland contains several utility easements and an existing railroad crossing easement shown on the existing conditions plan that is included with this application.

Subject properties:

Owner of Record: Pike Industries, Inc. CCRD Book 23504, Page 113, Corrected by Book 23578, Page 296

- a. Westbrook Tax Map 42B, Lot 14 (Ref. Deed BK8964/PG221, 2001/491, 2198/493)
- b. Westbrook Tax Map 42B, Lot 11 (Ref. Deed 2198/493, 1737/445)
- c. Westbrook Tax Map 42B, Lot 10 (Ref. Deed 4166/68)
- d. Portland Tax Map 264, Lot A002 (Ref. Deed 3162/899, 1921/59)
- e. Portland Tax Map 264, Lot A004 (Ref. Deed 2755/81)

Easements:

Utility Easement to Portland Pipe Line Corporation (BK2881/PG459)

Utility Easement to Central Maine Power Company (3204/758)

Petroleum Easement to Buckeye Partners (1891/16)

Railroad Crossing:

Farm crossing: Plan - "Right-Of-Way and Track Map, The Portland & Ogdensburg Ry., Owned & Operated by the Portland Terminal Company, Station 158+40 to Station 211+20" Dated: June 10, 1916. Scale 1"=100'. Office of Chief Engineer, Portland, Maine (Sheet V-2/4)

053314

WARRANTY DEED

Maine Statutory Short Form

KNOW ALL MEN BY THESE PRESENTS,

THAT, I, Irene E. Elwell of Westbrook, County of Cumberland, State of Maine, being unmarried, for consideration paid, grant to BLUE ROCK INDUSTRIES of Westbrook, County of Cumberland, State of Maine, whose mailing address is 58 Main Street, Westbrook, Maine 04092 with warranty covenants, a certain lot or parcel of land situated southeasterly of, but not adjacent to, Larrabee Road in Westbrook, County of Cumberland and State of Maine, being more particularly bounded and described as follows:

Beginning at a 5/8" capped rebar marked RLS #1155 set on the town line between the City of Portland and the City of Westbrook and land now or formerly of the State of Maine (C.C.R.D. 3397-194) as shown on a Plan of Maine State Highway Commission Right of Way Map dated October, 1972 recorded in the Cumberland County Registry of Deeds Plan Book 127 Page 26, said iron bearing South 31-19-46 West two thousand seven hundred seventeen and fifty-four hundredths (2727.54) feet from a 6" X 6" concrete town line monument as shown on a plan of the town line between Portland and Westbrook dated January 3, 1946 per the City of Portland Department of Engineering;

Thence, South 74-29-39 West along said land of the State of Maine one hundred forty-seven and sixty-three hundredths (147.63) feet to a 6" X 6" concrete monument set at a point of curvature at Station 15+00.81 as shown on said Plan of the State Highway Commission;

Thence, southwesterly continuing along said land of the State of Maine and a curve to the left having a radius of three hundred five and no hundredths (305.00) feet an arc distance of two hundred thirty-one and sixty-six hundredths (231.66) feet to a 6" X 6" concrete monument set at a point of compound curvature at Station 18+27.415 as shown on said plan;

Thence, westerly along said land of the State of Maine and a curve to the left having a radius of five hundred ninety-five and no hundredths (595.00) feet an arc distance of two hundred thirty-seven and one hundredths (237.01) feet to a point at Station 21+14.218 on said plan;

Thence, North 50-16-41 West along said land of the State of Maine one hundred four and twenty hundredths (104.20) feet to a point at Station 71+95.56 on said plan;

Thence, North 38-07-34 West along said land of the State of Maine one hundred eighty-seven and thirty hundredths (187.30) feet to a capped 5/8" rebar and land now or formerly of Llewellyn A. Randall, Sr. (C.C. Probate Docket #61110);

MAINE REAL ESTATE TAX PAID

BK 8964 PG 0222

Thence, North 35-19-07 East along said land of Randall and remains of a wire fence one hundred twenty-two and eighty-one hundredths (122.81) feet to a wooden fence post;

Thence, North 23-10-52 East continuing along said land of Randall and remains of a wire fence eighty-three and forty-eight hundredths (83.48) feet to a wooden fence post;

Thence, North 30-44-25 East continuing along said land of Randall and remains of a wire fence one hundred eighty-eight and fifty-three hundredths (188.53) feet to a wooden fence post;

Thence, North 43-09-19 East continuing along said land of Randall twenty-nine and seventy-seven hundredths (29.77) feet to a capped 5/8" rebar and land now or formerly of Blue Rock Industries (C.C.R.D. 2001-491);

Thence, South 47-07-02 East along said land of Blue Rock Industries eight hundred twenty and no hundredths (820.00) feet to a capped 5/8" rebar set on the town line between the City of Portland and the City of Westbrook;

Thence, South 31-19-46 West along the town line one hundred sixty-nine and ninety-one hundredths (169.91) feet to the point of beginning.

Containing 7.53 acres, more or less.

Bearings are observed Magnetic, September, 1989.

Meaning and intending to convey the same land conveyed to Grantor herein by the Estate of D. Emerson Elwell in a deed dated December 31, 1985 and recorded in the Cumberland County Registry of Deeds in Book 7029, Page 308.

WITNESS my hand and seal this 25th day of the month of October, 1989.

Signed, Sealed and Delivered
in presence of

U. Charles Remme

Irene E. Elwell
Irene E. Elwell

State of Maine, County of Cumberland, ss. October 25, 1989

Then personally appeared the above named Irene E. Elwell and acknowledged the foregoing instrument to be her free act and deed.

Before me,

RECEIVED
RECORDED REGISTRY OF DEEDS

1989 OCT 26 PM 2:27

CUMBERLAND COUNTY

Robert B.

U. Charles Remme
Notary Public/
Attorney at Law

U. Charles Remme / II
Type or print name

Know all Men by these Presents, That

491

I, George W. Hunter of Westbrook, in the County of Cumberland and State of Maine, in consideration of one dollar and other valuable considerations, paid by Blue Rock Quarry of said Westbrook, in said County and State, the receipt whereof I do hereby acknowledge, do hereby, give, grant, bargain, sell and convey unto the said Blue Rock Quarry, its successors and assigns forever, a certain lot or parcel of land situated in said Westbrook, and bounded and described as follows, to wit: Commencing on the easterly side line of Stroudwater Street at a stone post set in the division line between Westbrook and Portland, measuring down on the division line easterly from said stone post three thousand ninety-six and seventy-two hundredths (3096.72) feet; thence from this point extending along the said division line between Westbrook and Portland a distance of forty-two (42) rods, more or less to the Railroad Right of way; thence northerly along said Railroad Right of Way a distance of of fifty-two (52) rods, more or less, to the land now or formerly owned by John W. Washburn; thence westerly by said Washburn land forty-two (42) rods, more or less, to land of Elijah P. Hunter; thence southerly by the said Elijah P. Hunter land and land of grantor to the point of beginning. Meaning and intending hereby to convey the same premises which I. purchased by warranty deed from Antonio Galli dated June 19, 1942 and recorded in Cumberland Registry of Deeds, in Book 1683, Page 8.

On this and in with the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Blue Rock Quarry its successors and assigns, to it and

U.S.I.R.
\$1.65
G.H.W.
6/20/50

said Grantee, its successors their use and behoof forever. And I do covenant with the heirs and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said

Grantee, its successors heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I, the said George W. Hunter and Annetta R. Hunter wife of the said George W. Hunter joining in this deed as Grantor, and relinquishing and conveying my right by descent and all other rights in the above described premises,

OUR hands and seals this sixteenth day of June have hereunto set in the year of our Lord one thousand nine hundred and fifty.

Signed, Sealed and Delivered in presence of

Grover Welch

to both

George W. Hunter Seal

Annetta R. Hunter Seal

State of Maine, CUMBERLAND, SS.
the above named George W. Hunter

June 16th, 1950. Personally appeared

and acknowledged the foregoing instrument to be his free act and deed.

Before me, Grover Welch, Justice of the Peace

Received

June 20, 19 50, at 10 o'clock 20 m. A. M., and recorded according to the original.

Know all Men by these Presents, That

493
472

I, Hans N. Hansen of Westbrook, in the County of Cumberland and State of Maine,

in consideration of One Dollar and other valuable considerations, paid by Blue Rock Quarry, a corporation established by law, and having a place of business at said Westbrook, in said County of Cumberland and State of Maine,

the receipt whereof I do hereby acknowledge, do hereby, give, grant, bargain, sell and convey unto the said Blue Rock Quarry, its successors and assigns forever, a certain lot or parcel of land situated southerly of Main Street, in said Westbrook, in said County of Cumberland and State of Maine, bounded and described as follows:- Said parcel is bounded on the southeast by land formerly of John Larrabee and now of the Grantee herein; on the southwest by land formerly of G. Skillins and land formerly of D. & S. Conant; on the northwest by land of Hannah Fluent set off to her in the division of the Estate of her father Benjamin Larrabee; on the northeast by the following described line; Beginning at an iron in the division line between land of the Grantor and land of the Grantee herein, said iron being distant S. 32° 11' W. 938.49' from the southwesterly side line of Main Street; thence N 59° 01' W. 417.66' to an iron in a fence marking the division line between land of the Grantor and land formerly of the said Fluent;

Said above-described courses are magnetic and of the date of 1951.

Subject to the right of way of the Maine Central Railroad Company.

Said above-described parcel being a portion of the lot of land conveyed by Bernice W. Bixby et als to Hans N. Hansen by deed dated September 2, 1926 and recorded in Cumberland County Registry of Deeds, in Book 1246, Page 89.

On here and in hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Blue Rock Quarry its successors and assigns, to its and

their use and behoof forever. And I do covenant with the said Grantee, its successors

heirs and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; except as noted;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its successors

heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I, the said Hans N. Hansen and Lina M. Hansen wife of the said Hans N. Hansen joining in this deed as Grantor, and relinquishing and conveying all rights by descent and all other rights in the above described premises,

OUR hand s and seal s this 22nd day of October have herunto set in the year of our Lord one thousand nine hundred and fifty-four.

Signed, Sealed and Delivered in presence of

Roger P. Welch to both

Hans N. Hansen

Seal

Lina M. Hansen

Seal

State of Maine, CUMBERLAND, ss.

October 22 1954.

Personally appeared

the above named

Hans N. Hansen

and acknowledged the foregoing instrument to be his free act and deed.

Before me, Roger P. Welch Justice of the Peace

Received

October 29,

19

54 at

8

o'clock -

m.

A. M., and recorded according to the original.

Know all Men by these Presents, That

445

W. H. Hinman, Inc., a corporation organized and existing under the laws of Commonwealth of Massachusetts and located at North Anson in the County of Somerset in said State of Maine, in consideration of one dollar and other valuable considerations, paid by Blue Rock Quarry a corporation organized and existing under the laws of the State of Maine and having a principal office at Westbrook, County of Cumberland in said State of Maine, the receipt whereof we do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Blue Rock Quarry, its successors and assigns forever, a certain lot or parcel of land situated in the City of Westbrook, County of Cumberland, and State of Maine, bounded and described as follows: Beginning at a stone hub marked "W.D." set in the Southerly side of Main Street at the division line between Westbrook and Portland; thence Westerly by said Main Street fifty (50) rods, more or less, to land now or formerly owned by John W. Washburn; thence Southerly by said Washburn's land to land owned now or formerly by Daniel Conant; thence by said Conant's land and land now or formerly belonging to Edward Chapman and land belonging to Ann Quimby heirs, in an Easterly direction, by and in various courses, to the Portland City Line; thence Northerly by that line to the point of beginning, the stone hub marked "W.D."

This land, about fifty-six (56) acres, more or less, formerly belonged to John Larrabee and was conveyed by his heirs to his son, Frederick D. Larrabee by their deed dated March 6, A. D. 1882 and recorded in Cumberland County Registry of Deeds, Book 486, Page 404, and was conveyed to John Larrabee Jones by Lydia W. J. Stevens by deed dated February 13, A. D. 1922 and recorded in said Cumberland County Registry of Deeds, Book 1095, Page 51.

This conveyance is made subject to such rights as the Portland and Ogdensburg Railroad may have in said premises.

Excepting however from the above described property, a certain lot or parcel of land which Antonio Galli conveyed to George W. Hunter under date of June 19, A. D. 1942 and recorded in said Registry, Book 1683, Page 8.

Being the same premises which were conveyed to Antonio Galli by deed of said John Larrabee Jones dated November 15, A. D. 1938 and recorded in said Registry, Book 1554, Page 484.

On Have and in Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Blue Rock Quarry, its successors

heirs and assigns, to it and their use and behoof forever. And we do covenant with the said Grantee, its successors heirs-and assigns, that we are lawfully seized in fee of the premises; that they are free of all incumbrances;

that we have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that we and our successors-heirs shall and will warrant and defend the same to the said Grantee, its successors

heirs-and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said W. H. Hinman, Inc. joining in this deed as Grantor, and relinquishing and conveying their right by descent and all other rights in the above described premises,

their hand and seal this fourteenth day of March have hereunto set one thousand nine hundred and forty-four. in the year of our Lord

Signed, Sealed and Delivered in presence of

Arlene L. Davis

Geraldine A. McCarty

W. H. HINMAN, INC. CORPORATE SEAL

G. W. Yeaton, Asst. Treas.

State of Maine, CUMBERLAND, SS.

----- 19 --

Personally appeared

the above named G. W. Yeaton, Assistant Treasurer of W. H. Hinman, Inc.

and acknowledged the above instrument to be his free act and deed. ----

Before me, E. H. Wyman, Jr., Notary Public Notarial Seal of Edwin H. Wyman, Jr.

Received March 15

19 44, at 10 o'clock 45 m. A. M., and recorded according to the original.

*
X

J.S.I.R.
\$4.95
W.H.H. Inc.
3/14/44

KNOW ALL MEN BY THESE PRESENTS, THAT, We, Carl N. Hansen and Philip A. Hansen, both of Westbrook, Maine, Rudolf E. Hansen of Panacea, Florida, Richard O. Hansen of Los Angeles, California and Jeannette E. Currier of Ypsilanti, Michigan, in consideration of One Dollar (\$1.00) and other valuable considerations, paid by Blue Rock Industries, a Maine corporation, the receipt whereof we do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Blue Rock Industries, its Successors and Assigns forever, a certain lot or parcel of land, with the buidings thereon, situated on the southerly side of Main Street in Westbrook in the County of Cumberland and State of Maine, bounded and described as follows:

Beginning at an iron pipe set in the ground in said southerly side of said Main Street at the northwesterly corner of land of Blue Rock Industries; thence South twenty-eight degrees fifty-six minutes five seconds West (S 28° 56' 05" W) along said Blue Rock Industries land nine hundred thirteen (913) feet, more or less, to an iron pipe set in the ground; thence North sixty degrees four minutes thirty seconds West (N 60° 04' 30" W) along said Blue Rock Industries land two hundred fifty-five (255) feet, more or less, to an iron pipe set in the ground in the easterly side of Larrabee Road; thence northerly along said Larrabee Road five (5) feet, more or less, to a monument set in the ground; thence northwesterly along said Larrabee Road fifteen (15) feet, more or less, to an iron pipe set in the ground; thence northeasterly along said Larrabee Road three hundred eighty-eight (388) feet, more or less, to an iron pipe set in the ground at the westerly corner of land of Franz M. Hansen et al.; thence South sixty-two degrees eleven minutes thirty-three seconds East (S 62° 11' 33" E) along said land of said Franz M. Hansen et al. sixty-eight (68) feet to an iron pipe set in the ground; thence North thirty-two degrees twenty-nine minutes thirty seconds East (N 32° 29' 30" E) along said Franz M. Hansen et al. land one hundred (100) feet, more or less, to an iron pipe set in the ground; thence

continuing North thirty-two degrees twenty-nine minutes thirty seconds East (N 32° 29' 30"E) along land of Noyes Land Company four hundred twenty-eight and seventy-five hundredths (428.75) feet, more or less, to an iron pipe set in the ground in said southerly side of said Main Street; thence easterly along said southerly side of Main Street twenty-six (26) feet to an iron pipe set in the ground at the northwesterly corner of land of Carl N. Hansen et al.; thence South thirty-two degrees twenty-nine minutes thirty seconds West (S 32° 29' 30"W) along said Carl N. Hansen et al. land four hundred twenty-eight and seventy-five hundredths (428.75) feet to an iron pipe set in the ground; thence South sixty-two degrees eleven minutes thirty-three seconds East (S 62° 11' 33"E) along said Carl N. Hansen et al. land seventy-four (74) feet, more or less, to an iron pipe set in the ground; thence North thirty-two degrees twenty-nine minutes thirty seconds East (N 32° 29' 30"E) and along said Carl N. Hansen et al. land four hundred twenty-eight and seventy-five hundredths (428.75) feet to an iron pipe set in the ground in said southerly side of said Main Street; thence easterly along said Main Street one hundred (100) feet to the point of beginning.

Being a part of the same premises conveyed by Bernice W. Bixby et als. to Hans N. Hansen by deed dated September 2, 1926 and recorded in the Cumberland County Registry of Deeds in Book 1246, Page 89. The interest of the Grantors herein was acquired under the will of the said Hans N. Hansen which has been duly probated in Probate Court for Cumberland County, Docket No. 65511.

References also made to a deed from Franz M. Hansen to the Grantors herein dated August 28, 1975 and recorded in the Cumberland County Registry of Deeds, Book 3737, Page 131.

TO HAVE AND TO HOLD the aforegranted and bargained premises, with all privileges and appurtenances thereof to the said Blue Rock Industries, its Successors and Assigns, to it and its use and behoof forever.

AND we do covenant with the said Grantee, its Successors and Assigns, that we are lawfully seized in free of the premises; that they are free of all incumbrances; that we have good right

to sell and convey the same to the said Grantee to hold as afore-said; and that we and our Heirs, shall and will Warrant and Defend the same to the said Grantee, its Successors and Assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, we, the said Carl N. Hansen and Theresa E. Hansen, wife of the said Carl N. Hansen, Philip A. Hansen and Doris Hansen, wife of the said Philip A. Hansen, Rudolf E. Hansen and Helen Hansen, wife of the said Rudolf E. Hansen, Richard O. Hansen and Gladys Hansen, wife of the said Richard O. Hansen and Jeannette E. Currier and George Currier, husband of the said Jeannette E. Currier, joining in this deed as Grantors, and relinquishing and conveying our rights by decent of all other rights in the above described premises, have hereunto set our hands and seals this 3rd day of October in the year of our Lord one thousand nine hundred and seventy-seven.

Signed, Sealed and Delivered
in presence of

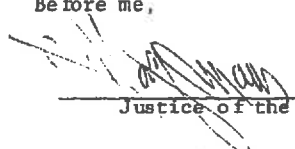
<u>Robert E. Hansen</u>	<u>Carl N. Hansen</u> Carl N. Hansen
<u>Richard T. Brown</u>	<u>Theresa E. Hansen</u> Theresa E. Hansen
<u>Agapitos Papacalodanous</u>	<u>Philip A. Hansen</u> Philip A. Hansen
<u>Jeannette E. Hansen</u>	<u>Doris E. Hansen</u> Doris Hansen
<u>Agapitos Papacalodanous</u>	<u>Rudolph E. Hansen</u> Rudolf E. Hansen
<u>Agapitos Papacalodanous</u>	<u>Helen Hansen</u> Helen Hansen
<u>John Berne</u>	<u>Richard O. Hansen</u> Richard O. Hansen
<u>John Berne</u>	<u>Gladys Hansen</u> Gladys Hansen
<u>Jeannette E. Currier</u>	<u>Jeannette E. Currier</u> Jeannette E. Currier
<u>George Currier</u>	<u>George Currier</u> George Currier

STATE OF MAINE
Cumberland, ss

October 3, 1977

Personally appeared the above named Carl N. Hansen and
acknowledged the above instrument to be his free act and deed.

Before me,


Justice of the Peace

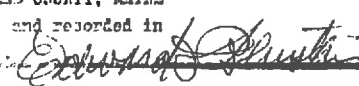
JAN 24 1978

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE

Received at 3 11 25 AM and recorded in

BOOK 4166

PAGE 108

 Registrar

3519
Know All Men by These Presents.

899

That the CITY OF PORTLAND, a body politic and corporate, located in the
County of Cumberland and State of Maine,

~~EXEMPTED FROM TAXES AND EXISTING UNDER THE LAWS OF THE STATE~~

~~OF~~ ~~MAINE~~

~~IN THE COUNTY OF~~ ~~MAINE~~ ~~AND STATE OF~~

in consideration of One Dollar (\$1.00) and other good and valuable
considerations

paid by BLUE ROCK INDUSTRIES, a corporation organized and existing under
the laws of the State of Maine and having a place of business in the City of
Westbrook, County of Cumberland and State of Maine,
the receipt whereof it does hereby acknowledge, does hereby remit,
release, bargain, sell and convey and Surrender Quit-Claim unto the said

Blue Rock Industries, its successors

~~being~~ and assigns forever,

a certain lot or parcel of land situate in the City of Portland, County of
Cumberland and State of Maine, bounded and described as follows:

Beginning at a point in the boundary line running between Portland and
Westbrook; said point being distant two hundred sixteen and thirty two
one-hundredths (216.32) feet Southerly along the said Portland/Westbrook
boundary line from the Southerly street line of Brighton Avenue; thence
Southeasterly from said point of beginning, making an included angle of one
hundred seventeen degrees and fifty five minutes (117° 55') through the East,
with the Northerly direction of the said Portland/Westbrook boundary line,
a distance of two hundred seventy three and seventy five one-hundredths
(273.75) feet, more or less, to a point; thence Southeasterly, making a
deflection angle of twenty five degrees, fourteen and one-half minutes (25°
14-1/2') to the right, a distance of fifty two feet (52) to a point and an
intersection with the Northerly line of land owned by Blue Rock Industries;
thence Westerly, along the said Northerly line of Blue Rock Industries land
and making an included angle of fifty three degrees, nine and one-half minutes
(53° 09-1/2') through the Northwest with the Northwesterly direction of the
last described course, a distance of two hundred seventy three and seventeen
one-hundredths (273.17) feet to a point and an intersection with the boundary
line running between Portland and Westbrook; thence Northerly, along the said
boundary line, making an angle of ninety degrees (90°) with the last
described course, a distance of one hundred and seventy (170) feet to the
point of beginning.

The above described lot or parcel of land contains 26,274 square feet
or 0.60 acres.

Being a portion of the premises conveyed to the Grantor by George Warren
and Lewis P. Warren by deed, dated July 3, 1871, and recorded in the
Cumberland County Registry of Deeds in Book 386, Page 393.

Us here and to hold the same, together with all the privileges and appurtenances thereunto belonging, to it the said Blue Rock Industries, its successors

~~Warrant~~ and Assigns forever.

And the said Grantor Corporation does covenant with the said Blue Rock Industries, its successors

~~Warrant~~ and Assigns, that it will ~~Warrant~~ and ~~Warrant~~ defend the premises to it the said Grantee, its successors

~~Warrant~~ and Assigns forever, against the lawful claims and demands of all persons claiming by, through, or under it.

In ~~Witness~~ Whereof, the said CITY OF PORTLAND

has caused this instrument to be sealed with its corporate seal and signed in its corporate name by John G. DePalma

, its Director of Finance

thereunto duly authorized, this 20th day of November in the year one thousand nine hundred and seventy.

Signed, Sealed and Delivered
in presence of

Thomas J. Mandy

CITY OF PORTLAND
By *John G. DePalma*
Director of Finance
(CORPORATE SEAL)

State of Maine, CUMBERLAND ss.

Nov 20 1970.

Personally appeared the above named JOHN G. DE PALMA,

Director of Finance

of said Grantor Corporation

as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said corporation.

Before me,

Thomas J. Mandy
NOTARY PUBLIC

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE MAR 18 1971

Received at 10 H 05 A.M. and recorded in

BOOK 3162 PAGE 899

Ch. C. B. Co.

Register

Know all Men by these Presents, That

City of Portland, a body politic and corporate, located in the County of Cumberland and State of Maine

in consideration of One dollar (\$1.00) and other valuable considerations paid by Blue Rock Quarry, a corporation organized and existing under the laws of the State of Maine and located at Westbrook in said County of Cumberland and State of Maine,

the receipt whereof it do es hereby acknowledge, does hereby remise, release, bargain, sell and convey, and forever quit-claim unto the said Blue Rock Quarry its successors and assigns forever, a certain lot or parcel of land situated on the southerly side of Brighton Avenue in said Portland, being a part of the premises known as the "City Home" property, so-called, and bounded and described as follows: viz;

Beginning at a point in the division line between the City of Portland and the City of Westbrook, distant southerly along the said division line four hundred (400) feet from the southerly side line of Brighton Avenue, thence easterly and making an angle of ninety(90)degrees with the said division line between the City of Portland and the City of Westbrook a distance of four hundred and thirty-five (435) feet, thence southerly and making an angle of ninety(90) degrees with the last described line and on a line parallel to and distant four hundred and thirty-five (435) feet at right angles from the said division line between the City of Portland and the City of Westbrook to the northerly side line of the Portland Terminal Company (Mountain Division) Location, thence northwesterly by the said northerly side line of the Portland Terminal Company Location to the said division line between the City of Portland and the City of Westbrook, thence northerly by the said division line between the City of Portland and the City of Westbrook to the point of beginning, together with the right of passage over City land between the above described land and Brighton Avenue.

Meaning and intending to convey hereby a strip of land four hundred and thirty-five feet (435) wide, located on the westerly side of the City Farm, so-called, northerly of the Portland Terminal Company Location and containing about 14.5 acres, and being part of the premises conveyed by George Warren and Lewis P. Warren to the Town of Deering by deed, dated July 3, 1871 and recorded in Cumberland County Registry of Deeds, Book 386, Page 393.

This conveyance is made subject to the rights of the Central Maine Power Company, its successors and assigns, to erect, construct, maintain, replace and repair pole lines and wires for the conduct of electricity along the westerly and southerly boundaries of the premises hereby conveyed.

On this and in full the same, together with all the privileges and appurtenances thereunto belonging, to it the said Blue Rock Quarry, its Successors heirs and assigns forever.

Corporation does

And the said Grantor, covenant with the said Blue Rock Quarry, its successors heirs and assigns, that it will warrant and forever defend the premises to it the said Grantee, its successors

heirs and assigns forever, against the lawful claims and demands of all persons claiming by, through or under it.

In Witness Whereof, the said City of Portland has caused this instrument to be sealed with its corporate seal and signed in its corporate name by John R. Gilmartin, its Treasurer thereunto duly authorized,

have hereunto set hand and seal this thirteenth day of July in the year of our Lord one thousand nine hundred and forty-eight.

Signed, Sealed and Delivered in presence of

CITY OF PORTLAND

CORPORATE SEAL

Edward T. Gignoux

By John R. Gilmartin

Its Treasurer

County of

State of Maine, Cumberland, ss. July 13th, 1948

Personally appeared the above named John R. Gilmartin, Treasurer of said Grantor Corporation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said corporation.

BEFORE ME,

Edward T. Gignoux, Justice of the Peace

RECEIVED July 14 19 48 , at 1 o'clock - m. P.M., and recorded according to the original.

KNOW ALL MEN BY THESE PRESENTS

That, the MAINE TURNPIKE AUTHORITY, a body corporate and politic, duly created and existing by virtue of an act of the Legislature of the State of Maine, Chapter 69 of the Private and Special Laws of 1941, as amended, and having an office at Augusta, in the County of Kennebec and State of Maine,

in consideration of one (\$1.00) dollar and other valuable considerations

paid by Blue Rock Quarry, a corporation duly organized and existing under the laws of the State of Maine, and having its principal place of business in the City of Westbrook, County of Cumberland and State of Maine, the receipt whereof is hereby acknowledged, does hereby remise, release, bargain, sell and convey and forever QUIT CLAIM unto the said Blue Rock Quarry, its successors and assigns, forever, a certain lot or parcel of land situate in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows, to wit:

Beginning at a point on the westerly Right of Way line of the Maine Turnpike, so-called, said point being located one hundred fifty (150) feet distant westerly from the survey base line of the Maine Turnpike, so-called, measured at right angles at Station 2379+85.02 as shown on a Property Plan entitled, "Maine Turnpike Authority, Maine Turnpike, Section 2 - Portland to Augusta," dated January 1955, revised April 1963, on file in the office of the Maine Turnpike Authority, the parcel of land herein described being shown on Portland Supplemental Sheet No. 14 of said plan;

thence, north thirteen degrees forty four minutes east (N13°-44'E) by the line of land of Blue Rock Quarry, a distance of about one thousand four hundred twenty six and twenty hundredths (1426.20) feet to a point on the line of land now or formerly of the City of Portland, said point being located two hundred fifty-eight and fifty nine hundredths (258.59) feet distant westerly from the said survey base line measured at right angles at Station 2394+07.08;

thence, south seventy six degrees sixteen minutes east (S76°-16'E) by the line of said land now or formerly of the City of Portland, a distance of about one hundred eight and ninety one hundredths (108.91) feet to a point on the westerly right of way line of the said Maine Turnpike said point being located one hundred fifty (150) feet distant westerly from the said survey base line, measured at right angles at Station 2394+15.37;

thence, south eighteen degrees six minutes west (S18°-06'W) parallel to the said survey base line and one hundred fifty (150) feet distant westerly therefrom, a distance of about one thousand four hundred thirty and thirty five hundredths (1430.35) feet to the point of beginning.

containing approximately one and seventy eight hundredths (1.78) acres

The bearings in the foregoing description are referred to the True Meridian.

Being the same premises designated as Parcel No. 13E conveyed to the Maine Turnpike Authority by the City of Portland by Quit Claim Deed dated April 8, 1955, recorded in Cumberland County Registry of Deeds in Book 2244, Page 15.

Maine
Turnpike
Authority

to

Blue
Rock
Quarry

Q C

82 This conveyance is made subject to Central Maine Power Company Easement designated as Easement No. 2 shown on the aforementioned Property Plan and more particularly described in the mentioned Quit Claim Deed dated April 8, 1955, recorded in Book 2244, Page 15.

To Have and To Hold the same, together with all the privileges and appurtenances thereunto belonging to the said Blue Rock Quarry, its successors and assigns to it and their use and behoof forever. And it does covenant with the said Grantee, Blue Rock Quarry, its successors and assigns, that it will warrant and forever defend the premises to the said Grantee, Blue Rock Quarry, its successors and assigns, against the lawful claims and demands of all persons claiming by, through or under it.

IN WITNESS WHEREOF, the MAINE TURNPIKE AUTHORITY has caused these presents to be executed in its behalf by Paul C. Thurston, its Chairman, and its corporate seal to be affixed by Lucius D. Barrows, its Secretary and Treasurer, both hereunto duly authorized this 6th day of May in the year of our Lord one thousand nine hundred and sixty three.



MAINE TURNPIKE AUTHORITY

By: Paul C. Thurston
Chairman

Attest: Lucius D. Barrows
Secretary and Treasurer

County of Cumberland ss.

May 6, 1963

Before me appeared Paul C. Thurston, to me personally known, who, being by me duly sworn did say that he is the Chairman of the MAINE TURNPIKE AUTHORITY, and that the seal affixed is the corporate seal of said MAINE TURNPIKE AUTHORITY, and that these presents were signed and sealed in behalf of and by authority of the said MAINE TURNPIKE AUTHORITY and the said Paul C. Thurston acknowledged said instrument to be the free act and deed of said MAINE TURNPIKE AUTHORITY.

Before me,



R. Henry Cary
Justice of the Peace

We hereby certify that the parcel described in the foregoing deed acquired by the Maine Turnpike Authority in the acquisition of the Right of Way, is not needed by the Maine Turnpike Authority and will serve no useful purpose in connection with the maintenance and operation of the Turnpike and the conveyance of the same by this deed is approved.

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
Consulting Engineers

By: James P. Exner

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE JUN 17 1963

Received at 9 H - M A.M., and recorded in

BOOK 2735 PAGE 81 Howard P. Exner Registrar

KNOW ALL MEN BY THESE PRESENTS, that BLUE ROCK QUARRY,
a Maine corporation having a principal place of business in
Westbrook, County of Cumberland and State of Maine

of

in consideration of

Two hundred seventy-three Dollars (\$273.00)
paid by Portland Pipe Line Corporation, a Maine corporation
having an office at Portland, Maine, the receipt whereof is
hereby acknowledged, do(es) hereby give, grant, bargain, sell,
convey and confirm unto the said Portland Pipe Line Corporation,
its successors and assigns, a right of way and easement for the
purpose of constructing, maintaining, operating, altering,
repairing, removing, changing the size of and replacing a line
of pipe, with such valves and fittings as may be necessary or
convenient, for the transportation as a common carrier for hire
of oil, crude petroleum and refined petroleum products or com-
binations thereof or similar thereto, natural and artificial
gas, casinghead and natural gasoline, and any other liquids or
gasses over a route to be selected by the Grantee under, upon,
over and through a strip of land thirty (30) feet in width located
in Portland, in said County, lying southerly of Brighton Avenue,
so-called, and bounded and described as follows: Beginning at a
point in the westerly line of the Maine Turnpike right of way at
the intersection of the southeasterly line of land of this Grantor
with the northeasterly sideline of land of Portland Terminal Com-
pany; thence running in a northwesterly direction along said
Portland Terminal Company sideline thirty (30) feet to a point;
thence running in a northeasterly direction parallel with and
thirty (30) feet distant from said westerly line of said Maine
Turnpike Authority ninety-one (91) rods, more or less, to the
southerly sideline of land of the City of Portland; thence run-
ning in an easterly direction along said southerly sideline of
land of the City of Portland, a distance of thirty (30) feet to
said westerly line of said Maine Turnpike right of way; thence
running in a southwesterly direction along said westerly line
of the Maine Turnpike right of way ninety-one (91) rods, more
or less, to the point of beginning.

Blue Rock
Quarry

to

Portland
Pipe Line
Corp

Ease

together with the right of ingress and egress for all purposes
incident to the grants herein made.

Also the right to lay, construct, maintain, operate, alter,
repair, remove and replace at any time an additional line or
lines of pipe alongside of the line or lines hereinbefore men-
tioned, as provided, upon payment to the Grantor(s), its/their
her/his/their administrators, executors, heirs, successors and assigns,
for each additional line so laid of an amount equal to the consid-
eration above named. Such additional line or lines shall be laid
subject to the same rights and conditions as apply to the original
line.

TO HAVE AND TO HOLD the said rights of way and easements with
all the privileges and appurtenances thereof unto the said Portland
Pipe Line Corporation, its successors and assigns, so long as a

460

pipe line is maintained on said premises. The Grantor(s) reserve(s) for itself, its ~~heirs, assigns, successors and assigns~~ and its ~~heirs, assigns, successors and assigns~~ successors and assigns, the right to fully use and enjoy said premises except as the same may be necessary or convenient for the purposes herein granted to the said Portland Pipe Line Corporation, its successors and assigns. The Grantor(s) covenant(s) to and with the Grantee, its successors and assigns, that the Grantor(s) is/are sole owner(s) of the above described premises and has/have good right, title and capacity to convey in the manner aforesaid the rights of way and easements hereby granted, and that said premises are free of all encumbrances.

The said Portland Pipe Line Corporation, for itself, its successors and assigns, by the acceptance hereof, agrees to pay to the Grantor(s) or its ~~heirs, assigns, successors and assigns~~ heirs, successors or assigns, any damages to grass, timber, growing crops and improvements, which may result from its acts or omissions in laying, maintaining, operating, replacing, changing or removing said pipe line(s), said damage, if any, if not mutually agreed upon to be ascertained and determined by three disinterested persons, one of whom shall be appointed by the Grantor(s) or its ~~heirs, assigns, successors and assigns~~ heirs, successors or assigns, one by Portland Pipe Line Corporation or its successors or assigns, and the third by the two so appointed; and the award of such three persons shall be final and conclusive.

Portland Pipe Line Corporation further agrees for itself, its successors and assigns, to bury and maintain all pipe lines so as not to interfere with the cultivation of said lands.

IN WITNESS WHEREOF the said Blue Rock Quarry

has caused this instrument to be sealed with its corporate seal and signed in its corporate name by P. V. Corey its President thereunto duly authorized, this 18th day of February in the year one thousand nine hundred and sixty-five.

Signed, Sealed and Delivered
in Presence of

E. G. Wilkins

By P. V. Corey
its President

(Corporate Seal)



State of Maine
Cumberland, SS.

1965.

Personally appeared the above named P. V. Corey President of said Grantor as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said corporation.

Before me,

Ernest G. Wilkins
Notary Public

FEB 26 1965

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE

Received at 10 H 58 M A. M. and recorded in

BOOK 2881 PAGE 459

Register

My Commission Expires
4-14-71

THIS INDENTURE made the 10th day of December, 1971, by and between BLUE ROCK INDUSTRIES (hereafter "Blue Rock"), a corporation organized and existing under the laws of Maine and located at Portland, in the County of Cumberland and State of Maine, and CENTRAL MAINE POWER COMPANY (hereafter "Central Maine"), a corporation organized and existing under the laws of the State of Maine and located at Augusta, in the County of Kennebec and State of Maine.

WHEREAS, Central Maine has acquired easements from the City of Portland and Blue Rock Quarry, predecessor in title to Blue Rock Industries, for the location and relocation of Central Maine's transmission line known as Section 188; and

WHEREAS, the parties desire to relocate a portion of the present transmission line as a result of an exchange of parcels of land between Blue Rock and the City of Portland; and

WHEREAS, Central Maine is willing to release a portion of its prior easement in exchange for a conveyance from Blue Rock of a new location.

NOW, THEREFORE, the Central Maine Power Company in consideration of One Dollar (\$1.00) and other valuable considerations (including the grant to it of an easement by Blue Rock, hereinafter described) paid by Blue Rock Industries, receipt whereof is hereby acknowledged, does hereby Remise, Release, Bargain, Sell and Convey and Quit Claim unto said Blue Rock Industries, its successors and assigns, forever:

All of its rights in and to a portion of a strip of land in part sixty (60) feet wide and in part seventy (70) feet wide, and being a portion of the easement conveyed to Central Maine by Blue Rock Quarry by deed dated September 20, 1963, and recorded in

Cumberland County Registry of Deeds in Book 2783, Page 216, said portion lying northerly, westerly and northeasterly of Central Maine's Pole Number 58 on its Section 188 to the southerly sideline of Brighton Avenue, the center of which pole is located One Thousand One Hundred and Fifty-Nine (1,159) feet on a true course of North 18° 06' East from land of the Portland Terminal Company and the point of beginning of said Central Maine easement, dated October 21, 1963.

TO HAVE AND TO HOLD, the aforementioned and bargained premises with all the privileges and appurtenances thereof to the Blue Rock Industries, its successors and assigns, to its

and their use and behoof forever.

And the Central Maine Power Company does Covenant with the said Blue Rock Industries, its successors and assigns, that it will warrant and defend the premises to the said Blue Rock Industries, its successors and assigns, forever against the lawful claims and demands of all persons claiming through or under it.

AND FURTHERMORE, the Blue Rock Industries in consideration of One Dollar (\$1.00) and other valuable considerations (including the above release to it of rights by Central Maine Power Company) paid by Central Maine Power Company, the receipt whereof is hereby acknowledged, does hereby Remise, Release, Bargain, Sell and Convey, and forever Quit Claim unto the said Central Maine Power Company, its successors and assigns forever, the perpetual right and easement to erect, construct, maintain, repair, rebuild, respace, replace, operate, patrol and remove electric transmission, distribution and communication lines consisting of suitable and sufficient poles and towers with sufficient foundations together with wires strung upon and extending between the same for the transmission of electric energy and intelligence, together with all necessary fixtures, anchors, guys, crossarms, and other electrical equipment and

appurtenances, over and across its land located partly in the City of Portland and partly in the City of Westbrook, County of Cumberland, State of Maine. The location of said easement is more particularly bounded and described as follows:

A strip of land so much of which lies thirty-five (35) feet westerly and thirty-five (35) feet easterly of the Central Maine Power Company survey base line and its projection at both ends as now staked out across land of said Blue Rock Industries. Said survey base line is more particularly described as follows: Beginning at a point which is the center of Central Maine Power Company's pole number 58 on its Section 188, said point being One Thousand One Hundred Fifty-Nine (1,159) feet on a true course of North 18° 36' East from land of the Portland Terminal Company and the point of beginning of said Central Maine easement, dated October 21, 1963; thence from said point of beginning North 21° 46' West, Four Hundred Thirty-Seven (437) feet to a point; thence North 45° 28' West, Two Hundred Ninety-One (291) feet to a point; thence North 13° 50' East, Two Hundred Fourteen (214) feet, more or less, to Brighton Avenue.

The above bearings refer to the true meridian.

Also any right, title and interest which Blue Rock may have, reversionary or otherwise, in and to said Brighton Avenue for the purpose of projecting the rights and easements herein conveyed across said Brighton Avenue to land of abutting owners adjoining the opposite side thereof.

Also the right and easement at any and all times to clear and keep clear said strip of all trees, timber and bushes growing on said strip by such means as Central Maine Power Company, its successors and assigns, may select; and the right to keep said strip free from any excavation (except as hereinafter expressly reserved to Blue Rock) and unoccupied by any buildings, structures or other material which in the opinion of the Central Maine Power Company, its successors and assigns, would interfere with or endanger the safe and convenient operation and maintenance of said transmission lines as now or hereinafter constructed over,

along and across said strip substantially along the location of the above-described survey base line.

RESERVING, however, to said Blue Rock Industries, its successors and assigns, the right to excavate earth and rock from the westerly side of that part of the above-described seventy (70) foot strip; provided, however, that said removal of earth and rock shall be restricted to the following conditions, viz: No earth or over burden shall be removed from the above-described seventy (70) foot strip nearer than five (5) feet distant westerly of the survey base line described herein and a one and one-quarter to one (1 1/4 to 1) slope to the west shall be left from said five (5) foot distance westerly of said survey base line and no rock shall be removed nearer than twenty-five (25) feet distant westerly of the said survey base line; provided always, that the removal of rock shall not disturb said one and one-quarter to one (1 1/4 to 1) slope.

FURTHER RESERVING, however, to said Blue Rock Industries / ^{its Successors and} Assigns the use of the most westerly ten (10) feet of the above-described strip provided that no structure of any kind except paving may be constructed on said ten (10) foot strip and provided further, that Blue Rock Industries' use of said ten (10) foot strip in no way interferes with Central Maine Power Company's use of said strip in connection with its operations of a public utility.

TO HAVE AND TO HOLD the aforegranted rights and easements with all the privileges and appurtenances thereof to the said Central Maine Power Company, its successors and assigns, to its and their use and behoof forever, and the said Blue Rock Industries does Covenant with the said Central Maine Power Company, its successors and assigns, that it and its successors and assigns, shall and will warrant and defend the same to the said Central Maine Power Company, its successors and assigns forever, against the lawful claims and demands of all persons or corporations

-4-

claiming by, through or under it.

IN WITNESS WHEREOF, the Blue Rock Industries has caused this instrument to be sealed with its corporate seal and signed in its corporate name by E. H. Wyman, Jr., its Vice President thereunto duly authorized and the said Central Maine Power Company has caused this instrument to be sealed with its corporate seal and signed in its corporate name by G. G. Beverage, its Assistant Treasurer, thereunto duly authorized, as of the day and year first above written.

Signed, Sealed and Delivered
in presence of

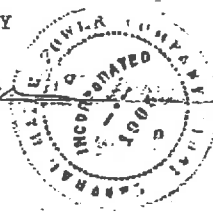
BLUE ROCK INDUSTRIES

By E. H. Wyman, Jr.
Its Vice President



CENTRAL MAINE POWER COMPANY

By G. G. Beverage
Its Assistant Treasurer



STATE OF MAINE

COUNTY OF CUMBERLAND

December 3, 1970

Then personally appeared the above named E. H. Wyman, Jr., Vice President of said Blue Rock Industries as aforesaid, and acknowledged the foregoing instrument to be his free act and

-6-

THIS INSTRUMENT WITNESSETH, That

Hansnyholm Hansen & Lena Hansen
of 78 Main St. Westbrook, Maine

hereinafter called Grantor, for and in consideration of the sum of **Five Dollars** the receipt of which is hereby acknowledged, and the further consideration of a sum equal to One Dollar (\$1.00) per lineal rod of pipe line crossing the property hereinafter described, to be paid or tendered on or before December 31, 1949, and before constructing the pipe line hereinafter mentioned, do hereby grant and convey unto SOCONY-VACUUM OIL COMPANY, INCORPORATED, a New York corporation having its principal office at 26 Broadway, New York, N. Y., hereinafter called Grantee, a right of way over, under and through Grantor's lands in the **Town of Westbrook** County of **Cumberland**, State of Maine, bounded and described as follows:

On the North by lands of **Maine Street**
On the East by lands of **Himmenn Land**
On the South by lands of **---**
On the West by lands of **Lufkin Land**

containing **25** acres, more or less, for the purposes, from time to time, of constructing at a location to be designated by Grantee herein, and maintaining and operating one or more lines of pipe with such valves and fittings as may be necessary or convenient, for the transportation of petroleum, gas and petroleum products and, from time to time, altering, enlarging, replacing, repairing and removing the same, with free ingress and egress for all of the above purposes, including the right to cut and fell any brush or trees along the line of construction. Should the additional consideration not be paid or tendered, as above provided, this grant shall terminate and not be binding on either party hereto.

The Grantor herein reserves the right to fully use and enjoy the said premises except for the purposes hereinbefore granted, and the Grantee hereby agrees to pay any damages which may arise to crops or fences from the laying, maintaining, operating or removing of said pipe lines; said damages, if not mutually agreed upon, to be ascertained and determined by three disinterested persons, one thereof to be appointed by the said Grantor, his heirs or assigns; one by the said Grantee, its successors or assigns, and the third by the two so appointed as aforesaid, and the written award of such three persons shall be final and conclusive.

Should more than one pipe line be laid under this grant, a sum equal to One Dollar per lineal rod of pipe crossing the property above described shall be paid for each additional line so laid, as well as the damages, as above provided, and all pipe lines laid under this grant shall be buried to a sufficient depth so as not to interfere with the cultivation of the soil.

TO HAVE AND TO HOLD the above granted easement and right of way, with the appurtenances thereof, unto it the said Grantee, its successors and assigns at all times hereafter. And the Grantor warrants said title.

I. Lena Hansen wife of the aforesaid Hansnyholm Hansen

in consideration aforesaid, do hereby relinquish all right by descent in and to the rights hereinabove granted.

It is hereby understood that the party securing this grant on behalf of Grantee is without authority to make and has not made any covenant, agreement or representation not herein expressed.

IN WITNESS WHEREOF, We have hereunto set our hands and seal this **20th** day of **August, 1947.**

Signed, Sealed and Delivered in the presence of:

V. M. Chesbro

Hans Nyholm Hansen Seal
Lena Hansen Seal

STATE OF MAINE COUNTY OF **Cumberland** ss. **Aug. 22nd 1947.**
Personally appeared the above named **Lena Hansen**

and acknowledged the foregoing instrument to be **her** free act and deed.

Before me, **John E. Goodwin** Notary Public Notarial Seal
My Commission Expires 6/30/49

Received **August 25**

19 47, at 10 h. 20 m. A. M., and recorded according to the original.

TRAFFIC IMPACT STUDY

DIRIGO PLAZA MIXED-USE COMMERCIAL DEVELOPMENT
WESTBROOK ARTERIAL, LARRABEE ROAD AND MAIN STREET
WESTBROOK, MAINE

Prepared for:

J & J GOVE DEVELOPMENT, LLC
Hampton Falls, New Hampshire

February 2016

Amended May 2016

Prepared by:

VANASSE & ASSOCIATES, INC.
35 New England Business Center Drive
Suite 140
Andover, MA 01810
(978) 474-8800
www.rdva.com

Copyright © 2016 by VAI
All Rights Reserved



35 New England Business Center
Drive
Suite 140
Andover, MA 01810-1066
Office 978-474-8800
Fax 978-688-6508
Web: www.rdva.com

Dear Reviewer:

This letter shall certify that this *Transportation Impact Assessment* has been prepared under my direct supervision and responsible charge. I am a Registered Professional Engineer (P.E.) in the State of Maine (Maine P.E. No. 9163) and hold Certification as a Professional Traffic Operations Engineer (PTOE) from the Transportation Professional Certification Board, Inc. of the Institute of Transportation Engineers (ITE) (PTOE Certificate No. 993). I am also a Fellow of the Institute of Transportation Engineers (FITE).

Sincerely,

VANASSE & ASSOCIATES, INC.

Jeffrey S. Dirk, P.E., PTOE, FITE
Principal

CONTENTS

EXECUTIVE SUMMARY	1
Recommendations	2
INTRODUCTION	10
Project Description	11
Study Methodology	12
EXISTING CONDITIONS	13
Existing Traffic Volumes	13
Pedestrian and Bicycle Facilities	15
Public Transportation	15
Spot Speed Measurements	16
Accident Data	17
FUTURE CONDITIONS	18
Future Traffic Growth	18
Project-Generated Traffic	21
Future Traffic Volumes - Build Condition	22
TRAFFIC OPERATIONS ANALYSIS	24
Methodology	24
Analysis Results	27
SIGHT DISTANCE EVALUATION	53
CONCLUSIONS AND RECOMMENDATIONS	55
Conclusions	55
Recommendations	56

FIGURES

No.	Title
1	Site Location Map
2	Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities
3	2015 Existing Design Hour Weekday Morning Peak-Hour Traffic Volumes
4	2015 Existing Design Hour Weekday Evening Peak-Hour Traffic Volumes
5	2015 Existing Design Hour Saturday Midday Peak-Hour Traffic Volumes
6	High Accident Location Map
7	2021 No-Build Design Hour Weekday Evening Peak-Hour Traffic Volumes
8	2021 No-Build Design Hour Saturday Midday Peak-Hour Traffic Volumes
9	Trip-Distribution Map
10	Project-Generated Weekday Evening Peak-Hour Traffic Volumes
11	Project-Generated Saturday Midday Peak-Hour Traffic Volumes
12	2021 Build Design Hour Weekday Evening Peak-Hour Traffic Volumes
13	2021 Build Design Hour Saturday Midday Peak-Hour Traffic Volumes
14	Conceptual Improvement Plan

TABLES

No.	Title
1	2015 Existing Traffic Volumes
2	Vehicle Travel Speed Measurements
3	Trip-Generation Summary
4	Level-of-Service Criteria for Unsignalized Intersections
5	Level-of-Service Criteria for Signalized Intersections
6	Signalized Intersection Level-of-Service Summary
7	Unsignalized Intersection Level-of-Service Summary
8	Sight Distance Measurements
9	Dirigo Plaza Transportation Improvement Program Summary
10	Mitigated Signalized Intersection Level-of-Service Summary

EXECUTIVE SUMMARY

Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated with the proposed construction of a mixed-use commercial development to be known as Dirigo Plaza and located on an assemblage of parcels bounded by Main Street (Route 25B), Westbrook Arterial, and Larrabee Road, in Westbrook, Maine (hereafter referred to as the “Project”). This assessment has been amended to incorporate specific comments received from the City of Westbrook and their independent review consultant, as well as subsequent consultation and meetings with the Maine Department of Transportation (MDOT), the Maine Turnpike Authority (MTA), the City of Portland and the Portland Area Comprehensive Transportation System (PACTS). Specifically, this amended assessment includes an expanded study area; updated traffic counts and safety analyses; revised trip-distribution pattern and trip assignments using the PACTS traffic model; and an expanded transportation improvement program.

This assessment was prepared in consultation with MDOT, the MTA, the Cities of Westbrook and Portland, and PACTS; was performed in accordance with the scoping determination issued by MDOT for the Project and Section 7, Traffic Study Requirements, of MDOT’s *Traffic Movement Permit* guidelines, and as amended thereafter based on comments received during the Project review process; and was conducted pursuant to the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports. Based on this amended assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the Institute of Transportation Engineers (ITE)¹ and applying appropriate adjustments to account for pass-by trips, the Project is predicted to generate approximately 13,366 new vehicle trips on an average weekday and 18,890 new vehicle trips on a Saturday (two-way volume over the operational day of the Project), with 351 new vehicle trips expected during the weekday morning peak-hour, 1,217 new vehicle trips expected during the weekday evening peak-hour and 1,853 new vehicle trips expected during the Saturday midday peak-hour;
2. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over anticipated future conditions without the Project (No-Build conditions) at the majority of the study intersections;

¹*Trip Generation*, 9th Edition; Institute of Transportation Engineers; Washington, DC; 2012.

3. At those locations where the Project was shown to have a pronounced impact or where a capacity or safety deficiency was identified, specific improvement measures have been identified to reconcile these conditions or to advance design plans for a future improvement project by others; and
4. Lines of sight to and from the Project site driveway intersections with Main Street, Westbrook Arterial and Larrabee Road were found to exceed the required minimum distance for the intersections to function in a safe and efficient manner based on the appropriate approach speed along the intersecting roadway.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

RECOMMENDATIONS

A detailed and expanded transportation improvement program has been developed that is designed to provide safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access to the Project site is proposed as follows: two (2) driveways that will intersect Larrabee Road and will align with Terminal Street and Saunders Way, respectively, with the northernmost driveway (opposite Terminal Street) to be placed under traffic signal control (flashing operation until full activation is warranted); an existing driveway that serves the Project site that intersects Main Street opposite the driveway to the Westbrook Crossing shopping center that will be placed under traffic signal control; a right-turn, entrance only driveway that will intersect Main Street approximately 100 feet east of Larrabee Road; and a full access driveway that will intersect Westbrook Arterial approximately 550 feet east of Larrabee Road that will be placed under traffic signal control. As discussed with MDOT, it is proposed that the rights to construct a third full access driveway on Larrabee Road (to be located between the Westbrook Arterial and the railroad tracks) be transferred to Westbrook Arterial in order to allow for the construction of the full access driveway on Westbrook Arterial. The following recommendations are offered with respect to the design and operation of the Project site driveways:

- The Project site driveway intersections with Main Street (full access driveway to be located opposite the driveway to Westbrook Crossing) and Westbrook Arterial should be placed under traffic signal control. The proposed traffic signals should be interconnected and coordinated with the adjacent traffic signals on Main Street and Westbrook Arterial.
- The Main Street approach to the full access Project site driveway should provide a westbound left-turn, while maintaining the eastbound left-turn lane to the Westbrook Crossing shopping center and two (2) through travel lanes in both directions.

- The Westbrook Arterial approaches to the Project site driveway should provide a right-turn lane and two (2) through travel lanes on the westbound approach, and a left-turn lane and two (2) through travel lanes on the eastbound approach.
- The signalized Project site driveways should accommodate two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or a raised median a minimum of 6-feet in width.
- The north Project site driveway on Larrabee Road (opposite Terminal Street) should be placed under traffic signal control and operated in flashing mode (flashing yellow for Larrabee Road and flashing red for Terminal Street and the Project site driveway) until such time as the required warrants to justify full activation of the traffic control signal are met (see *Traffic Monitoring Program*). Larrabee Road approaching the intersection should be widened to provide a left-turn lane in both the north and southbound directions, with the Project site driveway providing two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or raised median a minimum of 6-feet in width. Vehicles exiting the Project site driveway and Terminal Street should be placed under STOP-sign control with a marked STOP-line provided until full activation of the traffic control signal.
- The south Project site driveway on Larrabee Road (opposite Saunders Way) should provide two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or raised median a minimum of 6-feet in width, with vehicles exiting the driveway placed under STOP-sign control with a marked STOP-line provided. In addition, Larrabee Road approaching the intersection should be widened to provide a left-turn lane in both the north and southbound directions.
- All signs and pavement markings to be installed within the Project site shall conform to the applicable standards of the *Manual on Uniform Traffic Control Devices (MUTCD)*.²
- Sidewalks should be provided within the Project site linking the proposed buildings to the sidewalk infrastructure along Main Street.
- Wheelchair ramps should be provided for crossing the Project site driveways where a sidewalk is present and at locations internal to the Project site where pedestrian crossings are proposed.
- Signs and landscaping to be installed internal to the Project site and at the Project site driveway intersections should be designed and maintained so as not to restrict lines of sight.
- Snow windrows along the Project site frontage within the sight triangle areas of the Project site driveways shall be promptly removed where such accumulations would exceed 2.5 feet in height.

Off-Site

The following off-site improvements are proposed to off-set the impact of the Project and improve traffic operations, and will be implemented by the Project proponent prior to the issuance of a Certificate of Occupancy for the Project and subject to receipt of all necessary rights, permits and approvals:

²*Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

Westbrook:

- ***William Clarke Drive Traffic Signal System*** – Design and implement an optimal traffic signal timing, phasing and coordination plan, to include the following intersections:
 1. William Clarke Drive at Mechanic Street
 2. William Clarke Drive at Spring Street
 3. William Clark Drive at Stroudwater Street
 4. William Clarke Drive at Hannaford Drive
 5. William Clarke Drive at Main Street Connector

The improvements will include the installation of all necessary hardware and appurtenances required to provide a fully functioning, coordinated traffic signal system inclusive of the above intersections.

- ***William Clarke Drive at New Gorham Road and Main Street, and William Clarke Drive at Saco Street*** - Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes. The traffic signal system at these two (2) separate intersections currently operates from a common traffic signal controller. To the extent desired by the City, the traffic signal systems at these intersections will be modified to operate from separate traffic signal controllers, and will be interconnected and coordinated.
- ***Cumberland Street at Bridge Street*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Main Street at Forest Street*** – Convert the Main Street westbound right-turn lane to a through/right-turn lane and design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Main Street at Larrabee Road*** – Remove the raised triangular islands on the Larrabee Road approaches to eliminate the right-turn slip-ramps; install crosswalks, wheelchair ramps and pedestrian traffic signal equipment (push buttons, signal indications and phasing); reconstruct/upgrade/replace traffic signal equipment as necessary to accommodate the intersection improvements; and interconnect and coordinate with adjacent traffic signals at the Project site driveway/Westbrook Crossing shopping center and Brighton Avenue/Riverside Street intersections.
- ***Westbrook Arterial at Larrabee Road*** – Design and implement an optimal traffic signal timing and phasing plan, and interconnect and coordinate with the proposed traffic control signal to be installed at the Project site driveway. These improvements include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Cumberland Street at Park Road*** – Perform a detailed Traffic Signal Warrants Analysis (TSWA) in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

- ***Stroudwater Street at Forest Street*** - Perform a detailed TSWA in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

Portland:

- ***Brighton Avenue Traffic Signal System*** – Design and implement an optimal traffic signal timing, phasing and coordination plan, to include the following intersections:

1. Brighton Avenue at Riverside Street
2. Brighton Avenue at City Hospital Drive
3. Brighton Avenue at Taft Avenue
4. Brighton Avenue at Rand Road and Cabot Street
5. Brighton Avenue at Rowe Avenue and Warwick Street
6. Brighton Avenue at Capisic Street, Kent Street and Hillcrest Avenue
7. Brighton Avenue at Woodford Street, Colonial Road and Columbia Road
8. Brighton Avenue at Stevens Avenue
9. Brighton Avenue at St. John Street and Devonshire Street

The improvements will include the installation of all necessary hardware and appurtenances required to provide a fully functioning, coordinated traffic signal system inclusive of the above intersections.

- ***Riverside Street Traffic Signal System*** – Design and implement an optimal traffic signal timing, phasing and coordination plan, to include the following intersections:

1. Riverside Street at Warren Avenue
2. Riverside Street at Home Depot Drive
3. Riverside Street at Larrabee Road
4. Riverside Street at Westbrook Crossing Drive
5. Riverside Street at Brighton Avenue

The improvements will include the installation of all necessary hardware and appurtenances required to provide a fully functioning, coordinated traffic signal system inclusive of the above intersections.

- ***Westbrook Arterial at Rand Road and the I-95 Ramps*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.

- ***Riverside Street at Forest Avenue*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.

- ***Capisic Street at Frost Street*** - Perform a detailed TSWA in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

Safety Improvements

The following safety-related improvements will be completed in conjunction with the Project and will be implemented by the Project proponent prior to the issuance of a Certificate of Occupancy for the Project and subject to receipt of all necessary rights, permits and approvals:

Westbrook:

➤ *Main Street at Larrabee Road*

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ *Main Street at Cumberland Street, Warren Avenue and Harnois Avenue* – The City of Westbrook will be implementing specific improvements at these intersections that includes the installation of traffic control signals to enhance safety and facilitate pedestrian and bicycle access. No additional improvements are required at this time.

Portland:

➤ *Riverside Street at Larrabee Road and the I-95 Ramps*

- i.) Design and construct geometric and traffic control improvements at the intersection to include the elimination of the channelized right-turn slip-ramp on the Riverside Street northbound approach; realignment of the Larrabee Road eastbound approach and the accompanying departure as it approaches the toll plaza; and the addition of a right-turn lane on the Larrabee Road westbound exit from the toll plaza area and elimination of the existing channelized right-turn slip-ramp;
- ii.) Review and upgrade the existing traffic signal system to meet current design standards which will include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- iii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iv.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Riverside Street at Forest Avenue***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Riverside Street at Warren Avenue***

- iv.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- v.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- vi.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Brighton Avenue at Stevens Avenue***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Capisic Street at Frost Street***

- i.) Selective trimming of vegetation along Capisic Street to improve sight lines;
- ii.) Install an “Intersection Ahead” (graphic symbol) warning sign on Capisic Street west of the intersection;
- iii.) Install a “Stop Sign Ahead” (graphic symbol) warning sign on Frost Street approaching the intersection; and

- iv.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

Transportation Demand Management

The Project site is ideally situated to take advantage of available public transportation resources in the area, including the METRO bus service operated by the Greater Portland Transit District. In an effort to encourage use of alternative modes of transportation to single-occupant vehicles, the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

- Information regarding public transportation services, maps, schedules and fare information will be made available to employees of the Project and posted in a central location within each building;
- A packet will be provided to new employees of the Project detailing available public transportation services, bicycle and walking alternatives, and commuter options;
- Pedestrian accommodations will be incorporated within the Project site and extending to Main Street;
- The planned improvements to Main Street, Westbrook Arterial and Larrabee Road that will be completed as a part of the Project will incorporate bicycle lanes and/or widened shoulders to accommodate bicycle travel to the extent that public right-of-way is available for such accommodations.
- A METRO bus stop will be provided along Main Street or at an appropriate location determined in consultation with Greater Portland Transit District; and
- Secure bicycle parking will be provided, including both exterior bicycle racks and weather protected bicycle parking in a secure area where such accommodations can be made.

Traffic Monitoring Program

The Project proponent will conduct a post-development traffic monitoring program in order to validate the trip projections for the Project and to determine if and when the installation of a traffic control signal may be justified at the Larrabee Road/Project site Driveway/Terminal Street intersection. The monitoring program will include:

- i) Obtaining traffic volume information over a continuous seven day, weeklong period at the driveways serving the Project site;
- ii) Performing a continuous 12-hour (7:00 AM to 7:00 PM) manual turning movement and vehicle classification count on an average weekday at the Project site driveway intersection with Larrabee Road and Terminal Street; and
- iii) Completing a detailed TSWA at the Larrabee Road/Project site Driveway/Terminal Street intersection in accordance with the methodology established in the MUTCD.

The monitoring program will commence six (6) months after issuance of the first Certificate of Occupancy for the Project and will continue on an annual basis thereafter for a period not to exceed 2-years after Project completion and occupancy. The results of the monitoring program will be summarized in a report to be provided to the City of Westbrook within 2-months after the

completion of the data collection effort. When full activation of the traffic control signal is found to be warranted at the Larrabee Road/Project site Driveway/Terminal Street intersection, the Project proponent will undertake the required actions and obtain all necessary approvals to transition the traffic signal system from flashing operation to full operation.

Loading and Deliveries

The Project has been designed to accommodate all loading and delivery functions on-site in a safe and efficient manner. Designated loading areas will be provided on-site to accommodate deliveries. Refuse/recycling will be accommodated in centralized areas for each building. Truck routes and hours of deliveries will be coordinated to minimize truck activity during the commuter peak hours. Reasonable efforts will be made to use service vendors currently delivering in the vicinity of the Project site in an effort to reduce the overall number of new trucks in the area.

With implementation of the above recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

INTRODUCTION

Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated the proposed construction of a mixed-use commercial development to be known as Dirigo Plaza and located on an assemblage of parcels bounded by Main Street (Route 25B), Westbrook Arterial (Route 25), and Larrabee Road, in Westbrook, Maine (hereafter referred to as the “Project”). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing traffic conditions and future traffic conditions, both with and without the Project, in Westbrook along Main Street, Cumberland Street, Westbrook Arterial, William Clarke Drive, Stroudwater Street, Spring Street, Forest Street and Larrabee Road, and in Portland along Brighton Avenue, Riverside Street, Woodford Street, Forest Avenue, Capisic Street and Rand Road, as well as at the Interstate 95 (I-95)/Maine Turnpike interchanges with Rand Road (Exit 47) and Larrabee Road (Exit 48).

This assessment has been amended to incorporate specific comments received from the City of Westbrook and their independent review consultant, as well as subsequent consultation and meetings with the Maine Department of Transportation (MDOT), the Maine Turnpike Authority (MTA), the City of Portland and the Portland Area Comprehensive Transportation System (PACTS). Specifically, this amended assessment includes an expanded study area; updated traffic counts and safety analyses; revised trip-distribution pattern and trip assignments using the PACTS traffic model; and an expanded transportation improvement program.

PROJECT DESCRIPTION

As proposed, the Project will entail the construction of a 489,461± square foot (sf) mixed-use commercial development that will encompass multiple buildings containing a mix of retail, consumer service and restaurant uses, including a membership based vehicle fueling facility that will provide four (4) pumps and eight (8) vehicle fueling positions (vfps).³ The Project site encompasses property in both Westbrook and Portland; however, the planned development will occur entirely within the Westbrook properties. The development area includes two (2) lots (Westbrook Tax Map 42B Lots 11 and 14) that are bisected by a railroad right-of-way (Westbrook Tax Map 42B Lot 15) that total approximately 63.7± acres of land bounded by Main Street and commercial properties to the north; Westbrook Arterial to the south; I-95/ Maine Turnpike and areas of open and wooded space to the east; and Larrabee Road, commercial properties and areas of open and wooded space to the west. The Project site has an existing access easement over the tracks which will be utilized to connect the north and south portions of the Project. Figure 1 depicts the Project site location in relation to the existing roadway network.

Pike Industries currently uses the property as an aggregates and bituminous concrete manufacturing facility. Pike Industries markets a wide range of aggregate products and the Main Street office has a truck scale for sale of products to contractors. Portions of the Project site have been excavated to obtain and process aggregate materials. The site currently has three (3) driveways on Main Street, two (2) of which are used on a daily basis, and a driveway on Larrabee Road north of the railroad tracks that bisect the site. Rights for an additional two (2) driveways on Larrabee Road between Westbrook Arterial and the railroad tracks have been established by the Maine Department of Transportation (MDOT) to serve the Project site which have not yet been constructed.

Access to the Project site is proposed as follows: two (2) driveways that will intersect Larrabee Road and will align with Terminal Street and Saunders Way, respectively, with the northernmost driveway (opposite Terminal Street) to be placed under traffic signal control (flashing operation until full activation is warranted); an existing driveway that serves the Project site that intersects Main Street opposite the driveway to the Westbrook Crossing shopping center that will be placed under traffic signal control; a right-turn, entrance only driveway that will intersect Main Street approximately 100 feet east of Larrabee Road; and a full access driveway that will intersect Westbrook Arterial approximately 550 feet east of Larrabee Road that will be placed under traffic signal control. As discussed with MDOT, it is proposed that the rights to construct a third full access driveway on Larrabee Road (to be located between the Westbrook Arterial and the railroad tracks) be transferred to Westbrook Arterial in order to allow for the construction of the full access driveway on Westbrook Arterial.

On-site parking will be provided for 2,221 vehicles, including 65 handicapped accessible spaces, or a parking ratio of approximately 4 spaces per 1,000 sf, which requires a waiver from City Zoning requirements for the proposed uses.

³The vehicle fueling facility will serve members of an on-site retail tenant only.

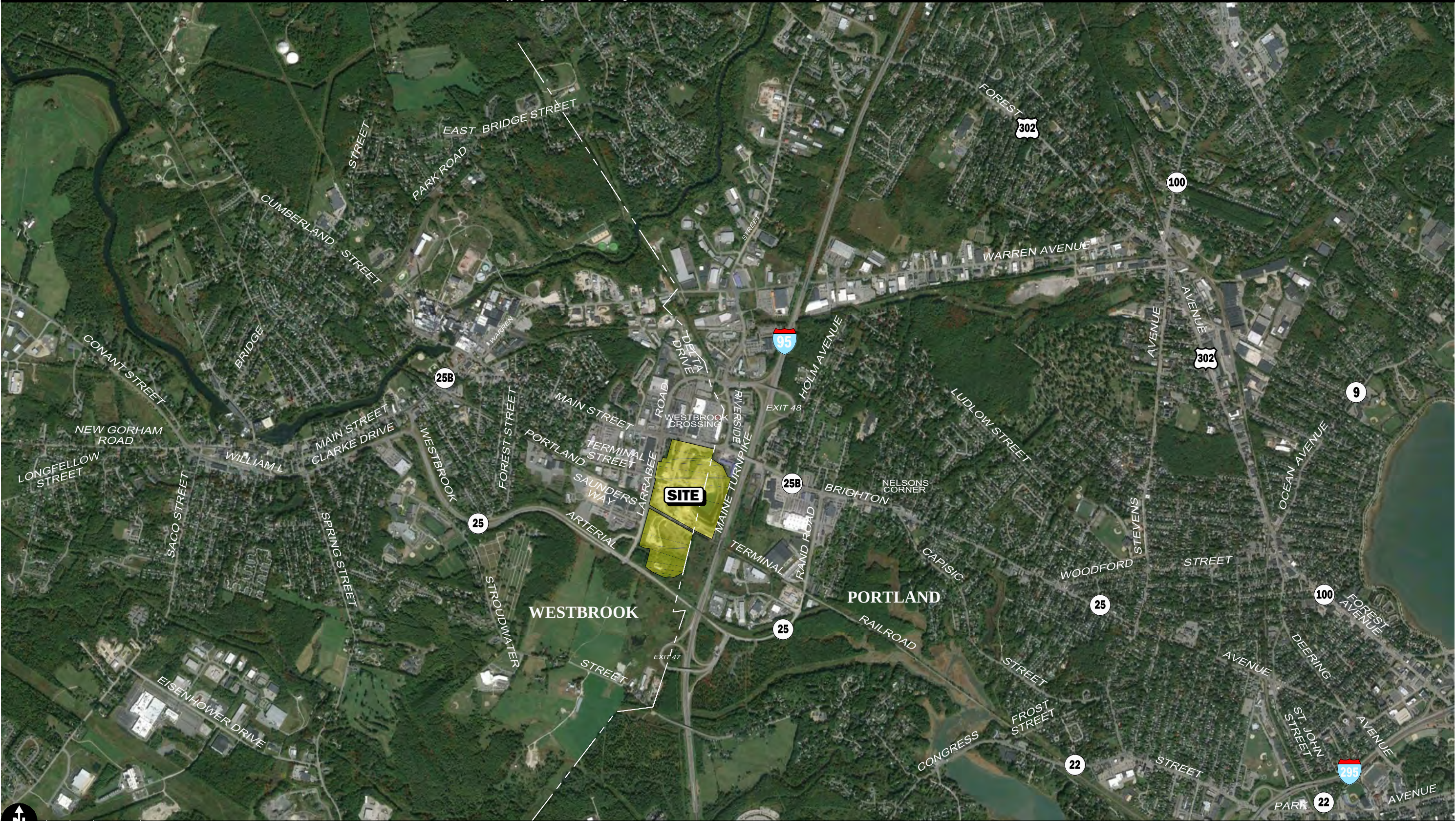


Figure 1
Site Location Map

STUDY METHODOLOGY

This study was prepared in consultation with MDOT, the MTA, the Cities of Westbrook and Portland, and PACTS; was performed in accordance with: i) the scoping determination issued by MDOT for the Project and as amended thereafter based on comments received during the Project review process; ii) Section 7, Traffic Study Requirements, of MDOT's *Traffic Movement Permit* guidelines; and iii) the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports; and was conducted in three distinct stages.

The first stage involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics; pedestrian and bicycle facilities; public transportation services; observations of traffic flow; and collection of daily and peak period traffic counts.

In the second stage of the study, future traffic conditions were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future traffic demands due to expected traffic growth independent of the Project. A five-year time horizon (2021) was selected for analyses consistent with MDOT's *Traffic Movement Permit* guidelines and represents the anticipated completion date of the Project. The traffic analysis conducted in stage two identifies existing or projected future roadway capacity, traffic safety, and site access issues.

The third stage of the study presents and evaluates measures to address traffic and safety issues, if any, identified in stage two of the study.

EXISTING CONDITIONS

A comprehensive field inventory of existing conditions within the study area was conducted in September, October and November 2015, and was updated in March 2016 to include the expanded study area. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The initial study area that was assessed for the Project was defined as a part of the scoping determination that was issued by MDOT and included input from the Cities of Westbrook and Portland, and encompassed 24 intersections in Westbrook and 14 intersections in Portland. As a result of the subsequent review of the initial materials submitted in support of the Project and after incorporating the Project into the PACTS traffic model, the study area was refined and expanded to include four (4) additional intersections in Westbrook and six (6) additional intersections in Portland, and the elimination of two (2) intersections from the original study area in Westbrook and three (3) intersections in Portland, resulting in a study area that included a total of 43 intersections.

Figure 2 graphically depicts the study area roadways and intersections, and includes a summary of traffic control, lane use, lane width and pedestrian facility locations within the study area as observed in the Fall/Winter 2015 and updated in March 2016. The detailed field inventories for each of the study area intersections are included in the Technical Appendix. In order to assist VAI in the data collection effort, Milone & MacBroom, the Traffic Engineering consultant for the City of Westbrook, provided field inventories and verified the traffic signal timing and phasing for the signalized study area intersections.

EXISTING TRAFFIC VOLUMES

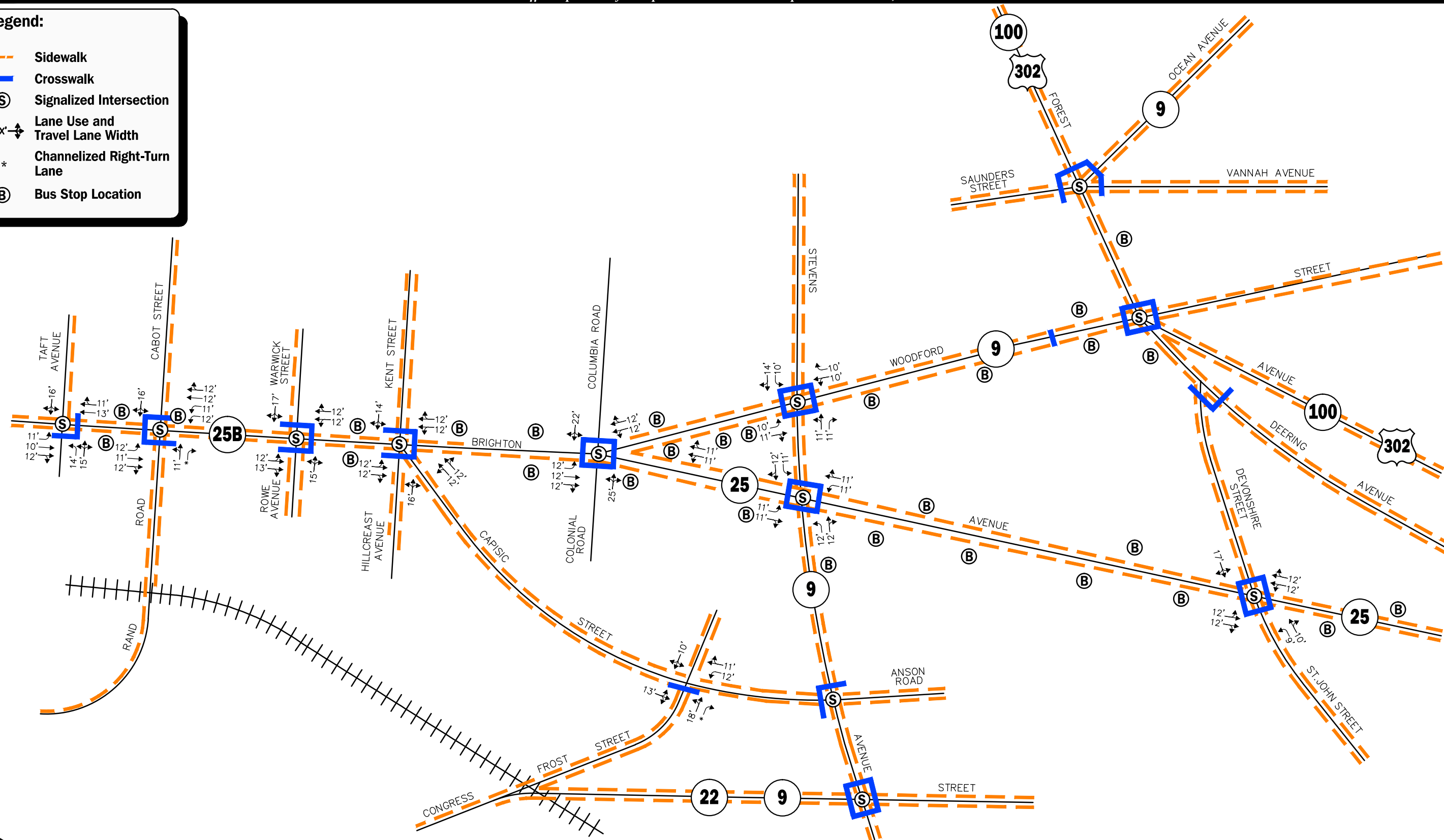
In order to determine existing traffic-volume demands and flow patterns within the study area, automatic traffic recorder (ATR) counts, manual turning movement counts (TMCs) and vehicle classification counts were completed in September and October 2015, and in March 2016 (at the expanded study area intersections) while public schools were in regular session. The ATR counts were conducted on Main Street, Westbrook Arterial and Larrabee Road in the vicinity of the Project site in order to record weekday daily traffic conditions over an extended period, with weekday morning (7:00 to 9:00 AM), weekday evening (4:00 to 6:00 PM) and Saturday midday (11:00 AM to 2:00 PM) peak period manual TMCs performed at the study intersections. These



Legend:

- Sidewalk
- Crosswalk
- Ⓢ Signalized Intersection
- xx' ↔ Lane Use and Travel Lane Width
- * Channelized Right-Turn Lane
- Ⓟ Bus Stop Location

SEE FIGURE 2A



Not To Scale



Figure 2B
Existing Intersection
Lane Use, Travel Lane Width
and Pedestrian Facilities

time periods were selected for analysis purposes as they are representative of the peak traffic volume hours for both the Project and the adjacent roadway network.

Traffic Volume Adjustments

In accordance with MDOT requirements, the raw traffic count data was adjusted to the 30th highest hour (6th highest week of the year) in order to develop design condition traffic volumes from which to assess the impact of the Project on the roadway network. In order to determine the appropriate adjustment factor, traffic count data available from MDOT was reviewed for Urban Type 1 Roadways, the functional classification for Main Street (Route 25B) and Westbrook Arterial (Route 25).⁴ Based on a review of this data, it was determined that the September and October traffic count data required an adjustment (increase) of 3.4 percent in order to be representative of the 30th highest design hour, and that the March data required an adjustment of 7.6 percent. For the purpose of this analysis, the adjusted March 2016 traffic volume data was considered to be representative of (approximate) 2015 Design Hour traffic volumes given that the majority of the traffic count data was obtained in 2015 and that there were no projects or other events identified that would materially impact the baseline traffic volume data.

The 2015 Existing Design Hour traffic volumes are summarized in Table 1, with the weekday morning, weekday evening and Saturday midday peak-hour traffic volumes graphically depicted on Figures 3, 4 and 5, respectively. Note that the peak-hour traffic volumes presented in Table 1 were obtained from the TMCs and are reflected on the aforementioned figures.

Table 1
2015 EXISTING DESIGN HOUR TRAFFIC VOLUMES

Location	AWT ^a	Saturday ^b	VPH ^c	K Factor ^d	Directional Distribution
<i>Main Street, west of Riverside Street:</i>	17,550	14,530	--	--	--
Weekday Morning Peak Hour (7:45 – 8:45 AM)	--	--	1,568	8.9	59.3% EB
Weekday Evening Peak Hour (4:15 – 5:15 PM)	--	--	2,038	11.6	62.1% WB
Saturday Midday Peak Hour (11:45 AM – 12:45 PM)	--	--	1,776	12.2	51.5% WB
<i>Westbrook Arterial, east of Larrabee Road:</i>					
Weekday Morning Peak Hour (7:15 – 8:15 AM)	16,710	11,420	--	--	--
Weekday Evening Peak Hour (4:30 – 5:30 PM)	--	--	1,522	9.1	64.7% EB
Saturday Midday Peak Hour (11:30 AM – 12:30 PM)	--	--	1,515	9.1	54.2% WB
	--	--	970	8.5	52.1% EB
<i>Larrabee Road, north of Westbrook Arterial:</i>					
Weekday Morning Peak Hour (8:00 – 9:00 AM)	4,975	3,575	--	--	--
Weekday Evening Peak Hour (4:15 – 5:15 PM)	--	--	694	13.9	63.8% NB
Saturday Midday Peak Hour (11:15 AM – 12:15 PM)	--	--	1,016	20.4	66.8% SB
	--	--	725	20.3	52.0% SB

^aAverage weekday traffic in vehicles per day.

^bAverage Saturday traffic in vehicles.

^cVehicles per hour.

^dPercent of daily traffic occurring during the peak-hour.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.

⁴MDOT Traffic Volume Counts, 2014 Annual Report, Urban Group 1 Roadways.

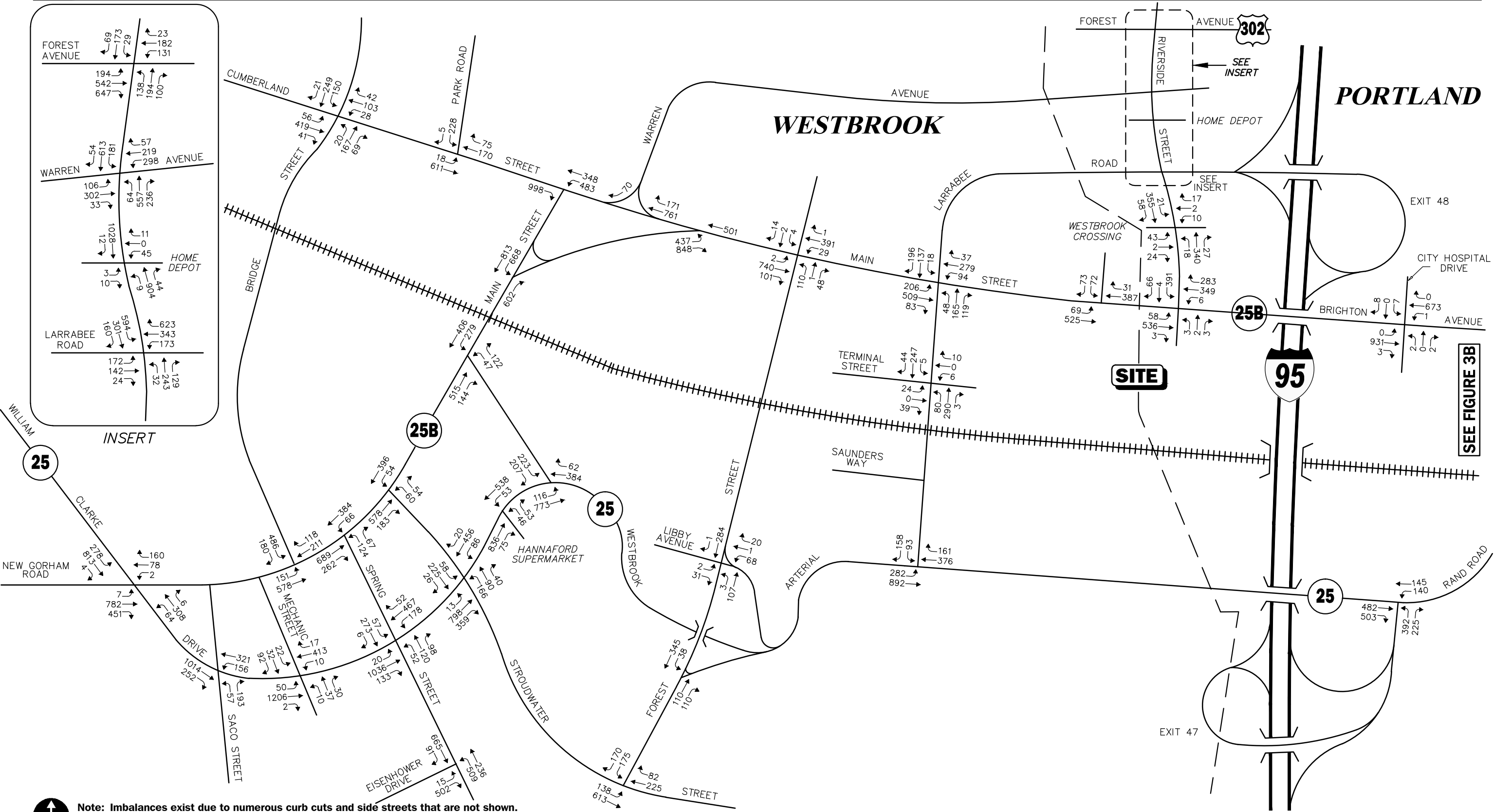


Figure 3A
2015 Existing Design-Hour
Weekday Morning
Peak Hour Traffic Volumes



Vanasse & Associates, Inc.
Transportation Engineers & Planners

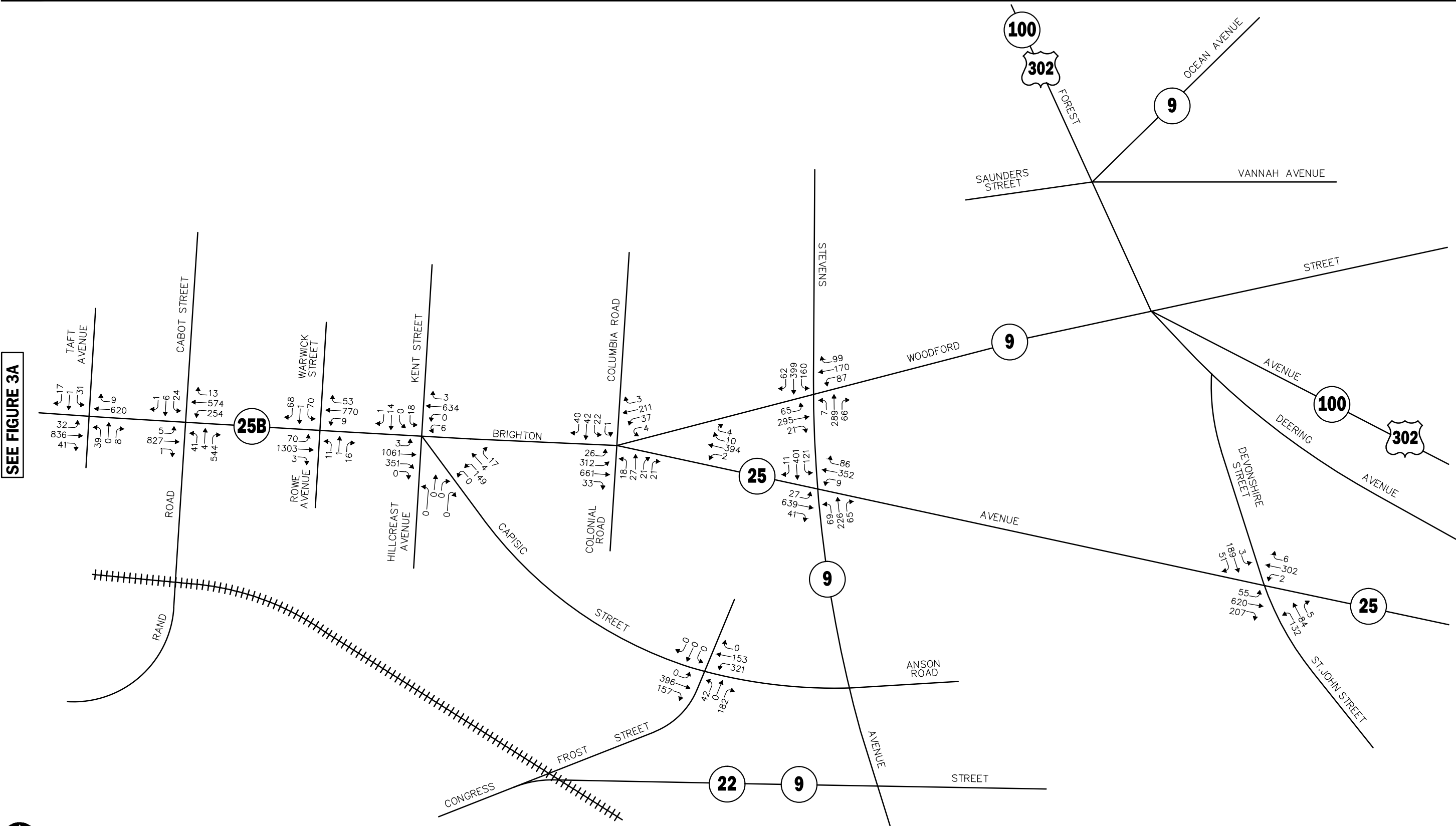
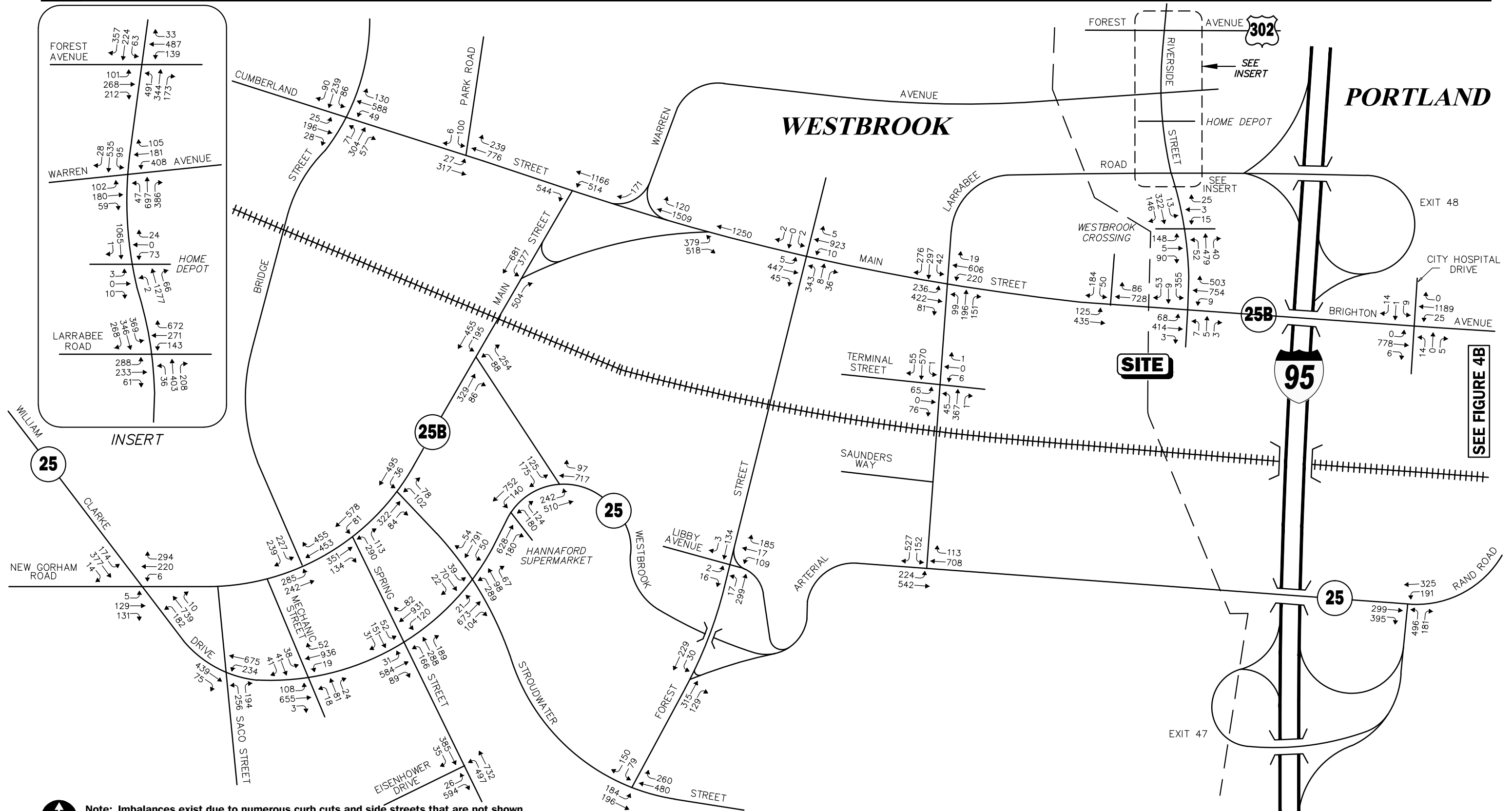


Figure 3B
2015 Existing Design-Hour
Weekday Morning
Peak Hour Traffic Volumes



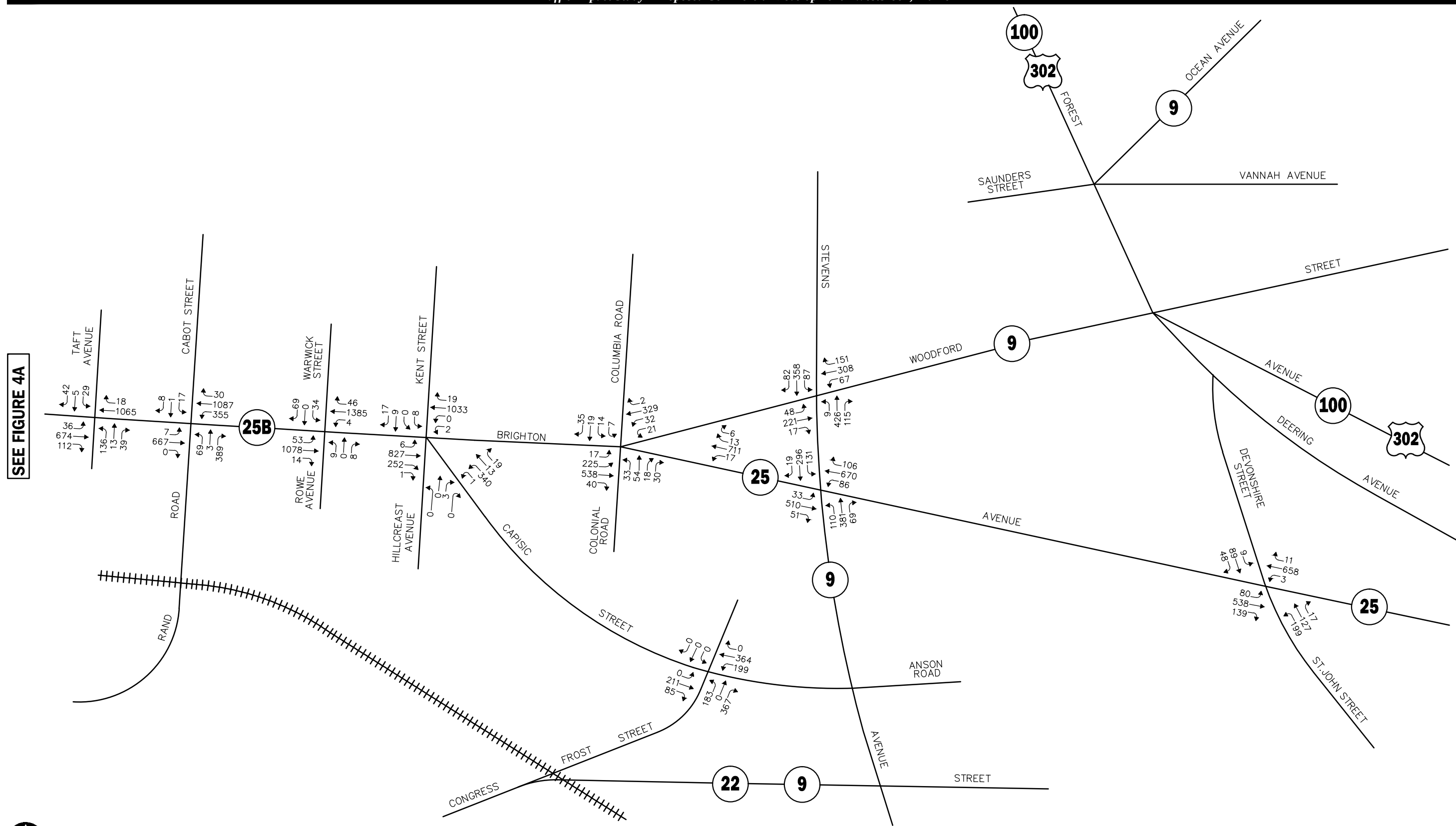
Not To Scale



Vanasse & Associates, Inc.
Transportation Engineers & Planners

Figure 4A

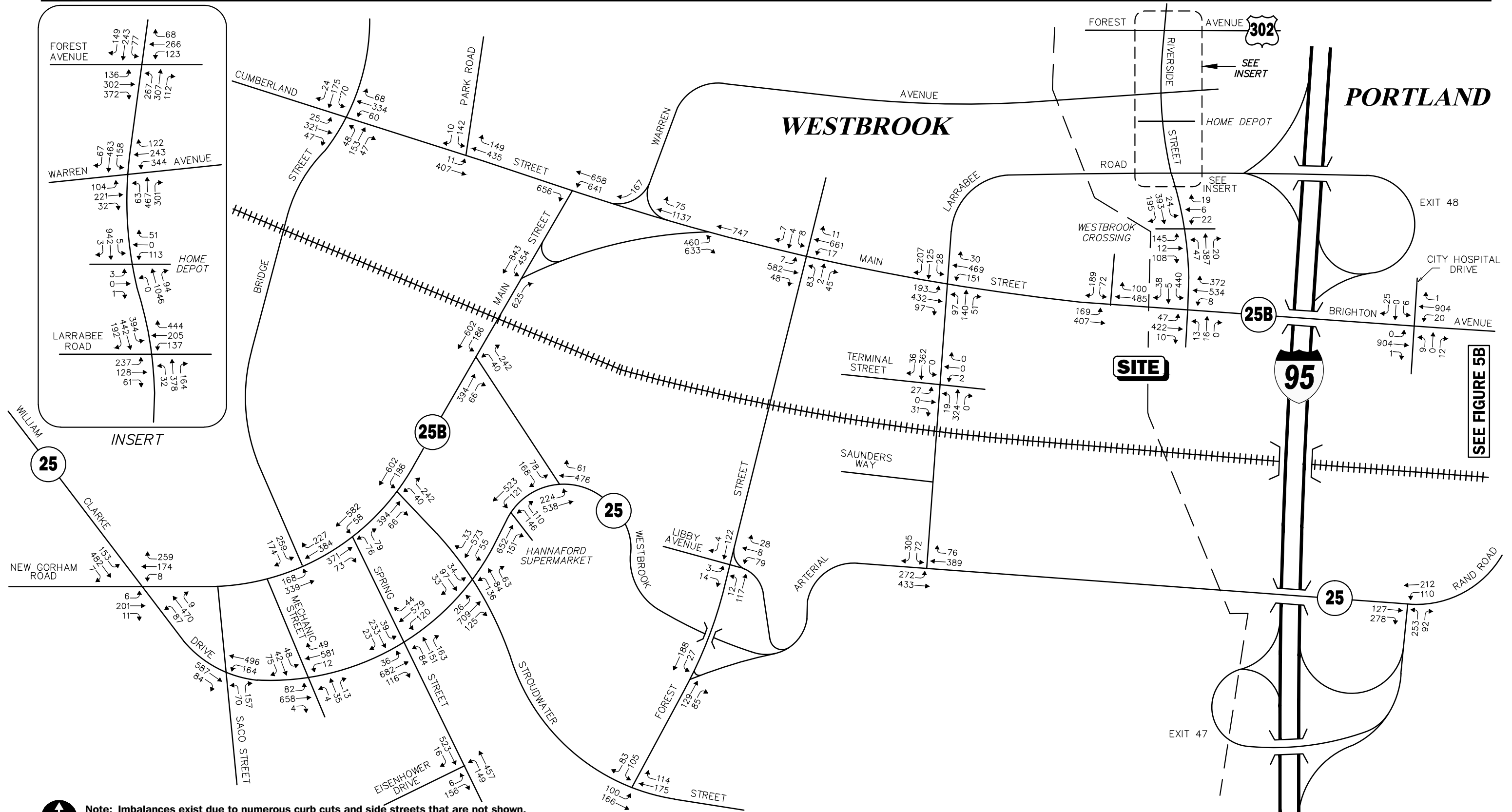
2015 Existing Design-Hour Weekday Evening Peak Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



Figure 4B
2015 Existing
Weekday Evening
Peak Hour Traffic Volumes

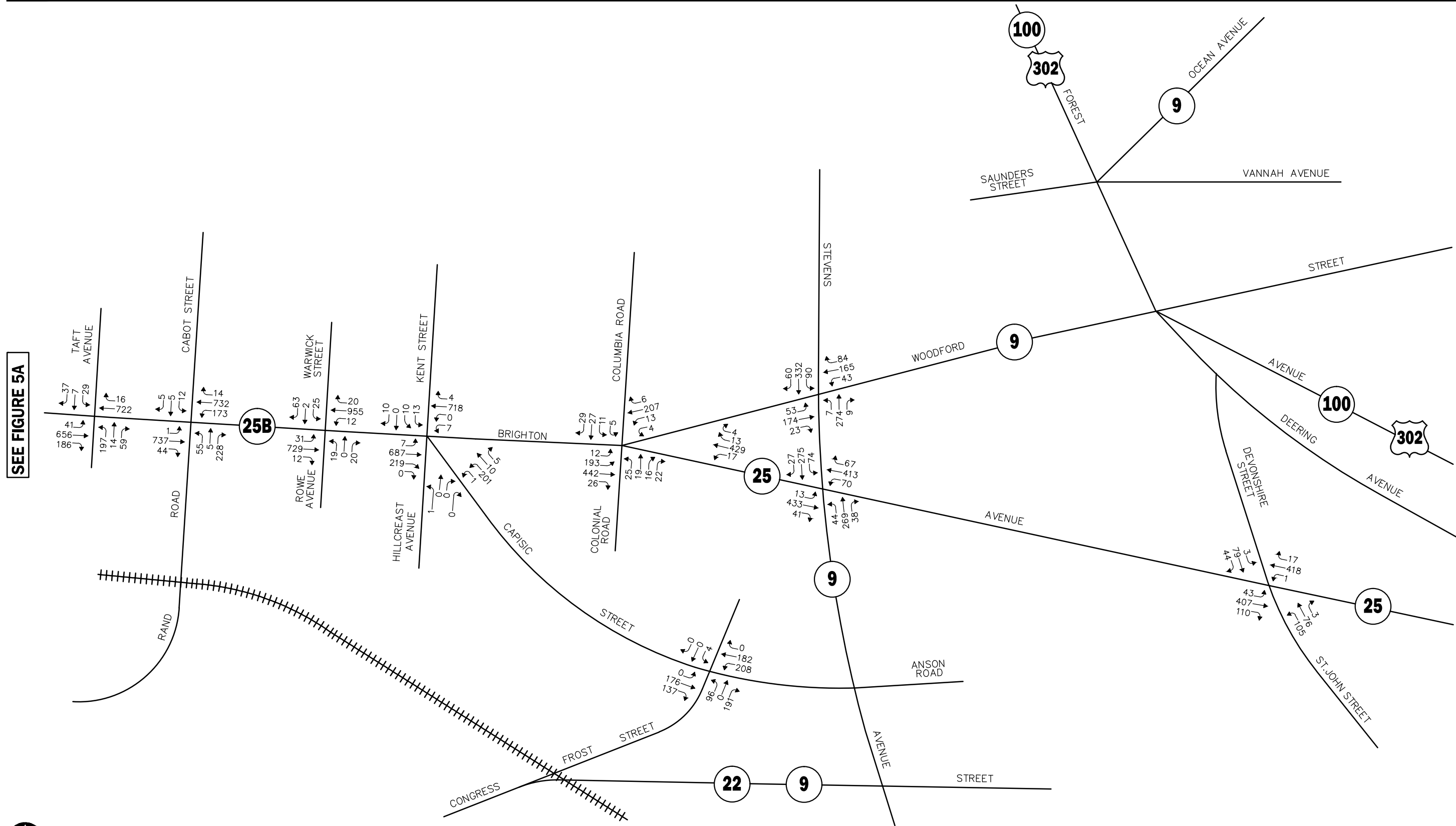


Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



Figure 5A

2015 Existing Design-Hour
Saturday Midday
Peak Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



Figure 5B
2015 Existing Design-Hour
Saturday Midday
Peak Hour Traffic Volumes

PEDESTRIAN AND BICYCLE FACILITIES

A review of pedestrian and bicycle facilities within the study area was undertaken in conjunction with the field inventories and consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadways and at the study intersections, as well as the location of existing and planned future bicycle facilities. As detailed on Figure 2, sidewalks are generally provided along one or both sides of the study area roadways, with marked crosswalks provided at the study intersections. Notable exceptions are Westbrook Arterial, Larrabee Road and Warren Road, where sidewalks are not currently provided or are discontinuous. In addition, we note that the City of Westbrook identified the Main Street/Larrabee Road intersection as a “pedestrian challenged area” in the 2012 *City Comprehensive Plan*.

Bicycle accommodations are provided within the study area by way of marked bicycle lanes, “sharrow” pavement markings or signs indicating “Share the Road”. In the downtown area, the Westbrook Riverwalk provides an off-road pathway along the south side of the Presumpscot River. In addition, the City of Westbrook is a part of the Sebago to the Sea Trail Coalition, which seeks to connect Casco Bay to Sebago Lake via a regional trail system. The trail connection through Westbrook would follow the existing Presumpscot River Trail along the north side of the river from Bridgeton Road to Halidon Road, transitioning to an on-road facility to East Bridge Street and Bridge Street, and then off-road into Windham along the MDOT rail right-of-way.

The planned improvements to Main Street, Westbrook Arterial and Larrabee Road that will be completed as a part of the Project will incorporate bicycle lanes and/or widened shoulders to accommodate bicycle travel to the extent that public right-of-way is available for such accommodations.

PUBLIC TRANSPORTATION

Public transportation services are provided within the study area by the Greater Portland Transit District, which operates the METRO bus service. The METRO bus provides service from the Portland Transportation Center (PTC) and includes eight (8) routes as follows:

- M1 - Congress Street, Munjoy Hill/Mercy at the Fore/PTC
- M2 – Riverton, Forest Avenue
- M4 – Westbrook, Brighton Avenue
- M5 – Maine Mall, Portland Jetport/Outer Congress Street
- M7 – Falmouth, Route 1
- M8 – Peninsula Loop, Casco Bay Ferry Terminal
- M9A – Crosstown Loop via Stevens Avenue
- M9B – Crosstown Loop via Washington Avenue

At the PTC, connections can be made to other METRO bus lines, the South Portland Bus (three (3) service routes), shuttle bus services (four (4) service routes) and the Amtrak Downeaster train, with connections by bus to the Casco Bay Lines ferry service and inter-city bus service (the WAVE). METRO buses are equipped with a bicycle rack at the front of the bus. The M4 METRO bus provides service along Main Street in Westbrook with a stop at the Westbrook Crossing shopping center located opposite the Project site. ***The planned improvements to Main Street that will be completed as a part of the Project will incorporate a***

METRO bus stop and bush shelter to facilitate public transportation access to the Project. The public transportation schedules and fare information are provided in the Technical Appendix.

SPOT SPEED MEASUREMENTS

Vehicle travel speed measurements were performed on Main Street, Westbrook Arterial and Larrabee Road in the vicinity of the Project site in conjunction with the ATR counts. Table 2 summarizes the vehicle travel speed measurements.

Table 2
VEHICLE TRAVEL SPEED MEASUREMENTS

	Main Street	Westbrook Arterial	Larrabee Road
	EB/WB	EB/WB	NB/SB
Mean Travel Speed (mph)	32/30	47/34	36/33
85 th Percentile Speed (mph)	38/35	53/42	39/38
Posted Speed Limit (mph)	35	45	35

mph = miles per hour.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.

As can be seen in Table 2, the mean (average) vehicle travel speed along Main Street in the vicinity of the Project site was found to be approximately 31 mph. The average measured 85th percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled at or below, was found to be approximately 36 mph, which is generally consistent with the posted speed limit. The 85th percentile speed is used as the basis of engineering design and in the evaluation of sight distances, and is often used in establishing posted speed limits.

The mean vehicle travel speed along Westbrook Arterial was found to be approximately 41 mph, with the average measured 85th percentile vehicle travel speed found to be approximately 50 mph, which is 5 mph above the posted speed limit. The mean vehicle travel speed along Larrabee Road was found to be approximately 34 mph, with the average measured 85th percentile vehicle travel speed found to be approximately 38 mph, which is 3 mph above the posted speed limit.

ACCIDENT DATA

Accident data for the intersections and roadway links within the study area was provided by MDOT for the most recent three-year period available (2011 through 2013, inclusive) in order to examine crash trends. Based on a review of the accident data, none of the roadway links within the study area were identified as high accident locations. Seven (7) intersections within the study area were identified as high accident locations and are as follows:

1. Main Street/Larrabee Road (Westbrook)
2. Main Street/Cumberland Street/Warren Avenue (Westbrook)
3. Larrabee Road/Riverside Street (Portland)
4. Forest Avenue/Riverside Street (Portland)
5. Riverside Street/Warren Avenue (Portland)
6. Brighton Avenue/Stevens Avenue (Portland)
7. Capisic Street/Frost Street (Portland)

Figure 6 depicts the location of the subject intersections in relation to the Project site along with a summary of the number of accidents occurring at each of the identified high accident locations and the associated critical rate factor. The detailed accident summary reports are provided in the Technical Appendix along with the collision diagrams for each of the high accident intersections as provided by MDOT.



Figure 6
High Accident Location Map

FUTURE CONDITIONS

Traffic volumes in the study area were projected to the year 2021, which reflects a five-year planning horizon consistent with MDOT's *Traffic Movement Permit* guidelines and represents the anticipated completion date of the Project. Independent of the Project, traffic volumes on the roadway network in the year 2021 under No-Build conditions include all existing traffic and new traffic resulting from background traffic growth. Anticipated Project-generated traffic volumes superimposed upon the 2021 No-Build traffic volumes reflect 2021 Build traffic volume conditions with the Project.

FUTURE TRAFFIC GROWTH

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic; however, potential population growth and development external to the study area would not be accounted for in the resulting traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

Specific Development by Others

The Planning Departments of the Cities of Westbrook and Portland, and the Town of Gorham were consulted in order to determine if there were any projects planned within the study area that would have an impact on future traffic volumes at the study intersections. Based on these consultations, the following projects were identified that may result in an increase in traffic within the study area:

Westbrook:

- ***Blue Spruce Farm, Spring Street, Westbrook, Maine.*** This project is currently under construction and will consist of 53 single-family homes, 32 residential condominiums and 98 apartments to be located off Spring Street in Westbrook, Maine.
- ***Medical Center, Westbrook, Maine.*** This project will entail the construction of a 5,000 sf medical center to be located off Saco Street in Westbrook, Maine.
- ***Prides Corner Condominiums, Westbrook, Maine.*** This project will entail the construction of 46 residential condominium units to be located at 375 Pride Street in Westbrook, Maine.

Portland:

- ***Motel Redevelopment, 1210 Brighton Avenue, Portland, Maine.*** This project will entail the reconstruction of the existing 135 room motel located at 1210 Brighton Avenue in Portland, Maine, to accommodate an 85-room motel. This project will represent a reduction in traffic over the former motel given the reduction in the number of rooms.
- ***Fred P. Hall Elementary School, Portland, Maine.*** This project will entail the construction of a new elementary school to replace the Fred P. Hall Elementary School located at 23 Orono Road in Portland, Maine. The new school will accommodate an increased student population from the current enrollment of 440 students and 70 staff, to 555 students and 70 staff.
- ***Technology Park, Rand Road, Portland, Maine.*** This project will entail the construction of 122,000 sf of office and laboratory space for life science and high-tech business to be located off Rand Road in Portland, Maine.

Gorham:

- ***Residential Development, Route 25, Gorham, Maine.*** This project will entail the construction of 29 single-family homes to be located off Route 25 and west of the Project site in Gorham, Maine.
- ***Residential Development, New Portland Road, Gorham, Maine.*** This project will entail the construction of six (6) single-family homes to be located off New Portland Road and west of the Project site in Gorham, Maine. Traffic volumes associated with this project are relatively minor in nature and would be reflected in the general background traffic growth rate.
- ***Mixed-Use Development, Route 25, Gorham, Maine.*** This project will entail the construction of 1,600 sf of office space, two (2) apartments and three (3) single-family homes to be located off Route 25 and west of the Project site in Gorham, Maine. Traffic volumes associated with this project are relatively minor in nature and would be reflected in the general background traffic growth rate.

- ***Industrial Development, New Portland Road, Gorham, Maine.*** This project will entail the construction of two (2) industrial buildings that will encompass 8,900 sf and 8,100 sf, respectively, and will be located off New Portland Road and west of the Project site in Gorham, Maine.

Traffic volumes associated with the aforementioned specific development projects by others were obtained from the respective traffic studies or using trip-generation information available from the Institute of Transportation Engineers (ITE)⁵ for the appropriate land use, and were assigned onto the study area roadway network based on existing traffic patterns where no other information was available. No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general background traffic growth rate.

The traffic volume networks for each of the identified specific development projects by others that are included in the future condition traffic volume projections are provided in the Technical Appendix.

General Background Traffic Growth

The Planning Department of the City of Westbrook and PACTS were consulted to determine general traffic growth trends within the study area. Based on these discussions, a 1.0 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

Roadway Improvement Projects

MDOT, the Cities of Westbrook and Portland, and the Town of Gorham were consulted in order to determine if there were any planned future roadway improvement projects expected to be complete by 2021 within the study area. Based on these discussions, the following roadway improvement projects were identified within the study area:

- ***Cumberland Mills Triangle Improvement Project, Westbrook, Maine.*** This roadway improvement project will entail the reconstruction of the Cumberland Mills Triangle (intersection of Main Street, Cumberland Street and Harnois Avenue) to add traffic control signals to the Main Street/Cumberland Street, Main Street/Harnois Street and Cumberland Street/Harnois Street intersections to improve traffic flow and increase the safety of vehicles and pedestrians navigating the intersections. Construction of these improvements is expected to commence in 2016/2017.
- ***Spring Street/Eisenhower Drive Intersection Improvements, Westbrook, Maine.*** The City of Westbrook is undertaking a review of the Spring Street/Eisenhower Drive intersection for consideration of the installation of a traffic control signal. For the purpose of this assessment, this intersection was evaluated with the current intersection geometry and traffic control (STOP-sign control), as a determination has not yet been made to place the intersection under traffic signal control.
- ***Woodfords Corner/Forest Avenue Improvement Project, Portland Maine.*** This roadway/streetscape improvement project will entail the reconstruction of the Woodfords Corner intersection (Woodford Street/Forest Avenue/Deering Avenue)

⁵Ibid 1.

extending to and including the Forest Avenue/Vannah Avenue/Saunders Street/Ocean Avenue intersection. The planned improvements will include the replacement of the traffic signal systems at both intersections, pavement rehabilitation, sidewalk reconstruction, street tree installation and the addition of street furnishings (street lights, benches, bicycle racks, etc.) Construction of these improvements is expected to commence in 2016/2017.

No other roadway improvement projects aside from routine maintenance activities were identified to be planned within the study area at this time.

No-Build Traffic Volumes

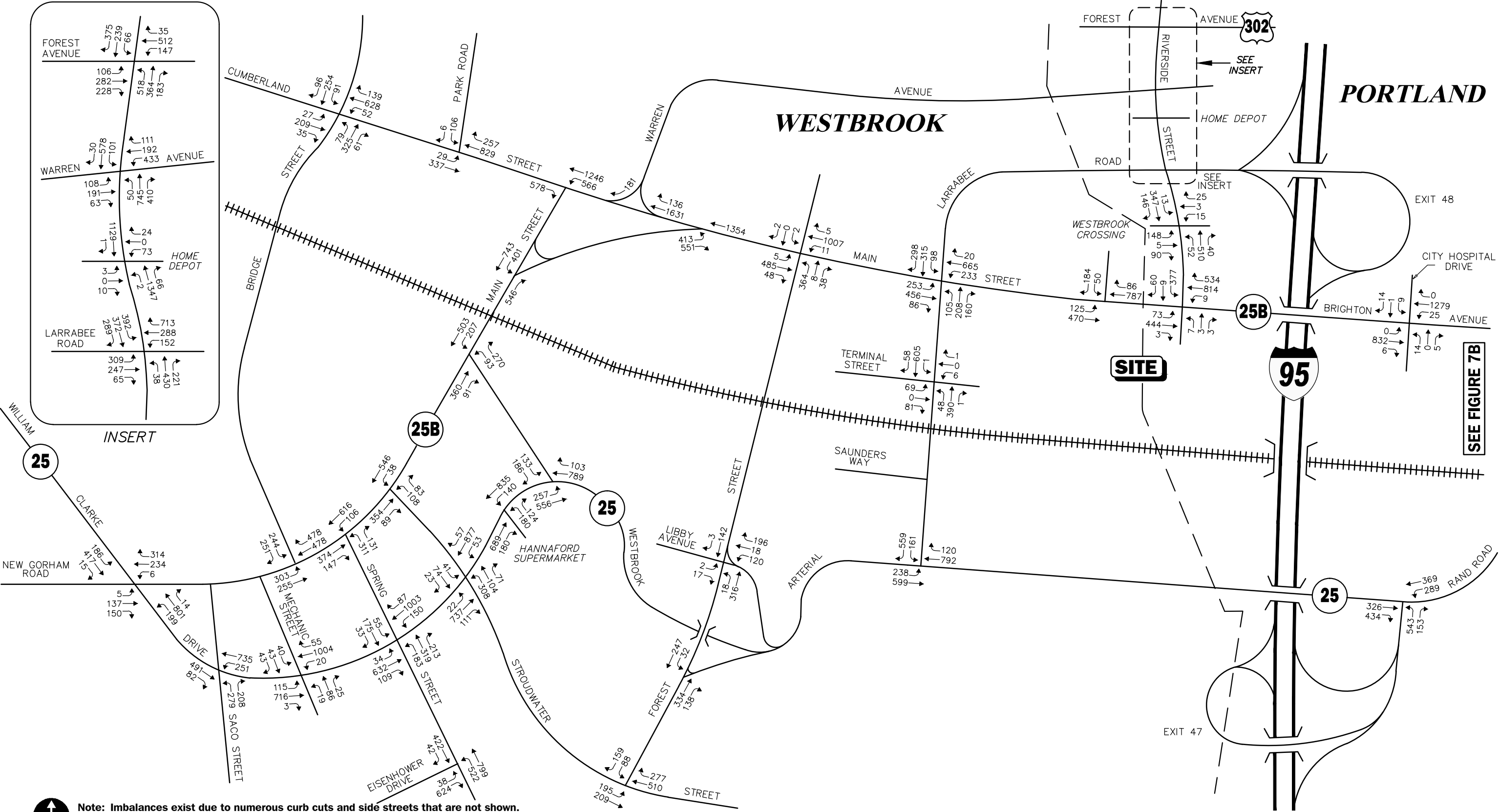
The 2021 No-Build Design Hour traffic-volumes were developed by applying the 1.0 percent per year compounded annual background traffic growth rate to the 2015 Existing Design Hour traffic volumes and then superimposing the peak-hour traffic volumes associated with the identified specific development projects by others. Based on a review of the traffic volume projections for the Project (discussion follows), the weekday evening and Saturday midday peak-hours were determined to be the critical analysis periods and represent the peak traffic generation periods for the Project. Accordingly, the future condition traffic volume projections and analyses focus on these peak periods. The 2021 No-Build Design Hour weekday evening and Saturday midday peak-hour traffic volumes are shown on Figures 7 and 8, respectively.

PROJECT-GENERATED TRAFFIC

Design year (2021 Build) traffic volumes for the study area roadways were determined by estimating Project-generated traffic volumes and assigning those volumes on the study roadways. The following sections describe the methodology used to develop the anticipated traffic characteristics of the Project.

As proposed, the Project will entail the construction of a 489,461± sf mixed-use commercial development that will encompass multiple buildings containing a mix of retail, consumer service and restaurant uses, including a membership based vehicle fueling facility that will provide four (4) pumps and eight (8) vehicle fueling positions (vfps). In order to determine the traffic characteristics of the Project, trip-generation methodologies established by the ITE⁶ were used. The ITE provides trip-generation information for various types of land uses developed as a result of scientific studies that have been conducted over the past 50 plus years, the most recent update of which was published in 2012. This data includes trip estimates for land uses that are similar to those that are to be located within the Project site. Based on discussions with and as approved by MDOT, ITE Land Use Codes (LUCs) 820, *Shopping Center*, and 944, *Gasoline/Service Station*, were used to develop the traffic characteristics of the Project.

⁶Ibid 1.



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale

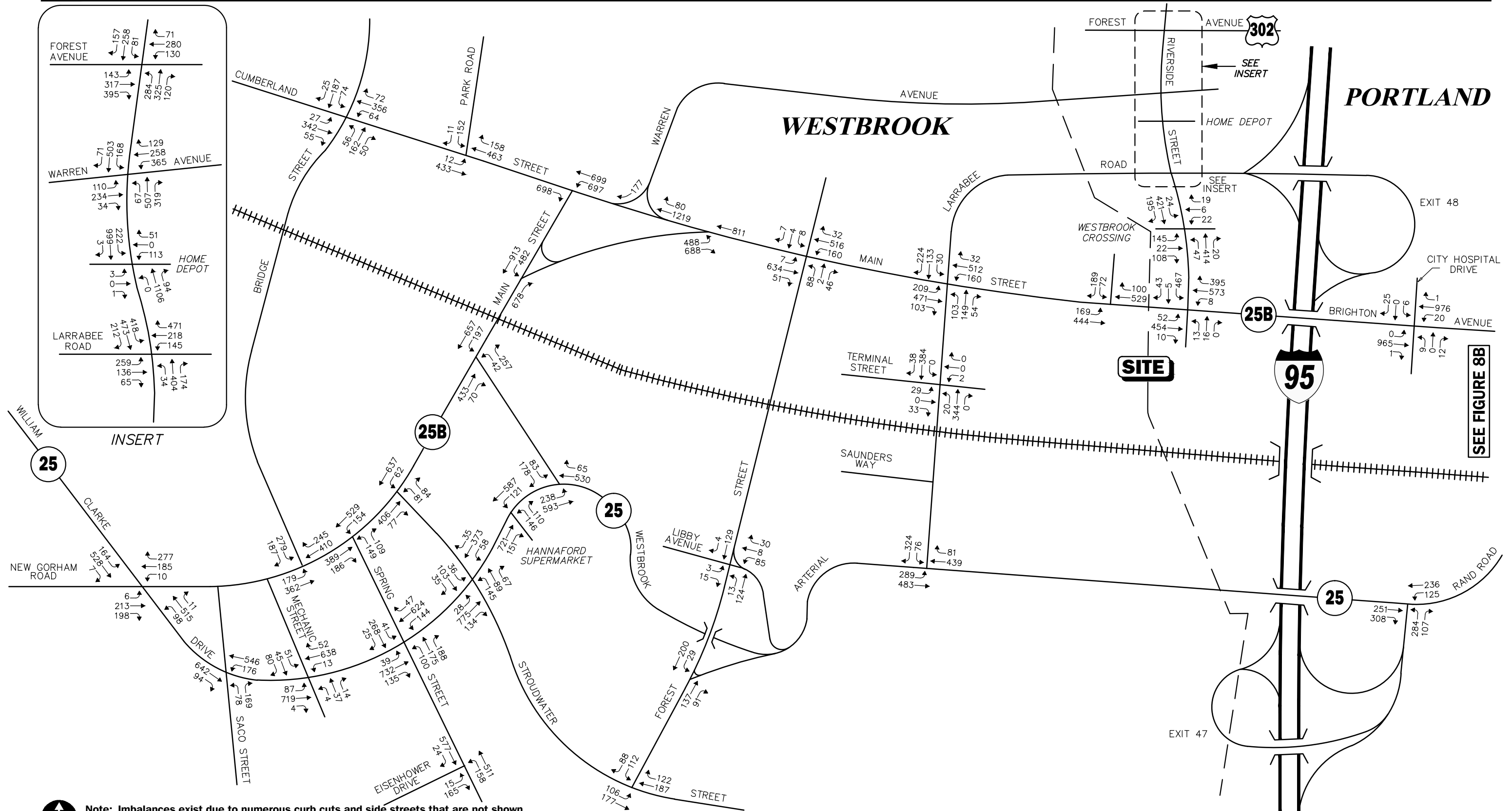


Figure 7A
2021 No-Build Design-Hour
Weekday Evening
Peak Hour Traffic Volumes



Figure 7B

2021 No-Build Design-Hour Weekday Evening Peak Hour Traffic Volumes



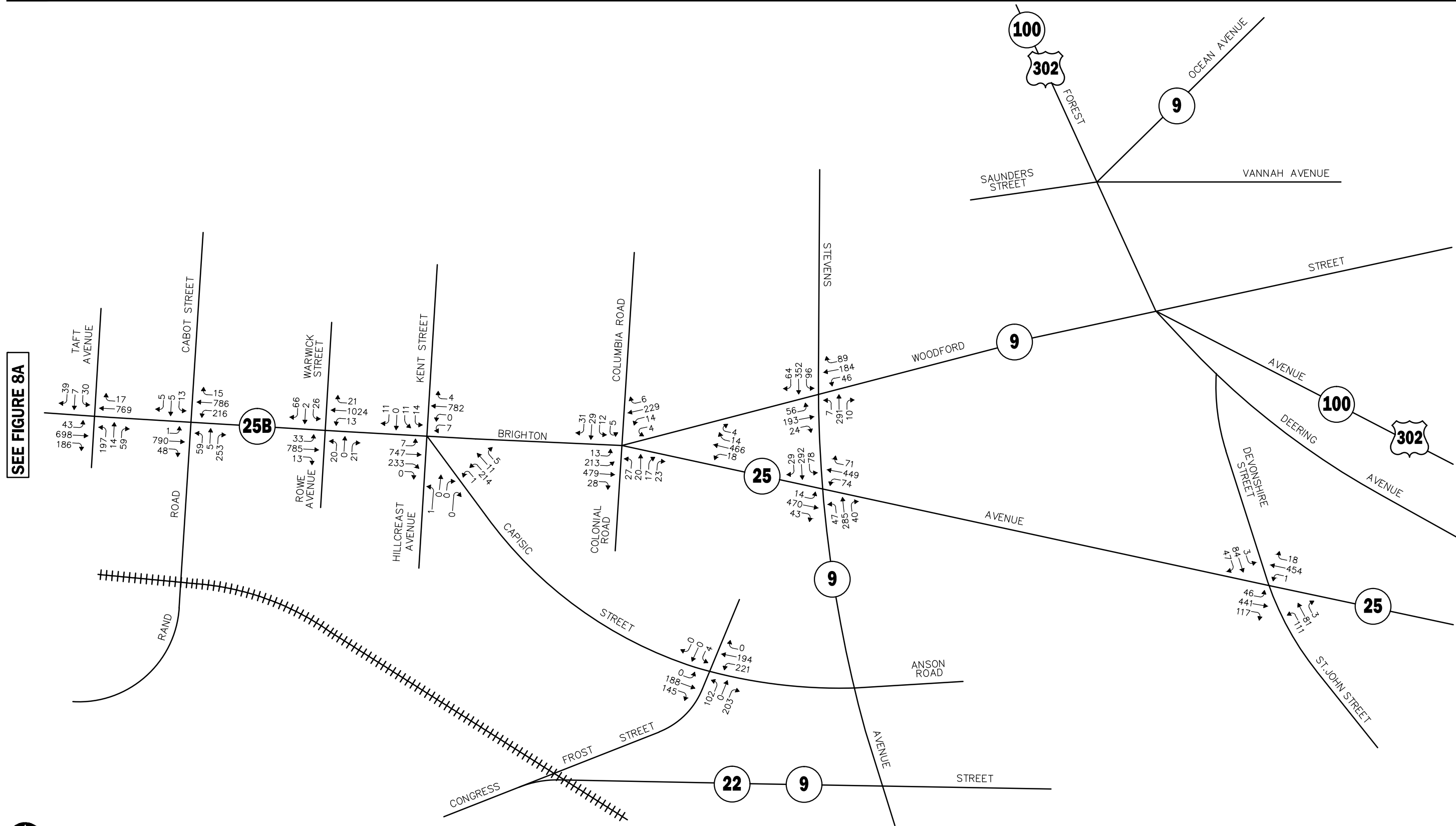
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale



Figure 8A

2021 No-Build Design-Hour Saturday Midday Peak Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



Figure 8B
2021 No-Build Design-Hour
Saturday Midday
Peak Hour Traffic Volumes

Pass-By Trips

It is expected that a significant portion of the traffic that will be generated by the Project will consist of pass-by trips, or vehicles that are already travelling along Main Street, Larrabee Road and Westbrook Arterial for other purposes that will also patronize the Project in conjunction with their trip. These trips do not represent new vehicles on the roadway network as a result of the Project. Statistics published by the ITE⁷ indicate that up to 34 percent of the trips generated by a shopping center and 58 percent of the trips generated by a fueling facility may consist of pass-by trips. For the purpose of this assessment, the ITE referenced pass-by trip rates were applied to the trip-generation calculations for the Project.

Table 3 summarizes the anticipated traffic characteristics of the Project using the above methodology.

Project-Generated Traffic Volume Summary

As can be seen in Table 3, using the aforementioned methodology and as approved by MDOT, the Project is predicted to generate approximately 13,366 new vehicle trips on an average weekday and 18,890 new vehicle trips on a Saturday (two-way volume over the operational day of the Project), with 351 new vehicle trips (232 entering and 119 exiting) expected during the weekday morning peak-hour, 1,217 new vehicle trips (574 entering and 643 exiting) expected during the weekday evening peak-hour and 1,853 new vehicle trips (976 entering and 877 exiting) expected during the Saturday midday peak-hour.

Trip Distribution and Assignment

The directional distribution of generated trips to and from the Project site was determined using the PACTS traffic model and then further refined based on a review of existing traffic patterns within the study area. The resulting trip distribution for the Project is graphically depicted on Figure 9, with the additional traffic expected to be generated by the Project assigned on the study area roadway network as shown on Figures 10 and 11 for the weekday evening and Saturday midday peak hours, respectively.

FUTURE TRAFFIC VOLUMES - BUILD CONDITION

The 2021 Build Design Hour traffic volumes consist of the 2021 No-Build Design Hour traffic volumes with the additional traffic expected to be generated by the Project added to them. The 2021 Build Design Hour weekday evening and Saturday midday peak-hour traffic-volumes are graphically depicted on Figures 12 and 13, respectively.

⁷*Trip Generation Handbook*, 3rd Edition, An ITE Proposed Recommended Practice; Institute of Transportation Engineers; Washington, D.C.; August 2014.

Table 3
DIRIGO PLAZA
TRIP GENERATION SUMMARY

Time Period/Direction	Shopping Center			Fueling Facility			(G= B+E) Total Pass-By Trips	(H= C + F) Total New Trips
	(A) Shopping Center (489,461 sf) ^a	(B) Pass-By Trips ^b	(C = A - B) New Trips	(D) Fueling Facility (8 VFPs) ^c	(E) Pass-By Trips	(F= D - E) News Trips		
<i>Average Weekday Daily:</i>								
Entering	9,533	3,241	6,292	674	283	391	3,524	6,683
Exiting	<u>9,533</u>	<u>3,241</u>	<u>6,292</u>	<u>674</u>	<u>283</u>	<u>391</u>	<u>3,524</u>	<u>6,683</u>
Total	19,066	6,482	12,584	1348	566	782	7,048	13,366
<i>Weekday Morning Peak Hour:</i>								
Entering	291	80	211	51	30	21	110	232
Exiting	<u>179</u>	<u>80</u>	<u>99</u>	<u>50</u>	<u>30</u>	<u>20</u>	<u>110</u>	<u>119</u>
Total	470	160	310	101	60	41	220	351
<i>Weekday Evening Peak Hour:</i>								
Entering	833	295	538	63	27	36	322	574
Exiting	<u>903</u>	<u>295</u>	<u>608</u>	<u>62</u>	<u>27</u>	<u>35</u>	<u>322</u>	<u>643</u>
Total	1,736	590	1,146	125	54	71	644	1,217
<i>Saturday Daily:</i>								
Entering	12,565	3,267	9,298	254	107	147	3,374	9,445
Exiting	<u>12,565</u>	<u>3,267</u>	<u>9,298</u>	<u>254</u>	<u>107</u>	<u>147</u>	<u>3,374</u>	<u>9,445</u>
Total	25,130	6,534	18,596	508	214	294	6,748	18,890
<i>Saturday Midday Peak Hour:</i>								
Entering	1,276	319	957	32	13	19	332	976
Exiting	<u>1,178</u>	<u>319</u>	<u>859</u>	<u>31</u>	<u>13</u>	<u>18</u>	<u>332</u>	<u>877</u>
Total	2,454	638	1,816	63	26	37	664	1,853

^aBased on ITE LUC 820, *Shopping Center*.

^bPass-By trip rates equal 34 percent for weekday and 26 percent for Saturday.

^cBased on ITE LUC 944, *Gasoline/Service Station*.

^dPass-By trip rates equal 42 percent for weekday daily, weekday evening peak-hour, Saturday daily and Saturday midday peak-hour; and 58 percent for weekday morning peak-hour.



Figure 9A
Trip Distribution Map

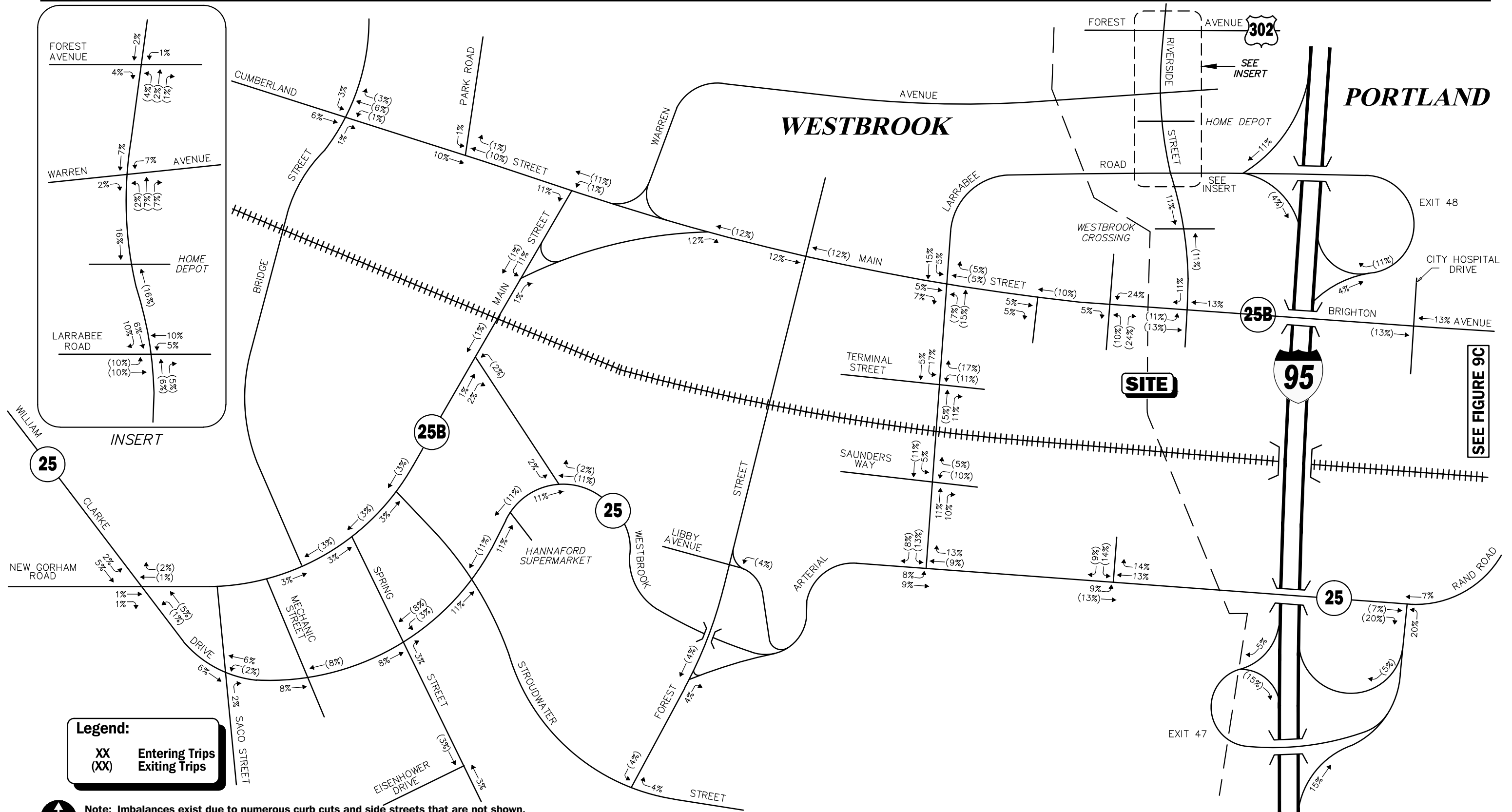


Figure 9B

Trip Distribution Map

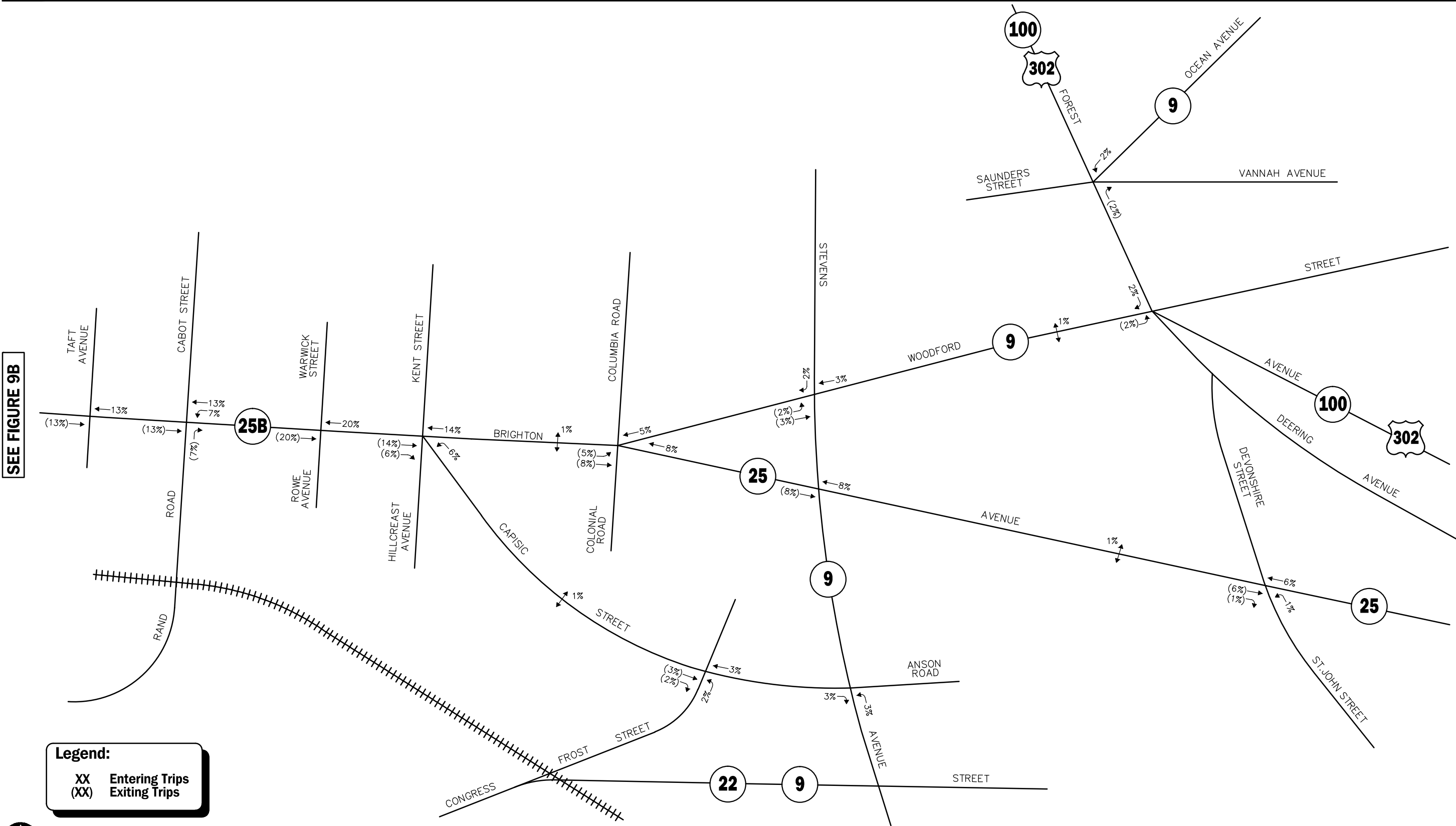
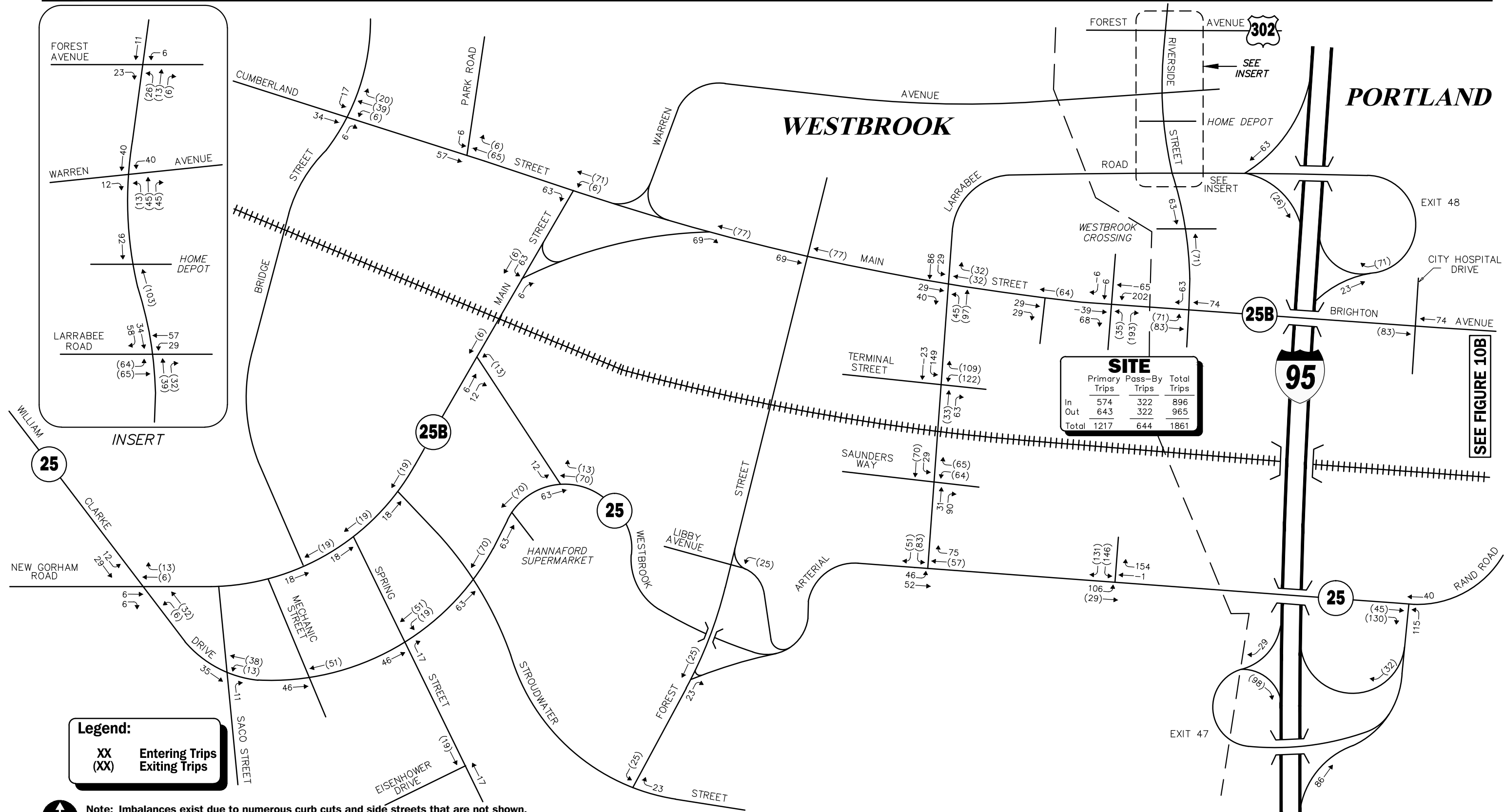


Figure 9C
Trip Distribution Map



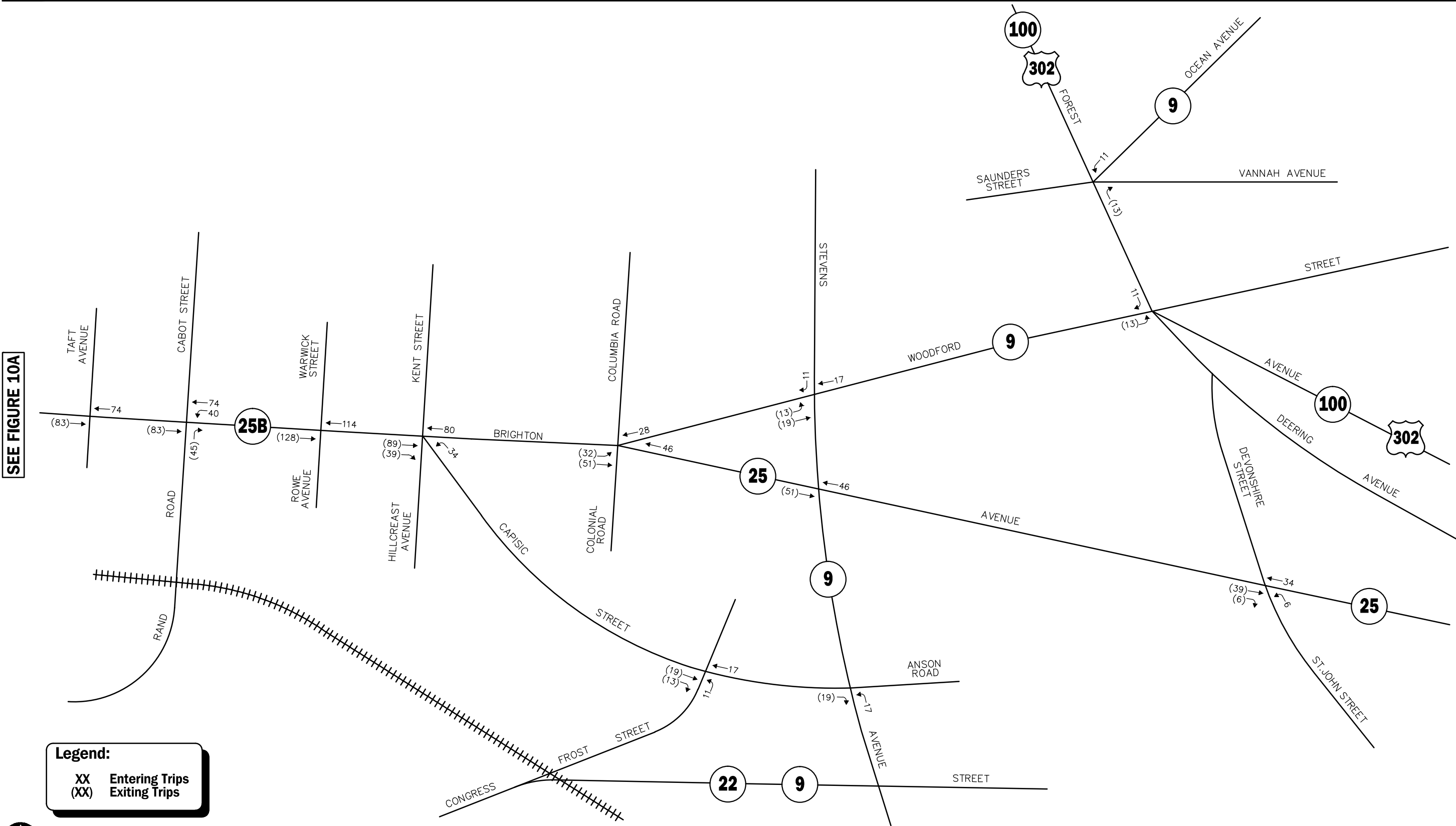


Figure 10B
Project-Generated
Weekday Evening
Peak Hour Traffic Volumes

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



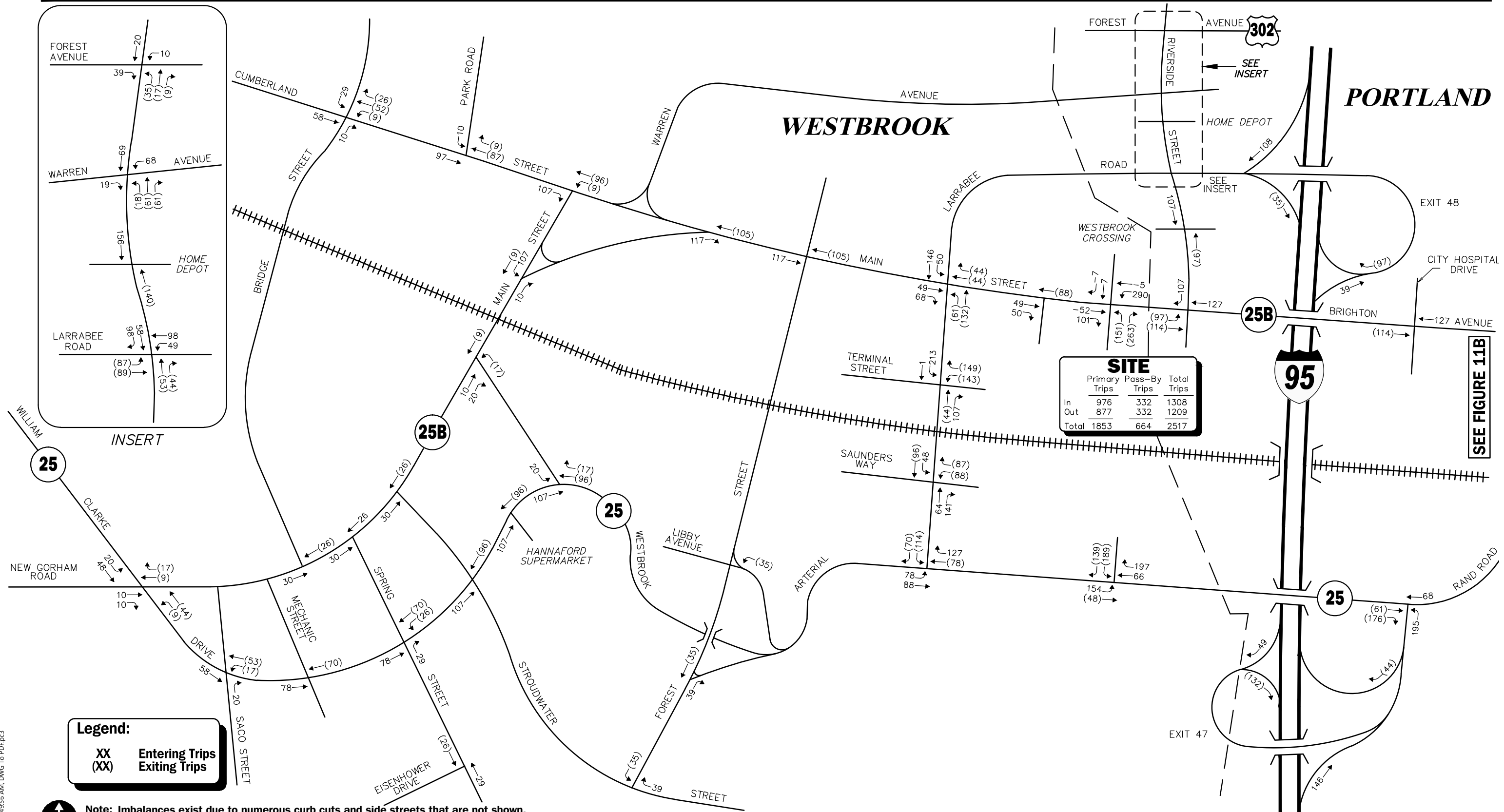


Figure 11A

Project-Generated
Saturday Midday
Peak Hour Traffic Volumes

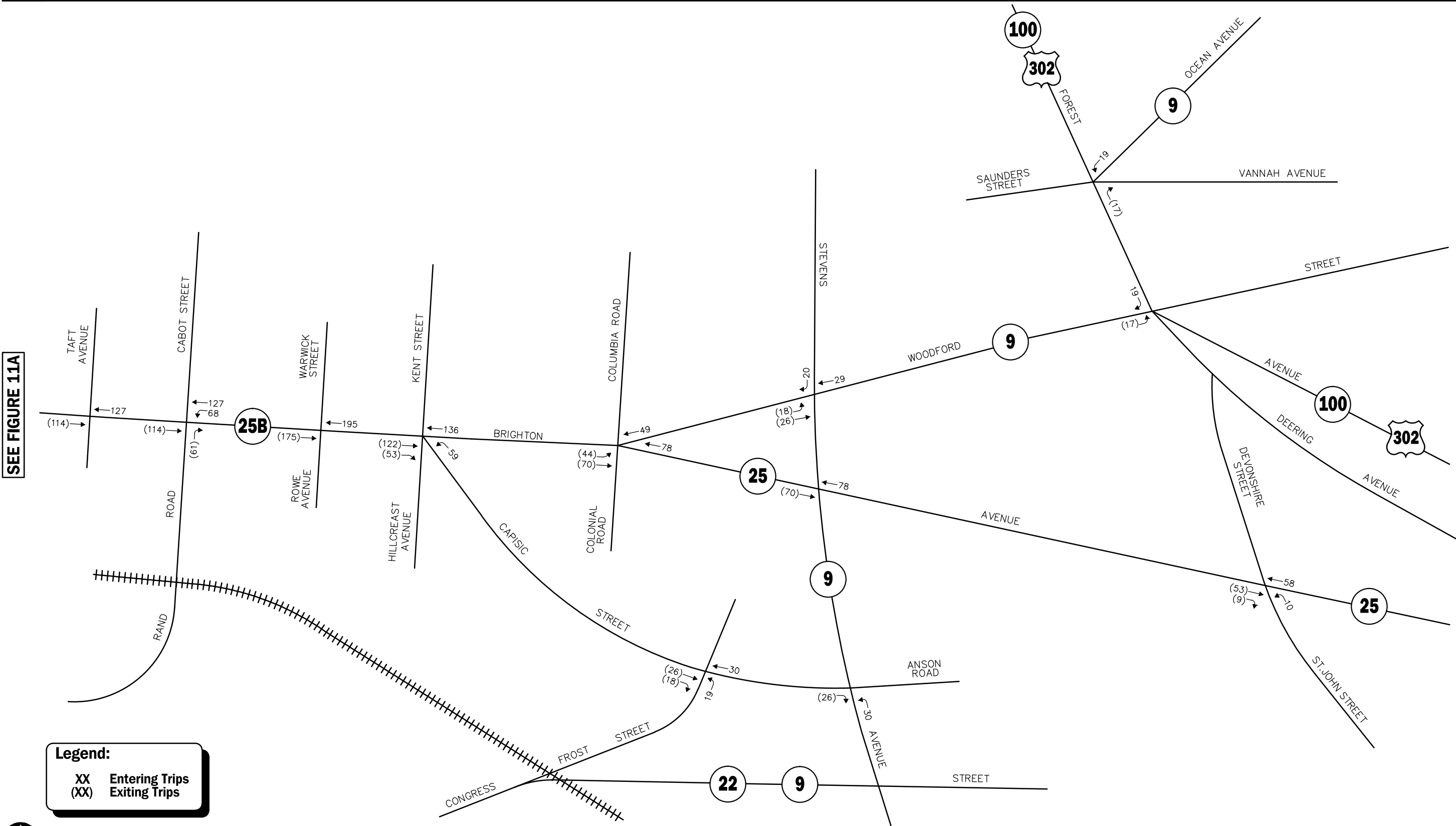


Figure 11B
Project-Generated
Saturday Midday
Peak Hour Traffic Volumes

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale

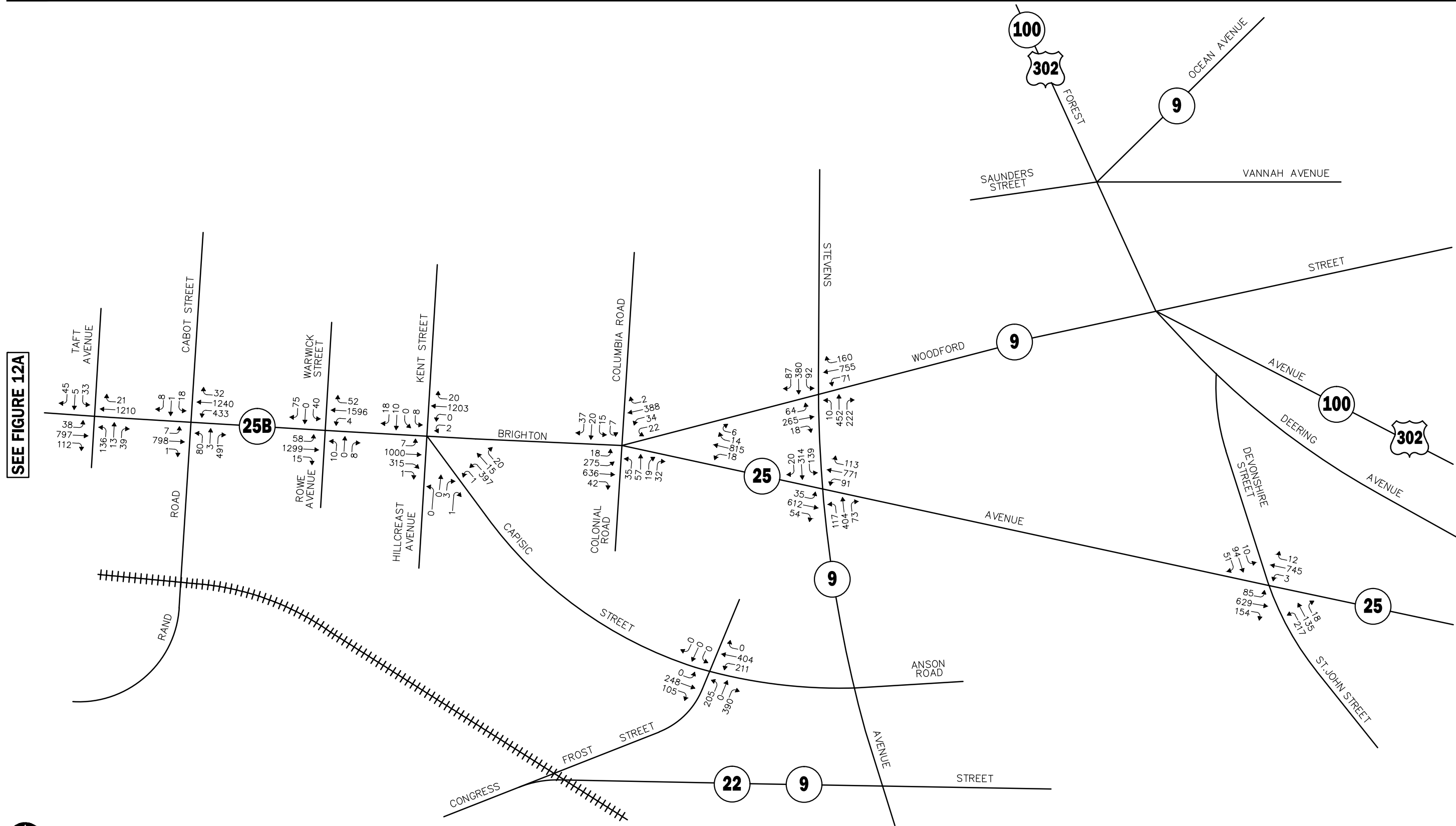




2021 Build Design-Hour Weekday Evening Peak Hour Traffic Volumes

Not To Scale

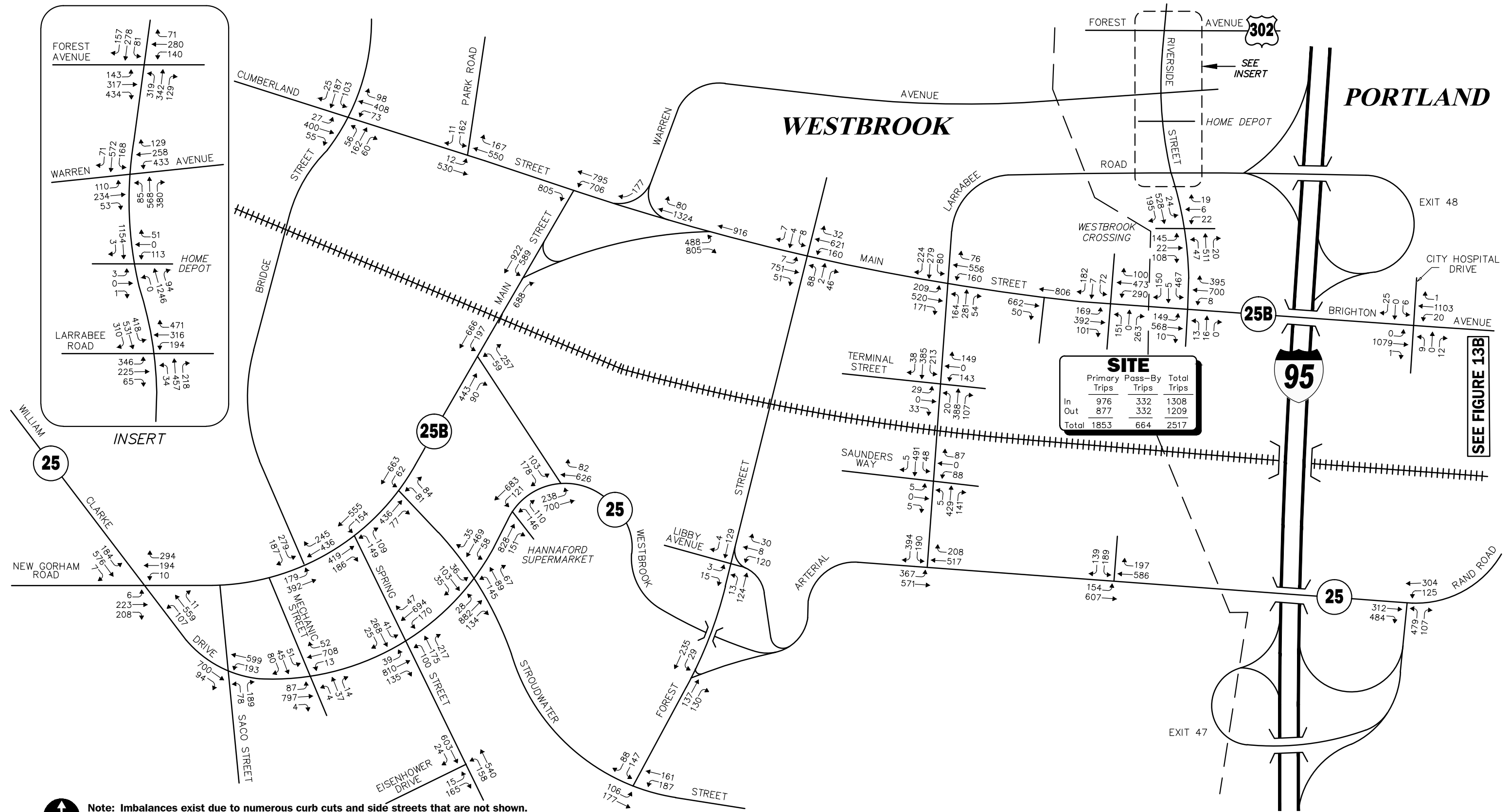




Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



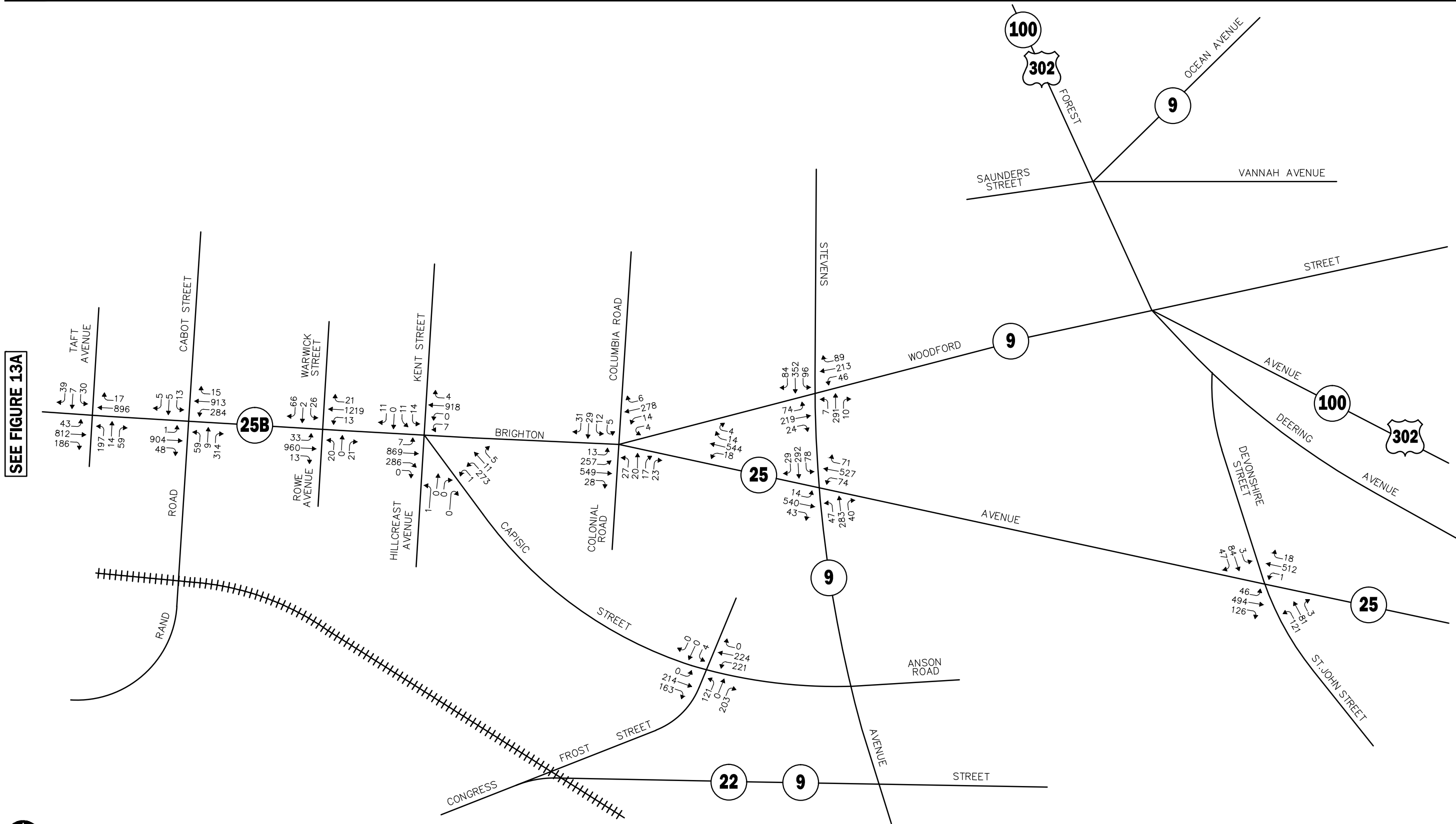
Figure 12B
2021 Build Design-Hour
Weekday Evening
Peak Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale

Figure 13A
2021 Build Design-Hour
Saturday Midday
Peak Hour Traffic Volumes





Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



Figure 13B
2021 Build Design-Hour
Saturday Midday
Peak Hour Traffic Volumes

TRAFFIC OPERATIONS ANALYSIS

Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, roadway capacity and vehicle queue analyses were conducted under Existing, No-Build and Build traffic volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

As required by MDOT, the SimTraffic™ model, which is a companion to the Synchro™ 8 software and implements the capacity analysis methodology defined in the 2010 *Highway Capacity Manual*,⁸ was used to complete the traffic operations (level-of-service) analysis. A minimum of five (5) simulations were performed for each of the study area intersections using the SimTraffic™ model, and the results were then averaged to determine the operational performance of the intersection under study.

METHODOLOGY

Levels of Service

A primary result of capacity analyses is the assignment of level of service to traffic facilities under various traffic-flow conditions.⁹ The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level-of-service (LOS) A representing the best operating conditions and LOS F representing congested or constrained operating conditions.

⁸*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

⁹The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

Unsignalized Intersections

The six levels of service for unsignalized intersections may be described as follows:

- *LOS A* represents a condition with little or no control delay to minor street traffic.
- *LOS B* represents a condition with short control delays to minor street traffic.
- *LOS C* represents a condition with average control delays to minor street traffic.
- *LOS D* represents a condition with long control delays to minor street traffic.
- *LOS E* represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
- *LOS F* represents a condition where minor street demand volume exceeds capacity of an approach lane, with extreme control delays resulting.

The levels of service of unsignalized intersections are determined by application of a procedure described in the 2010 *Highway Capacity Manual*.¹⁰ Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the affects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the 2010 *Highway Capacity Manual*. Table 4 summarizes the relationship between level of service and average control delay for two way stop controlled and all-way stop controlled intersections.

Table 4
LEVEL-OF-SERVICE CRITERIA FOR
UNSIGNALIZED INTERSECTIONS^a

Level-Of-Service by Volume-to-Capacity Ratio		Average Control Delay (Seconds Per Vehicle)
$v/c \leq 1.0$	$v/c > 1.0$	
A	F	≤ 10.0
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	> 50.0

^aSource: *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010; page 19-2.

¹⁰Ibid 8.

Signalized Intersections

The six levels of service for signalized intersections may be described as follows:

- *LOS A* describes operations with very low control delay; most vehicles do not stop at all.
- *LOS B* describes operations with relatively low control delay. However, more vehicles stop than *LOS A*.
- *LOS C* describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- *LOS D* describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable.
- *LOS E* describes operations with high control delay values. Individual cycle failures are frequent occurrences.
- *LOS F* describes operations with high control delay values that often occur with over-saturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels of service and operational performance parameters (volume-to-capacity (v/c) ratio, motorist delay and vehicle queuing) for signalized intersections were calculated using the Percentile Delay Method implemented as a part of the SimTraffic™ model. The Percentile Delay Method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on “percentile” delay. Level-of-service designations are based on the criterion of percentile delay per vehicle and is a measure of: i) driver discomfort; ii) motorist frustration; and iii) fuel consumption; and includes a uniform delay based on percentile volumes using a Poisson arrival pattern, an initial queue move-up time, and a queue interaction delay that accounts for delays resulting from queues extending from adjacent intersections. Table 5 summarizes the relationship between level-of-service and percentile delay for signalized intersections, and uses the same numerical delay thresholds defined in the 2010 *Highway Capacity Manual*. The tabulated percentile delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

Table 5
LEVEL-OF-SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS

Level of Service	Percentile Delay Per Vehicle (Seconds)
A	≤ 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	> 80.0

ANALYSIS RESULTS

Level-of-service and vehicle queue analyses were conducted for 2021 No-Build and 2021 Build Design Hour conditions for the intersections within the study area. The results of the intersection capacity analysis are summarized in Tables 6 and 7. The detailed analysis results are presented in the Technical Appendix.

The following is a summary of the level-of-service analysis for the intersections within the study area.

Table 6
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Westbrook Intersections				
Cumberland Street at Bridge Street				
<i>Weekday Evening:</i>				
Cumberland Street EB LT/TH/RT	51.1	D	99.4	F
Cumberland Street WB LT/TH/RT	55.6	E	124.0	F
Bridge Street NB LT/TH/RT	84.0	F	77.9	E
Bridge Street SB LT/TH/RT	96.3	F	118.3	F
Overall	70.0	E	108.2	F
<i>Saturday Midday:</i>				
Cumberland Street EB LT/TH/RT	11.4	B	21.0	C
Cumberland Street WB LT/TH/RT	18.8	B	39.5	D
Bridge Street NB LT/TH/RT	17.3	B	19.9	B
Bridge Street SB LT/TH/RT	17.3	B	25.1	C
Overall	16.2	B	28.2	C
Cumberland Street at Harnois Avenue				
<i>Weekday Evening:</i>				
Cumberland Street EB RT	21.7	C	23.3	C
Cumberland Street EB RT	11.2	B	11.6	B
Cumberland Street WB LT	1.8	A	2.0	A
Cumberland Street WB LT	3.6	A	4.4	A
Cumberland Street WB TH	6.2	A	7.6	A
Cumberland Street WB TH	5.3	A	6.6	A
Overall	7.3	A	8.8	A
<i>Saturday Midday:</i>				
Cumberland Street EB RT	29.2	C	27.5	C
Cumberland Street EB RT	15.3	B	13.0	B
Cumberland Street WB LT	2.5	A	2.8	A
Cumberland Street WB LT	5.9	A	6.6	A
Cumberland Street WB TH	4.4	A	4.2	A
Cumberland Street WB TH	1.7	A	1.9	A
Overall	9.2	A	9.2	A
Cumberland Street at Warren Avenue				
<i>Weekday Evening:</i>				
Cumberland Street WB TH	3.7	A	4.1	A
Cumberland Street WB TH	4.8	A	5.5	A
Cumberland Street WB TH/RT	4.4	A	4.9	A
Warren Avenue SB RT	26.2	C	26.5	C
Warren Avenue SB RT	13.8	B	12.8	B
Overall	6.1	A	6.7	A
<i>Saturday Midday:</i>				
Cumberland Street WB TH	3.5	A	3.7	A
Cumberland Street WB TH	2.7	A	2.8	A
Cumberland Street WB TH/RT	2.3	A	2.4	A
Warren Avenue SB RT	23.2	C	23.4	C
Warren Avenue SB RT	5.2	A	7.3	A
Overall	5.4	A	5.5	A

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Main Street at Cumberland Street				
<i>Weekday Evening:</i>				
Main Street WB TH	11.7	B	11.8	B
Main Street WB TH	11.1	B	11.2	B
Main Street NB LT	29.9	C	30.1	C
Main Street NB RT	0.5	A	0.5	A
Main Street NB RT	0.2	A	0.1	A
Overall	12.0	B	12.0	B
<i>Saturday Midday:</i>				
Main Street WB TH	11.7	B	11.8	B
Main Street WB TH	10.0	A	10.4	B
Main Street NB LT	39.3	D	39.4	D
Main Street NB RT	0.6	A	0.8	A
Main Street NB RT	0.1	A	0.2	A
Overall	14.7	B	14.7	B
Main Street at Harnois Avenue				
<i>Weekday Evening:</i>				
Main Street WB TH	11.2	B	11.7	B
Main Street WB TH	4.8	A	4.7	A
Main Street NB LT	3.5	A	3.7	A
Main Street NB RT	4.6	A	5.0	A
Main Street NB RT	0.6	A	0.6	A
Overall	4.6	A	4.8	A
<i>Saturday Midday:</i>				
Main Street WB TH	13.1	B	14.6	B
Main Street WB TH	4.8	A	5.2	A
Main Street NB LT	4.4	A	5.1	A
Main Street NB RT	8.0	A	9.0	A
Main Street NB RT	0.7	A	0.7	A
Overall	5.5	A	6.2	A
Main Street at Forest Street				
<i>Weekday Evening:</i>				
Main Street EB LT/TH	13.1	B	14.1	B
Main Street EB RT	5.3	A	5.2	A
Main Street WB LT/TH	60.8	E	94.6	F
Main Street WB RT	1.3	A	1.2	A
Forest Street NB LT/TH/RT	22.3	C	22.1	C
Forest Street SB LT/TH/RT	11.6	B	17.8	B
Overall	39.2	D	55.3	E
<i>Saturday Midday:</i>				
Main Street EB LT/TH	8.2	A	10.5	B
Main Street EB RT	6.0	A	7.1	A
Main Street WB LT/TH	31.2	C	125.4	F
Main Street WB RT	1.4	A	2.0	A
Forest Street NB LT/TH/RT	16.3	B	17.7	B
Forest Street SB LT/TH/RT	13.2	B	12.0	B
Overall	19.1	B	60.1	E

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Main Street at Larrabee Road				
<i>Weekday Evening:</i>				
Main Street EB LT	51.5	D	61.4	E
Main Street EB TH	38.6	D	43.2	D
Main Street EB TH/RT	29.5	C	34.4	C
Main Street WB LT	48.0	D	56.1	E
Main Street WB TH	34.8	C	33.6	C
Main Street WB TH/RT	41.3	D	40.2	D
Larrabee Road NB LT/TH	50.0	D	82.9	F
Larrabee Road NB TH/RT	27.5	C	62.6	E
Larrabee Road SB LT/TH	48.9	D	58.2	E
Larrabee Road SB TH	53.1	D	58.5	E
Larrabee Road SB RT	4.2	A	4.0	A
Overall	37.7	D	47.5	D
<i>Saturday Midday:</i>				
Main Street EB LT	43.2	D	52.6	D
Main Street EB TH	29.6	C	38.4	D
Main Street EB TH/RT	31.1	C	33.4	C
Main Street WB LT	43.6	D	52.7	D
Main Street WB TH	26.6	C	32.7	C
Main Street WB TH/RT	31.5	C	38.1	D
Larrabee Road NB LT/TH	32.3	C	47.5	D
Larrabee Road NB TH/RT	26.0	C	37.5	D
Larrabee Road SB LT/TH	29.3	C	45.8	D
Larrabee Road SB TH	32.2	C	40.2	D
Larrabee Road SB RT	2.2	A	2.0	A
Overall	29.4	C	37.8	D
Main Street at Westbrook Arterial				
<i>Weekday Evening:</i>				
Main Street EB TH	16.7	B	17.3	B
Main Street EB RT	13.7	B	13.9	B
Main Street WB LT	18.6	B	18.8	B
Main Street WB TH	6.5	A	7.1	A
Westbrook Arterial NB LT	18.0	B	18.3	B
Westbrook Arterial NB RT	17.5	B	18.5	B
Overall	13.6	B	14.3	B
<i>Saturday Midday:</i>				
Main Street EB TH	17.1	B	16.8	B
Main Street EB RT	11.9	B	13.4	B
Main Street WB LT	19.8	B	23.3	C
Main Street WB TH	7.1	A	7.6	A
Westbrook Arterial NB LT	21.2	C	21.6	C
Westbrook Arterial NB RT	20.3	C	20.6	C
Overall	13.8	B	14.5	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Main Street at Spring Street				
<i>Weekday Evening:</i>				
Main Street EB TH	15.2	B	17.3	B
Main Street EB RT	2.1	A	2.1	A
Main Street WB LT	10.3	B	10.5	B
Main Street WB TH	10.5	B	10.3	B
Spring Street NB LT	21.1	C	21.7	C
Spring Street NB RT	4.5	A	5.1	A
Overall	12.4	B	13.0	B
<i>Saturday Midday:</i>				
Main Street EB TH	12.3	B	11.7	B
Main Street EB RT	1.9	A	1.8	A
Main Street WB LT	8.5	A	9.3	A
Main Street WB TH	7.4	A	7.0	A
Spring Street NB LT	19.3	B	20.5	C
Spring Street NB RT	4.4	A	5.4	A
Overall	9.2	A	9.1	A
Main Street at Bridge Street				
<i>Weekday Evening:</i>				
Main Street EB LT	21.1	C	21.5	C
Main Street EB TH/RT	16.4	B	16.2	B
Main Street WB LT/TH	39.3	D	39.9	D
Main Street WB RT	9.5	A	9.9	A
Bridge Street SB LT	22.4	C	22.7	C
Bridge Street SB RT	14.9	B	16.0	B
Overall	21.5	C	21.9	C
<i>Saturday Midday:</i>				
Main Street EB LT	13.4	B	14.7	B
Main Street EB TH/RT	10.0	A	10.2	B
Main Street WB LT/TH	21.4	C	21.8	C
Main Street WB RT	4.0	A	4.2	A
Bridge Street SB LT	17.8	B	18.8	B
Bridge Street SB RT	13.0	B	14.0	B
Overall	14.2	B	14.7	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
<i>New Gorham Road at William Clarke Drive</i>				
<i>Weekday Evening:</i>				
New Gorham Road EB LT	32.8	C	35.1	D
New Gorham Road EB TH	17.1	B	17.8	B
New Gorham Road EB TH/RT	15.4	B	16.3	B
New Gorham Road WB LT	35.7	D	34.3	C
New Gorham Road WB TH/RT	22.2	C	23.4	C
William Clarke Drive NB LT/TH	34.0	C	34.3	C
William Clarke Drive NB RT	4.9	A	5.2	A
William Clarke Drive SB LT/TH	42.2	D	43.5	D
William Clarke Drive SB RT	6.7	A	7.7	A
Overall	22.7	C	23.5	C
<i>Saturday Midday:</i>				
New Gorham Road EB LT	33.2	C	34.4	C
New Gorham Road EB TH	14.9	B	16.7	B
New Gorham Road EB TH/RT	13.5	B	14.9	B
New Gorham Road WB LT	39.1	D	41.4	D
New Gorham Road WB TH/RT	8.8	A	9.8	A
William Clarke Drive NB LT/TH	34.2	C	36.3	D
William Clarke Drive NB RT	6.0	A	6.6	A
William Clarke Drive SB LT/TH	35.4	D	37.7	D
William Clarke Drive SB RT	2.3	A	3.4	A
Overall	17.0	B	18.3	B
<i>William Clarke Drive at Saco Street</i>				
<i>Weekday Evening:</i>				
William Clarke Drive EB TH	8.4	A	7.8	A
William Clarke Drive EB TH/RT	9.6	A	10.3	B
William Clarke Drive WB LT	34.3	C	38.3	D
William Clarke Drive WB TH	48.4	D	59.3	D
Saco Street NB LT	92.9	F	80.4	F
Saco Street NB RT	8.4	A	7.7	A
Overall	37.7	D	39.8	D
<i>Saturday Midday:</i>				
William Clarke Drive EB TH	7.4	A	8.1	A
William Clarke Drive EB TH/RT	9.6	A	9.9	A
William Clarke Drive WB LT	33.2	C	34.4	C
William Clarke Drive WB TH	18.9	B	22.5	C
Saco Street NB LT	28.9	C	33.5	C
Saco Street NB RT	6.6	A	7.1	A
Overall	15.1	B	17.1	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
William Clarke Drive at Mechanic Street				
<i>Weekday Evening:</i>				
William Clarke Drive EB LT	35.8	D	38.0	D
William Clarke Drive EB TH	9.3	A	9.0	A
William Clarke Drive EB TH/RT	8.0	A	7.5	A
William Clarke Drive WB LT	47.7	D	42.5	D
William Clarke Drive WB TH	19.0	B	75.8	E
William Clarke Drive WB TH/RT	25.4	C	81.5	F
Mechanic Street NB LT/TH/RT	32.6	C	51.5	D
Mechanic Street SB LT/TH	40.9	D	37.3	D
Mechanic Street SB RT	20.7	C	21.1	C
Overall	20.5	C	50.1	D
<i>Saturday Midday:</i>				
William Clarke Drive EB LT	21.9	C	21.3	C
William Clarke Drive EB TH	7.4	A	8.0	A
William Clarke Drive EB TH/RT	6.7	A	7.4	A
William Clarke Drive WB LT	27.9	C	27.5	C
William Clarke Drive WB TH	14.6	B	14.7	B
William Clarke Drive WB TH/RT	14.1	B	14.4	B
Mechanic Street NB LT/TH/RT	13.7	B	16.4	B
Mechanic Street SB LT/TH	18.7	B	21.0	C
Mechanic Street SB RT	6.8	A	7.2	A
Overall	11.7	B	12.1	B
William Clarke Drive at Spring Street				
<i>Weekday Evening:</i>				
William Clarke Drive EB LT	45.1	D	46.0	D
William Clarke Drive EB TH	23.4	C	25.7	C
William Clarke Drive EB TH/RT	25.4	C	28.6	C
William Clarke Drive WB LT	33.4	C	40.2	D
William Clarke Drive WB TH	21.3	C	23.8	C
William Clarke Drive WB TH/RT	22.9	C	26.6	C
Spring Street NB LT	39.5	D	38.9	D
Spring Street NB TH	35.8	D	36.5	D
Spring Street NB RT	7.6	A	8.5	A
Spring Street SB LT	39.4	D	39.8	D
Spring Street SB TH/RT	36.8	D	37.1	D
Overall	26.4	C	28.6	C
<i>Saturday Midday:</i>				
William Clarke Drive EB LT	43.0	D	47.6	D
William Clarke Drive EB TH	30.4	C	41.5	D
William Clarke Drive EB TH/RT	34.1	C	47.5	D
William Clarke Drive WB LT	32.9	C	35.9	D
William Clarke Drive WB TH	20.3	C	19.9	B
William Clarke Drive WB TH/RT	19.4	B	20.2	C
Spring Street NB LT	34.0	C	36.4	D
Spring Street NB TH	35.3	D	25.4	C
Spring Street NB RT	7.0	A	7.7	A
Spring Street SB LT	38.2	D	36.3	D
Spring Street SB TH/RT	30.2	C	31.7	C
Overall	26.8	C	31.2	C

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
William Clarke Drive at Stroudwater Street				
<i>Weekday Evening:</i>				
William Clarke Drive EB LT	48.7	D	50.9	D
William Clarke Drive EB TH	13.3	B	14.6	B
William Clarke Drive EB TH/RT	16.1	B	17.7	B
William Clarke Drive WB LT	46.6	D	47.6	D
William Clarke Drive WB TH	16.9	B	17.1	B
William Clarke Drive WB TH/RT	19.5	B	19.9	B
Stroudwater Street NB LT	37.9	D	36.9	D
Stroudwater Street NB TH/RT	34.2	C	35.2	D
Stroudwater Street SB LT	35.3	D	34.4	C
Stroudwater Street SB TH/RT	27.0	C	27.2	C
Overall	21.5	C	21.8	C
<i>Saturday Midday:</i>				
William Clarke Drive EB LT	31.4	C	31.5	C
William Clarke Drive EB TH	23.1	C	26.5	C
William Clarke Drive EB TH/RT	25.8	C	30.4	C
William Clarke Drive WB LT	27.5	C	30.1	C
William Clarke Drive WB TH	9.5	A	10.4	B
William Clarke Drive WB TH/RT	9.6	A	9.9	A
Stroudwater Street NB LT	23.8	C	26.3	C
Stroudwater Street NB TH/RT	22.0	C	23.7	C
Stroudwater Street SB LT	21.5	C	24.2	C
Stroudwater Street SB TH/RT	18.1	B	17.6	B
Overall	19.3	B	21.3	C
William Clarke Drive at Hannaford Drive				
<i>Weekday Evening:</i>				
William Clarke Drive EB TH	14.0	B	13.9	B
William Clarke Drive EB TH/RT	13.8	B	14.7	B
William Clarke Drive WB LT	41.9	D	42.6	D
William Clarke Drive WB TH	6.0	A	5.9	A
William Clarke Drive WB TH	5.6	A	5.4	A
Hannaford Drive NB LT	34.0	C	34.4	C
Hannaford Drive NB LT/RT	14.3	B	13.9	B
Overall	13.9	B	13.9	B
<i>Saturday Midday:</i>				
William Clarke Drive EB TH	12.2	B	14.5	B
William Clarke Drive EB TH/RT	12.7	B	14.8	B
William Clarke Drive WB LT	20.3	C	21.6	C
William Clarke Drive WB TH	7.3	A	7.7	A
William Clarke Drive WB TH	5.6	A	5.9	A
Hannaford Drive NB LT	18.4	B	18.2	B
Hannaford Drive NB LT/RT	8.7	A	9.7	A
Overall	11.2	B	12.4	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
William Clarke Drive at Westbrook Arterial				
<i>Weekday Evening:</i>				
William Clarke Drive EB LT	33.3	C	32.1	C
William Clarke Drive EB TH	13.5	B	12.6	B
William Clarke Drive EB TH	6.3	A	7.1	A
Westbrook Arterial WB TH	20.4	C	21.1	C
Westbrook Arterial WB TH/RT	15.6	B	16.7	B
Westbrook Arterial SB LT	33.7	C	33.2	C
Westbrook Arterial SB RT	35.2	D	35.2	D
Overall	20.1	C	20.2	C
<i>Saturday Midday:</i>				
William Clarke Drive EB LT	18.9	B	22.6	C
William Clarke Drive EB TH	10.8	B	10.6	B
William Clarke Drive EB TH	7.9	A	7.7	A
Westbrook Arterial WB TH	16.8	B	16.7	B
Westbrook Arterial WB TH/RT	10.2	B	11.4	B
Westbrook Arterial SB LT	18.1	B	20.5	C
Westbrook Arterial SB RT	21.6	C	22.9	C
Overall	14.1	B	14.7	B
Westbrook Arterial at Larrabee Road				
<i>Weekday Evening:</i>				
Westbrook Arterial EB LT	19.4	B	21.6	C
Westbrook Arterial EB TH	8.6	A	10.0	A
Westbrook Arterial EB TH	12.9	B	8.4	A
Westbrook Arterial WB TH	16.9	B	18.9	B
Westbrook Arterial WB TH/RT	18.4	B	20.0	B
Larrabee Road SB LT	27.1	C	31.5	C
Larrabee Road SB RT	12.6	B	11.9	B
Overall	16.7	B	16.8	B
<i>Saturday Midday:</i>				
Westbrook Arterial EB LT	13.2	B	22.0	C
Westbrook Arterial EB TH	5.9	A	12.0	B
Westbrook Arterial EB TH	7.1	A	9.8	A
Westbrook Arterial WB TH	13.7	B	16.7	B
Westbrook Arterial WB TH/RT	11.6	B	16.8	B
Larrabee Road SB LT	22.5	C	25.2	C
Larrabee Road SB RT	5.3	A	6.0	A
Overall	9.9	A	15.2	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
<u>Portland Intersections</u>				
<i>Riverside Street at Forest Avenue</i>				
<i>Weekday Evening:</i>				
Forest Street EB LT	62.7	E	62.1	E
Forest Street EB TH	52.4	D	55.1	E
Forest Street EB RT	8.1	A	8.3	A
Forest Street WB LT	85.4	F	85.5	F
Forest Street WB TH	215.8	F	214.8	F
Forest Street WB RT	3.2	A	4.1	A
Riverside Street NB LT	102.3	F	107.4	F
Riverside Street NB TH/RT	59.1	E	63.2	E
Riverside Street SB LT	80.1	F	81.2	F
Riverside Street SB TH	61.4	E	60.2	E
Riverside Street SB RT	5.8	A	5.6	A
Overall	79.6	E	80.4	F
<i>Saturday Midday:</i>				
Forest Street EB LT	54.8	D	62.7	E
Forest Street EB TH	54.0	D	95.0	F
Forest Street EB RT	11.8	B	18.5	B
Forest Street WB LT	61.7	E	72.2	E
Forest Street WB TH	62.5	E	89.7	F
Forest Street WB RT	5.4	A	6.2	A
Riverside Street NB LT	44.2	D	51.0	D
Riverside Street NB TH/RT	30.6	C	33.4	C
Riverside Street SB LT	68.3	E	77.5	E
Riverside Street SB TH	53.2	D	56.8	E
Riverside Street SB RT	1.3	A	1.3	A
Overall	39.5	D	51.2	D

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Riverside Street at Warren Avenue				
<i>Weekday Evening:</i>				
Warren Street EB LT	43.2	D	43.2	D
Warren Street EB TH/RT	50.8	D	59.8	E
Warren Street WB LT	34.9	C	57.4	E
Warren Street WB LT/TH	66.9	E	100.7	F
Warren Street WB RT	8.5	A	9.7	A
Riverside Street NB LT	56.5	E	58.3	E
Riverside Street NB TH	28.5	C	28.3	C
Riverside Street NB TH	33.9	C	34.9	C
Riverside Street NB RT	10.8	B	12.7	B
Riverside Street SB LT	51.7	D	56.1	E
Riverside Street SB TH	34.3	C	36.8	D
Riverside Street SB TH/RT	28.6	C	33.6	C
Overall	35.5	D	42.6	D
<i>Saturday MIDDAY:</i>				
Warren Street EB LT	48.8	D	60.2	E
Warren Street EB TH/RT	70.4	E	101.4	F
Warren Street WB LT	39.9	D	141.6	F
Warren Street WB LT/TH	66.4	E	187.2	F
Warren Street WB RT	7.5	A	38.7	D
Riverside Street NB LT	49.9	D	64.9	E
Riverside Street NB TT	26.8	C	23.3	C
Riverside Street NB TH	33.2	C	32.7	C
Riverside Street NB RT	11.3	B	11.0	B
Riverside Street SB LT	46.9	D	58.8	E
Riverside Street SB TH	40.6	D	71.2	E
Riverside Street SB TH/RT	24.3	C	35.3	D
Overall	38.9	D	65.5	E

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Riverside Street at Home Depot Drive				
<i>Weekday Evening:</i>				
Private Drive EB LT/TH	68.8	E	91.3	F
Private Drive EB RT	58.9	E	104.7	F
Home Depot Drive WB LT	51.9	D	62.0	E
Home Depot Drive WB RT	50.0	D	43.6	D
Riverside Street NB LT/TH	9.1	A	18.1	B
Riverside Street NB TH/RT	10.2	B	18.9	B
Riverside Street SB TH	2.6	A	7.6	A
Riverside Street SB TH/RT	2.4	A	7.4	A
Overall	8.5	A	15.7	B
<i>Saturday MIDDAY:</i>				
Private Drive EB LT/TH	81.3	F	77.8	E
Private Drive EB RT	32.7	C	239.4	F
Home Depot Drive WB LT	34.5	C	218.3	F
Home Depot Drive WB RT	37.5	D	146.5	F
Riverside Street NB LT/TH	5.8	A	12.4	B
Riverside Street NB TH/RT	7.5	A	14.7	B
Riverside Street SB TH	4.1	A	20.8	C
Riverside Street SB TH/RT	4.1	A	32.4	C
Overall	7.8	A	30.1	C
Riverside Street at Larrabee Road and the I-95 Ramps				
<i>Weekday Evening:</i>				
Larrabee Road EB LT	46.4	D	61.5	E
Larrabee Road EB TH	48.4	D	93.2	F
Larrabee Road EB TH/RT	32.5	C	41.4	D
I-95 Off-Ramp WB LT	57.6	E	67.1	E
I-95 Off-Ramp WB TH	49.1	D	52.7	D
I-95 Off-Ramp WB TH	57.5	E	65.4	E
I-95 Off-Ramp WB RT	15.7	C	22.9	C
Riverside Street NB LT	38.9	D	29.3	C
Riverside Street NB TH	44.1	D	41.4	D
Riverside Street NB TH	47.1	D	44.1	D
Riverside Street NB RT	2.6	A	2.7	A
Riverside Street SB LT	34.2	C	49.8	D
Riverside Street SB LT/TH	33.1	C	51.9	D
Riverside Street SB TH/RT	37.2	D	54.4	D
Overall	34.5	C	45.7	D
<i>Saturday MIDDAY:</i>				
Larrabee Road EB LT	54.3	D	218.2	F
Larrabee Road EB TH	37.7	D	51.8	D
Larrabee Road EB TH/RT	25.0	C	32.9	C
I-95 Off-Ramp WB LT	41.2	D	39.2	D
I-95 Off-Ramp WB TH	36.0	D	37.4	D
I-95 Off-Ramp WB TH	38.3	D	36.2	D
I-95 Off-Ramp WB RT	4.6	A	5.6	A
Riverside Street NB LT	36.3	D	33.5	C
Riverside Street NB TH	39.4	D	41.6	D
Riverside Street NB TH	43.5	D	43.7	D
Riverside Street NB RT	2.6	A	2.7	A
Riverside Street SB LT	28.0	C	46.6	D
Riverside Street SB LT/TH	41.3	D	64.6	E
Riverside Street SB TH/RT	35.7	D	51.4	D
Overall	31.2	C	55.0	D

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Riverside Street at Westbrook Crossing Drive				
<i>Weekday Evening:</i>				
Westbrook Crossing Drive EB LT/TH	47.7	D	49.8	D
Westbrook Crossing Drive EB RT	4.0	A	4.1	A
Gulf/VIP Drive WB LT/TH/RT	37.0	D	27.2	C
Riverside Street NB LT	58.4	E	58.5	E
Riverside Street NB TH	7.6	A	6.6	A
Riverside Street NB TH?RT	6.3	A	6.7	A
Riverside Street SB LT	52.3	D	57.5	E
Riverside Street SB TH	7.1	A	7.4	A
Riverside Street SB TH/RT	7.8	A	8.2	A
Overall	13.9	B	13.9	B
<i>Saturday Midday:</i>				
Westbrook Crossing Drive EB LT/TH	40.6	D	38.7	D
Westbrook Crossing Drive EB RT	4.3	A	4.2	A
Gulf/VIP Drive WB LT/TH/RT	32.5	C	33.3	C
Riverside Street NB LT	45.7	D	43.8	D
Riverside Street NB TH	10.6	B	9.3	A
Riverside Street NB TH?RT	9.9	A	9.8	A
Riverside Street SB LT	55.0	D	52.5	D
Riverside Street SB TH	6.8	A	7.0	A
Riverside Street SB TH/RT	8.4	A	9.5	A
Overall	14.5	B	14.5	B
Main Street at Riverside Street				
<i>Weekday Evening:</i>				
Main Street EB LT	47.5	D	50.3	D
Main Street EB TH	8.3	A	10.4	B
Main Street EB TH/RT	6.4	A	6.9	A
Main Street WB LT	65.6	E	62.8	E
Main Street WB TH	8.1	A	13.3	B
Main Street WB TH	13.8	B	18.1	B
Main Street WB RT	1.8	A	1.8	A
Driveway NB LT/TH/RT	46.8	D	44.9	D
Riverside Street SB LT	41.6	D	39.1	D
Riverside Street SB LT/TH	48.8	D	46.0	D
Riverside Street SB RT	1.2	A	1.2	A
Overall	15.5	B	17.0	B
<i>Saturday Midday:</i>				
Main Street EB LT	46.8	D	41.8	D
Main Street EB TH	11.2	B	11.6	B
Main Street EB TH/RT	12.0	B	9.8	A
Main Street WB LT	52.3	D	53.3	D
Main Street WB TH	15.7	B	19.3	B
Main Street WB TH	17.8	B	19.9	B
Main Street WB RT	1.4	A	1.5	A
Driveway NB LT/TH/RT	47.4	D	50.0	D
Riverside Street SB LT	24.2	C	24.2	C
Riverside Street SB LT/TH	30.0	C	30.8	C
Riverside Street SB RT	1.1	A	1.2	A
Overall	16.4	B	17.1	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Westbrook Arterial and Rand Road at the I-95 Ramps				
<i>Weekday Evening:</i>				
Westbrook Arterial EB TH	28.7	C	26.8	C
Westbrook Arterial EB RT	5.6	A	6.5	A
Rand Road WB LT	16.8	B	17.9	B
Rand Road WB TH	11.0	B	10.9	B
I-95 Off-Ramp NB LT	73.5	E	93.7	F
I-95 Off-Ramp NB RT	20.8	C	45.5	D
Overall	29.9	C	34.7	C
<i>Saturday Midday:</i>				
Westbrook Arterial EB TH	18.8	B	21.6	C
Westbrook Arterial EB RT	2.8	A	3.0	A
Rand Road WB LT	10.1	B	13.9	B
Rand Road WB TH	8.4	A	10.7	B
I-95 Off-Ramp NB LT	14.9	B	23.2	C
I-95 Off-Ramp NB RT	2.9	A	3.3	A
Overall	10.1	B	13.8	B
Brighton Avenue at City Hospital Drive				
<i>Weekday Evening:</i>				
Brighton Avenue EB TH	4.6	A	3.6	A
Brighton Avenue EB TH/RT	4.2	A	3.5	A
Brighton Avenue WB LT	70.2	E	69.4	E
Brighton Avenue WB TH	4.3	A	2.5	A
Brighton Avenue WB TH	4.5	A	3.0	A
City Hospital Drive NB LT/TH/RT	53.6	D	48.7	D
City Hospital Drive SB LT	74.9	E	57.2	E
City Hospital Drive SB TH/RT	15.7	B	14.4	B
Overall	5.9	A	5.9	A
<i>Saturday Midday:</i>				
Brighton Avenue EB TH	6.0	A	5.7	A
Brighton Avenue EB TH/RT	6.5	A	5.7	A
Brighton Avenue WB LT	47.9	D	45.3	D
Brighton Avenue WB TH	2.6	A	3.5	A
Brighton Avenue WB TH	3.0	A	3.7	A
City Hospital Drive NB LT/TH/RT	32.0	C	27.7	C
City Hospital Drive SB LT	46.7	D	50.1	D
City Hospital Drive SB TH/RT	7.4	A	7.7	A
Overall	5.5	A	5.5	A

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Brighton Avenue at Taft Avenue and Pine Tree Shopping Center Drive				
<i>Weekday Evening:</i>				
Brighton Avenue EB LT	15.9	B	17.8	B
Brighton Avenue EB TH	4.4	A	4.6	A
Brighton Avenue EB TH/RT	6.0	A	6.6	A
Brighton Avenue WB TH	1.6	A	1.9	A
Brighton Avenue WB TH/RT	2.0	A	2.3	A
Pine Tree Shopping Center Drive NB LT	50.2	D	51.4	D
Pine Tree Shopping Center Drive NB TH/RT	15.9	B	18.1	B
Taft Avenue SB LT/TH/RT	35.8	D	34.0	C
Overall	8.3	A	8.3	A
<i>Saturday Midday:</i>				
Brighton Avenue EB LT	19.4	B	22.4	C
Brighton Avenue EB TH	10.7	B	11.1	B
Brighton Avenue EB TH/RT	13.7	B	13.6	B
Brighton Avenue WB TH	3.8	A	3.8	A
Brighton Avenue WB TH/RT	3.6	A	3.8	A
Pine Tree Shopping Center Drive NB LT	37.8	D	39.3	D
Pine Tree Shopping Center Drive NB TH/RT	14.3	B	13.4	B
Taft Avenue SB LT/TH/RT	26.7	C	25.7	C
Overall	12.6	B	12.6	B
Brighton Avenue at Rand Road and Cabot Street				
<i>Weekday Evening:</i>				
Brighton Avenue EB LT	51.8	D	78.8	E
Brighton Avenue EB TH	22.2	C	27.2	C
Brighton Avenue EB TH/RT	27.9	C	35.2	D
Brighton Avenue WB LT	40.1	D	42.1	D
Brighton Avenue WB LT	48.3	D	48.4	D
Brighton Avenue WB TH	10.0	A	11.8	B
Brighton Avenue WB TH/RT	9.9	A	11.4	B
Rand Road NB LT/TH	45.7	D	41.3	D
Rand Road NB RT	6.7	A	8.9	A
Cabot Street SB LT/TH/RT	49.3	D	42.5	D
Overall	19.6	B	21.9	C
<i>Saturday Midday:</i>				
Brighton Avenue EB LT	0.0	A	0.0	A
Brighton Avenue EB TH	9.0	A	15.3	B
Brighton Avenue EB TH/RT	11.2	B	17.2	B
Brighton Avenue WB LT	35.1	D	31.8	C
Brighton Avenue WB LT	43.5	D	41.4	D
Brighton Avenue WB TH	4.3	A	7.1	A
Brighton Avenue WB TH/RT	4.2	A	5.7	A
Rand Road NB LT/TH	45.9	D	47.6	D
Rand Road NB RT	4.1	A	5.3	A
Cabot Street SB LT/TH/RT	38.4	D	35.4	D
Overall	11.1	B	14.4	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Brighton Avenue at Rowe Avenue and Warwick Street				
<i>Weekday Evening:</i>				
Brighton Avenue EB LT/TH	34.5	C	45.7	D
Brighton Avenue EB TH/RT	9.6	A	12.1	B
Brighton Avenue WB LT/TH	11.7	B	12.0	B
Brighton Avenue WB TH/RT	11.0	B	10.8	B
Rowe Avenue NB LT/TH/RT	40.0	D	43.1	D
Warwick Street SB LT/TH/RT	40.2	D	38.9	D
Overall	15.3	B	17.4	B
<i>Saturday Middy:</i>				
Brighton Avenue EB LT/TH	8.6	A	12.3	B
Brighton Avenue EB TH/RT	3.9	A	4.2	A
Brighton Avenue WB LT/TH	5.8	A	9.8	A
Brighton Avenue WB TH/RT	4.9	A	6.9	A
Rowe Avenue NB LT/TH/RT	32.4	C	32.2	C
Warwick Street SB LT/TH/RT	26.4	C	29.6	C
Overall	6.9	A	9.0	A
Brighton Avenue at Capisic Street, Hillcrest Avenue and Kent Street				
<i>Weekday Evening:</i>				
Brighton Avenue EB LT/TH	25.8	C	35.9	D
Brighton Avenue EB TH/RT	31.9	C	44.3	D
Brighton Avenue WB LT/TH	20.9	C	31.9	C
Brighton Avenue WB TH/RT	21.7	C	29.5	C
Hillcrest Avenue NB LT/TH/RT	31.5	C	25.2	C
Kent Street SB LT/TH/RT	44.1	D	38.7	D
Capisic Street NWB LT	36.9	D	51.2	D
Capisic Street NWB LT	16.6	B	20.2	C
Overall	27.8	C	38.8	D
<i>Saturday Middy:</i>				
Brighton Avenue EB LT/TH	8.7	A	13.5	B
Brighton Avenue EB TH/RT	11.5	B	16.4	B
Brighton Avenue WB LT/TH	15.7	B	21.6	C
Brighton Avenue WB TH/RT	15.4	B	18.5	B
Hillcrest Avenue NB LT/TH/RT	17.1	B	81.3	F
Kent Street SB LT/TH/RT	34.8	C	48.7	D
Capisic Street NWB LT	41.2	D	63.1	E
Capisic Street NWB LT	35.3	D	29.9	C
Overall	17.1	B	24.4	C

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Brighton Avenue at Woodford Street and Columbia Road				
<i>Weekday Evening:</i>				
Brighton Avenue EB LT	46.5	D	48.8	D
Brighton Avenue EB TH	16.7	B	20.2	C
Brighton Avenue EB TH/RT	17.4	B	22.8	C
Brighton Avenue WB LT/TH	23.4	C	27.1	C
Brighton Avenue WB TH/RT	18.2	B	21.4	C
Columbia Road NB LT/TH/RT	298.4	F	192.4	F
Columbia Road SB LT/TH/RT	172.6	F	174.8	F
Woodford Street SWB LT/RT	343.4	F	350.0	F
Woodford Street SWB RT	126.7	F	124.1	F
Overall	82.8	F	82.8	F
<i>Saturday Midday:</i>				
Brighton Avenue EB LT	28.5	C	29.8	C
Brighton Avenue EB TH	23.4	C	26.2	C
Brighton Avenue EB TH/RT	22.5	C	24.3	C
Brighton Avenue WB LT/TH	17.3	B	18.9	B
Brighton Avenue WB TH/RT	17.3	B	17.8	B
Columbia Road NB LT/TH/RT	82.0	F	86.3	F
Columbia Road SB LT/TH/RT	99.0	F	70.5	E
Woodford Street SWB LT/RT	112.1	F	122.3	F
Woodford Street SWB RT	56.2	E	62.4	E
Overall	40.4	D	41.4	D
Woodford Street at Stevens Avenue				
<i>Weekday Evening:</i>				
Woodford Street EB LT	32.1	C	34.1	C
Woodford Street EB TH/RT	18.8	B	19.3	B
Woodford Street WB LT/TH	61.7	E	63.9	E
Woodford Street WB RT	5.6	A	5.8	A
Stevens Avenue NB LT/TH	26.1	C	26.0	C
Stevens Avenue NB RT	4.6	A	4.6	A
Stevens Avenue SB LT	16.1	B	16.3	B
Stevens Avenue SB TH/RT	12.2	B	12.2	B
Overall	25.0	C	26.0	C
<i>Saturday Midday:</i>				
Woodford Street EB LT	14.1	B	14.8	B
Woodford Street EB TH/RT	12.3	B	12.1	B
Woodford Street WB LT/TH	14.7	B	15.5	B
Woodford Street WB RT	3.3	A	3.3	A
Stevens Avenue NB LT/TH	13.9	B	15.6	B
Stevens Avenue NB RT	2.0	A	2.3	A
Stevens Avenue SB LT	8.8	A	9.8	A
Stevens Avenue SB TH/RT	8.8	A	9.7	A
Overall	11.2	B	12.1	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Brighton Avenue at St. John's Street and Devonshire Street				
<i>Weekday Evening:</i>				
Brighton Avenue EB LT/TH	21.3	C	27.5	C
Brighton Avenue EB TH/RT	63.4	E	58.3	E
Brighton Avenue WB LT/TH	10.9	B	9.7	A
Brighton Avenue WB TH/RT	8.7	A	7.9	A
St. John's Street NB LT	33.8	C	35.4	D
St. John's Street NB TH/RT	45.3	D	48.3	D
Devonshire Street SB LT/TH/RT	83.8	F	123.1	F
Overall	38.2	D	40.6	D
<i>Saturday Midday:</i>				
Brighton Avenue EB LT/TH	168.8	F	128.3	F
Brighton Avenue EB TH/RT	43.4	D	42.6	D
Brighton Avenue WB LT/TH	5.3	A	6.3	A
Brighton Avenue WB TH/RT	5.9	A	6.2	A
St. John's Street NB LT	39.4	D	32.1	C
St. John's Street NB TH/RT	25.7	C	22.6	C
Devonshire Street SB LT/TH/RT	33.7	C	32.6	C
Overall	37.2	D	37.2	D
Brighton Avenue at Stevens Avenue				
<i>Weekday Evening:</i>				
Brighton Avenue EB LT	23.8	C	24.4	C
Brighton Avenue EB TH/RT	33.1	C	34.5	C
Brighton Avenue WB LT	21.3	C	25.4	C
Brighton Avenue WB TH/RT	30.7	C	27.3	C
Stevens Avenue NB LT	91.6	F	106.8	F
Stevens Avenue NB TH/RT	135.7	F	145.9	F
Stevens Avenue SB LT	135.9	F	150.1	F
Stevens Avenue SB TH/RT	151.7	F	166.6	F
Overall	72.4	E	75.2	E
<i>Saturday Midday:</i>				
Brighton Avenue EB LT	324.4	F	369.4	F
Brighton Avenue EB TH/RT	29.7	C	28.8	C
Brighton Avenue WB LT	44.1	D	68.4	E
Brighton Avenue WB TH/RT	11.6	B	11.0	B
Stevens Avenue NB LT	63.4	E	88.0	F
Stevens Avenue NB TH/RT	53.8	D	66.7	E
Stevens Avenue SB LT	86.9	F	92.6	F
Stevens Avenue SB TH/RT	41.0	D	41.5	D
Overall	44.4	D	48.2	D

^aPercentile delay per vehicle (seconds).

^bLevel-of-Service.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound;
 NWB = northwestbound; SWB = southwestbound; LT = left-turning movements;
 TH = through movements; RT = right-turning movements.

Table 7
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
<i>Cumberland Street at Park Road</i>				
<i>Weekday Evening:</i>				
Cumberland Street EB LT/TH	8.0	A	5.5	A
Cumberland Street WB TH/RT	10.4	B	45.5	E
Park Road SB LT/RT	91.9	F	104.7	F
Overall	15.2	C	40.7	E
<i>Saturday MIDDAY:</i>				
Cumberland Street EB LT/TH	2.6	A	3.3	A
Cumberland Street WB TH/RT	5.5	A	6.3	A
Park Road SB LT/RT	17.7	C	32.3	D
Overall	6.0	A	8.2	A
<i>Main Street at the Westbrook Crossing Driveway and the Project Site Driveway</i>				
<i>Weekday Evening:</i>				
Main Street EB LT	10.5	B	40.9	E
Main Street EB TH	4.6	A	15.4	C
Main Street EB TH	4.1	A	--	--
Main Street EB TH/RT	--	--	13.4	B
Main Street WB LT	--	--	49.0	E
Main Street WB TH	1.9	A	20.1	C
Main Street WB TH/RT	3.4	A	20.0	C
Project Site Driveway NB LT/TH	--	--	48.1	E
Project Site Driveway NB RT	--	--	6.3	A
Westbrook Crossing SB LT	25.3	D	--	--
Westbrook Crossing SB LT/TH	--	--	40.2	E
Westbrook Crossing SB RT	6.6	A	8.7	A
Overall	4.8	A	22.7	C
<i>Saturday MIDDAY:</i>				
Main Street EB LT	10.2	B	38.5	E
Main Street EB TH	2.2	A	18.0	C
Main Street EB TH	3.6	A	--	--
Main Street EB TH/RT	--	--	14.8	B
Main Street WB LT	--	--	25.7	D
Main Street WB TH	3.0	A	11.3	B
Main Street WB TH/RT	4.7	A	9.0	A
Project Site Driveway NB LT/TH	--	--	38.1	E
Project Site Driveway NB RT	--	--	7.5	A
Westbrook Crossing SB LT	21.5	C	--	--
Westbrook Crossing SB LT/TH	--	--	35.6	E
Westbrook Crossing SB RT	5.3	A	6.7	A
Overall	5.4	A	18.0	C

See notes at end of table.

Table 7 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Main Street at Stroudwater Street				
<i>Weekday Evening:</i>				
Main Street EB TH/RT	2.3	A	2.5	A
Main Street WB LT/TH	1.7	A	1.6	A
Stroudwater Street NB LT/RT	18.3	C	22.4	C
Overall	4.6	A	5.3	A
<i>Saturday Midday:</i>				
Main Street EB TH/RT	2.2	A	2.2	A
Main Street WB LT/TH	2.4	A	3.1	A
Stroudwater Street NB LT/RT	18.8	C	27.8	D
Overall	4.3	A	5.8	A
Stroudwater Street at Forest Street				
<i>Weekday Evening:</i>				
Stroudwater Street EB LT/TH	16.8	C	22.8	C
Stroudwater Street WB TH/RT	3.1	A	3.3	A
Forest Street SB LT/RT	123.1	F	154.7	F
Overall	26.3	D	30.2	D
<i>Saturday Midday:</i>				
Stroudwater Street EB LT/TH	2.6	A	2.7	A
Stroudwater Street WB TH/RT	1.1	A	1.3	A
Forest Street SB LT/RT	7.7	A	9.6	A
Overall	3.3	A	4.0	A
Forest Street at the Westbrook Arterial Eastbound On-Ramp				
<i>Weekday Evening:</i>				
Forest Street NB TH/RT	0.9	A	1.0	A
Forest Street SB LT/TH	81.1	F	123.5	F
Overall	29.9	D	40.2	E
<i>Saturday Midday:</i>				
Forest Street NB TH/RT	0.5	A	0.6	A
Forest Street SB LT/TH	0.8	A	0.9	A
Overall	0.7	A	0.7	A

See notes at end of table.

Table 7 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Forest Street at the Westbrook Arterial				
Westbound Off-Ramp and Libby Avenue				
<i>Weekday Evening:</i>				
Libby Avenue EB LT/TH/RT	158.8	F	419.8	F
Westbrook Arterial Off-Ramp WB LT/TH	122.2	F	304.0	F
Westbrook Arterial Off-Ramp WB RT	10.7	B	36.8	E
Forest Street NB LT/TH/RT	0.5	A	0.5	A
Forest Street SB LT/TH/RT	51.2	F	123.9	F
Overall	35.0	D	83.1	F
<i>Saturday Midday:</i>				
Libby Avenue EB LT/TH/RT	3.1	A	3.3	A
Westbrook Arterial Off-Ramp WB LT/TH	5.5	A	5.9	A
Westbrook Arterial Off-Ramp WB RT	1.0	A	1.0	A
Forest Street NB LT/TH/RT	0.4	A	0.4	A
Forest Street SB LT/TH/RT	0.2	A	0.2	A
Overall	1.7	A	2.0	A
Spring Street at Eisenhower Drive				
<i>Weekday Evening:</i>				
Eisenhower Drive EB LT	988.5	F	930.8	F
Eisenhower Drive EB RT	70.4	F	73.3	F
Spring Street NB LT	6.4	A	6.5	A
Spring Street NB TH	14.5	B	14.6	B
Spring Street SB TH/RT	1.6	A	1.6	A
Overall	37.9	E	37.9	E
<i>Saturday Midday:</i>				
Eisenhower Drive EB LT	24.5	C	27.4	D
Eisenhower Drive EB RT	8.8	A	9.4	A
Spring Street NB LT	5.6	A	6.0	A
Spring Street NB TH	1.9	A	1.9	A
Spring Street SB TH/RT	0.9	A	1.0	A
Overall	2.9	A	3.0	A

See notes at end of table.

Table 7 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Larrabee Road at Terminal Street and the North Project Site Drive				
<i>Weekday Evening:</i>				
Terminal Street EB LT/TH/RT	11.1	B	19.0	C
North Project Site Drive WB LT/TH/RT	9.3	A	--	--
North Project Site Drive WB LT/TH	--	--	21.8	C
North Project Site Drive WB RT	--	--	4.4	A
Larrabee Road NB LT	--	--	5.1	A
Larrabee Road NB LT/TH	1.8	A	--	--
Larrabee Road NB TH	--	--	0.4	A
Larrabee Road NB TH/RT	0.1	A	0.7	A
Larrabee Road SB LT	--	--	6.8	A
Larrabee Road SB LT/TH	1.8	A	--	--
Larrabee Road SB TH	--	--	2.1	A
Larrabee Road SB TH/RT	2.5	A	1.9	A
Overall	3.1	A	5.2	A
<i>Saturday Midday:</i>				
Terminal Street EB LT/TH/RT	5.9	A	12.6	B
North Project Site Drive WB LT/TH/RT	3.9	A	--	--
North Project Site Drive WB LT/TH	--	--	19.6	C
North Project Site Drive WB RT	--	--	4.2	A
Larrabee Road NB LT	--	--	3.3	A
Larrabee Road NB LT/TH	0.6	A	--	--
Larrabee Road NB TH	--	--	0.5	A
Larrabee Road NB TH/RT	0.1	A	1.0	A
Larrabee Road SB LT	--	--	6.9	A
Larrabee Road SB LT/TH	1.7	A	--	--
Larrabee Road SB TH	--	--	2.4	A
Larrabee Road SB TH/RT	1.9	A	1.5	A
Overall	1.6	A	4.6	A
Larrabee Road at Saunders Way and the South Project Site Drive				
<i>Weekday Evening:</i>				
Saunders Way LT/TH/RT	--	--	10.5	B
South Project Site Drive WB LT/TH	--	--	19.4	C
South Project Site Drive WB RT	--	--	3.9	A
Larrabee Road NB LT/TH	--	--	1.4	A
Larrabee Road NB TH/RT	--	--	1.1	A
Larrabee Road SB LT/TH	--	--	1.4	A
Larrabee Road SB TH/RT	--	--	0.7	A
Overall	--	--	2.1	A
<i>Saturday Midday:</i>				
Saunders Way LT/TH/RT	--	--	9.5	A
South Project Site Drive WB LT/TH	--	--	16.2	C
South Project Site Drive WB RT	--	--	4.2	A
Larrabee Road NB LT/TH	--	--	1.1	A
Larrabee Road NB TH/RT	--	--	1.5	A
Larrabee Road SB LT/TH	--	--	2.6	A
Larrabee Road SB TH/RT	--	--	0.4	A
Overall	--	--	2.7	A

See notes at end of table.

Table 7 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build	
	Delay ^a	LOS ^b	Delay	LOS
Westbrook Arterial at the Project Site Drive				
<i>Weekday Evening:</i>				
Westbrook Arterial EB LT	--	--	10.8	B
Westbrook Arterial EB TH	--	--	2.9	A
Westbrook Arterial EB TH	--	--	21.3	C
Westbrook Arterial WB TH	--	--	0.3	A
Westbrook Arterial WB TH/RT	--	--	0.7	A
Project Site Drive SB LT	--	--	22.8	C
Project Site Drive SB RT	--	--	27.1	D
Overall	--	--	12.8	B
<i>Saturday MIDDAY:</i>				
Westbrook Arterial EB LT	--	--	9.0	A
Westbrook Arterial EB TH	--	--	3.0	A
Westbrook Arterial EB TH	--	--	26.9	D
Westbrook Arterial WB TH	--	--	0.4	A
Westbrook Arterial WB TH/RT	--	--	0.8	A
Project Site Drive SB LT	--	--	129.0	F
Project Site Drive SB RT	--	--	6.2	A
Overall	--	--	11.5	B
<u>Portland Intersections</u>				
Capisc Street at Frost Street				
<i>Weekday Evening:</i>				
Capisc Street EB LT/TH	35.7	E	38.6	E
Capisc Street EB RT	8.4	A	8.6	A
Frost Street NB LT	5.0	A	5.5	A
Frost Street NB TH/RT	0.4	A	0.4	A
Driveway SB LT/TH/RT	2.9	A	3.3	A
Overall	8.2	A	8.8	A
<i>Saturday MIDDAY:</i>				
Capisc Street EB LT/TH/RT	2.1	A	2.5	A
Capisc Street WB LT	5.7	A	5.8	A
Capisc Street WB TH/RT	0.3	A	0.3	A
Frost Street NB LT	16.6	C	22.5	C
Frost Street SB RT	4.8	A	4.8	A
Driveway SB LT/TH/RT	5.1	A	3.2	A
Overall	4.4	A	5.3	A

^aAverage control delay per vehicle (in seconds).

^bLevel-of-Service.

EB = eastbound; WB = westbound; NB = northbound; SB = southbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Signalized Intersections

As can be seen in Table 6, with the addition of Project-related traffic, 28 of the 34 signalized intersections within the study area were shown to continue to operate at an overall LOS D or better during the weekday evening and Saturday midday peak hours under 2021 Build Design Year conditions, where an LOS of “D” or better is generally defined as “acceptable” operating conditions. The following intersections were identified to be operating at or over the theoretical design capacity of the intersection (defined as LOS E or F, respectively):

Westbrook:

- ***Cumberland Street/Bridge Street*** – This intersection was found to be operating at an overall LOS E during the weekday evening peak-hour under 2021 No-Build conditions (independent of the Project) and is predicted to degrade to LOS F during this period with the addition of Project-related traffic.
- ***Main Street/Forest Street*** – This intersection was found to be operating at an overall LOS D during the weekday evening peak-hour and at LOS B during the Saturday midday peak-hour under 2021 No-Build conditions, and is predicted to degrade to LOS E during both peak periods with the addition of Project-related traffic.

In addition, we note that specific movements at the Main Street/Larrabee Road and William Clarke Drive/Mechanic Street intersections are predicted to degrade to LOS E/F with the addition of Project-related traffic, although overall operating conditions at the intersections were maintained at LOS D.

Portland:

- ***Riverside Street/Forest Avenue*** – This signalized intersection was shown to operate at an overall LOS E during the weekday evening peak-hour under 2021 No-Build conditions (independent of the Project) and is predicted to degrade to LOS F during this period with the addition of Project-related traffic.
- ***Riverside Street/Warren Avenue*** – This signalized intersection was shown to operate at an overall LOS D during the Saturday midday peak-hour under 2021 No-Build conditions and is predicted to degrade to LOS E during this period with the addition of Project-related traffic.
- ***Brighton Avenue/Woodford Street/Columbia Road*** – This signalized intersection was shown to operate at an overall LOS F during the weekday evening peak-hour under both 2021 No-Build and 2021 Build Design Year conditions independent of the Project.
- ***Brighton Avenue/Stevens Avenue*** – This signalized intersection was shown to operate at an overall LOS E during the weekday evening peak-hour under both 2021 No-Build and 2021 Build Design Year conditions independent of the Project.

In addition, we note that specific movements at the Riverside Street/Home Depot Drive and Riverside Street/Larrabee Road/I-95 Ramps intersections are predicted to degrade to LOS E/F with the addition of Project-related traffic, although overall operating conditions at the intersections were maintained at LOS D.

Unsignalized Intersections

As can be seen in Table 7, seven (7) of the 11 unsignalized intersections within the study area were found to have one or more movements operating below LOS “D” during one or more peak-hour under 2021 No-Build and 2021 Build Design Year conditions. The identified intersections are as follows:

Westbrook:

- ***Cumberland Street/Park Road*** – All movements from the Park Road approach were shown to operate at LOS F during both the weekday evening peak-hour under 2021 No-Build and 2021 Build Design Year conditions.
- ***Main Street/Westbrook Crossing Driveway/Project Site Driveway*** – Absent the installation of a traffic control signal at this intersection (proposed as a part of the Project), left-turn movements from Main Street eastbound and left-turn/through movements from the Westbrook Crossing driveway and the Project site driveway were shown to operate at LOS E during both the weekday evening and Saturday midday peak hours under 2021 Build Design Year conditions. The proposed installation of a traffic control signal at this intersection in conjunction with the Project will improve overall operating conditions and facilitate the ability of motorists to access both the Westbrook Crossing shopping center and the Project site.
- ***Main Street/Stroudwater Street*** – All movements from the Stroudwater Street approach were shown to operate at LOS E/F during both the weekday evening and Saturday midday peak hours under 2021 No-Build and 2021 Build Design Year conditions.
- ***Stroudwater Street/Forest Street*** – All movements from the Forest Street approach were shown to operate at LOS F during the weekday evening peak-hour under 2021 No-Build and 2021 Build Design Year conditions.
- ***Forest Street/Westbrook Arterial Eastbound On-Ramp*** – All movements from the Forest Street southbound approach were shown to operate at LOS F during the weekday evening peak-hour under 2021 No-Build and 2021 Build Design Year conditions.
- ***Forest Street/Westbrook Arterial Westbound Off-Ramp/Libby Avenue*** – All movements from Libby Avenue, left-turn/through movements from the Westbrook Arterial off-ramp and all movements from the Forest Street southbound approach were shown to operate at LOS F during the weekday evening peak-hour under 2021 No-Build and 2021 Build Design Year conditions.
- ***Spring Street/Eisenhower Drive*** – All movements from Eisenhower Drive were shown to operate at LOS F during the weekday evening peak-hour under 2021 No-Build and 2021 Build Design Year conditions.
- ***Westbrook Arterial/Project Site Driveway*** – Absent the installation of a traffic control signal at this proposed intersection (proposed as a part of the Project), left-turn movements from the Project site driveway were shown to operate at LOS F during the Saturday midday peak-hour. The proposed installation of a traffic control signal at this intersection in conjunction with the Project will improve overall operating conditions and facilitate the ability of motorists to access the Project site.

Portland:

- ***Capisic Street/Frost Street*** – Left-turn/through movements from the Capisic Street approach were shown to operate at LOS E during the weekday evening peak-hour under 2021 No-Build and 2021 Build Design Year conditions.

SIGHT DISTANCE EVALUATION

Sight distance measurements were performed at the Project site driveway intersections with Main Street, Westbrook Arterial and Larrabee Road in accordance with MDOT and American Association of State Highway and Transportation Officials (AASHTO)¹¹ requirements. Both stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete a turning or crossing maneuver with on-coming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 8 presents the measured SSD and ISD at the subject intersections.

¹¹ *A Policy on Geometric Design of Highway and Streets*, 6th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2011.

Table 8
SIGHT DISTANCE MEASUREMENTS^a

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD) ^b	Measured
<i>Main Street at the Full Access Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Main Street approaching from the east	305	--	650+
Main Street approaching from the west	305	--	650+
<i>Intersection Sight Distance:</i>			
Looking to the east from the Project Site Driveway	305	385/445	650+
Looking to the west from the Project Site Driveway	305	385/445	650+
<i>Westbrook Arterial at the Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Westbrook Arterial approaching from the east	495	--	650+
Westbrook Arterial approaching from the west	495	--	650+
<i>Intersection Sight Distance:</i>			
Looking to the east from the Project Site Driveway	495	530/610	650+
Looking to the west from the Project Site Driveway	495	530/610	650+
<i>Larrabee Road at the North Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Larrabee Road approaching from the north	305	--	650+
Larrabee Road approaching from the south	305	--	650+
<i>Intersection Sight Distance:</i>			
Looking to the north from the Project Site Driveway	305	385/445	650+
Looking to the south from the Project Site Driveway	305	385/445	650+
<i>Larrabee Road at the South Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Larrabee Road approaching from the north	305	--	650+
Larrabee Road approaching from the south	305	--	650+
<i>Intersection Sight Distance:</i>			
Looking to the north from the Project Site Driveway	305	385/445	650+
Looking to the south from the Project Site Driveway	305	385/445	650+

^aRecommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, 6th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2011; and based on a 40 mph approach speed on Main Street and Larrabee Road, and a 55 mph approach speed on Westbrook Arterial.

^bValues shown are the intersection sight distance for a vehicle turning right/left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed.

As can be seen in Table 8, lines of sight at the Project site driveway intersections exceed the recommended minimum sight distance requirements to function in a safe (SSD) and efficient (ISD) manner based on the appropriate approach speed along the intersecting roadway.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated the proposed construction of a mixed-use commercial development to be known as Dirigo Plaza and located on an assemblage of parcels bounded by Main Street (Route 25B), Westbrook Arterial (Route 25), and Larrabee Road, in Westbrook, Maine. This assessment has been amended to incorporate specific comments received from the City of Westbrook and their independent review consultant, as well as subsequent consultation and meetings with MDOT, the MTA, the City of Portland and PACTS. Specifically, this amended assessment has evaluated an expanded study area; provided updated traffic counts and safety analyses; revised the trip-distribution pattern and trip assignments to reflect the use of the PACTS traffic model; and includes an expanded transportation improvement program, a discussion of which follows.

Based on this amended assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the ITE¹² and applying appropriate adjustments to account for pass-by trips, the Project is predicted to generate approximately 13,366 new vehicle trips on an average weekday and 18,890 new vehicle trips on a Saturday (two-way volume over the operational day of the Project), with 351 new vehicle trips expected during the weekday morning peak-hour, 1,217 new vehicle trips expected during the weekday evening peak-hour and 1,853 new vehicle trips expected during the Saturday midday peak-hour;
2. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over anticipated future conditions without the Project (No-Build conditions) at the majority of the study intersections;
3. At those locations where the Project was shown to have a pronounced impact or where a capacity or safety deficiency was identified, specific improvement measures have been identified to reconcile these conditions or to advance design plans for a future improvement project by others; and

¹²Ibid 1.

4. Lines of sight to and from the Project site driveway intersections with Main Street, Westbrook Arterial and Larrabee Road were found to exceed the required minimum distance for the intersections to function in a safe and efficient manner based on the appropriate approach speed along the intersecting roadway.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

RECOMMENDATIONS

A detailed and expanded transportation improvement program has been developed that is designed to provide safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access to the Project site is proposed as follows: two (2) driveways that will intersect Larrabee Road and will align with Terminal Street and Saunders Way, respectively, with the northernmost driveway (opposite Terminal Street) to be placed under traffic signal control (flashing operation until full activation is warranted); an existing driveway that serves the Project site that intersects Main Street opposite the driveway to the Westbrook Crossing shopping center that will be placed under traffic signal control; a right-turn, entrance only driveway that will intersect Main Street approximately 100 feet east of Larrabee Road; and a full access driveway that will intersect Westbrook Arterial approximately 550 feet east of Larrabee Road that will be placed under traffic signal control. As discussed with MDOT, it is proposed that the rights to construct a third full access driveway on Larrabee Road (to be located between the Westbrook Arterial and the railroad tracks) be transferred to Westbrook Arterial in order to allow for the construction of the full access driveway on Westbrook Arterial. The following recommendations are offered with respect to the design and operation of the Project site driveways and are also depicted on Figure 14:

- The Project site driveway intersections with Main Street (full access driveway to be located opposite the driveway to Westbrook Crossing) and Westbrook Arterial should be placed under traffic signal control. The proposed traffic signals should be interconnected and coordinated with the adjacent traffic signals on Main Street and Westbrook Arterial.
- The Main Street approach to the full access Project site driveway should provide a westbound left-turn, while maintaining the eastbound left-turn lane to the Westbrook Crossing shopping center and two (2) through travel lanes in both directions.
- The Westbrook Arterial approaches to the Project site driveway should provide a right-turn lane and two (2) through travel lanes on the westbound approach, and a left-turn lane and two (2) through travel lanes on the eastbound approach.
- The signalized Project site driveways should accommodate two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or a raised median a minimum of 6-feet in width.

- The north Project site driveway on Larrabee Road (opposite Terminal Street) should be placed under traffic signal control and operated in flashing mode (flashing yellow for Larrabee Road and flashing red for Terminal Street and the Project site driveway) until such time as the required warrants to justify full activation of the traffic control signal are met (see *Traffic Monitoring Program*). Larrabee Road approaching the intersection should be widened to provide a left-turn lane in both the north and southbound directions, with the Project site driveway providing two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or raised median a minimum of 6-feet in width. Vehicles exiting the Project site driveway and Terminal Street should be placed under STOP-sign control with a marked STOP-line provided until full activation of the traffic control signal.
- The south Project site driveway on Larrabee Road (opposite Saunders Way) should provide two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or raised median a minimum of 6-feet in width, with vehicles exiting the driveway placed under STOP-sign control with a marked STOP-line provided. In addition, Larrabee Road approaching the intersection should be widened to provide a left-turn lane in both the north and southbound directions.
- All signs and pavement markings to be installed within the Project site shall conform to the applicable standards of the *Manual on Uniform Traffic Control Devices (MUTCD)*.¹³
- Sidewalks should be provided within the Project site linking the proposed buildings to the sidewalk infrastructure along Main Street.
- Wheelchair ramps should be provided for crossing the Project site driveways where a sidewalk is present and at locations internal to the Project site where pedestrian crossings are proposed.
- Signs and landscaping to be installed internal to the Project site and at the Project site driveway intersections should be designed and maintained so as not to restrict lines of sight.
- Snow windrows along the Project site frontage within the sight triangle areas of the Project site driveways shall be promptly removed where such accumulations would exceed 2.5 feet in height.

Off-Site

Table 9 summarizes the off-site improvements are proposed to off-set the impact of the Project and improve traffic operations, and will be implemented by the Project proponent prior to the issuance of a Certificate of Occupancy for the Project and subject to receipt of all necessary rights, permits and approvals. The resulting improvement in operating conditions is summarized in Table 10, with the detailed analysis worksheets included in the Technical Appendix.

¹³ Ibid 2.

Table 9
DIRIGO PLAZA
TRANSPORTATION IMPROVEMENT PROGRAM SUMMARY - WESTBROOK

Intersection	Improvement Measure	Responsible Party
<i>William Clarke Drive Traffic Signal System (5 intersections)</i>	– Design and implement an optimal traffic signal timing, phasing and coordination plan	J&J Gove Development LLC
<i>William Clarke Drive/ New Gorham Road/Main Street and William Clarke Drive/ Saco Street</i>	– Design and implement an optimal traffic signal timing and phasing plan – If requested by City, modify traffic signals to operate on separate traffic signal controllers (vs. current single controller operation) and interconnect and coordinate two signals	J&J Gove Development LLC
<i>Cumberland Street/Bridge Street</i>	– Design and implement an optimal traffic signal timing and phasing plan	J&J Gove Development LLC
<i>Main Street/Forest Street</i>	– Convert Main Street westbound right-turn lane to a through/right-turn lane – Design and implement an optimal traffic signal timing and phasing plan	J&J Gove Development LLC
<i>Main Street/Larrabee Road</i>	– Remove raised triangular islands from Larrabee Road approaches – Install crosswalks and pedestrian traffic signal equipment – Upgrade/replace traffic signal equipment – Review/upgrade/replace signs and pavement markings – Coordinate with adjacent traffic signals – Design and implement an optimal traffic signal timing, phasing and coordination plan	J&J Gove Development LLC
<i>Westbrook Arterial/ Larrabee Road</i>	– Design and implement an optimal traffic signal timing and phasing plan – Coordinate with adjacent traffic signal	J&J Gove Development LLC
<i>Cumberland Street/Park Road</i>	– Perform Traffic Signal Warrants Analysis – Prepare Conceptual Improvement Plans	J&J Gove Development LLC
<i>Stroudwater Street/Forest Street</i>	– Perform Traffic Signal Warrants Analysis – Prepare Conceptual Improvement Plans	J&J Gove Development LLC

Table 9 (Continued)

DIRIGO PLAZA

TRANSPORTATION IMPROVEMENT PROGRAM SUMMARY - PORTLAND

Intersection	Improvement Measure	Responsible Party
<i>Brighton Avenue Traffic Signal System (9 intersections)</i>	– Design and implement an optimal traffic signal timing, phasing and coordination plan	J&J Gove Development LLC
<i>Riverside Street Traffic Signal System (5 intersections)</i>	– Design and implement an optimal traffic signal timing, phasing and coordination plan	J&J Gove Development LLC
<i>Westbrook Arterial/Rand Road/I-95 Ramps</i>	– Design and implement an optimal traffic signal timing and phasing plan	J&J Gove Development LLC
<i>Capisic Street/Frost Street</i>	– Perform Traffic Signal Warrants Analysis – Prepare Conceptual Improvement Plans – Trim vegetation along Capisic Street – Install “Intersection Ahead” warning signs on Capisic Street – Install “Stop Sign Ahead” warning sign on Frost Street – Review/upgrade/replace signs and pavement markings	J&J Gove Development LLC
<i>Riverside Street/Larrabee Road</i>	– Design and construct intersection geometric improvements – Upgrade/replace traffic signal equipment – Review/upgrade/replace signs and pavement markings – Design and implement an optimal traffic signal timing and phasing plan	J&J Gove Development LLC
<i>Riverside Street/Forest Avenue</i>	– Upgrade/replace traffic signal equipment – Review/upgrade/replace signs and pavement markings – Design and implement an optimal traffic signal timing and phasing plan	J&J Gove Development LLC
<i>Riverside Street/Warren Avenue</i>	– Upgrade/replace traffic signal equipment – Review/upgrade/replace signs and pavement markings – Design and implement an optimal traffic signal timing and phasing plan	J&J Gove Development LLC
<i>Brighton Avenue/Stevens Avenue</i>	– Upgrade/replace traffic signal equipment – Review/upgrade/replace signs and pavement markings – Design and implement an optimal traffic signal timing and phasing plan	J&J Gove Development LLC

Westbrook:

- ***William Clarke Drive Traffic Signal System*** – Design and implement an optimal traffic signal timing, phasing and coordination plan, to include the following intersections:
 1. William Clarke Drive at Mechanic Street
 2. William Clarke Drive at Spring Street
 3. William Clark Drive at Stroudwater Street
 4. William Clarke Drive at Hannaford Drive
 5. William Clarke Drive at Main Street Connector

The improvements will include the installation of all necessary hardware and appurtenances required to provide a fully functioning, coordinated traffic signal system inclusive of the above intersections.

- ***William Clarke Drive at New Gorham Road and Main Street, and William Clarke Drive at Saco Street*** - Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes. The traffic signal system at these two (2) separate intersections currently operates from a common traffic signal controller. To the extent desired by the City, the traffic signal systems at these intersections will be modified to operate from separate traffic signal controllers, and will be interconnected and coordinated.
- ***Cumberland Street at Bridge Street*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Main Street at Forest Street*** – Convert the Main Street westbound right-turn lane to a through/right-turn lane and design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Main Street at Larrabee Road*** – Remove the raised triangular islands on the Larrabee Road approaches to eliminate the right-turn slip-ramps; install crosswalks, wheelchair ramps and pedestrian traffic signal equipment (push buttons, signal indications and phasing); reconstruct/upgrade/replace traffic signal equipment as necessary to accommodate the intersection improvements; and interconnect and coordinate with adjacent traffic signals at the Project site driveway/Westbrook Crossing shopping center and Brighton Avenue/Riverside Street intersections.
- ***Westbrook Arterial at Larrabee Road*** – Design and implement an optimal traffic signal timing and phasing plan, and interconnect and coordinate with the proposed traffic control signal to be installed at the Project site driveway. These improvements include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Cumberland Street at Park Road*** – Perform a detailed Traffic Signal Warrants Analysis (TSWA) in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

- ***Stroudwater Street at Forest Street*** - Perform a detailed TSWA in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

Portland:

- ***Brighton Avenue Traffic Signal System*** – Design and implement an optimal traffic signal timing, phasing and coordination plan, to include the following intersections:

1. Brighton Avenue at Riverside Street
2. Brighton Avenue at City Hospital Drive
3. Brighton Avenue at Taft Avenue
4. Brighton Avenue at Rand Road and Cabot Street
5. Brighton Avenue at Rowe Avenue and Warwick Street
6. Brighton Avenue at Capisic Street, Kent Street and Hillcrest Avenue
7. Brighton Avenue at Woodford Street, Colonial Road and Columbia Road
8. Brighton Avenue at Stevens Avenue
9. Brighton Avenue at St. John Street and Devonshire Street

The improvements will include the installation of all necessary hardware and appurtenances required to provide a fully functioning, coordinated traffic signal system inclusive of the above intersections.

- ***Riverside Street Traffic Signal System*** – Design and implement an optimal traffic signal timing, phasing and coordination plan, to include the following intersections:

1. Riverside Street at Warren Avenue
2. Riverside Street at Home Depot Drive
3. Riverside Street at Larrabee Road
4. Riverside Street at Westbrook Crossing Drive
5. Riverside Street at Brighton Avenue

The improvements will include the installation of all necessary hardware and appurtenances required to provide a fully functioning, coordinated traffic signal system inclusive of the above intersections.

- ***Riverside Street at Forest Avenue***– Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.

- ***Westbrook Arterial at Rand Road and the I-95 Ramps*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.

- ***Capisic Street at Frost Street*** - Perform a detailed TSWA in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

Safety Improvements

The following safety-related improvements will be completed in conjunction with the Project and will be implemented by the Project proponent prior to the issuance of a Certificate of Occupancy for the Project and subject to receipt of all necessary rights, permits and approvals:

Westbrook:

➤ *Main Street at Larrabee Road*

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ *Main Street at Cumberland Street, Warren Avenue and Harnois Avenue* – The City of Westbrook will be implementing specific improvements at these intersections that includes the installation of traffic control signals to enhance safety and facilitate pedestrian and bicycle access. No additional improvements are required at this time.

Portland:

➤ *Riverside Street at Larrabee Road and the I-95 Ramps*

- i.) Design and construct geometric and traffic control improvements at the intersection to include the elimination of the channelized right-turn slip-ramp on the Riverside Street northbound approach; realignment of the Larrabee Road eastbound approach and the accompanying departure as it approaches the toll plaza; and the addition of a right-turn lane on the Larrabee Road westbound exit from the toll plaza area and elimination of the existing channelized right-turn slip-ramp;
- ii.) Review and upgrade the existing traffic signal system to meet current design standards which will include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- iii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iv.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Riverside Street at Forest Avenue***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Riverside Street at Warren Avenue***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Brighton Avenue at Stevens Avenue***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Capisic Street at Frost Street***

- i.) Selective trimming of vegetation along Capisic Street to improve sight lines;
- ii.) Install an “Intersection Ahead” (graphic symbol) warning sign on Capisic Street west of the intersection;
- iii.) Install a “Stop Sign Ahead” (graphic symbol) warning sign on Frost Street approaching the intersection; and

- iv.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

Transportation Demand Management

The Project site is ideally situated to take advantage of available public transportation resources in the area, including the METRO bus service operated by the Greater Portland Transit District. In an effort to encourage use of alternative modes of transportation to single-occupant vehicles, the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

- Information regarding public transportation services, maps, schedules and fare information will be made available to employees of the Project and posted in a central location within each building;
- A packet will be provided to new employees of the Project detailing available public transportation services, bicycle and walking alternatives, and commuter options;
- Pedestrian accommodations will be incorporated within the Project site and extending to Main Street;
- The planned improvements to Main Street, Westbrook Arterial and Larrabee Road that will be completed as a part of the Project will incorporate bicycle lanes and/or widened shoulders to accommodate bicycle travel to the extent that public right-of-way is available for such accommodations.
- A METRO bus stop will be provided along Main Street or at an appropriate location determined in consultation with Greater Portland Transit District; and
- Secure bicycle parking will be provided, including both exterior bicycle racks and weather protected bicycle parking in a secure area where such accommodations can be made.

Traffic Monitoring Program

The Project proponent will conduct a post-development traffic monitoring program in order to validate the trip projections for the Project and to determine if and when the installation of a traffic control signal may be justified at the Larrabee Road/Project site Driveway/Terminal Street intersection. The monitoring program will include:

- i) Obtaining traffic volume information over a continuous seven day, weeklong period at the driveways serving the Project site;
- ii) Performing a continuous 12-hour (7:00 AM to 7:00 PM) manual turning movement and vehicle classification count on an average weekday at the Project site driveway intersection with Larrabee Road and Terminal Street; and
- iii) Completing a detailed TSWA at the Larrabee Road/Project site Driveway/Terminal Street intersection in accordance with the methodology established in the MUTCD.

The monitoring program will commence six (6) months after issuance of the first Certificate of Occupancy for the Project and will continue on an annual basis thereafter for a period not to exceed 2-years after Project completion and occupancy. The results of the monitoring program will be summarized in a report to be provided to the City of Westbrook within 2-months after the

completion of the data collection effort. When full activation of the traffic control signal is found to be warranted at the Larrabee Road/Project site Driveway/Terminal Street intersection, the Project proponent will undertake the required actions and obtain all necessary approvals to transition the traffic signal system from flashing operation to full operation.

Loading and Deliveries

The Project has been designed to accommodate all loading and delivery functions on-site in a safe and efficient manner. Designated loading areas will be provided on-site to accommodate deliveries. Refuse/recycling will be accommodated in centralized areas for each building. Truck routes and hours of deliveries will be coordinated to minimize truck activity during the commuter peak hours. Reasonable efforts will be made to use service vendors currently delivering in the vicinity of the Project site in an effort to reduce the overall number of new trucks in the area.

With implementation of the above recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

Table 10
MITIGATED SIGNALIZED INTERSECTION
LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build With Mitigation	
	Delay ^a	LOS ^b	Delay	LOS
<u>Westbrook Intersections</u>				
<i>Cumberland Street at Bridge Street</i>				
<i>Weekday Evening:</i>				
Cumberland Street EB LT/TH/RT	51.1	D	97.9	F
Cumberland Street WB LT/TH/RT	55.6	E	85.2	F
Bridge Street NB LT/TH/RT	84.0	F	60.7	E
Bridge Street SB LT/TH/RT	96.3	F	79.8	E
Overall	70.0	E	79.9	E
<i>Saturday Midday:</i>				
Cumberland Street EB LT/TH/RT	11.4	B	18.7	B
Cumberland Street WB LT/TH/RT	18.8	B	34.8	C
Bridge Street NB LT/TH/RT	17.3	B	20.5	B
Bridge Street SB LT/TH/RT	17.3	B	24.8	C
Overall	16.2	B	25.9	C
<i>Main Street at Forest Street</i>				
<i>Weekday Evening:</i>				
Main Street EB LT/TH	13.1	B	16.4	B
Main Street EB RT	5.3	A	5.8	A
Main Street WB LT/TH	60.8	E	34.9	C
Main Street WB TH/RT	1.3	A	37.2	D
Forest Street NB LT/TH/RT	22.3	C	27.2	C
Forest Street SB LT/TH/RT	11.6	B	12.5	B
Overall	39.2	D	28.3	C
<i>Saturday Midday:</i>				
Main Street EB LT/TH	8.2	A	9.7	A
Main Street EB RT	6.0	A	7.1	A
Main Street WB LT/TH	31.2	C	23.0	C
Main Street WB TH/RT	1.4	A	5.6	A
Forest Street NB LT/TH/RT	16.3	B	16.5	B
Forest Street SB LT/TH/RT	13.2	B	11.5	B
Overall	19.1	B	13.6	B

See notes at end of table.

Table 10 (Continued)
MITIGATED SIGNALIZED INTERSECTION
LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build With Mitigation	
	Delay ^a	LOS ^b	Delay	LOS
Main Street at Larrabee Road				
<i>Weekday Evening:</i>				
Main Street EB LT	51.5	D	55.8	E
Main Street EB TH	38.6	D	42.1	D
Main Street EB TH/RT	29.5	C	33.2	C
Main Street WB LT	48.0	D	56.1	E
Main Street WB TH	34.8	C	36.1	D
Main Street WB TH/RT	41.3	D	40.0	D
Larrabee Road NB LT/TH	50.0	D	51.4	D
Larrabee Road NB TH/RT	27.5	C	34.8	C
Larrabee Road SB LT/TH	48.9	D	42.3	D
Larrabee Road SB TH	53.1	D	47.2	D
Larrabee Road SB RT	4.2	A	12.9	B
Overall	37.7	D	40.4	D
<i>Saturday MIDDAY:</i>				
Main Street EB LT	43.2	D	43.7	D
Main Street EB TH	29.6	C	33.8	C
Main Street EB TH/RT	31.1	C	30.4	C
Main Street WB LT	43.6	D	38.3	D
Main Street WB TH	26.6	C	26.7	C
Main Street WB TH/RT	31.5	C	28.6	C
Larrabee Road NB LT/TH	32.3	C	39.8	D
Larrabee Road NB TH/RT	26.0	C	29.5	C
Larrabee Road SB LT/TH	29.3	C	29.6	C
Larrabee Road SB TH	32.2	C	28.6	C
Larrabee Road SB RT	2.2	A	5.4	A
Overall	29.4	C	30.6	C
New Gorham Road at William Clarke Drive				
<i>Weekday Evening:</i>				
New Gorham Road EB LT	32.8	C	34.8	C
New Gorham Road EB TH	17.1	B	17.5	B
New Gorham Road EB TH/RT	15.4	B	16.2	B
New Gorham Road WB LT	35.7	D	34.9	C
New Gorham Road WB TH/RT	22.2	C	23.0	C
William Clarke Drive NB LT/TH	34.0	C	34.4	C
William Clarke Drive NB RT	4.9	A	5.4	A
William Clarke Drive SB LT/TH	42.2	D	43.8	D
William Clarke Drive SB RT	6.7	A	7.4	A
Overall	22.7	C	23.4	C
<i>Saturday MIDDAY:</i>				
New Gorham Road EB LT	33.2	C	34.4	C
New Gorham Road EB TH	14.9	B	16.7	B
New Gorham Road EB TH/RT	13.5	B	14.9	B
New Gorham Road WB LT	39.1	D	41.4	D
New Gorham Road WB TH/RT	8.8	A	9.8	A
William Clarke Drive NB LT/TH	34.2	C	36.3	D
William Clarke Drive NB RT	6.0	A	6.6	A
William Clarke Drive SB LT/TH	35.4	D	37.7	D
William Clarke Drive SB RT	2.3	A	3.4	A
Overall	17.0	B	18.3	B

See notes at end of table.

Table 10 (Continued)
MITIGATED SIGNALIZED INTERSECTION
LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build With Mitigation	
	Delay ^a	LOS ^b	Delay	LOS
William Clarke Drive at Saco Street				
<i>Weekday Evening:</i>				
William Clarke Drive EB TH	8.4	A	8.0	A
William Clarke Drive EB TH/RT	9.6	A	10.0	A
William Clarke Drive WB LT	34.3	C	39.8	D
William Clarke Drive WB TH	48.4	D	59.8	E
Saco Street NB LT	92.9	F	74.4	E
Saco Street NB RT	8.4	A	8.0	A
Overall	37.7	D	39.2	D
<i>Saturday Midday:</i>				
William Clarke Drive EB TH	7.4	A	8.1	A
William Clarke Drive EB TH/RT	9.6	A	9.9	A
William Clarke Drive WB LT	33.2	C	34.4	C
William Clarke Drive WB TH	18.9	B	22.5	C
Saco Street NB LT	28.9	C	33.5	C
Saco Street NB RT	6.6	A	7.1	A
Overall	15.1	B	17.1	B
Westbrook Arterial at Larrabee Road				
<i>Weekday Evening:</i>				
Westbrook Arterial EB LT	19.4	B	26.5	C
Westbrook Arterial EB TH	8.6	A	9.8	A
Westbrook Arterial EB TH	12.9	B	8.7	A
Westbrook Arterial WB TH	16.9	B	15.6	B
Westbrook Arterial WB TH/RT	18.4	B	19.1	B
Larrabee Road SB LT	27.1	C	42.7	D
Larrabee Road SB RT	12.6	B	14.0	B
Overall	16.7	B	18.0	B
<i>Saturday Midday:</i>				
Westbrook Arterial EB LT	13.2	B	24.9	C
Westbrook Arterial EB TH	5.9	A	14.6	B
Westbrook Arterial EB TH	7.1	A	10.7	B
Westbrook Arterial WB TH	13.7	B	12.4	B
Westbrook Arterial WB TH/RT	11.6	B	16.0	B
Larrabee Road SB LT	22.5	C	33.6	C
Larrabee Road SB RT	5.3	A	6.5	A
Overall	9.9	A	16.6	B

See notes at end of table.

Table 10 (Continued)
MITIGATED SIGNALIZED INTERSECTION
LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build With Mitigation	
	Delay ^a	LOS ^b	Delay	LOS
<u>Portland Intersections</u>				
<i>Riverside Street at Forest Avenue</i>				
<i>Weekday Evening:</i>				
Forest Street EB LT	62.7	E	58.7	E
Forest Street EB TH	52.4	D	44.4	D
Forest Street EB RT	8.1	A	7.3	A
Forest Street WB LT	85.4	F	79.5	E
Forest Street WB TH	215.8	F	182.8	F
Forest Street WB RT	3.2	A	4.8	A
Riverside Street NB LT	102.3	F	75.2	E
Riverside Street NB TH/RT	59.1	E	55.6	E
Riverside Street SB LT	80.1	F	88.5	F
Riverside Street SB TH	61.4	E	126.7	F
Riverside Street SB RT	5.8	A	13.8	B
Overall	79.6	E	76.5	E
<i>Saturday MIDDAY:</i>				
Forest Street EB LT	54.8	D	58.6	E
Forest Street EB TH	54.0	D	72.5	E
Forest Street EB RT	11.8	B	15.8	B
Forest Street WB LT	61.7	E	68.7	E
Forest Street WB TH	62.5	E	72.1	E
Forest Street WB RT	5.4	A	6.1	A
Riverside Street NB LT	44.2	D	43.8	D
Riverside Street NB TH/RT	30.6	C	31.6	C
Riverside Street SB LT	68.3	E	73.5	E
Riverside Street SB TH	53.2	D	61.2	E
Riverside Street SB RT	1.3	A	1.6	A
Overall	39.5	D	44.9	D

See notes at end of table.

Table 10 (Continued)
MITIGATED SIGNALIZED INTERSECTION
LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build With Mitigation	
	Delay ^a	LOS ^b	Delay	LOS
<i>Riverside Street at Larrabee Road and the I-95 Ramps</i>				
<i>Weekday Evening:</i>				
Larrabee Road EB LT	46.4	D	39.8	D
Larrabee Road EB TH	48.4	D	73.0	E
Larrabee Road EB TH/RT	32.5	C	41.5	D
I-95 Off-Ramp WB LT	57.6	E	57.5	E
I-95 Off-Ramp WB TH	49.1	D	54.3	D
I-95 Off-Ramp WB TH	57.5	E	61.2	E
I-95 Off-Ramp WB RT	15.7	C	20.8	C
Riverside Street NB LT	38.9	D	33.7	C
Riverside Street NB TH	44.1	D	45.5	D
Riverside Street NB TH	47.1	D	49.9	D
Riverside Street NB RT	2.6	A	2.7	A
Riverside Street SB LT	34.2	C	54.0	D
Riverside Street SB LT/TH	33.1	C	56.4	E
Riverside Street SB TH/RT	37.2	D	57.2	E
Overall	34.5	C	43.9	D
<i>Saturday Midday:</i>				
Larrabee Road EB LT	54.3	D	50.3	D
Larrabee Road EB TH	37.7	D	45.2	D
Larrabee Road EB TH/RT	25.0	C	42.7	D
I-95 Off-Ramp WB LT	41.2	D	43.9	D
I-95 Off-Ramp WB TH	36.0	D	40.8	D
I-95 Off-Ramp WB TH	38.3	D	39.9	D
I-95 Off-Ramp WB RT	4.6	A	5.0	A
Riverside Street NB LT	36.3	D	32.1	C
Riverside Street NB TH	39.4	D	39.0	D
Riverside Street NB TH	43.5	D	45.2	D
Riverside Street NB RT	2.6	A	2.7	A
Riverside Street SB LT	28.0	C	49.9	D
Riverside Street SB LT/TH	41.3	D	66.6	E
Riverside Street SB TH/RT	35.7	D	53.9	D
Overall	31.2	C	40.3	D

See notes at end of table.

Table 10 (Continued)
MITIGATED SIGNALIZED INTERSECTION
LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build With Mitigation	
	Delay ^a	LOS ^b	Delay	LOS
Westbrook Arterial and Rand Road at the I-95 Ramps				
<i>Weekday Evening:</i>				
Westbrook Arterial EB TH	28.7	C	42.6	D
Westbrook Arterial EB RT	5.6	A	6.3	A
Rand Road WB LT	16.8	B	26.4	C
Rand Road WB TH	11.0	B	14.5	B
I-95 Off-Ramp NB LT	73.5	E	62.4	E
I-95 Off-Ramp NB RT	20.8	C	26.8	C
Overall	29.9	C	31.6	C
<i>Saturday Midday:</i>				
Westbrook Arterial EB TH	18.8	B	24.0	C
Westbrook Arterial EB RT	2.8	A	3.1	A
Rand Road WB LT	10.1	B	16.9	B
Rand Road WB TH	8.4	A	11.6	B
I-95 Off-Ramp NB LT	14.9	B	22.8	C
I-95 Off-Ramp NB RT	2.9	A	3.9	A
Overall	10.1	B	14.5	B
Main Street at the Westbrook Crossing Driveway and the Project Site Driveway				
<i>Weekday Evening:</i>				
Main Street EB LT	10.5	B	40.9	D
Main Street EB TH	4.6	A	15.4	B
Main Street EB TH	4.1	A	--	--
Main Street EB TH/RT	--	--	13.4	B
Main Street WB LT	--	--	49.0	D
Main Street WB TH	1.9	A	20.1	C
Main Street WB TH/RT	3.4	A	20.0	B
Project Site Driveway NB LT/TH	--	--	48.1	D
Project Site Driveway NB RT	--	--	6.3	A
Westbrook Crossing SB LT	25.3	D	--	--
Westbrook Crossing SB LT/TH	--	--	40.2	D
Westbrook Crossing SB RT	6.6	A	8.7	A
Overall	4.8	A	22.7	C
<i>Saturday Midday:</i>				
Main Street EB LT	10.2	B	38.5	D
Main Street EB TH	2.2	A	18.0	B
Main Street EB TH	3.6	A	--	--
Main Street EB TH/RT	--	--	14.8	B
Main Street WB LT	--	--	25.7	C
Main Street WB TH	3.0	A	11.3	B
Main Street WB TH/RT	4.7	A	9.0	A
Project Site Driveway NB LT/TH	--	--	38.1	D
Project Site Driveway NB RT	--	--	7.5	A
Westbrook Crossing SB LT	21.5	C	--	--
Westbrook Crossing SB LT/TH	--	--	35.6	D
Westbrook Crossing SB RT	5.3	A	6.7	A
Overall	5.4	A	18.0	B

See notes at end of table.

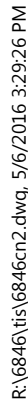
Table 10 (Continued)
MITIGATED SIGNALIZED INTERSECTION
LEVEL-OF-SERVICE SUMMARY

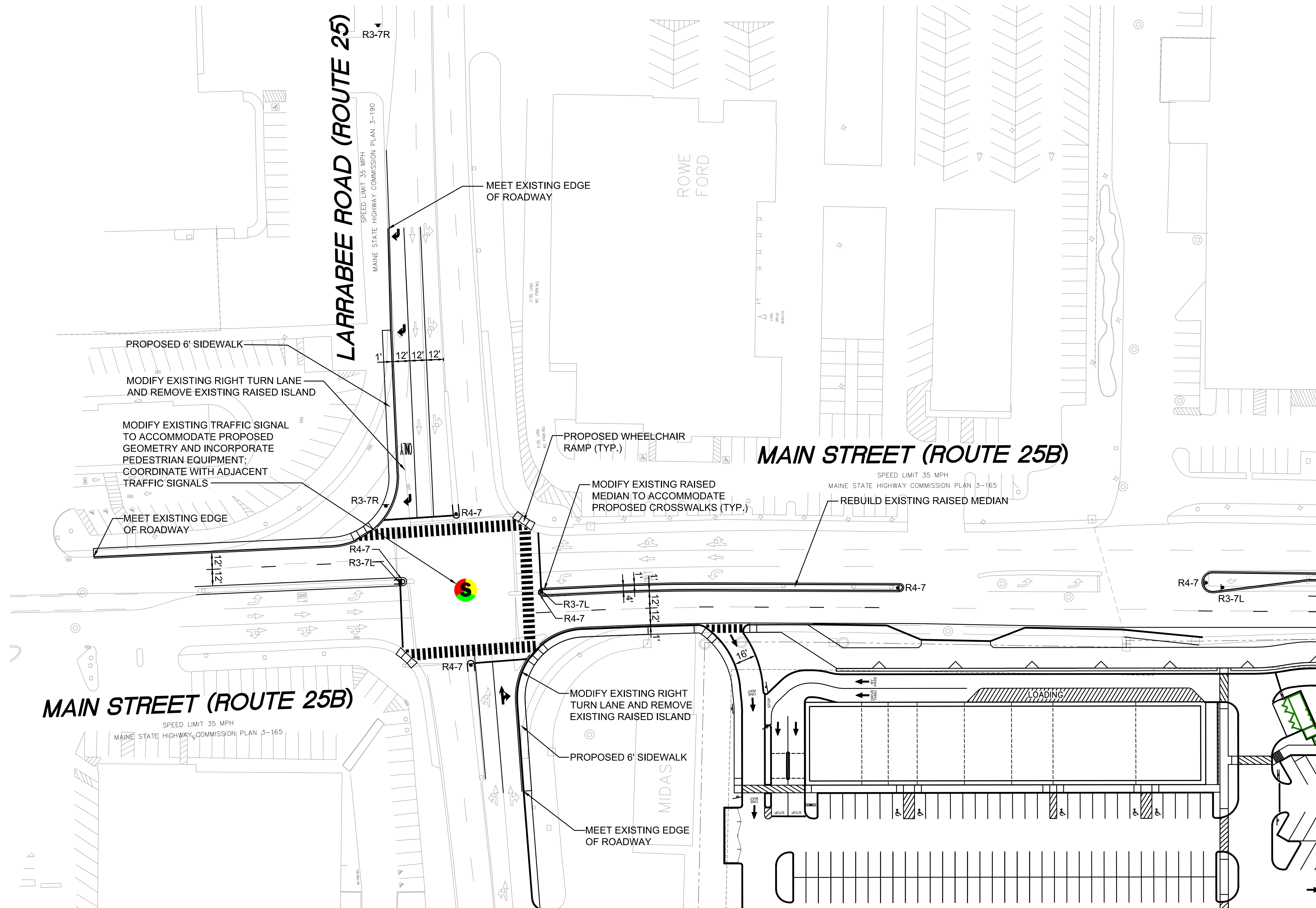
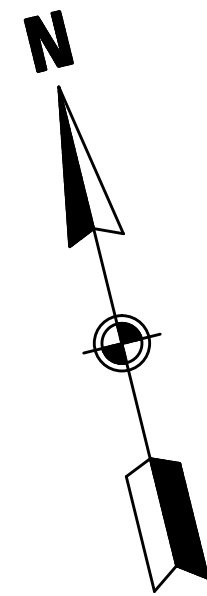
Signalized Intersection/ Peak Hour/Movement	2021 No-Build		2021 Build With Mitigation	
	Delay ^a	LOS ^b	Delay	LOS
Westbrook Arterial at the Project Site Drive				
<i>Weekday Evening:</i>				
Westbrook Arterial EB LT	--	--	37.3	D
Westbrook Arterial EB TH	--	--	5.2	A
Westbrook Arterial EB TH	--	--	31.6	C
Westbrook Arterial WB TH	--	--	6.6	A
Westbrook Arterial WB TH/RT	--	--	6.3	A
Project Site Drive SB LT	--	--	32.1	C
Project Site Drive SB RT	--	--	6.2	A
Overall	--	--	9.3	A
<i>Saturday Midday:</i>				
Westbrook Arterial EB LT	--	--	37.0	D
Westbrook Arterial EB TH	--	--	5.9	A
Westbrook Arterial EB TH	--	--	48.7	D
Westbrook Arterial WB TH	--	--	8.2	A
Westbrook Arterial WB TH/RT	--	--	7.1	A
Project Site Drive SB LT	--	--	29.0	C
Project Site Drive SB RT	--	--	5.6	A
Overall	--	--	11.5	B

^aPercentile delay per vehicle (seconds).

^bLevel-of-Service.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements;
 TH = through movements; RT = right-turning movements.





SEE SHEET 5 OF 5

SIGN LEGEND	
R3-7R	RIGHT LANE MUST TURN RIGHT
R3-7L	LEFT LANE MUST TURN LEFT
R4-7	



NOTES: 1. THIS PLAN IS FOR REVIEW PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.

2. BASE PLAN INFORMATION OBTAINED FROM JONES & BEACH ENGINEERS, INC.

FIGURE 14
CONCEPTUAL IMPROVEMENT PLAN

PROJECT:
PROPOSED COMMERCIAL DEVELOPMENT
WESTBROOK, MAINE

PROPOSER:
J&J GOVE DEVELOPMENT, LLC
HAMPTON FALLS, NEW HAMPSHIRE

NO.	REVISIONS	DATE	 Vanasse & Associates, Inc. Transportation Engineers & Planners 35 New England Business Center Drive Suite 140 Andover, MA 01810 Office: (978) 474-8800 Fax: (978) 688-6508	
	DESIGNED BY: BG	DATE: 5/5/16		
	DRAWN BY: JTG	SCALE: 1" = 40'		
	CHECKED BY: JSD	SHEET 4 OF 5		

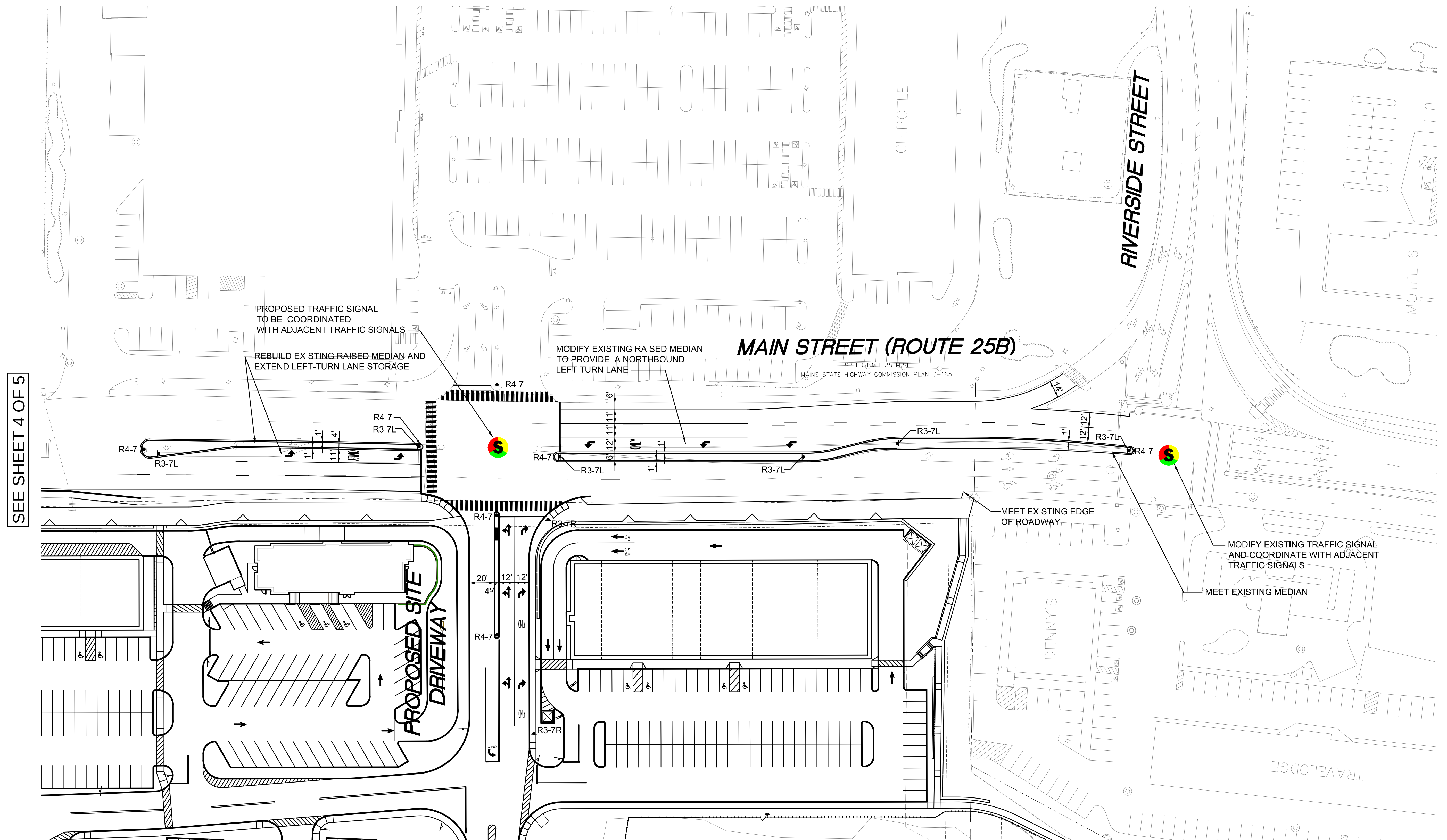


FIGURE 14
CONCEPTUAL IMPROVEMENT PLAN

PROJECT: PROPOSED COMMERCIAL DEVELOPMENT
WESTBROOK, MAINE

PROPOSER:
J&J GOVE DEVELOPMENT, LLC
HAMPTON FALLS, NEW HAMPSHIRE

NO.	REVISIONS	DATE	 Vanasse & Associates, Inc. Transportation Engineers & Planners 35 New England Business Center Drive Suite 140 Andover, MA 01810 Office (978) 474-8800 FAX (978) 688-6508
DESIGNED BY: BG			DATE: 5/5/16
DRAWN BY: JTG			SCALE: 1" = 40'
CHECKED BY: JSD			SHEET 5 OF 5

VAi ***Vanasse & Associates, Inc.***
Transportation Engineers & Planners
35 New England Business Center Drive
Suite 140
Andover, MA 01810
Office (978) 474-8800
FAX (978) 688-6508

DESIGNED BY: BG	DATE: 5/5/16
DRAWN BY: JTG	SCALE: 1" = 40'
CHECKED BY: JSD	SHEET 5 OF 5

NOTES: 1. THIS PLAN IS FOR REVIEW PURPOSES ONLY
AND IS NOT INTENDED FOR CONSTRUCTION.

2. BASE PLAN INFORMATION OBTAINED FROM JONES & BEACH ENGINEERS, INC.

Section 3 - Drainage Summary

A full drainage analysis and report has been completed and provided to the Planning Division and DPW for review. Within this section the summaries of that drainage report have been included as an overview with this application along with a recreation trail detail showing how runoff will flow towards the existing quarry.

1. EXECUTIVE SUMMARY

The purpose of this project is to construct a retail site development with associated parking, drainage, and utilities located on the existing Pike Industries parcel bounded by Maine Street, Larrabee Road, the Westbrook Arterial, and U.S. Interstate 95 in Westbrook, ME.

A drainage analysis of the development site and its offsite contributing watershed areas was conducted for the purpose of estimating the peak rate of stormwater runoff and to subsequently design adequate drainage structures. Two models were compiled, one for the area in its existing (pre-development) condition, and a second for its proposed (post-development) condition. The analysis was conducted using the USDA SCS TR-20 method within the HydroCAD Stormwater Modeling System environment. A summary of the existing and proposed conditions peak rates of runoff is as follows:

COMPONENT	PEAK DISCHARGE COMPARISON									
	1 Year		2 Year		10 Year		25 Year		100 Year	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Analysis Point #1	111.48	89.18	142.99	113.62	234.47	202.58	257.50	213.43	289.38	240.40

The drainage design intent for this site is to maintain the post-development peak flow to the pre-development peak flow conditions to the extent practicable and to effectively treat stormwater from the development of this site. This has been accomplished through the use of underdrained grass swales, wet ponds, gravels wetlands, and sand filters to maintain the peak discharge and effectively treat stormwater exiting the site.

5.1 INTRODUCTION

The intent of this project is to construct a retail commercial development consisting of multiple retail buildings and restaurants totaling 491,886 sq.ft. with associated parking, drainage, and utilities on City of Westbrook Map 42B / Lots 9, 10, 11, & 14.

5.2 METHODOLOGY

The existing and proposed watersheds were modeled utilizing HydroCad stormwater software, version 9.10. The watersheds were analyzed utilizing the SCS TR-20 methodology for hydrograph development and the TR-55 methodology for Time of Concentration (Tc) determination. The Dynamic-Storage-Indicating method for reach and pond routing was utilized. Type III, 24-hour hydrographs were developed for the 1-year, 2-year, 10-year, 25-year, and 100-year storm events corresponding to rainfall events of 2.80", 3.30", 5.00", 5.80" & 6.90" respectively.

Existing topography and site features were obtained through on-ground topography and existing conditions survey completed by Jones & Beach Engineers and Aerial Photography completed by Sewall Consulting. Existing soil conditions were derived from a combination of borings performed by Jones and Beach Engineers, a Site Specific Soil Survey conducted by Michael Cuomo, CWS, PWS, CSS, CPESC, and soils information obtained from the NRCS Web Soil Survey.

5.3 EXISTING CONDITIONS ANALYSIS

The study area consists of the subject property and upstream contributing area. The study area contains 212.789 acres including offsite contributing areas. The existing site was previously disturbed and is currently operated as a gravel quarry with concrete plant. The majority of the site is disturbed with multiple stockpiles located throughout.

Existing soil conditions were obtained from Site Specific Soils Mapping, on-site test pits, and NRCS Web Soil Survey. The existing soils are classified by the NRCS as a combination of Buxton, Elmwood, Hinckley, Hollis, Scantic, and Swanton soils. Areas of prior disturbance or prior fill were classified based upon the underlying soils.

One (1) Analysis Point (AP) is defined for this project.

Analysis Point #1 is defined as the culvert located under Interstate 95 located in the south-east portion of the site.

The existing site is divided into multiple watersheds. Drainage direction is generally from north to south with roadway drainage being directed to a closed drainage system along Maine Street and Larrabee Road and discharging to the existing stream located in the southern portion of the site.

Drainage collected in the existing quarry is pumped to an existing catch basin located in the eastern portion of the site and is discharged to the wetlands located in the southern portion of the site.

5.4 PROPOSED CONDITIONS ANALYSIS

The proposed site includes the construction of multiple retail buildings and restaurants totaling 491,886 sq.ft. Drainage from the proposed site is collected in a series of closed drainage systems and treatment features throughout the site.

The majority of the drainage on the North Campus is collected in closed drainage systems and directed to the existing quarry. Prior to discharge to the quarry, stormwater is treated via Grassed Underdrained Soil Filters, Underground Sand Filters, and/or Gravel Wetlands. The existing quarry has been designed to operate as a wet pond for stormwater treatment and detention. The discharge from the existing quarry has been designed to gravity drain to the existing wetlands on the South Campus.

North Campus drainage not directed to the existing quarry is treated via Grassed Underdrained Soil Filters and/or Underground Sand Filters and discharged to the existing closed drainage systems located within Maine Street and Larrabee Road. These systems are collected along Larrabee Road and discharged to the existing stream located on the South Campus.

South Campus drainage is collected within closed drainage systems. Stormwater is treated via Grassed Underdrained Soil Filters and/or Wet Ponds prior to discharge to the existing wetland system and stream located within the South Campus.

As the table in the Executive Summary demonstrates, the proposed peak rates of runoff have been maintained at the existing peak rates of runoff for the analyzed storms to the extent practicable.

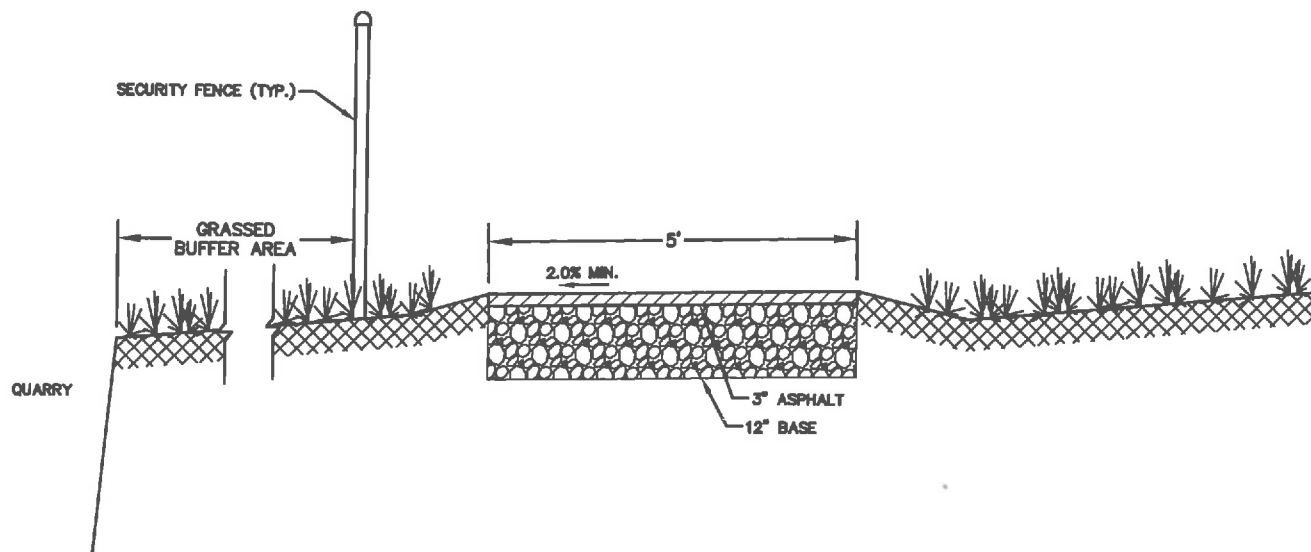
Infiltration was deemed impractical for this site due to the underlying marine clay soils throughout the site.

5.5 CONCLUSION

This proposed site development will have minimal adverse effect on abutting infrastructures or properties by way of stormwater runoff or siltation. Peak runoff rate from the proposed site has been maintained to the existing conditions peak rate to the extent practicable. Stormwater has been treated through the use of Grassed Underdrained Soil Filters, Underground Sand Filters, Wet Ponds, and/or Gravel Wetlands.

Respectfully Submitted,
JONES & BEACH ENGINEERS, INC.

Barry W. Gier, P.E.
Senior Project Manager



RECREATION TRAIL DETAIL

NOT TO SCALE



Designed and Produced in NH
Jones & Beach Engineers, Inc.

Civil Engineering Services

85 Portsmouth Ave.
 PO Box 219
 Stratham, NH 03885

603-772-4746
 FAX: 603-772-0227
 E-Mail: JBE@jonesandbeach.com

Drawing Name: **REC. TRAIL DETAIL**

Project: **"DIRIGO PLAZA"**

Owner of Record:
 PIKE INDUSTRIES, INC. 3 EASTGATE PARK ROAD, BELMONT, NH 03220
 LL LATHROP LLC - 10 MOULTON STREET SUITE 4, PORTLAND, ME 04101

DRAWING No.

TD

SHEET 1 OF 1

JBE PROJECT
 No. 14110

Section 5 -Financial Capacity

Financing:

Bank financing will be utilized for funding the desired improvements. The Washington Trust Company has provided J&J Gove Development a letter of Commitment to Fund. Numerous additional banks are eager to participate in the loan as well.

Attachment: Letter of Commitment to Fund - Washington Trust Company



August 20, 2015

Mr. Jeffrey Gove
Mr. Christopher Nash
Westbrook ME, LLC
7 Swain Drive
Hampton Falls, NH 03844

RE: Financing for a to be built multi-tenanted retail center located at Larrabee Road and Main Street, Westbrook, ME

Dear Jeff and Chris:

It was a pleasure to see you last week and to discuss your retail development planned for Westbrook, ME. We like the project, have reviewed your request for the financing, and are interested in providing financing. The Washington Trust Company (Bank) is considering the following loan structure based on what we know of the project at this time. The proposed terms and conditions contained herein are provided for discussion purposes only and in no way constitute an offer, agreement or legally binding commitment to lend. The actual terms and conditions upon which the Bank might extend credit are subject to satisfactory completion of underwriting due diligence, approval in accordance with the Bank's commercial lending policy, satisfactory review of documentation and such other terms and conditions as are determined by the Bank or its counsel in their sole discretion.

Borrower

To be formed limited liability company controlled by Jeffrey Gove and Christopher Nash.

Guarantors

The loan shall be fully guaranteed on a joint and several basis by Jeffrey Gove and Christopher Nash.

Amount

Up to 75% LTV of the stabilized value and subject to an underwriting DSC of 1.35x based on leases in place.

Use of Funds

To provide construction and permanent funds.

Term

Construction/Stabilization: Up to two years
Permanent Period: 8 years

Interest Rate Options/Term

Construction/Stabilization:
Float at the 30 day LIBOR + 2.75%.

Permanent Period:

Float at the 30 day LIBOR + 1.90%, or

Float at the 30 day LIBOR + 1.90% fixed via a swap interest rate derivative for a period of up to 8 years, or
Fix via the comparable FHLBB classic advance rate plus 1.90% for 1-7 years.

If the floating rate option is selected, Borrower may consider purchasing an interest rate cap at closing.

Repayment

Monthly payments of interest only during construction period thereafter principal and interest based upon a (25) twenty five year amortization schedule.

Commitment Fee

One half of one percent (1/2%) to be paid at closing.

Prepayment

Borrower may prepay loan at any time, however, in the event the loan is repaid during the first 36 months from closing, a 1% exit fee shall be required. If the swap rate is taken, the loan shall be subject to any swap breakage fee, if applicable. If the FHLBB rate is selected, early prepayment will be tied to a make whole provision.

Collateral

Loan to be secured by a first mortgage position on property located at Larrabee Road & Main Street, Westbrook, ME. Collateral assignment of leases and rents will be required as well as all permits, approvals, construction contracts and related documents.

Construction

Bank reserves the right to approve the contractor and/or the major subcontractors. We will request a reference from the contractor's bonding agent. The loan proceeds will be advanced in accordance with the Bank's standard construction loan advance procedures with 10% retainage held back until the project is 50% complete and the retainage is reduced to 5%. A monthly draw request budget will be requested. Interest reserve will be carved out of the construction loan to fund interest expense monthly.

Engineering

The Bank shall require a plan/budget review of the project prior to closing and periodic inspections by the Bank's inspecting engineer prior to all hard cost loan advances.

Financial Covenants

The loan will be subject to annual DSC test to support a minimum DSC of 1.15x. Testing will start at the end of the first year of stabilized occupancy. If the rate is floating and not subject to a swap, a 200bp increase over the floating rate in place as of year-end will be used to calculate DSC for the covenant test. DSC defined as gross revenue less operating expenses (net operating income) divided by the fully amortizing annual debt service. The maximum LTV covenant will be 75%.

Appraisal

Bank to obtain acceptable appraisal indicating a stabilized market value of the property to support a maximum 75% LTV ratio.

Fees

Fees incurred in connection with the closing of this transaction will be the responsibility of the Borrower and will include, but are not limited to, appraisal, environmental, construction inspection fees, review of plans and spec fees, and legal fees.

No Material Adverse Change

There shall be no material adverse change (as determined by the Bank) from the information furnished to us in the circumstances or conditions affecting the Borrower or the mortgaged property.

Annual Financial Reporting

- Copies of Borrowers independently prepared financial statements and tax returns, as available.
- Copies of Guarantors personal tax returns (two years) and current personal financial statements signed.
- Global cash flow statements for managing members' portfolio.
- Other financial reporting deemed reasonable.

Insurance

Upon approval and prior to loan closing, the Borrower will have delivered to the Bank satisfactory evidence of builders risk insurance, casualty and liability insurance on the mortgaged property, including flood insurance only if the mortgaged property is located in a flood hazard zone.

Other Underwriting Provisions

- Other terms and conditions may be imposed as the Bank completes its due diligence process.
- Sponsors to provide to Bank a global cash flow analysis relative to its real estate portfolio to demonstrate solvency and adequate cash flow.
- Guarantors shall maintain a minimum amount of liquid assets (cash, marketable securities and other cash equivalents) and a minimum net worth on an aggregate basis. The amounts are to be determined.
- Receipt and satisfactory review of leases and tenancy.
- Satisfactory underwriting of tenancy.
- Bonding agent reference for construction contractor(s).
- Satisfactory environmental reporting and review of reports.
- Satisfactory appraisal to be ordered by the Bank establishing a maximum LTV of 75% of the value.
- Satisfactory credit references for borrowers and sponsorship.
- Borrower to establish primary operating account at The Washington Trust Company.
- Subject to the Bank participating a percentage of the loan to another lender.

Special Requirements

Borrower to furnish all necessary documents pertaining to this transaction, including, but not limited to: surveys, title insurance, Certificate of Good Standing from the Secretary of State, Certificate of Good Standing from the Division of Taxation, liability and fire insurance mortgagee and loss payee. All documents in connection with this transaction are subject to review and approval by the legal counsel to The Washington Trust Company.

This term sheet briefly outlines the Bank's potential financing. It is not a commitment letter. A formal commitment may be issued upon the satisfactory completion of underwriting, as well as the approval of the Bank's Finance Committee. If these terms and conditions are satisfactory to you, please indicate by signing below and returning one signed copy to the undersigned with \$10,000 to be applied to closing and underwriting fees.

If the loan request is approved, the funds will be applied toward closing costs. If the loan request is not approved, the fee will be returned less any out-of-pocket expenses. If the transaction is approved and not closed, the fee will be considered earned by the Bank.

Please return this term sheet to my attention by September 1, 2015, otherwise this term sheet shall be deemed null and void and of no further force or effect after such date.

Very truly yours,



Laurel Bowerman, VP
Commercial Real Estate Team
The Washington Trust Company

Borrowers:

Westbrook LLC

By: _____

Date _____

TRAFFIC IMPACT STUDY

DIRIGO PLAZA MIXED-USE COMMERCIAL DEVELOPMENT
WESTBROOK ARTERIAL, LARRABEE ROAD AND MAIN STREET
WESTBROOK, MAINE

Prepared for:

J & J GOVE DEVELOPMENT, LLC
Hampton Falls, New Hampshire

February 2016

Prepared by:

VANASSE & ASSOCIATES, INC.
35 New England Business Center Drive
Suite 140
Andover, MA 01810
(978) 474-8800
www.rdva.com

CONTENTS

EXECUTIVE SUMMARY	1
Recommendations	2
INTRODUCTION	9
Project Description	9
Study Methodology	10
EXISTING CONDITIONS	11
Existing Traffic Volumes	11
Pedestrian and Bicycle Facilities	12
Public Transportation	13
Spot Speed Measurements	13
Accident Data	14
FUTURE CONDITIONS	15
Future Traffic Growth	15
Project-Generated Traffic	17
Future Traffic Volumes - Build Condition	18
TRAFFIC OPERATIONS ANALYSIS	20
Methodology	20
Analysis Results	23
SIGHT DISTANCE EVALUATION	45
CONCLUSIONS AND RECOMMENDATIONS	47
Conclusions	47
Recommendations	48

FIGURES

No.	Title
1	Site Location Map
2	Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities
3	2015 Existing Design Hour Weekday Morning Peak-Hour Traffic Volumes
4	2015 Existing Design Hour Weekday Evening Peak-Hour Traffic Volumes
5	2015 Existing Design Hour Saturday Midday Peak-Hour Traffic Volumes
6	High Accident Location Map
7	2021 No-Build Design Hour Weekday Evening Peak-Hour Traffic Volumes
8	2021 No-Build Design Hour Saturday Midday Peak-Hour Traffic Volumes
9	Trip-Distribution Map
10	Project-Generated Weekday Evening Peak-Hour Traffic Volumes
11	Project-Generated Saturday Midday Peak-Hour Traffic Volumes
12	2021 Build Design Hour Weekday Evening Peak-Hour Traffic Volumes
13	2021 Build Design Hour Saturday Midday Peak-Hour Traffic Volumes
14	Conceptual Improvement Plan

TABLES

No.	Title
1	2015 Existing Traffic Volumes
2	Vehicle Travel Speed Measurements
3	Trip-Generation Summary
4	Level-of-Service Criteria for Unsignalized Intersections
5	Level-of-Service Criteria for Signalized Intersections
6	Signalized Intersection Level-of-Service Summary
7	Unsignalized Intersection Level-of-Service Summary
8	Sight Distance Measurements
9	Mitigated Signalized Intersection Level-of-Service Summary

EXECUTIVE SUMMARY

Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated with the proposed construction of a mixed-use commercial development to be known as Dirigo Plaza and located on an assemblage of parcels bounded by Main Street (Route 25B), Westbrook Arterial, and Larrabee Road, in Westbrook, Maine (hereafter referred to as the “Project”). This assessment was prepared in consultation with the Maine Department of Transportation (MDOT) and the Cities of Westbrook and Portland; was performed in accordance with the scoping determination issued by MDOT for the Project and Section 7, Traffic Study Requirements, of MDOT’s *Traffic Movement Permit* guidelines; and was conducted pursuant to the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the Institute of Transportation Engineers (ITE)¹ and applying appropriate adjustments to account for pass-by trips, the Project is predicted to generate approximately 13,366 new vehicle trips on an average weekday and 18,890 new vehicle trips on a Saturday (two-way volume over the operational day of the Project), with 351 new vehicle trips expected during the weekday morning peak-hour, 1,217 new vehicle trips expected during the weekday evening peak-hour and 1,853 new vehicle trips expected during the Saturday midday peak-hour;
2. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over anticipated future conditions without the Project (No-Build conditions) at the majority of the study intersections;
3. At those locations where the Project was shown to have a pronounced impact or where a capacity or safety deficiency was identified, specific improvement measures have been identified to reconcile these conditions or to advance design plans for a future improvement project by others; and
4. Lines of sight to and from the Project site driveway intersections with Main Street, Westbrook Arterial and Larrabee Road were found to exceed the required minimum distance for the intersections to function in a safe and efficient manner based on the appropriate approach speed along the intersecting roadway.

¹*Trip Generation*, 9th Edition; Institute of Transportation Engineers; Washington, DC; 2012.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to provide safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access to the Project site is proposed as follows: two (2) driveways that will intersect Larrabee Road and will align with Terminal Street and Saunders Way, respectively; an existing driveway that serves the Project site that intersects Main Street opposite the driveway to the Westbrook Crossing shopping center that will be placed under traffic signal control; a right-turn, entrance only driveway that will intersect Main Street approximately 100 feet east of Larrabee Road; and a full access driveway that will intersect Westbrook Arterial approximately 550 feet east of Larrabee Road that will be placed under traffic signal control. As discussed with MDOT, it is proposed that the rights to construct a third full access driveway on Larrabee Road (to be located between the Westbrook Arterial and the railroad tracks) be transferred to Westbrook Arterial in order to allow for the construction of the full access driveway on Westbrook Arterial. The following recommendations are offered with respect to the design and operation of the Project site driveways:

- The Project site driveway intersections with Main Street (full access driveway to be located opposite the driveway to Westbrook Crossing) and Westbrook Arterial should be placed under traffic signal control. The proposed traffic signals should be interconnected and coordinated with the adjacent traffic signals on Main Street and Westbrook Arterial.
- The Main Street approach to the full access Project site driveway should provide a westbound left-turn, while maintaining the eastbound left-turn lane to the Westbrook Crossing shopping center and two (2) through travel lanes in both directions.
- The Westbrook Arterial approach to the Project site driveway should provide two (2) westbound travel lanes, an eastbound left-turn lane and a single eastbound through travel lane.
- The signalized project site driveways should accommodate two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or a raised median a minimum of 6-feet in width.
- The north driveway on Larrabee Road (opposite Terminal Street) should be designed to accommodate the future installation of a traffic control signal if and when warranted (see *Traffic Monitoring Program*), to include the installation of traffic signal conduit and pullboxes. Larrabee Road approaching the intersection should be widened to provide a left-turn lane in both the north and southbound directions, with the Project site driveway providing two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or raised median a

minimum of 6-feet in width, and vehicles exiting the driveway placed under STOP-sign control with a marked STOP-line provided.

- The south driveway on Larrabee Road (opposite Saunders Way) should provide two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or raised median a minimum of 6-feet in width, with vehicles exiting the driveway placed under STOP-sign control with a marked STOP-line provided.
- All signs and pavement markings to be installed within the Project site shall conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD).²
- Sidewalks should be provided within the Project site linking the proposed buildings to the sidewalk infrastructure along Main Street.
- Wheelchair ramps should be provided for crossing the Project site driveways where a sidewalk is present and at locations internal to the Project site where pedestrian crossings are proposed.
- Signs and landscaping to be installed internal to the Project site and at the Project site driveway intersections should be designed and maintained so as not to restrict lines of sight.
- Snow windrows along the Project site frontage within the sight triangle areas of the Project site driveways shall be promptly removed where such accumulations would exceed 2.5 feet in height.

Off-Site

The following off-site improvements are proposed to off-set the impact of the Project and improve traffic operations, and will be implemented by the Project proponent prior to the issuance of a Certificate of Occupancy for the Project and subject to receipt of all necessary rights, permits and approvals:

Westbrook:

- ***Cumberland Street at Bridge Street*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Main Street at Forest Street*** – Convert the Main Street westbound right-turn lane to a through/right-turn lane and design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Main Street at Larrabee Road*** – Remove the raised triangular islands on the Larrabee Road approaches to eliminate the right-turn slip-ramps; install crosswalks, wheelchair ramps and pedestrian traffic signal equipment (push buttons, signal indications and phasing); reconstruct/upgrade/replace traffic signal equipment as necessary to accommodate the intersection improvements; and interconnect and coordinate with adjacent traffic signals at the Project site driveway/Westbrook Crossing shopping center and Brighton Avenue/Riverside Street intersections.

²*Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

- **Main Street at Bridge Street** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **William Clarke Drive at New Gorham Road** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **William Clarke Drive at Spring Street** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **William Clarke Drive at Stroudwater Street** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **Westbrook Arterial at Larrabee Road** – Design and implement an optimal traffic signal timing and phasing plan, and interconnect and coordinate with the proposed traffic control signal to be installed at the Project site driveway. These improvements include the installation of all necessary hardware and appurtenances to implement the changes.
- **Cumberland Street at Park Road** – Perform a detailed Traffic Signal Warrants Analysis (TSWA) in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.
- **Stroudwater Street at Forest Street** - Perform a detailed TSWA in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

Portland:

- **Riverside Street at Warren Avenue** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **Riverside Street at Larrabee Road and the I-95 Ramps** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **Main Street at Brighton Avenue and Riverside Street** – Interconnect and coordinate with adjacent traffic signals at the Project site driveway/Westbrook Crossing shopping center and Main Street/Larrabee Road intersections. These improvements include the implementation of an optimal traffic signal timing and phasing plan, and the installation of all necessary hardware and appurtenances to implement the changes.

- ***Westbrook Arterial at Rand Road and the I-95 Ramps*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Brighton Avenue at Steven Avenue*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Capisic Street at Frost Street*** - Perform a detailed TSWA in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

Safety Improvements

The following safety-related improvements will be completed in conjunction with the Project and will be implemented by the Project proponent prior to the issuance of a Certificate of Occupancy for the Project and subject to receipt of all necessary rights, permits and approvals:

Westbrook:

- ***Main Street at Larrabee Road***
 - i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
 - ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
 - iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.
- ***Main Street at Cumberland Street, Warren Avenue and Harnois Avenue*** – The City of Westbrook will be implementing specific improvements at these intersections that includes the installation of traffic control signals to enhance safety and facilitate pedestrian and bicycle access. No additional improvements are required at this time.
- ***Cumberland Street at Park Road***
 - i.) Selective trimming of vegetation along Cumberland Street to improve sight lines;
 - ii.) Install “Intersection Ahead” (graphic symbol) warning signs on Cumberland Street in advance of the intersection; and
 - iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Stroudwater Street at Forest Street***

- i.) Selective trimming of vegetation along Stroudwater Street to improve sight lines;
- ii.) Install “Intersection Ahead” (graphic symbol) warning signs on Stroudwater Street in advance of the intersection; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

Portland:

➤ ***Riverside Street at Larrabee Road and the I-95 Ramps***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Brighton Avenue at Steven Avenue***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Capisic Street at Frost Street***

- i.) Selective trimming of vegetation along Capisic Street to improve sight lines;
- ii.) Install an “Intersection Ahead” (graphic symbol) warning sign on Capisic Street west of the intersection;
- iii.) Install a “Stop Sign Ahead” (graphic symbol) warning sign on Frost Street approaching the intersection; and
- iv.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

Transportation Demand Management

The Project site is ideally situated to take advantage of available public transportation resources in the area, including the METRO bus service operated by the Greater Portland Transit District. In an effort to encourage use of alternative modes of transportation to single-occupant vehicles, the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

- Information regarding public transportation services, maps, schedules and fare information will be made available to employees of the Project and posted in a central location within each building;
- A packet will be provided to new employees of the Project detailing available public transportation services, bicycle and walking alternatives, and commuter options;
- Pedestrian accommodations will be incorporated within the Project site and extending to Main Street;
- A METRO bus stop will be provided along Main Street or at an appropriate location determined in consultation with Greater Portland Transit District; and
- Secure bicycle parking will be provided, including both exterior bicycle racks and weather protected bicycle parking in a secure area where such accommodations can be made.

Traffic Monitoring Program

The Project proponent will conduct a post-development traffic monitoring program in order to validate the trip projections for the Project and to determine if and when the installation of a traffic control signal may be justified at the Larrabee Road/Project site Driveway/Terminal Street intersection. The monitoring program will include:

- i) Obtaining traffic volume information over a continuous seven day, weeklong period at the driveways serving the Project site;
- ii) Performing a continuous 12-hour (7:00 AM to 7:00 PM) manual turning movement and vehicle classification count on an average weekday at the Project site driveway intersection with Larrabee Road and Terminal Street; and
- iii) Completing a detailed TSWA at the Larrabee Road/Project site Driveway/Terminal Street intersection in accordance with the methodology established in the MUTCD.

The monitoring program will commence six (6) months after issuance of the first Certificate of Occupancy for the Project and will continue on an annual basis thereafter for a period not to exceed 2-years after Project completion and occupancy. The results of the monitoring program will be summarized in a report to be provided to the City of Westbrook within 2-months after the completion of the data collection effort. If and when the installation of traffic control signal is found to be warranted at the Larrabee Road/Project site Driveway/Terminal Street intersection, the Project proponent will advance the design and construction the traffic signal system subject to receipt of all necessary rights permits and approvals.

Loading and Deliveries

The Project has been designed to accommodate all loading and delivery functions on-site in a safe and efficient manner. Designated loading areas will be provided on-site to accommodate deliveries. Refuse/recycling will be accommodated in centralized areas for each building. Truck routes and hours of deliveries will be coordinated to minimize truck activity during the commuter peak hours. Reasonable efforts will be made to use service vendors currently delivering in the vicinity of the Project site in an effort to reduce the overall number of new trucks in the area.

With implementation of the above recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

INTRODUCTION

Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated the proposed construction of a mixed-use commercial development to be known as Dirigo Plaza and located on an assemblage of parcels bounded by Main Street (Route 25B), Westbrook Arterial (Route 25), and Larrabee Road, in Westbrook, Maine (hereafter referred to as the “Project”). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing traffic conditions and future traffic conditions, both with and without the Project, in Westbrook along Main Street, Cumberland Street, Westbrook Arterial, William Clarke Drive, Stroudwater Street, Forest Street, Larrabee Road and Riverside Street, and in Portland along Brighton Avenue, Woodford Street, Forest Avenue, Capisic Street and Rand Road, as well as at the Interstate 95 (I-95)/Maine Turnpike interchanges with Rand Road (Exit 47) and Larrabee Road (Exit 48).

PROJECT DESCRIPTION

As proposed, the Project will entail the construction of a 489,461± square foot (sf) mixed-use commercial development that will encompass multiple buildings containing a mix of retail, consumer service and restaurant uses, including a membership based vehicle fueling facility that will provide four (4) pumps and eight (8) vehicle fueling positions (vfps).³ The Project site encompasses property in both Westbrook and Portland; however, the planned development will occur entirely within the Westbrook properties. The development area includes two (2) lots (Westbrook Tax Map 42B Lots 11 and 14) that are bisected by a railroad right-of-way (Westbrook Tax Map 42B Lot 15) that total approximately 63.7± acres of land bounded by Main Street and commercial properties to the north; Westbrook Arterial to the south; I-95/ Maine Turnpike and areas of open and wooded space to the east; and Larrabee Road, commercial properties and areas of open and wooded space to the west. The Project site has an existing access easement over the tracks which will be utilized to connect the north and south portions of the Project. Figure 1 depicts the Project site location in relation to the existing roadway network.

³The vehicle fueling facility will serve members of an on-site retail tenant only.

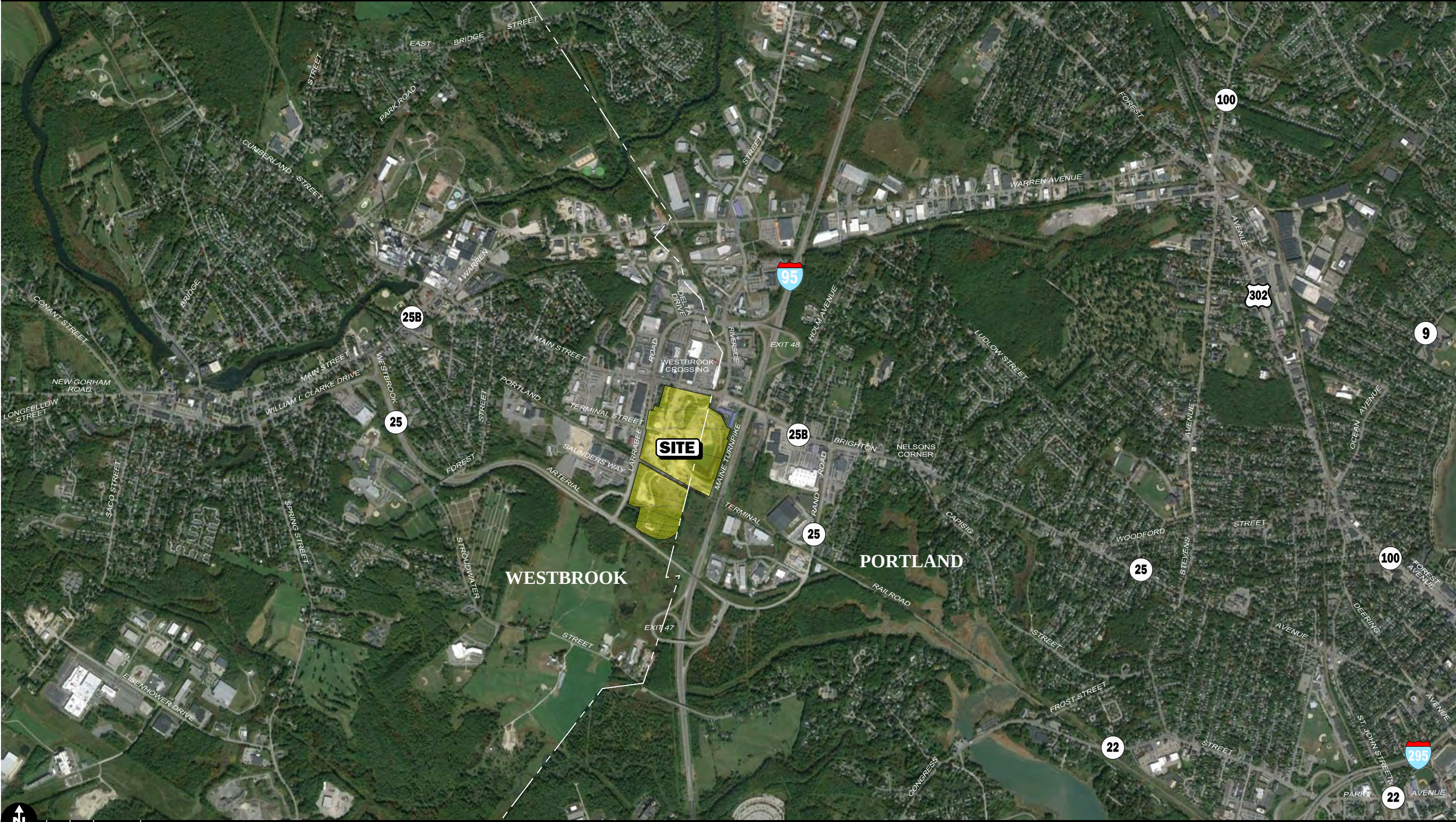


Figure 1
Site Location Map

Pike Industries currently uses the property as an aggregates and bituminous concrete manufacturing facility. Pike Industries markets a wide range of aggregate products and the Main Street office has a truck scale for sale of products to contractors. Portions of the Project site have been excavated to obtain and process aggregate materials. The site currently has three (3) driveways on Main Street, two (2) of which are used on a daily basis, and a driveway on Larrabee Road north of the railroad tracks that bisect the site. Rights for an additional two (2) driveways on Larrabee Road between Westbrook Arterial and the railroad tracks have been established by the Maine Department of Transportation (MDOT) to serve the Project site which have not yet been constructed.

Access to the Project site is proposed as follows: two (2) driveways that will intersect Larrabee Road and will align with Terminal Street and Saunders Way, respectively; an existing driveway that serves the Project site that intersects Main Street opposite the driveway to the Westbrook Crossing shopping center that will be placed under traffic signal control; a right-turn, entrance only driveway that will intersect Main Street approximately 100 feet east of Larrabee Road; and a full access driveway that will intersect Westbrook Arterial approximately 550 feet east of Larrabee Road that will be placed under traffic signal control. As discussed with MDOT, it is proposed that the rights to construct a third full access driveway on Larrabee Road (to be located between the Westbrook Arterial and the railroad tracks) be transferred to Westbrook Arterial in order to allow for the construction of the full access driveway on Westbrook Arterial.

On-site parking will be provided for 2,215 vehicles, including 65 handicapped accessible spaces, which exceeds City Zoning requirements for the proposed uses.

STUDY METHODOLOGY

This study was prepared in consultation with MDOT and the Cities of Westbrook and Portland; was performed in accordance with: i) the scoping determination issued by MDOT for the Project; ii) Section 7, Traffic Study Requirements, of MDOT's *Traffic Movement Permit* guidelines; and iii) the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports; and was conducted in three distinct stages.

The first stage involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics; pedestrian and bicycle facilities; public transportation services; observations of traffic flow; and collection of daily and peak period traffic counts.

In the second stage of the study, future traffic conditions were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future traffic demands due to expected traffic growth independent of the Project. A five-year time horizon (2021) was selected for analyses consistent with MDOT's *Traffic Movement Permit* guidelines and represents the anticipated completion date of the Project. The traffic analysis conducted in stage two identifies existing or projected future roadway capacity, traffic safety, and site access issues.

The third stage of the study presents and evaluates measures to address traffic and safety issues, if any, identified in stage two of the study.

EXISTING CONDITIONS

A comprehensive field inventory of existing conditions within the study area was conducted in September, October and November 2015. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The study area that was assessed for the Project was defined as a part of the scoping determination that was issued by MDOT and included input from the Cities of Westbrook and Portland, and encompasses 24 intersections in Westbrook and 14 intersections in Portland. Figure 2 graphically depicts the study area roadways and intersections, and includes a summary of traffic control, lane use, lane width and pedestrian facility locations within the study area as observed in the Fall/Winter 2015. The detailed field inventories for each of the study area intersections are included in the Technical Appendix.

EXISTING TRAFFIC VOLUMES

In order to determine existing traffic-volume demands and flow patterns within the study area, automatic traffic recorder (ATR) counts, manual turning movement counts (TMCs) and vehicle classification counts were completed in September and October 2015 while public schools were in regular session. The ATR counts were conducted on Main Street, Westbrook Arterial and Larrabee Road in the vicinity of the Project site in order to record weekday daily traffic conditions over an extended period, with weekday morning (7:00 to 9:00 AM), weekday evening (4:00 to 6:00 PM) and Saturday midday (11:00 AM to 2:00 PM) peak period manual TMCs performed at the study intersections. These time periods were selected for analysis purposes as they are representative of the peak traffic volume hours for both the Project and the adjacent roadway network.

Traffic Volume Adjustments

In accordance with MDOT requirements, the raw traffic count data was adjusted to the 30th highest hour (6th highest week of the year) in order to develop design condition traffic volumes from which to assess the impact of the Project on the roadway network. In order to determine the appropriate adjustment factor, traffic count data available from MDOT was reviewed for Urban Type 1 Roadways, the functional classification for Main Street (Route 25B)

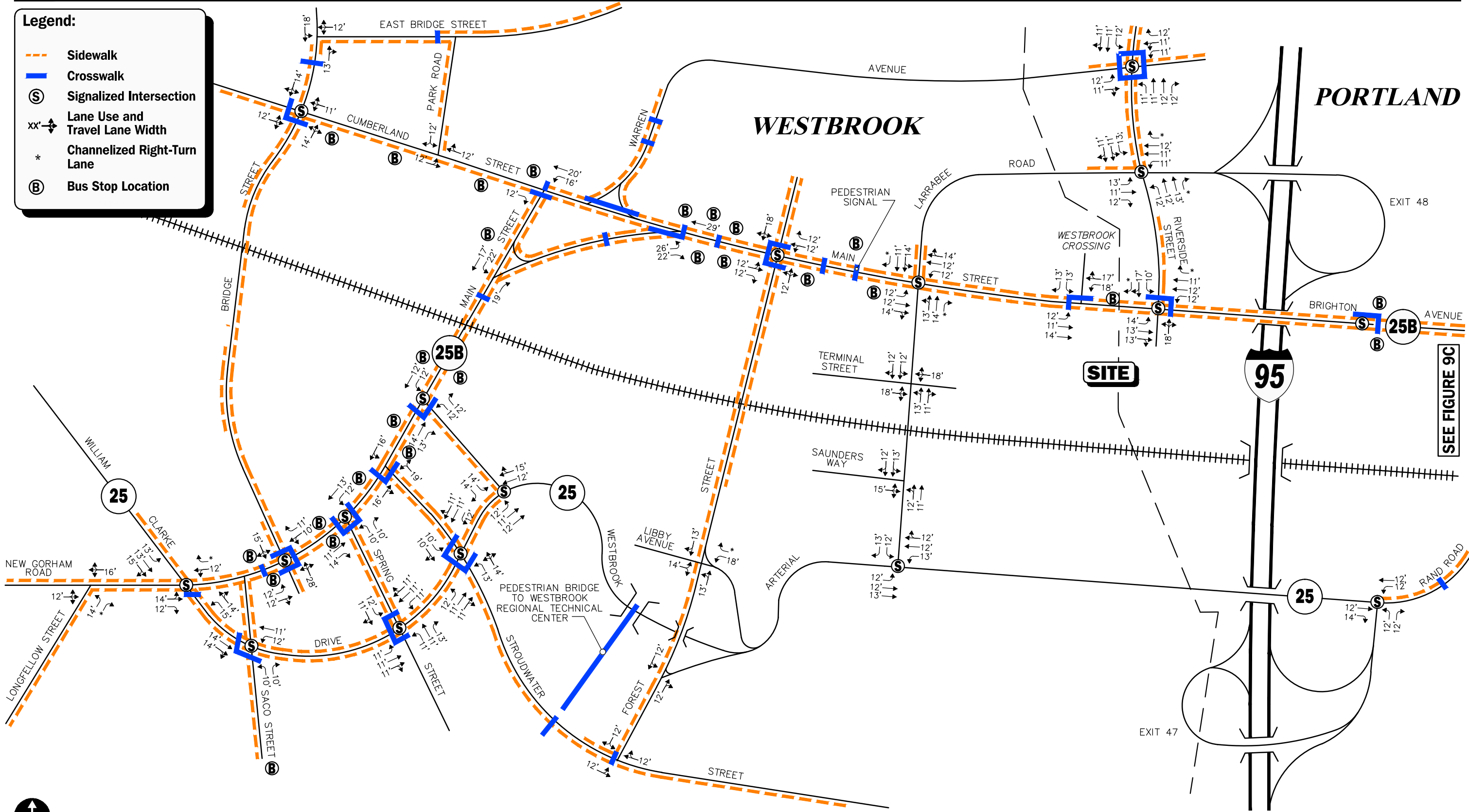


Figure 2A
Existing Intersection
Lane Use, Travel Lane Width and
Pedestrian Facilities



Not To Scale



Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities

and Westbrook Arterial (Route 25).⁴ Based on a review of this data, it was determined that the traffic count data required an adjustment (increase) of 3.4 percent in order to be representative of the 30th highest design hour. The 2015 Existing Design Hour traffic volumes are summarized in Table 1, with the weekday morning, weekday evening and Saturday midday peak-hour traffic volumes graphically depicted on Figures 3, 4 and 5, respectively. Note that the peak-hour traffic volumes presented in Table 1 were obtained from the TMCs and are reflected on the aforementioned figures.

Table 1
2015 EXISTING DESIGN HOUR TRAFFIC VOLUMES

Location	AWT ^a	Saturday ^b	VPH ^c	K Factor ^d	Directional Distribution
<i>Main Street, west of Riverside Street:</i>	17,550	14,530	--	--	--
Weekday Morning Peak Hour (7:45 – 8:45 AM)	--	--	1,568	8.9	59.3% EB
Weekday Evening Peak Hour (4:15 – 5:15 PM)	--	--	2,038	11.6	62.1% WB
Saturday Midday Peak Hour (11:45 AM – 12:45 PM)	--	--	1,776	12.2	51.5% WB
<i>Westbrook Arterial, east of Larrabee Road:</i>					
Weekday Morning Peak Hour (7:15 – 8:15 AM)	16,710	11,420	--	--	--
Weekday Evening Peak Hour (4:30 – 5:30 PM)	--	--	1,522	9.1	64.7% EB
Saturday Midday Peak Hour (11:30 AM – 12:30 PM)	--	--	1,515	9.1	54.2% WB
	--	--	970	8.5	52.1% EB
<i>Larrabee Road, north of Westbrook Arterial:</i>					
Weekday Morning Peak Hour (8:00 – 9:00 AM)	4,975	3,575	--	--	--
Weekday Evening Peak Hour (4:15 – 5:15 PM)	--	--	694	13.9	63.8% NB
Saturday Midday Peak Hour (11:15 AM – 12:15 PM)	--	--	1,016	20.4	66.8% SB
	--	--	725	20.3	52.0% SB

^aAverage weekday traffic in vehicles per day.

^bAverage Saturday traffic in vehicles.

^cVehicles per hour.

^dPercent of daily traffic occurring during the peak-hour.

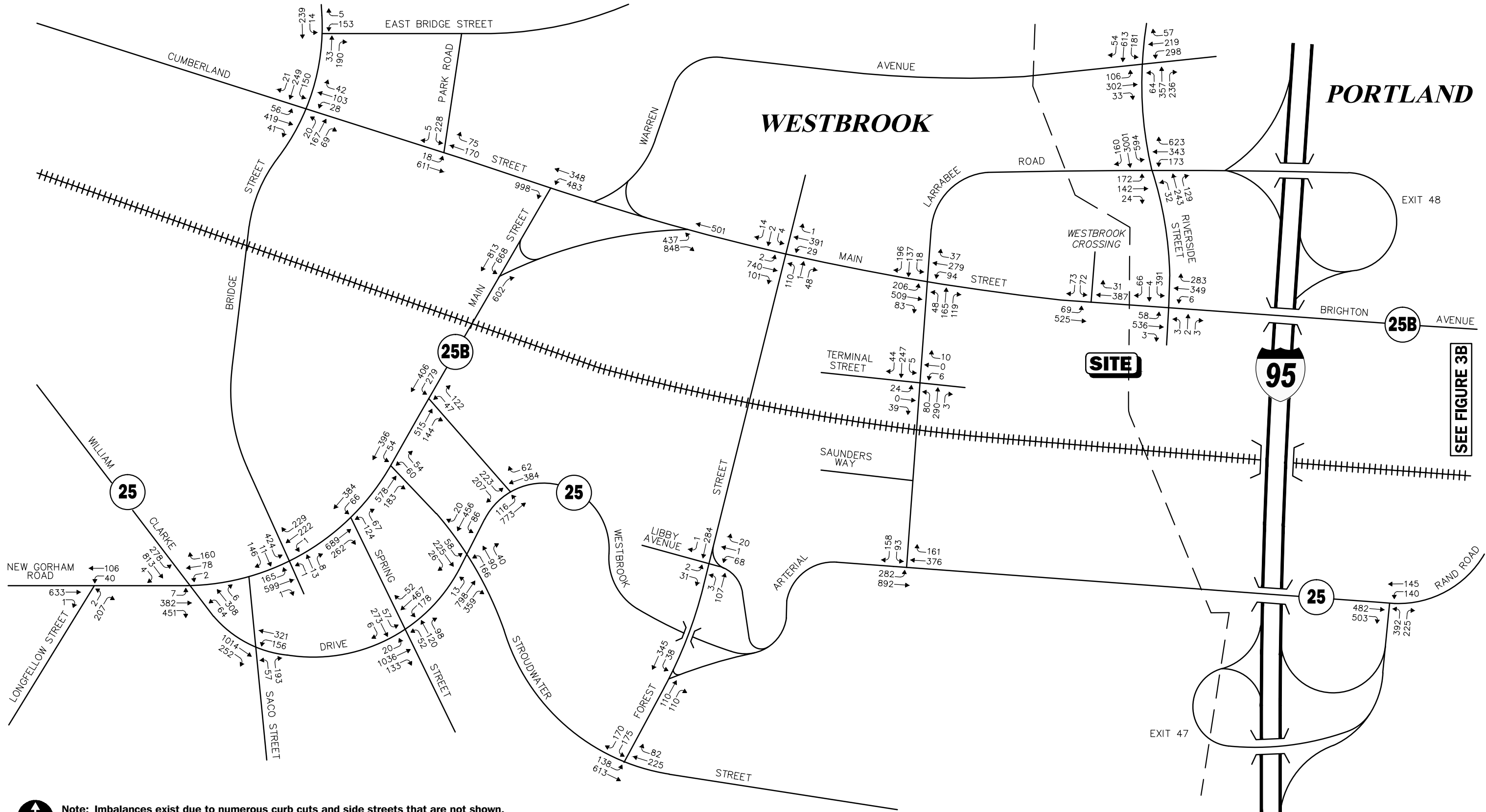
NB = northbound; SB = southbound; EB = eastbound; WB = westbound.

PEDESTRIAN AND BICYCLE FACILITIES

A review of pedestrian and bicycle facilities within the study area was undertaken in conjunction with the field inventories and consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadways and at the study intersections, as well as the location of existing and planned future bicycle facilities. As detailed on Figure 2, sidewalks are generally provided along one or both sides of the study area roadways, with marked crosswalks provided at the study intersections. Notable exceptions are Westbrook Arterial, Larrabee Road and Warren Road, where sidewalks are not currently provided or are discontinuous. In addition, we note that the City of Westbrook identified the Main Street/Larrabee Road intersection as a “pedestrian challenged area” in the 2012 *City Comprehensive Plan*.

Bicycle accommodations are provided within the study area by way of marked bicycle lanes, “sharrow” pavement markings or signs indicating “Share the Road”. In the downtown area, the Westbrook Riverwalk provides an off-road pathway along the south side of the Presumpscot River. In addition, the City of Westbrook is a part of the Sebago to the Sea Trail Coalition, which

⁴MDOT Traffic Volume Counts, 2014 Annual Report, Urban Group 1 Roadways.



SEE FIGURE 3B

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



Figure 3A
2015 Existing Design-Hour
Weekday Morning
Peak Hour Traffic Volumes

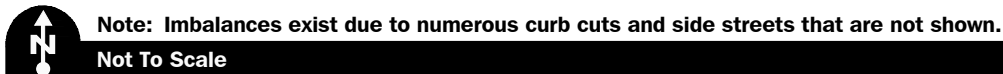
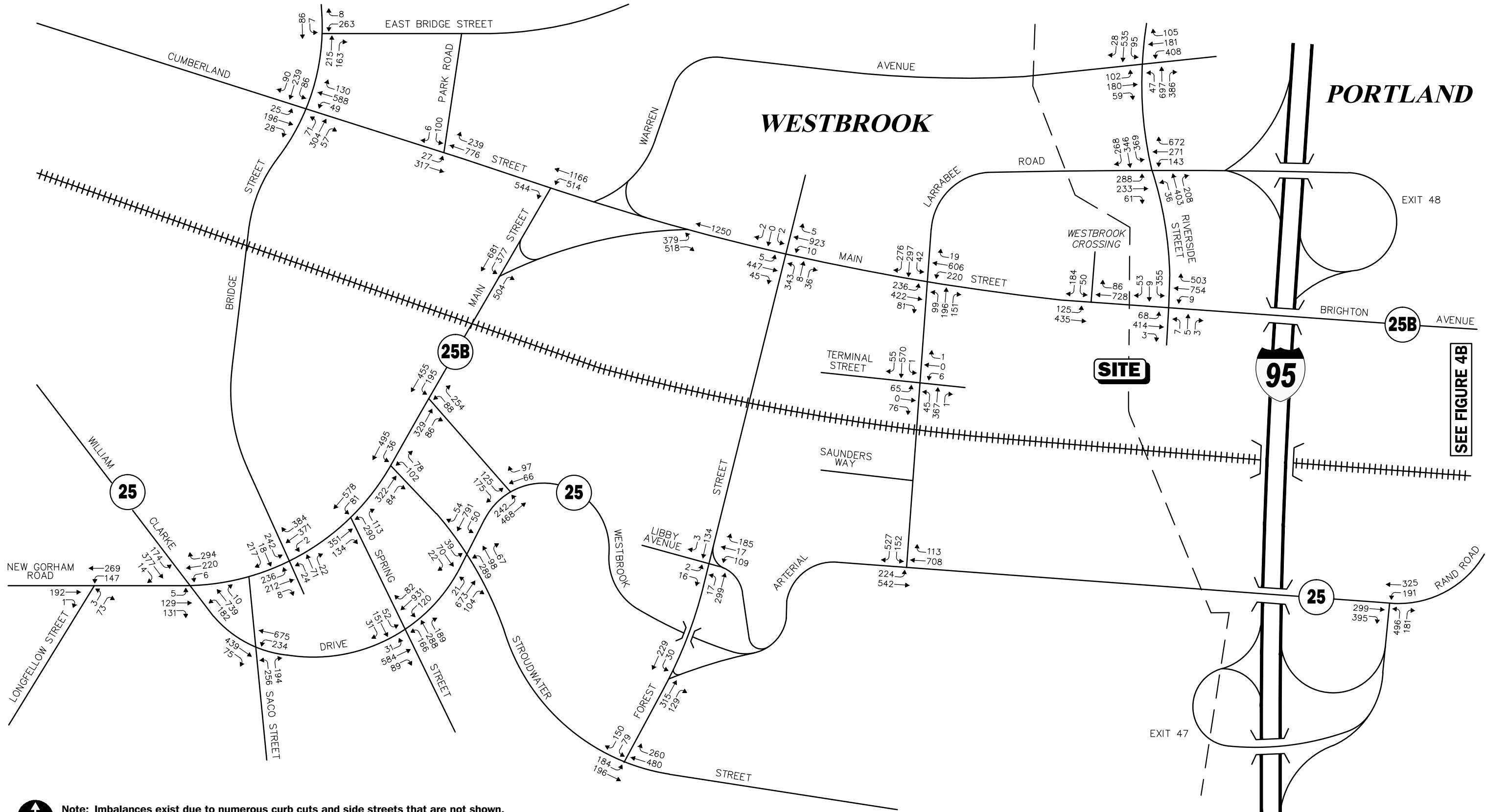


Figure 3B

**2015 Existing Design-Hour
Weekday Morning
Peak Hour Traffic Volumes**



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

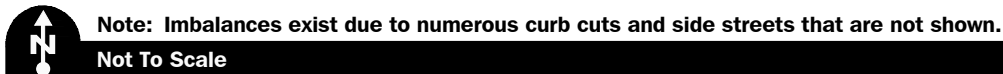
Not To Scale

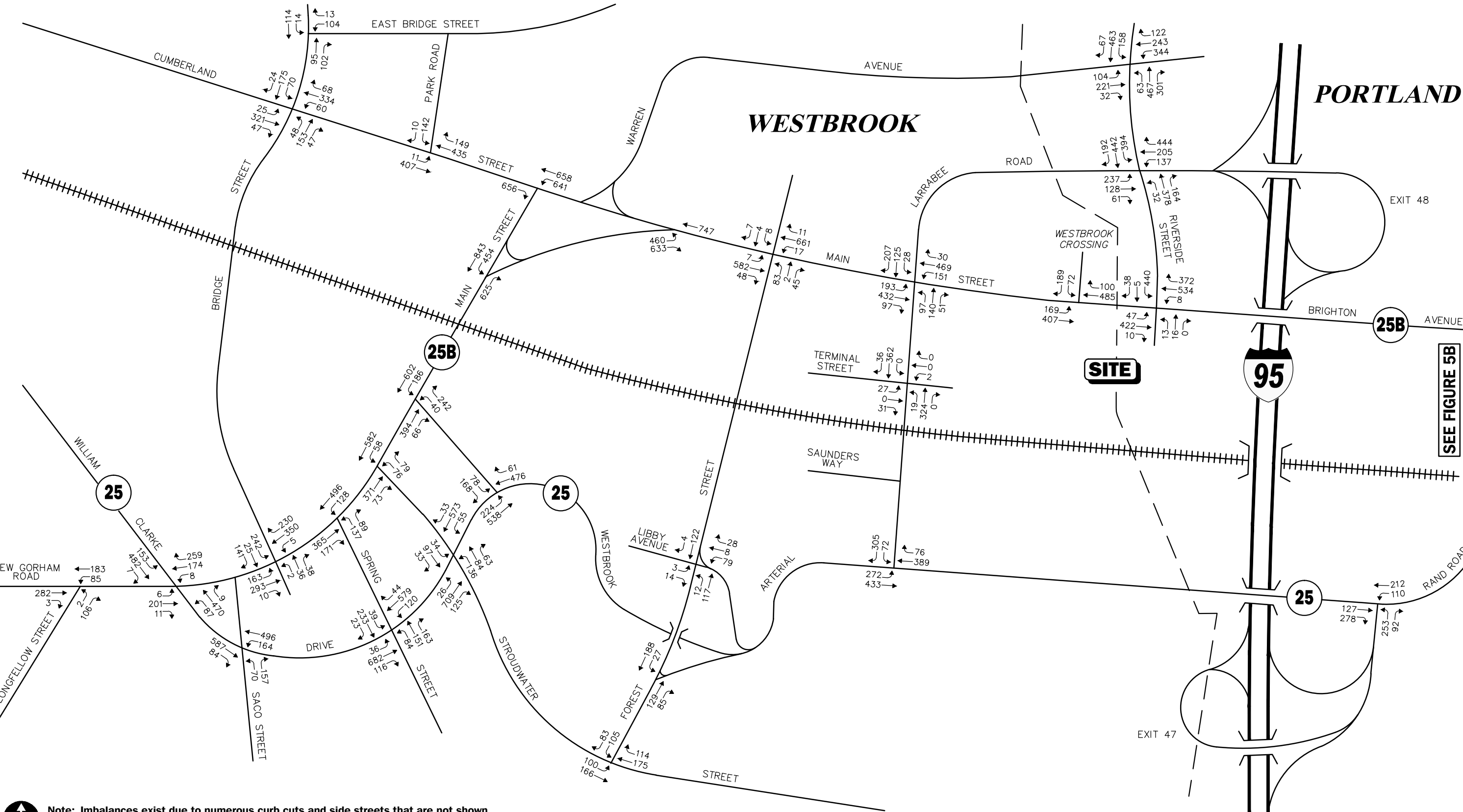


Figure 4A

2015 Existing Design-Hour
Weekday Evening
Peak Hour Traffic Volumes

SEE FIGURE 4B





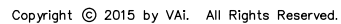
Not To Scale



2015 Existing Design-Hour Saturday Midday Peak Hour Traffic Volumes



Not To Scale



2015 Existing Design-Hour Saturday Midday Peak Hour Traffic Volumes

seeks to connect Casco Bay to Sebago Lake via a regional trail system. The trail connection through Westbrook would follow the existing Presumpscot River Trail along the north side of the river from Bridgeton Road to Halidon Road, transitioning to an on-road facility to East Bridge Street and Bridge Street, and then off-road into Windham along the MDOT rail right-of-way.

PUBLIC TRANSPORTATION

Public transportation services are provided within the study area by the Greater Portland Transit District, which operates the METRO bus service. The METRO bus provides service from the Portland Transportation Center (PTC) and includes eight (8) routes as follows:

- *M1 - Congress Street, Munjoy Hill/Mercy at the Fore/PTC*
- *M2 – Riverton, Forest Avenue*
- *M4 – Westbrook, Brighton Avenue*
- *M5 – Maine Mall, Portland Jetport/Outer Congress Street*
- *M7 – Falmouth, Route 1*
- *M8 – Peninsula Loop, Casco Bay Ferry Terminal*
- *M9A – Crosstown Loop via Stevens Avenue*
- *M9B – Crosstown Loop via Washington Avenue*

At the PTC, connections can be made to other METRO bus lines, the South Portland Bus (three (3) service routes), shuttle bus services (four (4) service routes) and the Amtrak Downeaster train, with connections by bus to the Casco Bay Lines ferry service and inter-city bus service (the WAVE). METRO buses are equipped with a bicycle rack at the front of the bus. The M4 METRO bus provides service along Main Street in Westbrook with a stop at the Westbrook Crossing shopping center located opposite the Project site.

The public transportation schedules and fare information are provided in the Technical Appendix.

SPOT SPEED MEASUREMENTS

Vehicle travel speed measurements were performed on Main Street, Westbrook Arterial and Larrabee Road in the vicinity of the Project site in conjunction with the ATR counts. Table 2 summarizes the vehicle travel speed measurements.

Table 2
VEHICLE TRAVEL SPEED MEASUREMENTS

	Main Street	Westbrook Arterial	Larrabee Road
	EB/WB	EB/WB	NB/SB
Mean Travel Speed (mph)	32/30	47/34	36/33
85 th Percentile Speed (mph)	38/35	53/42	39/38
Posted Speed Limit (mph)	35	45	35

mph = miles per hour.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound.

As can be seen in Table 2, the mean (average) vehicle travel speed along Main Street in the vicinity of the Project site was found to be approximately 31 mph. The average measured 85th percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled at or below, was found to be approximately 36 mph, which is generally consistent with the posted speed limit. The 85th percentile speed is used as the basis of engineering design and in the evaluation of sight distances, and is often used in establishing posted speed limits.

The mean vehicle travel speed along Westbrook Arterial was found to be approximately 41 mph, with the average measured 85th percentile vehicle travel speed found to be approximately 50 mph, which is 5 mph above the posted speed limit. The mean vehicle travel speed along Larrabee Road was found to be approximately 34 mph, with the average measured 85th percentile vehicle travel speed found to be approximately 38 mph, which is 3 mph above the posted speed limit.

ACCIDENT DATA

Accident data for the study area intersections was provided by the MDOT for the most recent three-year period available (2011 through 2013, inclusive) in order to examine crash trends occurring within the study area. Based on a review of the accident data provided by MDOT, seven (7) high accident locations that were identified within the study area: Main Street/Larrabee Road (Westbrook); Main Street/Cumberland Street/Warren Avenue (Westbrook); Cumberland Street/Park Road (Westbrook); Stroudwater Street/Forest Street (Westbrook); Larrabee Road/Riverside Street (Portland); Brighton Avenue/Stevens Avenue (Portland); and Capisic Street/Frost Street (Portland). Figure 6 depicts the subject locations in relation to the Project site along with a summary of the number of accidents occurring at each of the identified high accident locations and the associated critical rate factor. The detailed accident summary reports are provided in the Technical Appendix.

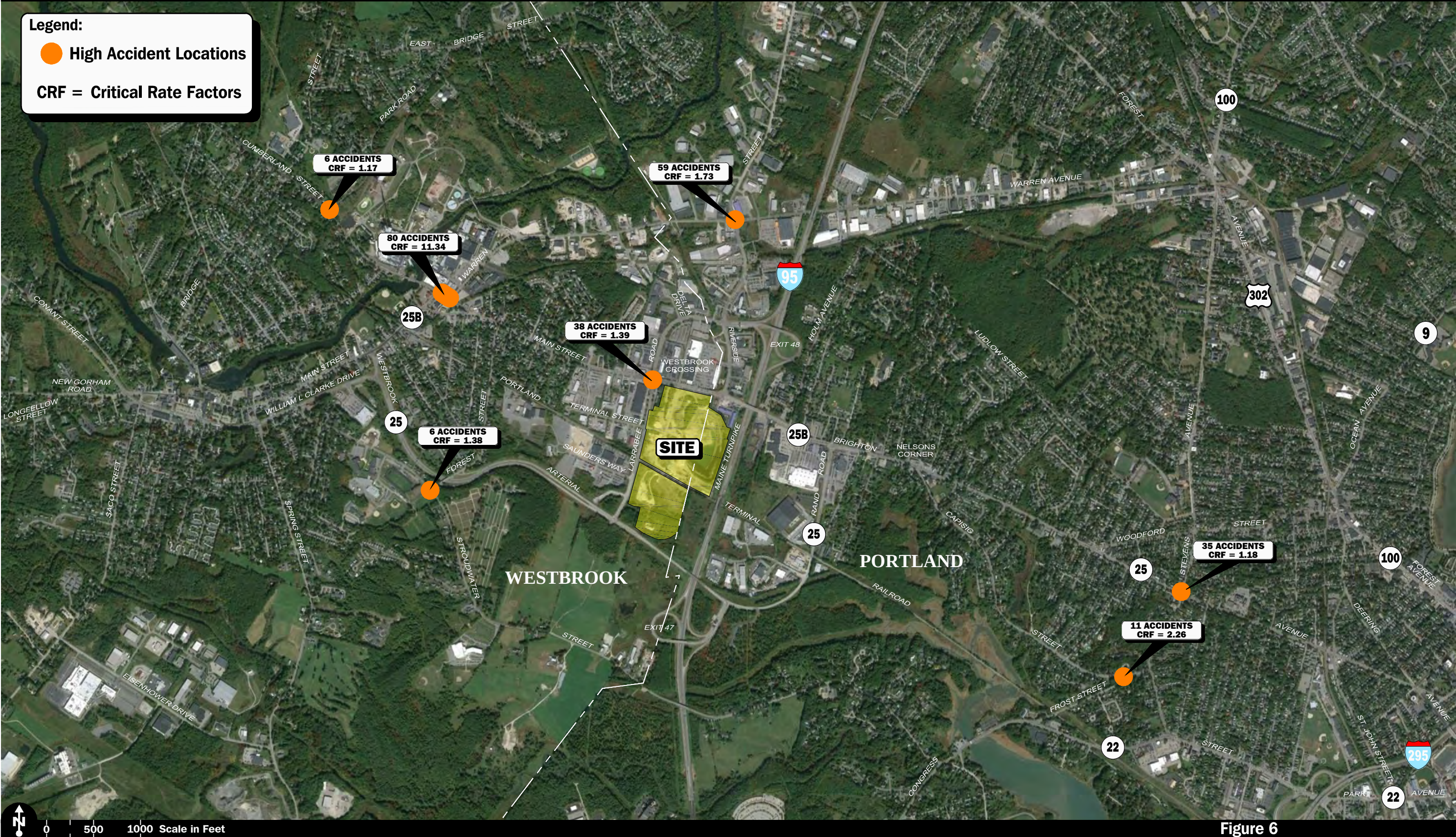


Figure 6
High Accident Location Map

FUTURE CONDITIONS

Traffic volumes in the study area were projected to the year 2021, which reflects a five-year planning horizon consistent with MDOT's *Traffic Movement Permit* guidelines and represents the anticipated completion date of the Project. Independent of the Project, traffic volumes on the roadway network in the year 2021 under No-Build conditions include all existing traffic and new traffic resulting from background traffic growth. Anticipated Project-generated traffic volumes superimposed upon the 2021 No-Build traffic volumes reflect 2021 Build traffic volume conditions with the Project.

FUTURE TRAFFIC GROWTH

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic; however, potential population growth and development external to the study area would not be accounted for in the resulting traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

Specific Development by Others

The Planning Department of the City of Westbrook and the City of Portland Planning Department website were consulted in order to determine if there were any projects planned within the study area that would have an impact on future traffic volumes at the study intersections. Based on these consultations, the following projects were identified that may result in an increase in traffic within the study area:

- ***Blue Spruce Farm, Spring Street, Westbrook, Maine.*** This project is currently under construction and will consist of 53 single-family homes, 32 residential condominiums and 98 apartments to be located off Spring Street in Westbrook, Maine.
- ***Medical Center, Westbrook, Maine.*** This project will entail the construction of a 5,000 sf medical center to be located off Saco Street in Westbrook, Maine.
- ***Prides Corner Condominiums, Westbrook, Maine.*** This project will entail the construction of 46 residential condominium units to be located at 375 Pride Street in Westbrook, Maine.

Traffic volumes associated with the aforementioned specific development projects by others were obtained from the respective traffic studies or using trip-generation information available from the Institute of Transportation Engineers (ITE)⁵ for the appropriate land use, and were assigned onto the study area roadway network based on existing traffic patterns where no other information was available. No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general background traffic growth rate.

General Background Traffic Growth

The Planning Department of the City of Westbrook was consulted to determine general traffic growth trends in the City. Based on this discussion, a 1.0 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

Roadway Improvement Projects

MDOT and the Cities of Westbrook and Portland were consulted in order to determine if there were any planned future roadway improvement projects expected to be complete by 2021 within the study area. Based on these discussions, the following roadway improvement projects were identified within the study area:

- ***Cumberland Mills Triangle Improvement Project, Westbrook, Maine.*** This roadway improvement project will entail the reconstruction of the Cumberland Mills Triangle (intersection of Main Street, Cumberland Street and Harnois Avenue) to add traffic control signals to the Main Street/Cumberland Street, Main Street/Harnois Street and Cumberland Street/Harnois Street intersections to improve traffic flow and increase the safety of vehicles and pedestrians navigating the intersections. Construction of these improvements is expected to commence in 2016/2017.
- ***Woodfords Corner/Forest Avenue Improvement Project, Portland Maine.*** This roadway/streetscape improvement project will entail the reconstruction of the Woodfords Corner intersection (Woodford Street/Forest Avenue/Deering Avenue) extending to and including the Forest Avenue/Vannah Avenue/Saunders Street/Ocean Avenue intersection. The planned improvements will include the replacement of the traffic signal systems at both intersections, pavement rehabilitation, sidewalk reconstruction, street tree installation and the addition of street furnishings (street lights,

⁵Ibid 1.

benches, bicycle racks, etc.) Construction of these improvements is expected to commence in 2016/2017.

No other roadway improvement projects aside from routine maintenance activities were identified to be planned within the study area at this time.

No-Build Traffic Volumes

The 2021 No-Build Design Hour traffic-volumes were developed by applying the 1.0 percent per year compounded annual background traffic growth rate to the 2015 Existing Design Hour traffic volumes and then superimposing the peak-hour traffic volumes associated with the identified specific development projects by others. Based on a review of the traffic volume projections for the Project (discussion follows), the weekday evening and Saturday midday peak-hours were determined to be the critical analysis periods and represent the peak traffic generation periods for the Project. Accordingly, the future condition traffic volume projections and analyses focus on these peak periods. The 2021 No-Build Design Hour weekday evening and Saturday midday peak-hour traffic volumes are shown on Figures 7 and 8, respectively.

PROJECT-GENERATED TRAFFIC

Design year (2021 Build) traffic volumes for the study area roadways were determined by estimating Project-generated traffic volumes and assigning those volumes on the study roadways. The following sections describe the methodology used to develop the anticipated traffic characteristics of the Project.

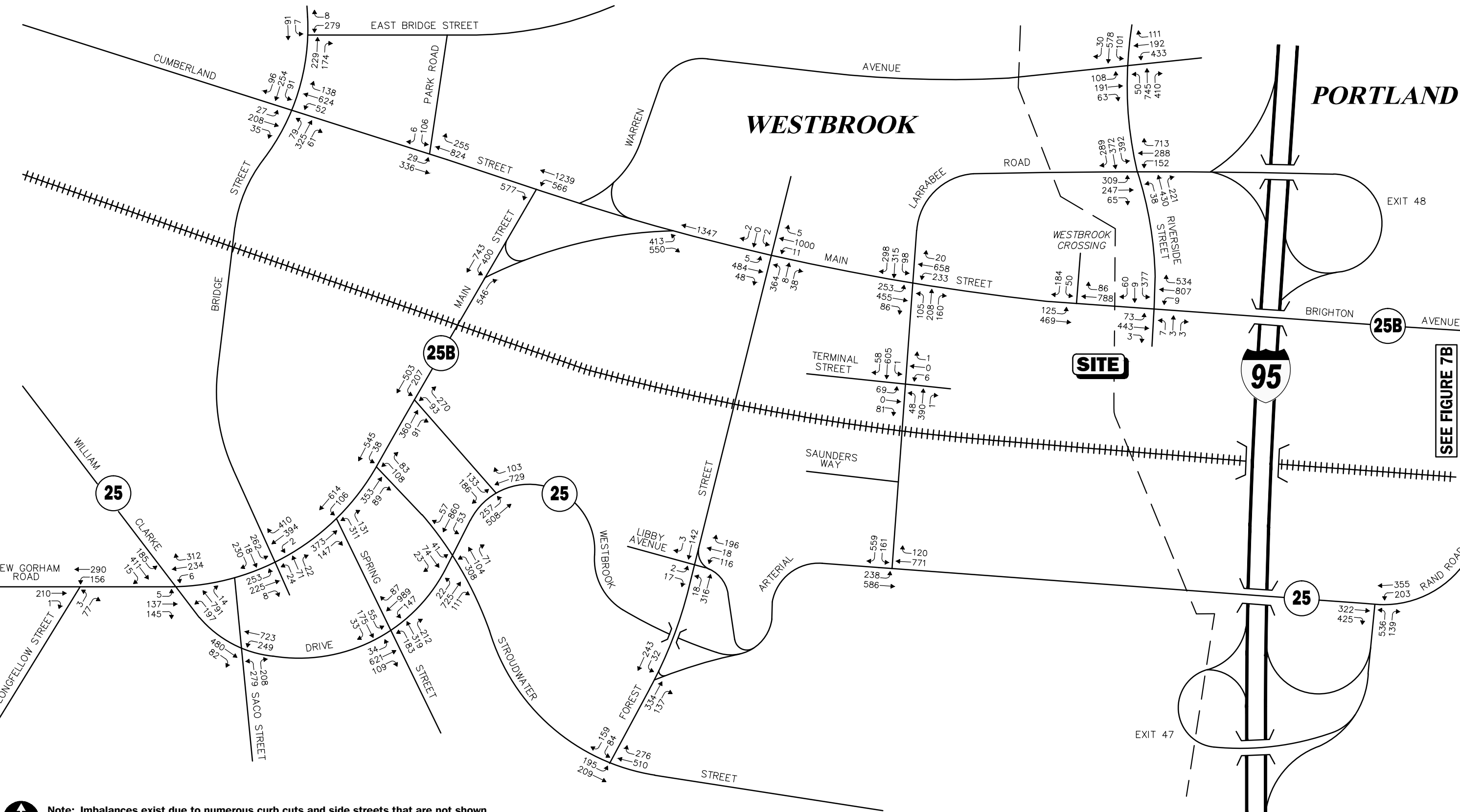
As proposed, the Project will entail the construction of a 489,461± sf mixed-use commercial development that will encompass multiple buildings containing a mix of retail, consumer service and restaurant uses, including a membership based vehicle fueling facility that will provide four (4) pumps and eight (8) vehicle fueling positions (vfps). In order to determine the traffic characteristics of the Project, trip-generation methodologies established by the ITE⁶ were used. The ITE provides trip-generation information for various types of land uses developed as a result of scientific studies that have been conducted over the past 50 plus years, the most recent update of which was published in 2012. This data includes trip estimates for land uses that are similar to those that are to be located within the Project site. ITE Land Use Codes (LUCs) 820, *Shopping Center*, and 944, *Gasoline/Service Station*, were used to develop the traffic characteristics of the Project.

Pass-By Trips

It is expected that a significant portion of the traffic that will be generated by the Project will consist of pass-by trips, or vehicles that are already travelling along Main Street, Larrabee Road and Westbrook Arterial for other purposes that will also patronize the Project in conjunction with their trip. These trips do not represent new vehicles on the roadway network as a result of the Project. Statistics published by the ITE⁷ indicate that up to 34 percent of the trips generated by a shopping center and 58 percent of the trips generated by a fueling facility may consist of pass-by

⁶Ibid 1.

⁷*Trip Generation Handbook*, 3rd Edition, An ITE Proposed Recommended Practice; Institute of Transportation Engineers; Washington, D.C.; August 2014.



Not To Scale

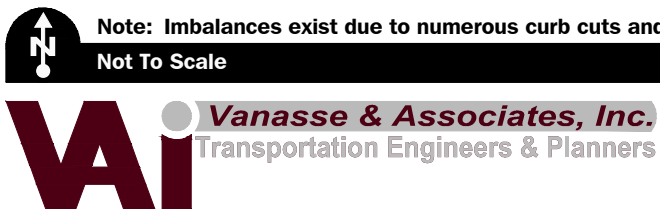
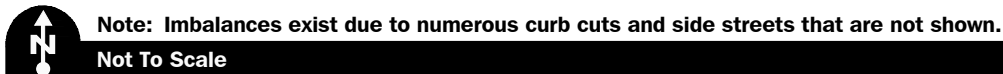
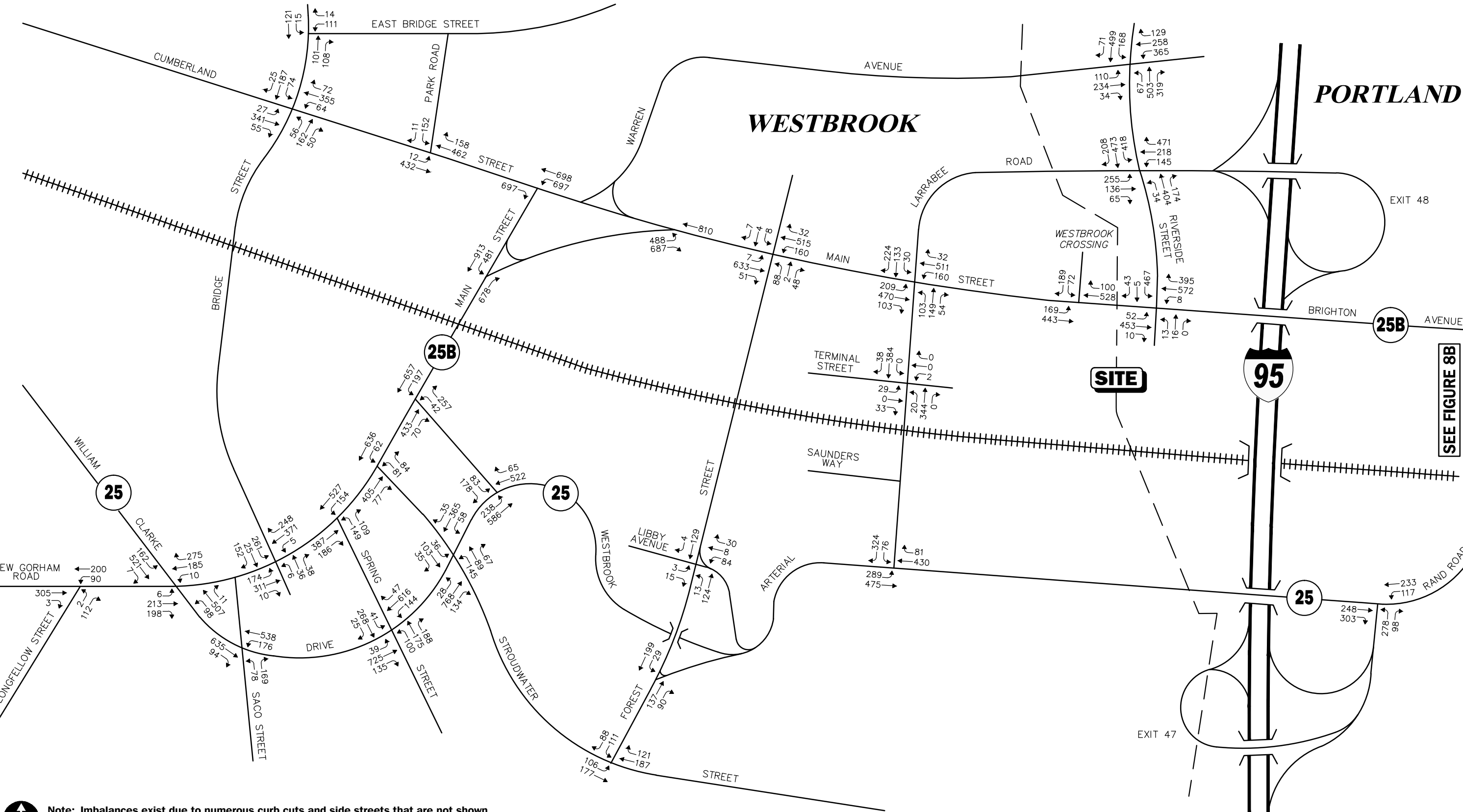


Figure 7A

2021 No-Build Design-Hour Weekday Evening Peak Hour Traffic Volumes



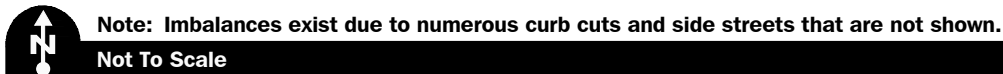
2021 No-Build Design-Year Weekday Evening Peak Hour Traffic Volumes



Not To Scale



2021 No-Build Design-Hour Saturday Midday Peak Hour Traffic Volumes



trips. For the purpose of this assessment, the ITE referenced pass-by trip rates were applied to the trip-generation calculations for the Project.

Table 3 summarizes the anticipated traffic characteristics of the Project using the above methodology.

Project-Generated Traffic Volume Summary

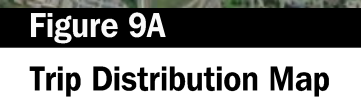
As can be seen in Table 3, using the aforementioned methodology, the Project is predicted to generate approximately 13,366 new vehicle trips on an average weekday and 18,890 new vehicle trips on a Saturday (two-way volume over the operational day of the Project), with 351 new vehicle trips (232 entering and 119 exiting) expected during the weekday morning peak-hour, 1,217 new vehicle trips (574 entering and 643 exiting) expected during the weekday evening peak-hour and 1,853 new vehicle trips (976 entering and 877 exiting) expected during the Saturday midday peak-hour.

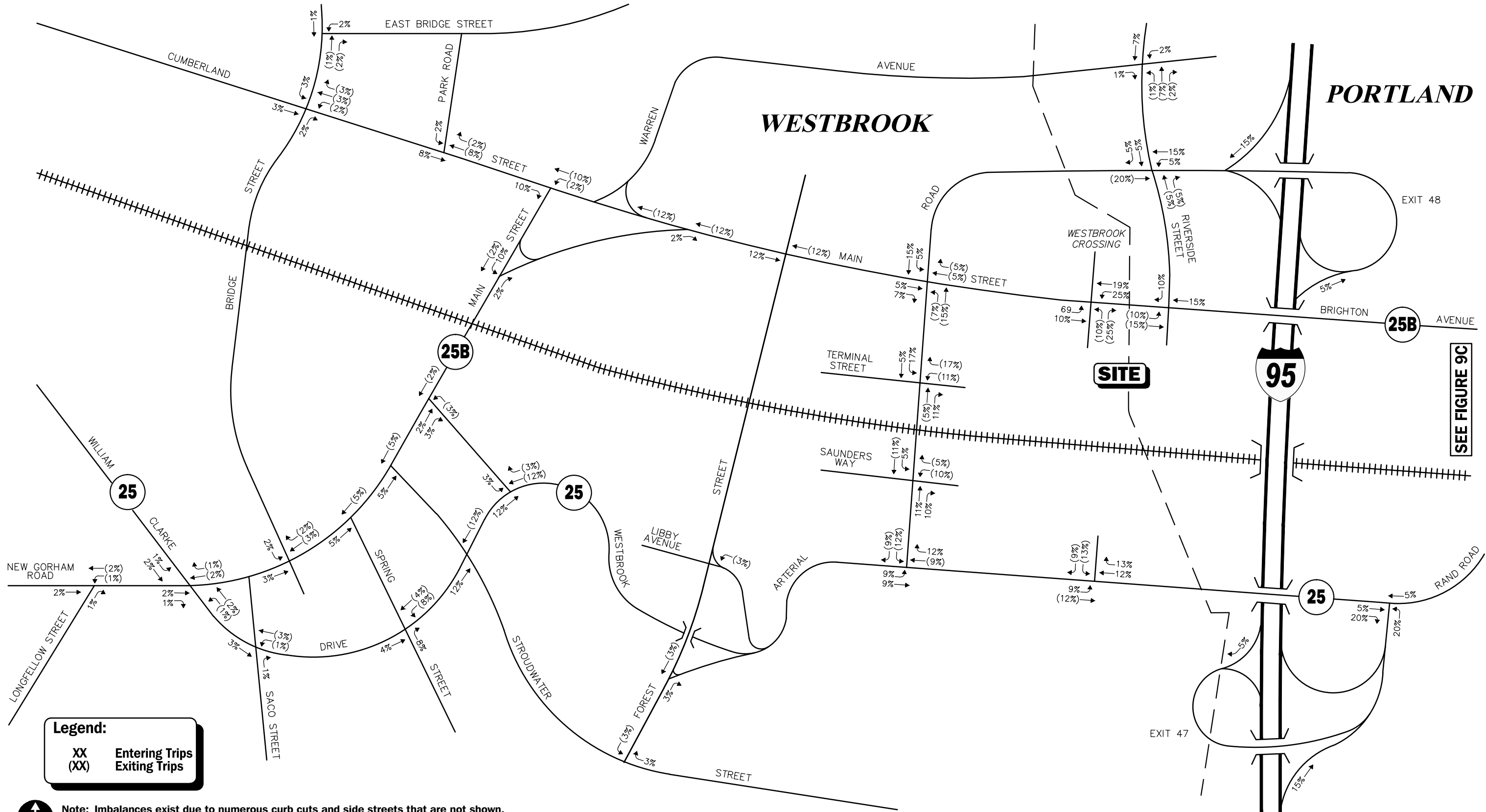
Trip Distribution and Assignment

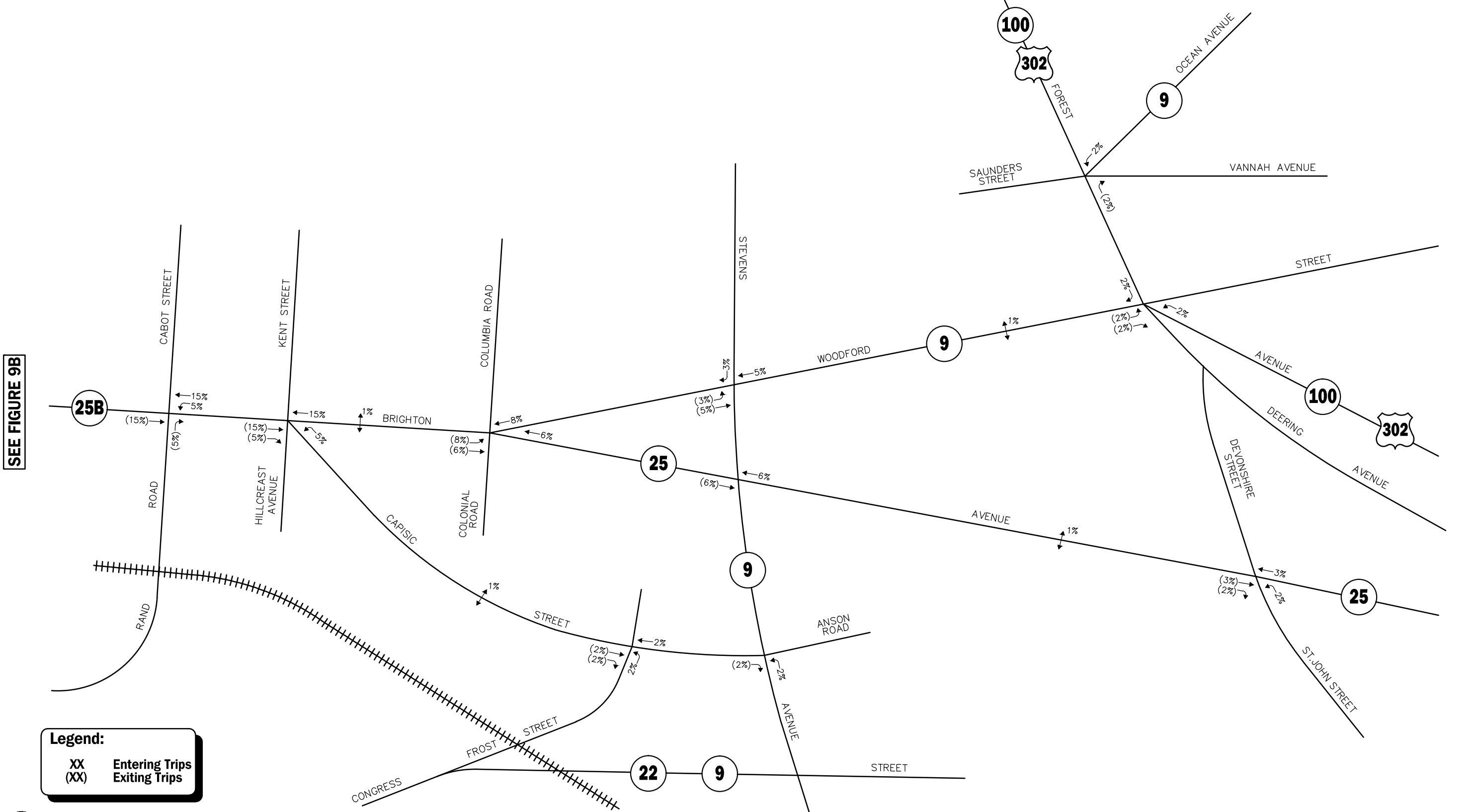
The directional distribution of generated trips to and from the Project site was determined based on a review of: i) existing traffic patterns within the study area; ii) population densities; and iii) the local and regional roadway network. The resulting trip distribution for the Project is graphically depicted on Figure 9, with the additional traffic expected to be generated by the Project assigned on the study area roadway network as shown on Figures 10 and 11 for the weekday evening and Saturday midday peak hours, respectively.

FUTURE TRAFFIC VOLUMES - BUILD CONDITION

The 2021 Build Design Hour traffic volumes consist of the 2021 No-Build Design Hour traffic volumes with the additional traffic expected to be generated by the Project added to them. The 2021 Build Design Hour weekday evening and Saturday midday peak-hour traffic-volumes are graphically depicted on Figures 12 and 13, respectively.







Legend:

XX	Entering Trips
(XX)	Exiting Trips

XX	Entering Trips
(XX)	Exiting Trips

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale



Vanasse & Associates, Inc.
Transportation Engineers & Planners

Figure 9C

Trip Distribution Map

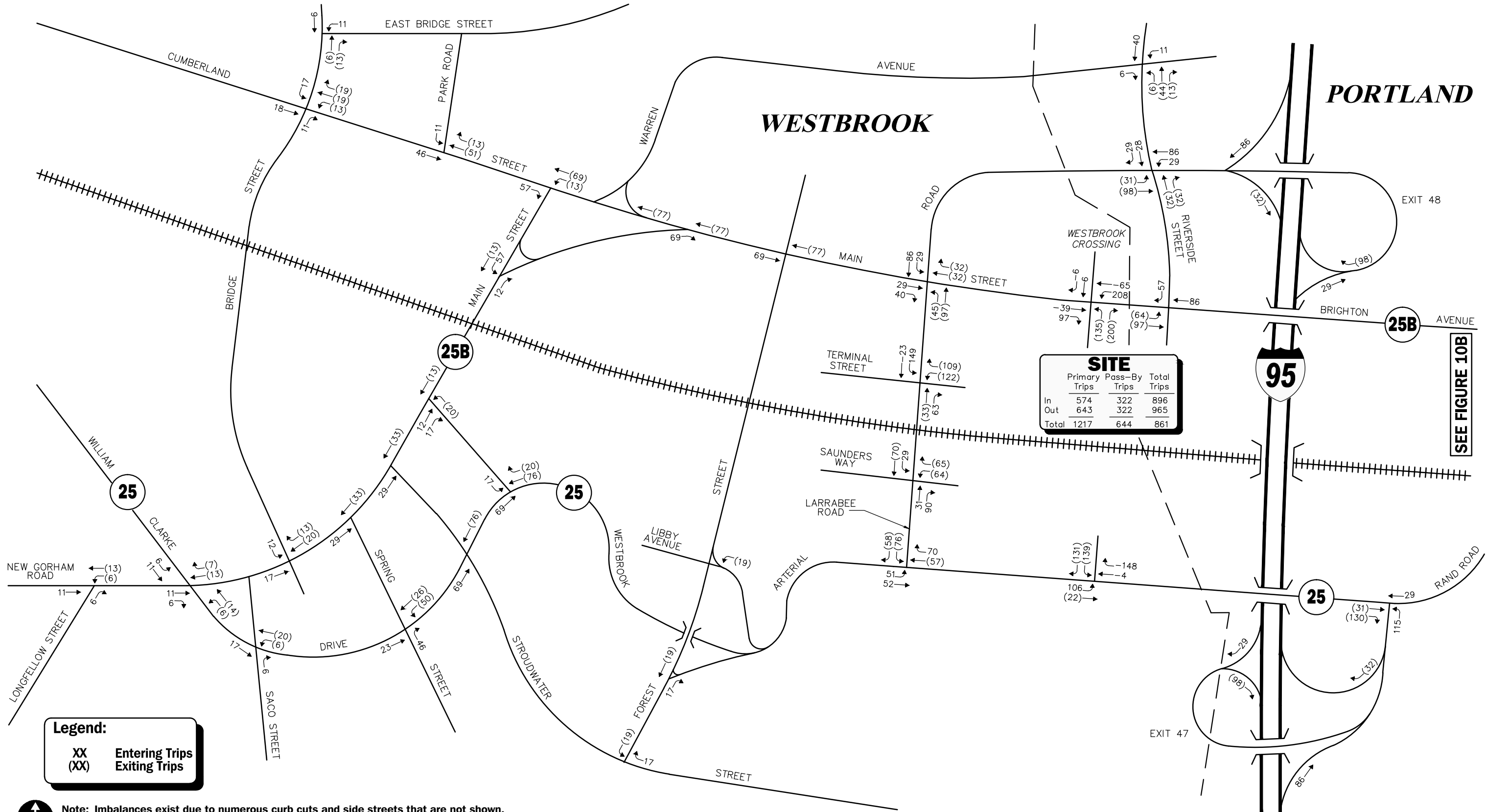


Figure 10A

Project-Generated
Weekday Evening
Peak Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



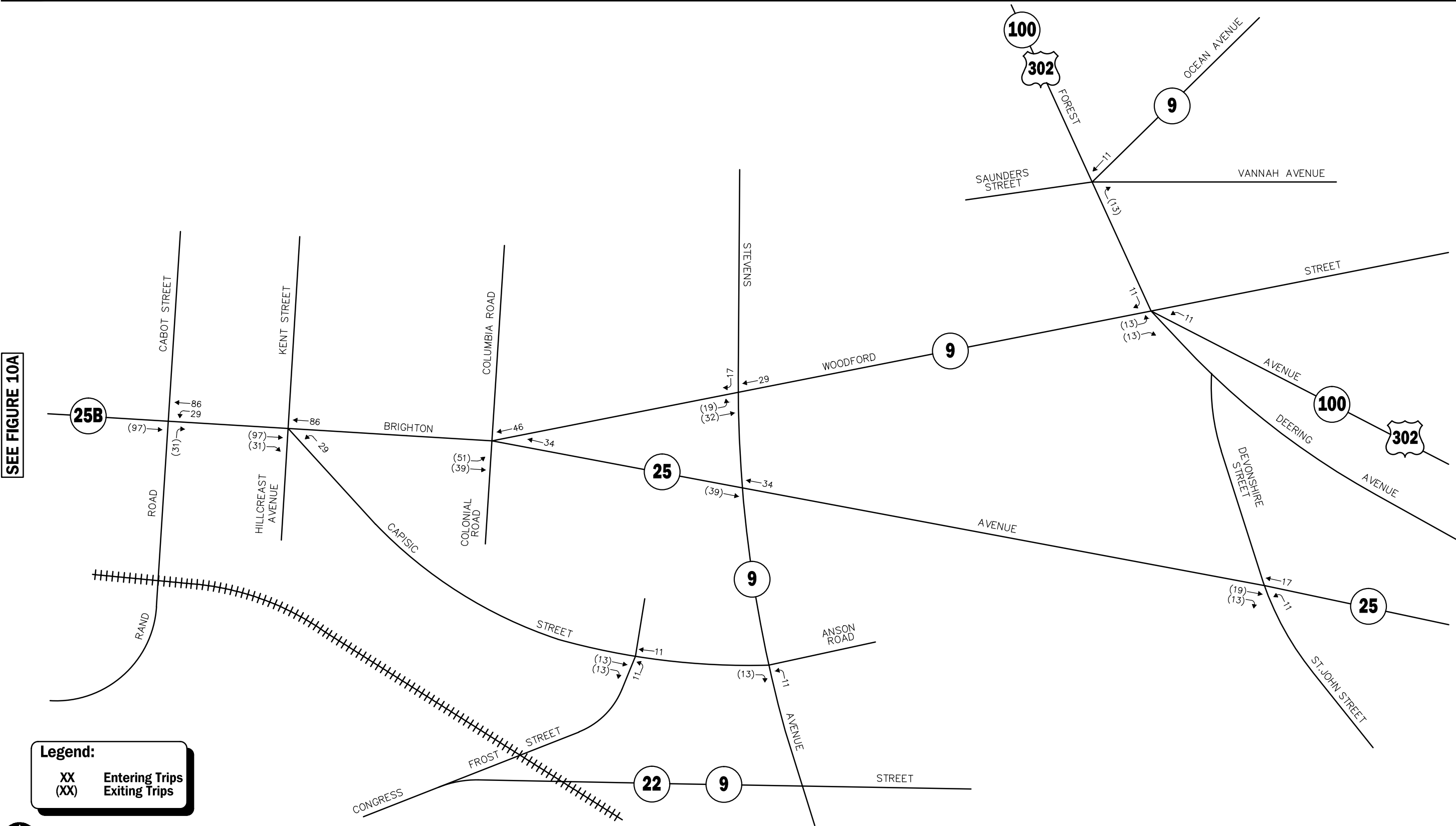
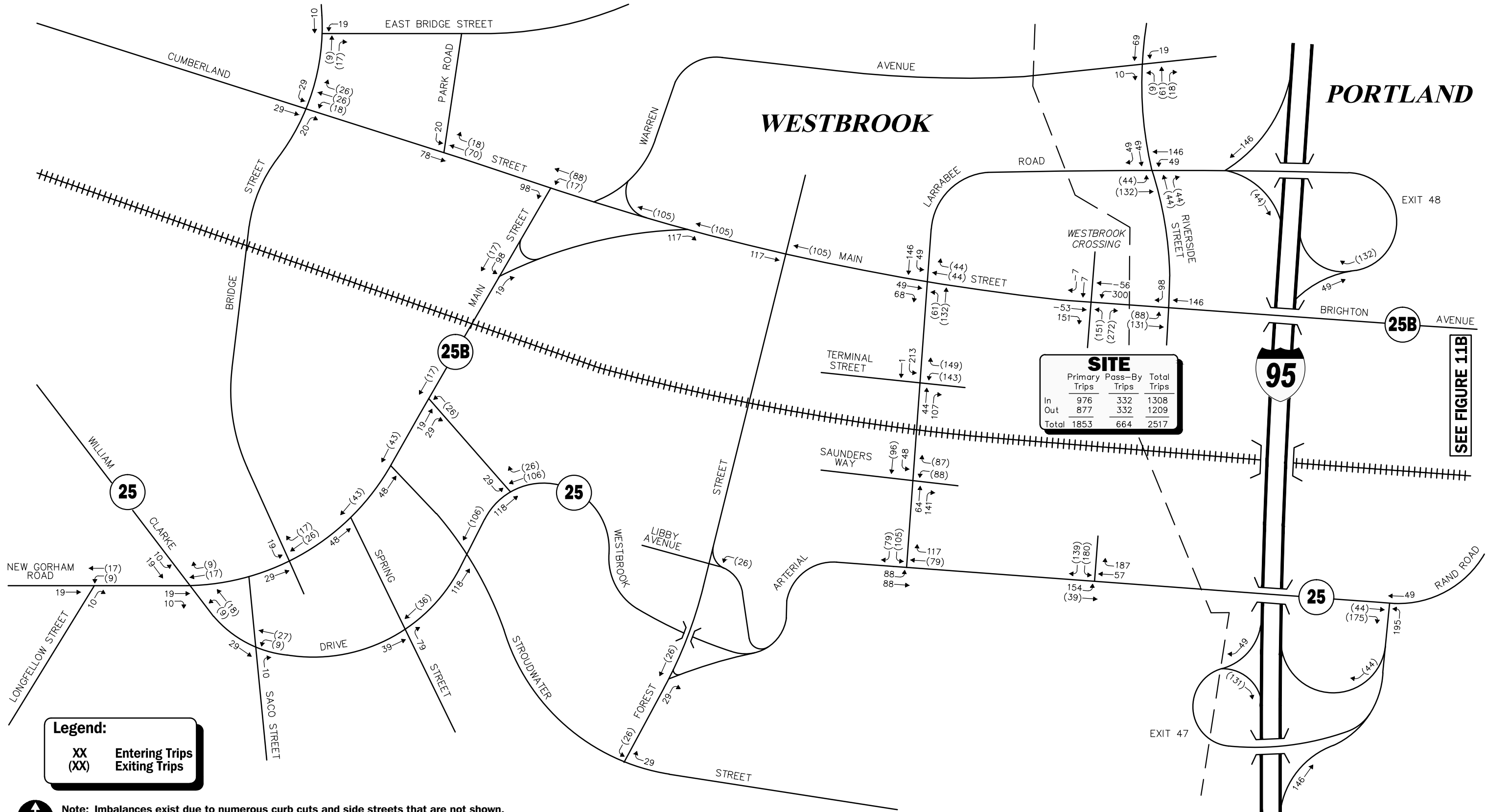


Figure 10B
Proejct-Generated
Weekday Evening
Peak Hour Traffic Volumes

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale





Legend:

XX Entering Trips
(XX) Exiting Trips



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale



Figure 11A

Project-Generated
Saturday Midday
Peak Hour Traffic Volumes

SEE FIGURE 11A

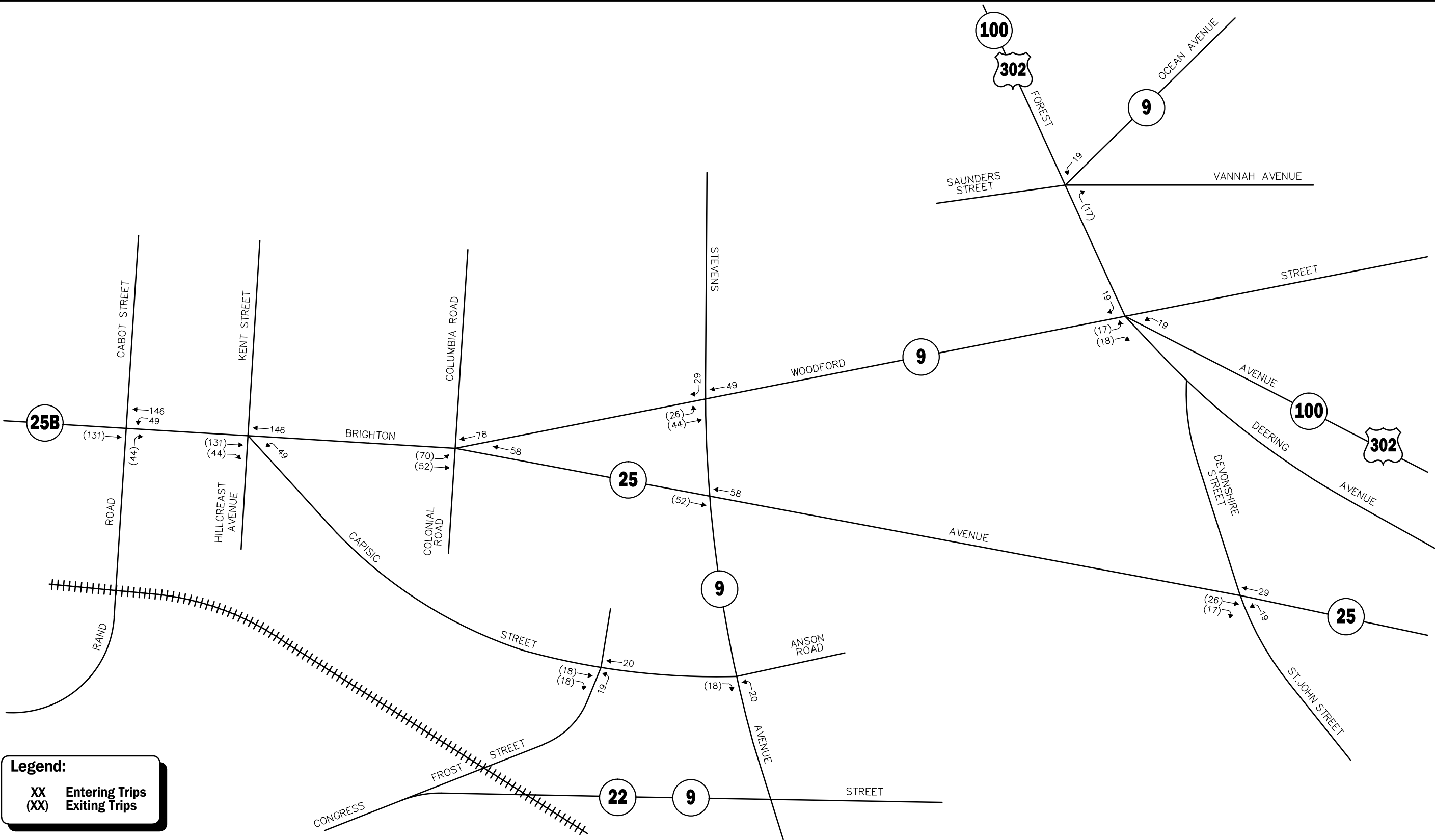
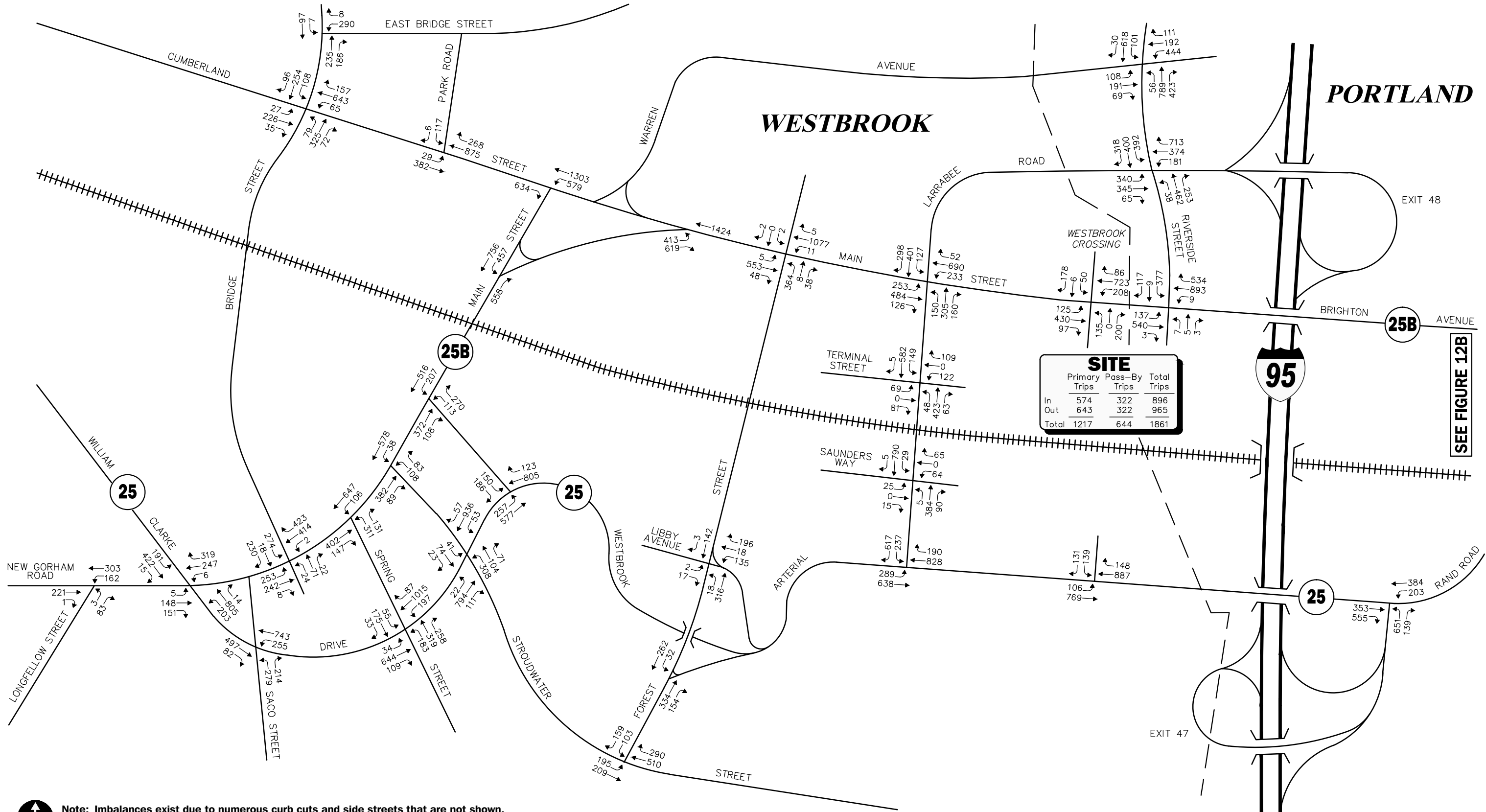


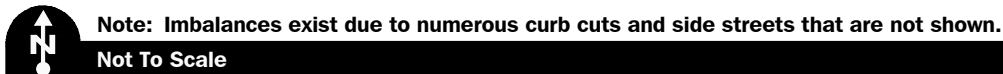
Figure 11B
Project-Generated
Saturday Midday
Peak Hour Traffic Volumes



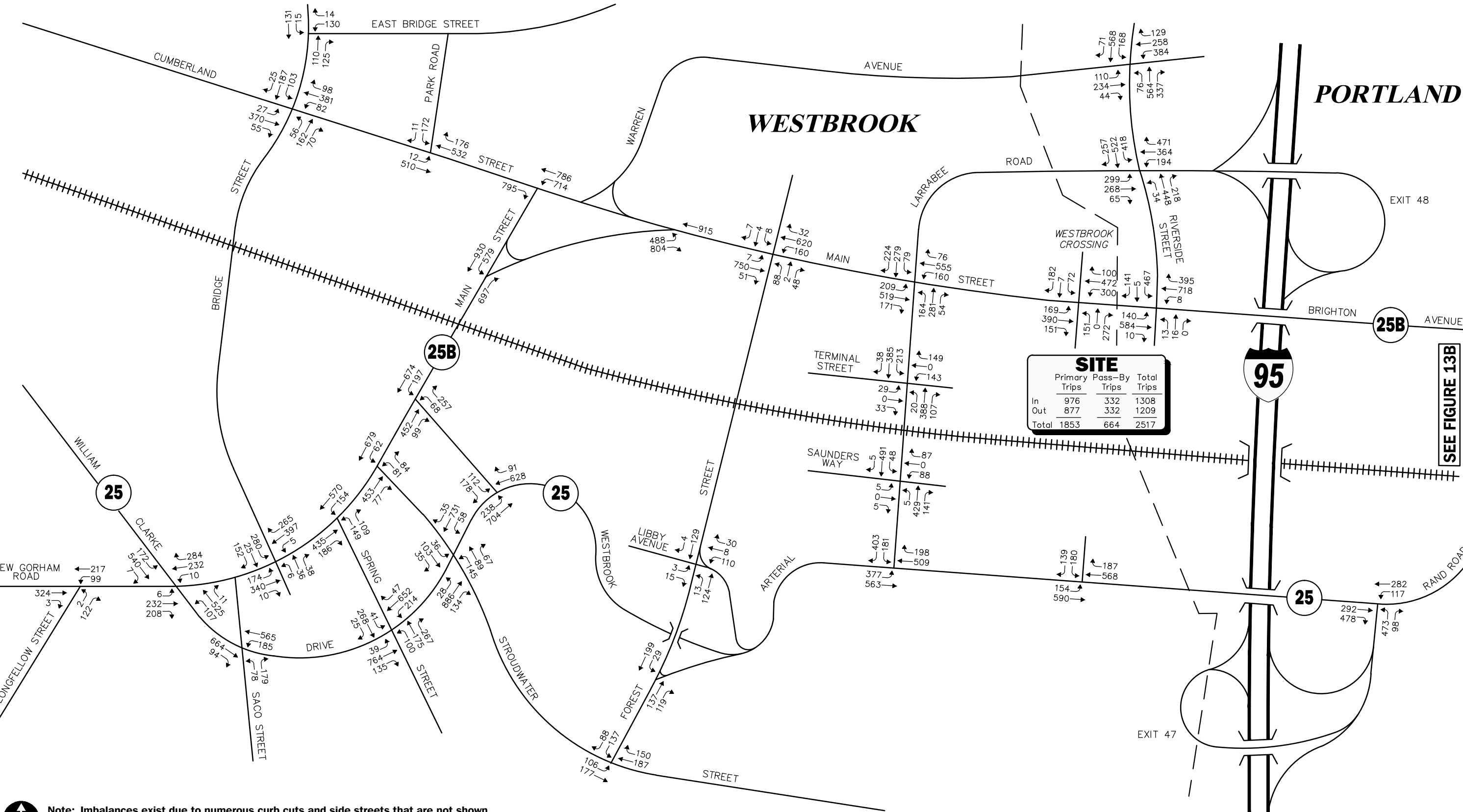
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale



Figure 12A
2021 Build Design-Hour
Weekday Evening
Peak Hour Traffic Volumes



Copyright © 2015 by VAI. All Rights Reserved.



Not To Scale

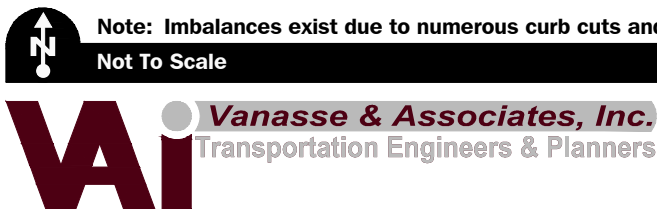
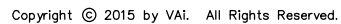


Figure 13A

2021 Build Design-Hour Saturday Midday Peak Hour Traffic Volumes



Not To Scale



2021 Build Design-Hour Saturday Midday Peak Hour Traffic Volumes

Table 3
DIRIGO PLAZA
TRIP GENERATION SUMMARY

Time Period/Direction	Shopping Center			Fueling Facility			(G= B+E) Total Pass-By Trips	(H= C + F) Total New Trips
	(A) Shopping Center (489,461 sf) ^a	(B) Pass-By Trips ^b	(C = A - B) New Trips	(D) Fueling Facility (8 VFPs) ^c	(E) Pass-By Trips	(F= D - E) News Trips		
<i>Average Weekday Daily:</i>								
Entering	9,533	3,241	6,292	674	283	391	3,524	6,683
Exiting	<u>9,533</u>	<u>3,241</u>	<u>6,292</u>	<u>674</u>	<u>283</u>	<u>391</u>	<u>3,524</u>	<u>6,683</u>
Total	19,066	6,482	12,584	1348	566	782	7,048	13,366
<i>Weekday Morning Peak Hour:</i>								
Entering	291	80	211	51	30	21	110	232
Exiting	<u>179</u>	<u>80</u>	<u>99</u>	<u>50</u>	<u>30</u>	<u>20</u>	<u>110</u>	<u>119</u>
Total	470	160	310	101	60	41	220	351
<i>Weekday Evening Peak Hour:</i>								
Entering	833	295	538	63	27	36	322	574
Exiting	<u>903</u>	<u>295</u>	<u>608</u>	<u>62</u>	<u>27</u>	<u>35</u>	<u>322</u>	<u>643</u>
Total	1,736	590	1,146	125	54	71	644	1,217
<i>Saturday Daily:</i>								
Entering	12,565	3,267	9,298	254	107	147	3,374	9,445
Exiting	<u>12,565</u>	<u>3,267</u>	<u>9,298</u>	<u>254</u>	<u>107</u>	<u>147</u>	<u>3,374</u>	<u>9,445</u>
Total	25,130	6,534	18,596	508	214	294	6,748	18,890
<i>Saturday Midday Peak Hour:</i>								
Entering	1,276	319	957	32	13	19	332	976
Exiting	<u>1,178</u>	<u>319</u>	<u>859</u>	<u>31</u>	<u>13</u>	<u>18</u>	<u>332</u>	<u>877</u>
Total	2,454	638	1,816	63	26	37	664	1,853

^aBased on ITE LUC 820, *Shopping Center*.

^bPass-By trip rates equal 34 percent for weekday and 26 percent for Saturday.

^cBased on ITE LUC 944, *Gasoline/Service Station*.

^dPass-By trip rates equal 42 percent for weekday daily, weekday evening peak-hour, Saturday daily and Saturday midday peak-hour; and 58 percent for weekday morning peak-hour.

TRAFFIC OPERATIONS ANALYSIS

Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, roadway capacity and vehicle queue analyses were conducted under Existing, No-Build and Build traffic volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

METHODOLOGY

Levels of Service

A primary result of capacity analyses is the assignment of level of service to traffic facilities under various traffic-flow conditions.⁸ The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level-of-service (LOS) A representing the best operating conditions and LOS F representing congested or constrained operating conditions.

Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

⁸The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

Unsignalized Intersections

The six levels of service for unsignalized intersections may be described as follows:

- *LOS A* represents a condition with little or no control delay to minor street traffic.
- *LOS B* represents a condition with short control delays to minor street traffic.
- *LOS C* represents a condition with average control delays to minor street traffic.
- *LOS D* represents a condition with long control delays to minor street traffic.
- *LOS E* represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
- *LOS F* represents a condition where minor street demand volume exceeds capacity of an approach lane, with extreme control delays resulting.

The levels of service of unsignalized intersections are determined by application of a procedure described in the 2010 *Highway Capacity Manual*.⁹ Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the affects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the 2010 *Highway Capacity Manual*. Table 4 summarizes the relationship between level of service and average control delay for two way stop controlled and all-way stop controlled intersections.

Table 4
LEVEL-OF-SERVICE CRITERIA FOR
UNSIGNALIZED INTERSECTIONS^a

Level-Of-Service by Volume-to-Capacity Ratio		Average Control Delay (Seconds Per Vehicle)
$v/c \leq 1.0$	$v/c > 1.0$	
A	F	≤ 10.0
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	> 50.0

^aSource: *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010; page 19-2.

⁹*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

Signalized Intersections

The six levels of service for signalized intersections may be described as follows:

- *LOS A* describes operations with very low control delay; most vehicles do not stop at all.
- *LOS B* describes operations with relatively low control delay. However, more vehicles stop than *LOS A*.
- *LOS C* describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- *LOS D* describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable.
- *LOS E* describes operations with high control delay values. Individual cycle failures are frequent occurrences.
- *LOS F* describes operations with high control delay values that often occur with over-saturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels of service for signalized intersections were calculated using the Percentile Delay Method implemented as a part of the Synchro™ 8 software in order to compensate for errors found when employing the 2010 *Highway Capacity Manual* methodology as a part of the software. The Percentile Delay Method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on “percentile” delay. Level-of-service designations are based on the criterion of percentile delay per vehicle and is a measure of: i) driver discomfort; ii) motorist frustration; and iii) fuel consumption; and includes a uniform delay based on percentile volumes using a Poisson arrival pattern, an initial queue move-up time, and a queue interaction delay that accounts for delays resulting from queues extending from adjacent intersections. Table 5 summarizes the relationship between level-of-service and percentile delay, and uses the same numerical delay thresholds as the HCM method. The tabulated percentile delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

Table 5
LEVEL-OF-SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS

Level of Service	Percentile Delay Per Vehicle (Seconds)
A	≤10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	>80.0

ANALYSIS RESULTS

Level-of-service and vehicle queue analyses were conducted for 2021 No-Build and 2021 Build Design Hour conditions for the intersections within the study area. The results of the intersection capacity analysis are summarized in Tables 6 and 7. The detailed analysis results are presented in the Technical Appendix.

The following is a summary of the level-of-service analysis for the intersections within the study area.

Table 6
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
<u>Westbrook Intersections</u>						
<i>Cumberland Street at Bridge Street</i>						
<i>Weekday Evening:</i>						
Cumberland Street EB LT/TH/RT	0.32	9.5	A	0.35	9.8	A
Cumberland Street WB LT/TH/RT	0.89	27.6	C	0.96	37.7	D
Bridge Street NB LT/TH/RT	0.98	58.4	E	1.00	62.9	E
Bridge Street SB LT/TH/RT	1.00	65.7	E	1.12	99.7	F
Overall	--	41.4	D	--	55.0	D
<i>Saturday Midday:</i>						
Cumberland Street EB LT/TH/RT	0.58	12.9	B	0.60	14.8	B
Cumberland Street WB LT/TH/RT	0.67	15.1	B	0.75	20.2	C
Bridge Street NB LT/TH/RT	0.51	16.9	B	0.52	17.6	B
Bridge Street SB LT/TH/RT	0.59	19.2	B	0.68	23.4	C
Overall	--	15.6	B	--	18.9	B
<i>Cumberland Street at Harnois Avenue</i>						
<i>Weekday Evening:</i>						
Cumberland Street EB RT	0.81	25.4	C	0.83	25.4	C
Cumberland Street WB LT	0.33	4.3	A	0.36	5.1	A
Cumberland Street WB TH	0.68	5.6	A	0.72	6.7	A
Overall	--	10.4	B	--	11.3	B
<i>Saturday Midday:</i>						
Cumberland Street EB RT	0.84	24.8	C	0.90	28.9	C
Cumberland Street WB LT	0.50	7.6	A	0.58	12.1	B
Cumberland Street WB TH	0.39	0.6	A	0.43	0.8	A
Overall	--	11.5	B	--	14.6	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Main Street at Cumberland Street						
<i>Weekday Evening:</i>						
Main Street WB TH	0.72	19.0	B	0.77	20.7	C
Main Street NB LT	0.71	24.2	C	0.71	23.6	C
Main Street NB RT	0.35	0.5	A	0.40	0.6	A
Overall	--	15.5	B	--	16.1	B
<i>Saturday Middy:</i>						
Main Street WB TH	0.45	12.6	B	0.52	13.9	B
Main Street NB LT	0.80	32.3	C	0.80	32.3	C
Main Street NB RT	0.44	0.7	A	0.52	0.8	A
Overall	--	13.3	B	--	13.8	B
Main Street at Forest Street						
<i>Weekday Evening:</i>						
Main Street EB LT/TH	0.74	19.2	B	0.85	26.3	C
Main Street EB RT	0.06	1.2	A	0.06	1.2	A
Main Street WB LT/TH	1.08	69.3	E	1.16	101.7	F
Main Street WB RT	0.01	0.0	A	0.01	0.0	F
Forest Street NB LT/TH/RT	1.25	156.7	F	1.25	156.7	F
Forest Street SB LT/TH/RT	0.02	0.0	A	0.02	0.0	A
Overall	--	74.4	E	--	90.9	F
<i>Saturday Middy:</i>						
Main Street EB LT/TH	0.55	8.4	A	0.65	10.3	B
Main Street EB RT	0.05	1.0	A	0.05	1.0	A
Main Street WB LT/TH	0.88	25.6	C	1.15	101.2	F
Main Street WB RT	0.03	0.3	A	0.03	0.3	A
Forest Street NB LT/TH/RT	0.56	26.6	C	0.56	26.6	C
Forest Street SB LT/TH/RT	0.08	16.2	B	0.08	16.2	B
Overall	--	17.2	B	--	50.7	D

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Main Street at Larrabee Road						
<i>Weekday Evening:</i>						
Main Street EB LT	0.77	57.6	E	0.81	66.8	E
Main Street EB TH/RT	0.71	42.7	D	0.47	28.3	C
Main Street WB LT	0.59	43.8	D	1.11	141.7	F
Main Street WB TH/RT	0.75	41.6	D	0.67	39.1	D
Larrabee Road NB LT/TH/RT	0.81	48.6	D	1.15	127.8	F
Larrabee Road SB LT/TH	0.74	50.8	D	1.01	89.4	F
Larrabee Road SB RT	0.61	10.0	B	0.62	10.4	B
Overall	--	42.6	D	--	69.5	E
<i>Saturday Midday:</i>						
Main Street EB LT	0.74	50.3	D	0.84	68.5	E
Main Street EB TH/RT	0.72	33.6	C	0.69	33.3	C
Main Street WB LT	0.62	48.2	D	0.89	89.2	F
Main Street WB TH/RT	0.69	36.1	D	0.68	39.5	D
Larrabee Road NB LT/TH/RT	0.65	43.3	D	1.02	90.9	F
Larrabee Road SB LT/TH	0.48	42.8	D	0.91	69.4	E
Larrabee Road SB RT	0.66	11.6	B	0.62	11.3	B
Overall	--	36.3	D	--	52.8	D
Main Street at Harnois Avenue						
<i>Weekday Evening:</i>						
Main Street NB RT	0.87	23.1	C	0.88	27.0	C
Harnois Avenue SB LT	0.30	4.4	A	0.36	6.1	A
Harnois Avenue SB TH	0.41	0.6	A	0.42	0.6	A
Overall	--	9.0	A	--	10.6	B
<i>Saturday Midday:</i>						
Main Street NB RT	0.87	26.9	C	0.88	29.3	C
Harnois Avenue SB LT	0.49	12.2	B	0.63	14.9	B
Harnois Avenue SB TH	0.52	0.8	A	0.53	0.7	B
Overall	--	12.2	B	--	13.7	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Main Street at Westbrook Arterial						
<i>Weekday Evening:</i>						
Main Street EB TH	0.57	15.9	B	0.58	16.3	B
Main Street EB RT	0.16	3.8	A	0.18	3.8	A
Main Street WB LT	0.38	5.7	A	0.61	6.0	A
Main Street WB TH	0.47	6.2	A	0.48	6.5	A
Westbrook Arterial NB LT	0.31	19.0	B	0.36	20.0	C
Westbrook Arterial NB RT	0.56	7.2	A	0.56	7.0	A
Overall	--	9.2	A	--	9.6	A
<i>Saturday Midday:</i>						
Main Street EB TH	0.63	15.7	B	0.64	16.1	B
Main Street EB RT	0.12	3.7	A	0.16	3.7	A
Main Street WB LT	0.39	5.4	A	0.40	5.7	A
Main Street WB TH	0.58	6.8	A	0.59	7.1	A
Westbrook Arterial NB LT	0.15	19.2	B	0.24	20.5	C
Westbrook Arterial NB RT	0.56	8.1	A	0.56	8.1	A
Overall	--	9.4	A	--	9.7	A
Main Street at Spring Street						
<i>Weekday Evening:</i>						
Main Street EB TH	0.61	20.6	C	0.64	20.9	C
Main Street EB RT	0.23	7.2	A	0.23	7.5	A
Main Street WB LT	0.25	8.1	A	0.26	8.0	A
Main Street WB TH	0.65	12.9	B	0.67	13.3	B
Spring Street NB LT	0.61	24.9	C	0.62	26.5	C
Spring Street NB RT	0.25	9.8	A	0.25	10.4	B
Overall	--	15.7	B	--	16.3	B
<i>Saturday Midday:</i>						
Main Street EB TH	0.58	16.4	B	0.61	16.7	B
Main Street EB RT	0.26	5.8	A	0.25	6.1	A
Main Street WB LT	0.30	5.9	A	0.31	5.9	A
Main Street WB TH	0.51	7.5	A	0.53	7.7	A
Spring Street NB LT	0.39	21.6	C	0.40	23.4	C
Spring Street NB RT	0.25	6.5	A	0.25	6.9	A
Overall	--	10.7	B	--	11.1	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Main Street at Bridge Street						
<i>Weekday Evening:</i>						
Main Street EB LT	0.58	17.0	B	0.59	17.5	B
Main Street EB TH/RT	0.24	12.0	B	0.26	12.0	B
Main Street WB LT/TH	0.79	47.5	D	0.80	54.9	D
Main Street WB RT	0.71	23.6	C	0.72	25.5	C
Bridge Street NB LT/TH/RT	0.22	25.0	C	0.22	25.8	C
Bridge Street SB LT/TH/RT	1.02	76.2	E	1.07	91.5	F
Overall	--	40.6	D	--	46.6	D
<i>Saturday Midday:</i>						
Main Street EB LT	0.49	15.7	B	0.50	15.6	B
Main Street EB TH/RT	0.40	14.5	B	0.43	14.6	B
Main Street WB LT/TH	0.80	45.1	D	0.81	47.9	D
Main Street WB RT	0.49	16.9	B	0.50	17.9	B
Bridge Street NB LT/TH/RT	0.15	17.7	B	0.15	18.4	B
Bridge Street SB LT/TH/RT	0.88	48.3	D	0.95	60.4	E
Overall	--	31.0	C	--	35.0	C
New Gorham Road at William Clarke Drive						
<i>Weekday Evening:</i>						
New Gorham Road EB LT/TH	0.37	33.0	C	0.39	33.5	C
New Gorham Road EB RT	0.35	7.5	A	0.35	7.5	A
New Gorham Road WB LT/TH	0.69	42.3	D	0.72	44.0	D
New Gorham Road WB RT	0.57	10.2	B	0.58	10.9	B
William Clarke Drive NB LT	0.95	93.9	F	1.00	107.1	F
William Clarke Drive NB TH/RT	0.91	87.4	F	0.92	88.5	F
William Clarke Drive SB LT	0.67	48.0	D	0.70	49.4	D
William Clarke Drive SB TH/RT	0.24	12.2	B	0.24	12.2	B
Overall	--	49.2	D	--	50.8	D
<i>Saturday Midday:</i>						
New Gorham Road EB LT/TH	0.60	33.0	C	0.61	33.6	C
New Gorham Road EB RT	0.46	7.2	A	0.45	7.2	A
New Gorham Road WB LT/TH	0.59	33.6	C	0.68	36.9	D
New Gorham Road WB RT	0.52	6.7	A	0.51	6.7	A
William Clarke Drive NB LT	0.44	40.7	D	0.50	44.5	D
William Clarke Drive NB TH/RT	0.75	26.7	C	0.78	29.0	C
William Clarke Drive SB LT	0.54	37.3	D	0.58	40.0	D
William Clarke Drive SB TH/RT	0.31	12.8	B	0.32	13.4	B
Overall	--	21.6	C	--	23.3	C

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
William Clarke Drive at Saco Street						
<i>Weekday Evening:</i>						
William Clarke Drive EB TH/RT	0.61	22.9	C	0.62	23.3	C
William Clarke Drive WB LT	0.65	31.1	C	0.65	31.4	C
William Clarke Drive WB TH	0.74	14.8	B	0.75	15.1	B
Saco Street NB LT	0.67	33.0	C	0.68	33.9	C
Saco Street NB RT	0.44	11.8	B	0.45	12.1	B
Overall	--	21.3	C	--	21.6	C
<i>Saturday Midday:</i>						
William Clarke Drive EB TH/RT	0.60	17.0	B	0.61	17.4	B
William Clarke Drive WB LT	0.51	29.9	C	0.53	27.9	C
William Clarke Drive WB TH	0.50	6.5	A	0.52	6.7	A
Saco Street NB LT	0.33	28.2	C	0.33	29.3	C
Saco Street NB RT	0.47	9.6	A	0.49	9.8	A
Overall	--	14.4	B	--	14.8	B
William Clarke Drive at Spring Street						
<i>Weekday Evening:</i>						
William Clarke Drive EB LT	0.27	47.0	D	0.27	47.6	D
William Clarke Drive EB TH/RT	0.83	38.8	D	0.85	40.7	D
William Clarke Drive WB LT	0.66	53.6	D	0.80	64.2	E
William Clarke Drive WB TH/RT	0.83	82.2	F	0.82	82.2	F
Spring Street NB LT	0.79	62.1	E	0.80	64.2	E
Spring Street NB TH	0.64	38.4	D	0.66	39.9	D
Spring Street NB RT	0.37	10.1	B	0.44	10.4	B
Spring Street SB LT	0.36	47.9	D	0.37	48.7	D
Spring Street SB TH/RT	0.56	42.8	D	0.58	44.8	D
Overall	--	54.4	D	--	55.2	E
<i>Saturday Midday:</i>						
William Clarke Drive EB LT	0.27	45.9	D	0.28	46.7	D
William Clarke Drive EB TH/RT	0.82	36.1	D	0.85	39.2	D
William Clarke Drive WB LT	0.65	51.6	D	0.84	66.3	E
William Clarke Drive WB TH/RT	0.50	24.2	C	0.51	24.2	C
Spring Street NB LT	0.52	48.3	D	0.54	49.5	D
Spring Street NB TH	0.37	31.0	C	0.38	31.9	C
Spring Street NB RT	0.33	6.1	A	0.44	6.1	A
Spring Street SB LT	0.28	46.0	D	0.29	46.8	D
Spring Street SB TH/RT	0.75	63.7	E	0.79	78.8	E
Overall	--	35.1	D	--	38.4	D

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
William Clarke Drive at Stroudwater Street						
<i>Weekday Evening:</i>						
William Clarke Drive EB LT	0.15	44.1	D	0.16	45.0	D
William Clarke Drive EB TH/RT	0.72	29.6	C	0.78	37.1	D
William Clarke Drive WB LT	0.30	45.3	D	0.33	46.9	D
William Clarke Drive WB TH/RT	0.66	27.1	C	0.72	75.8	E
Stroudwater Street NB LT	0.72	45.4	D	0.79	51.1	D
Stroudwater Street NB TH/RT	0.67	40.4	D	0.73	44.3	D
Stroudwater Street SB LT	0.22	39.2	D	0.24	40.1	D
Stroudwater Street SB TH/RT	0.49	41.6	D	0.52	43.0	D
Overall	--	32.9	C	--	54.1	D
<i>Saturday Midday:</i>						
William Clarke Drive EB LT	0.19	45.6	D	0.20	46.1	D
William Clarke Drive EB TH/RT	0.80	34.6	C	0.84	73.9	E
William Clarke Drive WB LT	0.36	47.6	D	0.37	48.7	D
William Clarke Drive WB TH/RT	0.54	24.3	C	0.59	26.0	C
Stroudwater Street NB LT	0.55	42.8	D	0.57	44.1	D
Stroudwater Street NB TH/RT	0.66	41.6	D	0.68	43.3	D
Stroudwater Street SB LT	0.16	36.9	D	0.16	37.3	D
Stroudwater Street SB TH/RT	0.57	42.6	D	0.59	44.0	D
Overall	--	33.8	C	--	50.7	D
William Clarke Drive at Westbrook Arterial						
<i>Weekday Evening:</i>						
William Clarke Drive EB LT	0.73	38.8	D	0.74	39.6	D
William Clarke Drive EB TH	0.28	7.6	A	0.31	7.8	A
Westbrook Arterial WB TH/RT	0.82	32.2	C	0.89	36.6	D
Westbrook Arterial SB LT	0.31	26.8	C	0.35	27.5	C
Westbrook Arterial SB RT	0.36	6.1	A	0.36	6.1	A
Overall	--	23.4	C	--	25.5	C
<i>Saturday Midday:</i>						
William Clarke Drive EB LT	0.65	33.5	C	0.66	35.4	D
William Clarke Drive EB TH	0.31	8.3	A	0.36	8.5	A
Westbrook Arterial WB TH/RT	0.68	26.3	C	0.75	27.8	C
Westbrook Arterial SB LT	0.16	22.3	C	0.22	24.1	C
Westbrook Arterial SB RT	0.30	5.7	A	0.31	5.8	A
Overall	--	18.8	B	--	19.7	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Westbrook Arterial at Larrabee Road						
<i>Weekday Evening:</i>						
Westbrook Arterial EB LT	0.52	24.4	C	0.65	29.6	C
Westbrook Arterial EB TH	0.27	5.2	A	0.31	6.5	A
Westbrook Arterial WB TH/RT	0.90	38.6	D	1.08	80.0	E
Larrabee Road SB LT	0.57	33.0	C	0.70	36.4	D
Larrabee Road SB RT	0.72	16.0	B	0.75	17.1	B
Overall	--	22.8	C	--	40.2	D
<i>Saturday Midday:</i>						
Westbrook Arterial EB LT	0.53	20.5	C	0.74	31.7	C
Westbrook Arterial EB TH	0.17	3.0	A	0.25	5.5	A
Westbrook Arterial WB TH/RT	0.55	17.5	B	0.82	30.3	C
Larrabee Road SB LT	0.27	24.8	C	0.59	33.1	C
Larrabee Road SB RT	0.44	8.6	A	0.49	9.9	A
Overall	--	12.8	B	--	21.2	C
<u>Portland Intersections</u>						
Riverside Street at Warren Avenue						
<i>Weekday Evening:</i>						
Warren Street EB LT	0.33	37.0	D	0.33	37.2	D
Warren Street EB TH/RT	0.76	49.3	D	0.78	50.8	D
Warren Street WB LT	0.76	46.0	D	0.77	46.4	D
Warren Street WB LT/TH	0.77	46.1	D	0.77	45.8	D
Warren Street WB RT	0.18	3.8	A	0.17	3.7	A
Riverside Street NB LT	0.30	29.8	C	0.33	30.7	C
Riverside Street NB TH	1.17	128.2	F	1.25	159.3	F
Riverside Street NB RT	0.99	65.3	E	1.04	78.2	E
Riverside Street SB LT	0.49	33.5	C	0.49	33.9	C
Riverside Street SB TH/RT	0.80	48.1	D	0.87	53.5	D
Overall	--	66.8	E	--	78.2	E
<i>Saturday Midday:</i>						
Warren Street EB LT	0.31	36.8	D	0.31	36.8	D
Warren Street EB TH/RT	0.73	48.7	D	0.74	49.3	D
Warren Street WB LT	0.75	44.5	D	0.75	45.0	D
Warren Street WB LT/TH	0.74	43.7	D	0.76	44.6	D
Warren Street WB RT	0.19	3.7	A	0.19	3.6	A
Riverside Street NB LT	0.28	27.6	C	0.37	29.9	C
Riverside Street NB TH	0.72	44.4	D	0.82	50.5	D
Riverside Street NB RT	0.67	21.3	C	0.73	26.3	C
Riverside Street SB LT	0.65	38.1	D	0.73	45.1	D
Riverside Street SB TH/RT	0.67	40.5	D	0.77	45.4	D
Overall	--	38.2	D	--	41.8	D

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
<i>Riverside Street at Larrabee Road and the I-95 Ramps</i>						
<i>Weekday Evening:</i>						
Larrabee Road EB LT	1.51	283.5	F	1.69	357.8	F
Larrabee Road EB TH/RT	0.53	38.8	D	0.73	46.9	D
I-95 Off-Ramp WB LT	0.74	64.2	E	0.83	73.8	E
I-95 Off-Ramp WB TH	0.90	71.7	E	1.19	149.3	F
I-95 Off-Ramp WB RT	1.13	93.2	F	1.15	98.6	F
Riverside Street NB LT	0.12	35.4	D	0.11	35.0	C
Riverside Street NB TH	0.68	45.0	D	0.69	44.9	D
Riverside Street NB RT	0.48	8.2	A	0.51	7.9	A
Riverside Street SB LT	0.92	64.6	E	0.93	67.8	E
Riverside Street SB LT/TH/RT	0.82	37.4	D	0.89	43.4	D
Overall	--	77.7	E	--	94.8	F
<i>Saturday Midday:</i>						
Larrabee Road EB LT	0.87	67.9	E	0.99	91.0	E
Larrabee Road EB TH/RT	0.29	26.2	C	0.49	38.2	D
I-95 Off-Ramp WB LT	0.63	54.0	D	0.75	60.1	E
I-95 Off-Ramp WB TH	0.73	54.7	D	1.12	127.8	F
I-95 Off-Ramp WB RT	0.77	14.8	B	0.85	26.9	C
Riverside Street NB LT	0.11	35.9	D	0.11	35.6	D
Riverside Street NB TH	0.67	44.4	D	0.71	46.4	D
Riverside Street NB RT	0.42	8.3	A	0.48	8.0	A
Riverside Street SB LT	0.95	73.5	E	1.02	92.5	F
Riverside Street SB LT/TH/RT	0.90	50.5	D	1.05	83.0	F
Overall	--	44.5	D	--	66.4	E

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Main Street at Riverside Street						
<i>Weekday Evening:</i>						
Main Street EB LT	0.33	40.6	D	0.56	48.0	D
Main Street EB TH/RT	0.25	11.4	B	0.27	10.9	B
Main Street WB LT	0.06	44.1	D	0.07	48.7	D
Main Street WB TH	0.63	22.4	C	0.69	25.3	C
Main Street WB RT	0.37	0.7	A	0.37	0.7	A
Driveway NB LT/TH/RT	0.12	37.9	D	0.15	41.3	D
Riverside Street SB LT	0.55	36.1	D	0.62	42.6	D
Riverside Street SB LT/TH	0.56	36.1	D	0.63	42.6	D
Riverside Street SB RT	0.04	0.1	A	0.08	0.1	A
Overall	--	17.9	B	--	20.2	C
<i>Saturday Midday:</i>						
Main Street EB LT	0.02	32.0	C	0.54	45.1	D
Main Street EB TH/RT	0.40	17.4	B	0.33	14.0	B
Main Street WB LT	0.04	31.8	C	0.06	45.4	D
Main Street WB TH	0.51	18.5	B	0.66	28.3	C
Main Street WB RT	0.27	0.4	A	0.27	0.4	A
Driveway NB LT/TH/RT	0.18	29.4	C	0.27	44.8	D
Riverside Street SB LT	0.48	22.9	C	0.63	39.5	D
Riverside Street SB LT/TH	0.49	23.0	C	0.64	39.9	D
Riverside Street SB RT	0.03	0.0	A	0.09	0.1	A
Overall	--	15.6	B	--	22.3	C
Westbrook Arterial and Rand Road at the I-95 Ramps						
<i>Weekday Evening:</i>						
Westbrook Arterial EB TH	0.73	36.4	D	0.76	37.4	D
Westbrook Arterial EB RT	0.35	2.2	A	0.46	3.5	A
Rand Road WB LT	0.63	19.2	B	0.65	20.0	B
Rand Road WB TH	0.50	15.7	B	0.53	16.0	B
I-95 Off-Ramp NB LT	0.88	40.7	D	1.09	89.5	F
I-95 Off-Ramp NB RT	0.16	1.9	A	0.16	2.0	A
Overall	--	22.3	C	--	36.7	D
<i>Saturday Midday:</i>						
Westbrook Arterial EB TH	0.53	20.4	C	0.62	23.4	C
Westbrook Arterial EB RT	0.50	4.8	A	0.66	5.7	A
Rand Road WB LT	0.25	8.4	A	0.28	9.1	A
Rand Road WB TH	0.27	8/5	A	0.31	9.4	A
I-95 Off-Ramp NB LT	0.62	23.9	C	0.98	60.3	E
I-95 Off-Ramp NB RT	0.13	2.5	A	0.13	2.6	A
Overall	--	12.9	B	--	24.2	C

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Brighton Avenue at Rand Road and Cabot Street						
<i>Weekday Evening:</i>						
Brighton Avenue EB LT	0.05	44.4	D	0.05	46.0	D
Brighton Avenue EB TH/RT	0.60	23.0	C	0.64	23.9	C
Brighton Avenue WB LT	0.55	33.3	C	0.59	35.4	D
Brighton Avenue WB TH/RT	0.53	11.3	B	0.56	11.6	B
Rand Road NB LT/TH	0.35	41.4	D	0.37	43.5	D
Rand Road NB RT	0.62	10.5	B	0.68	14.0	B
Cabot Street SB LT/TH/RT	0.19	33.8	C	0.21	35.1	D
Overall	--	18.7	B	--	19.6	B
<i>Saturday Middy:</i>						
Brighton Avenue EB LT	0.01	36.0	D	0.14	41.0	D
Brighton Avenue EB TH/RT	0.68	21.7	C	0.72	23.0	C
Brighton Avenue WB LT	0.42	33.7	C	0.50	37.3	D
Brighton Avenue WB TH/RT	0.42	11.8	B	0.46	11.8	B
Rand Road NB LT/TH	0.30	37.4	D	0.32	42.2	D
Rand Road NB RT	0.60	11.2	B	0.66	12.3	B
Cabot Street SB LT/TH/RT	0.16	34.0	C	0.17	38.1	D
Overall	--	18.7	B	--	19.8	B
Brighton Avenue at Capisic Street, Hillcrest Avenue and Kent Street						
<i>Weekday Evening:</i>						
Brighton Avenue EB LT/TH/RT	0.78	21.2	C	0.84	24.4	C
Brighton Avenue WB LT/TH/RT	0.70	18.7	B	0.73	20.0	C
Hillcrest Avenue NB LT/TH/RT	0.03	0.2	A	0.03	0.2	A
Kent Street SB LT/TH/RT	0.28	29.1	C	0.30	29.9	C
Capisic Street NWB LT/TH/RT	0.62	34.8	C	0.66	36.7	D
Overall	--	22.3	C	--	24.4	C
<i>Saturday Middy:</i>						
Brighton Avenue EB LT/TH/RT	0.68	15.9	B	0.74	17.6	B
Brighton Avenue WB LT/TH/RT	0.57	13.9	B	0.62	14.9	B
Hillcrest Avenue NB LT/TH/RT	0.02	35.0	C	0.02	39.0	D
Kent Street SB LT/TH/RT	0.19	2.6	A	0.21	2.8	A
Capisic Street NWB LT/TH/RT	0.45	29.1	C	0.53	32.9	C
Overall	--	16.3	B	--	18.1	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
<i>Brighton Avenue at Woodford Street and Columbia Road</i>						
<i>Weekday Evening:</i>						
Brighton Avenue EB LT	0.74	38.8	D	0.91	61.8	E
Brighton Avenue EB TH/RT	0.35	17.3	B	0.37	17.5	B
Brighton Avenue WB LT/TH/RT	0.84	47.4	D	0.87	49.1	D
Columbia Road NB LT/TH/RT	0.77	67.9	E	0.78	68.9	E
Columbia Road SB LT/TH/RT	0.46	44.6	D	0.47	44.9	D
Woodford Street SWB LT/TH/RT	1.17	51.9	D	1.32	65.8	E
Overall	--	41.1	D	--	47.0	D
<i>Saturday MIDDAY:</i>						
Brighton Avenue EB LT	0.49	17.4	B	0.64	22.9	C
Brighton Avenue EB TH/RT	0.30	14.0	B	0.32	14.8	B
Brighton Avenue WB LT/TH/RT	0.71	39.0	D	0.77	43.8	D
Columbia Road NB LT/TH/RT	0.47	47.4	D	0.52	53.4	D
Columbia Road SB LT/TH/RT	0.39	41.3	D	0.43	45.8	D
Woodford Street SWB LT/TH/RT	0.93	30.1	C	1.13	38.6	D
Overall	--	27.9	C	--	32.1	C
<i>Woodford Street at Steven Avenue</i>						
<i>Weekday Evening:</i>						
Woodford Street EB LT	0.22	21.0	C	0.33	23.9	C
Woodford Street EB TH/RT	0.39	20.0	C	0.44	20.7	C
Woodford Street WB LT/TH	0.61	24.9	C	0.67	26.9	C
Woodford Street WB RT	0.23	10.3	B	0.23	10.3	B
Steven Avenue NB LT/TH	0.74	29.0	C	0.74	29.4	C
Steven Avenue NB RT	0.36	10.3	B	0.36	10.3	B
Steven Avenue SB LT	0.30	12.0	B	0.30	12.0	B
Steven Avenue SB TH/RT	0.57	15.5	B	0.59	15.9	B
Overall	--	19.9	B	--	20.7	C
<i>Saturday MIDDAY:</i>						
Woodford Street EB LT	0.20	16.0	B	0.24	16.6	B
Woodford Street EB TH/RT	0.39	16.8	B	0.36	16.1	B
Woodford Street WB LT/TH	0.49	18.6	B	0.45	18.6	B
Woodford Street WB RT	0.18	6.1	A	0.14	6.1	A
Steven Avenue NB LT/TH	0.54	21.3	C	0.62	27.5	C
Steven Avenue NB RT	0.02	0.1	A	0.02	0.1	A
Steven Avenue SB LT	0.22	9.3	A	0.28	12.8	B
Steven Avenue SB TH/RT	0.53	12.1	B	0.66	18.5	B
Overall	--	15.2	B	--	17.7	B

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Forest Avenue at Ocean Avenue, Saunders Street and Vannah Avenue						
<i>Weekday Evening:</i>						
Saunders Street EB LT/TH/RT	0.31	40.5	D	0.31	40.5	D
Vannah Avenue WB LT/TH/RT	0.67	68.6	E	0.67	68.6	E
Forest Avenue NB TH/RT	0.67	23.6	C	0.68	24.8	C
Forest Avenue SB LT/TH	0.33	18.8	B	0.35	19.5	C
Forest Avenue SB TH/RT	0.52	20.1	C	0.53	20.6	C
Ocean Avenue SWB LT	0.17	68.7	E	0.78	68.6	E
Ocean Avenue SWB TH/RT	0.17	7.1	A	0.29	6.9	A
Overall	--	27.9	C	--	28.7	C
<i>Saturday MIDDAY:</i>						
Saunders Street EB LT/TH/RT	0.20	29.5	C	0.20	29.5	C
Vannah Avenue WB LT/TH/RT	0.64	52.8	D	0.64	52.8	D
Forest Avenue NB TH/RT	0.64	25.7	C	0.66	26.5	C
Forest Avenue SB LT/TH	0.39	17.6	B	0.41	18.6	B
Forest Avenue SB TH/RT	0.40	15.9	B	0.41	16.4	B
Ocean Avenue SWB LT	0.71	54.3	D	0.75	55.8	E
Ocean Avenue SWB TH/RT	0.27	3.0	A	0.27	2.9	A
Overall	--	25.3	C	--	26.2	C
Forest Avenue at Woodford Street and Deering Avenue						
<i>Weekday Evening:</i>						
Woodford Street EB LT	0.93	83.6	F	1.01	101.9	F
Woodford Street EB TH/RT	0.63	43.9	D	0.66	45.1	D
Woodford Street WB LT	0.15	45.4	D	0.16	45.6	D
Woodford Street WB TH/RT	0.89	78.4	E	0.89	78.4	E
Forest Avenue NB LT	0.82	78.9	E	0.85	81.6	F
Forest Avenue NB TH/RT	0.43	14.2	B	0.43	14.2	B
Forest Avenue SB TH	0.97	83.5	F	0.97	86.6	F
Forest Avenue SB RT	0.65	24.9	C	0.67	25.9	C
Overall	--	50.1	D	--	52.6	D
<i>Saturday MIDDAY:</i>						
Woodford Street EB LT	0.50	36.2	D	0.51	35.3	D
Woodford Street EB TH/RT	0.67	40.9	D	0.66	39.6	D
Woodford Street WB LT	0.32	44.8	D	0.30	43.0	D
Woodford Street WB TH/RT	0.12	26.2	C	0.11	25.7	C
Forest Avenue NB LT	0.73	56.8	E	0.77	59.8	E
Forest Avenue NB TH/RT	0.32	9.5	A	0.33	10.3	B
Forest Avenue SB TH	0.74	23.2	C	0.79	26.6	C
Forest Avenue SB RT	0.44	4.7	A	0.49	6.2	A
Overall	--	22.4	C	--	24.1	C

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Brighton Avenue at St. John's Street and Devonshire Street						
<i>Weekday Evening:</i>						
Brighton Avenue EB LT/TH/RT	0.72	17.2	B	0.73	17.2	B
Brighton Avenue WB LT/TH/RT	0.53	13.6	B	0.52	13.6	B
St. John's Street NB LT	0.60	24.0	C	0.65	28.5	C
St. John's Street NB TH/RT	0.25	15.9	B	0.26	17.0	B
Devonshire Street SB LT/TH/RT	0.49	27.0	C	0.50	28.2	C
Overall	--	17.3	B	--	17.8	B
<i>Saturday Midday:</i>						
Brighton Avenue EB LT/TH/RT	0.59	14.3	B	0.65	15.6	B
Brighton Avenue WB LT/TH/RT	0.42	12.8	B	0.46	13.5	B
St. John's Street NB LT	0.31	12.3	B	0.36	13.4	B
St. John's Street NB TH/RT	0.15	10.5	B	0.15	10.9	B
Devonshire Street SB LT/TH/RT	0.40	20.1	C	0.44	21.2	C
Overall	--	14.0	B	--	14.9	B
Brighton Avenue at Steven Avenue						
<i>Weekday Evening:</i>						
Brighton Avenue EB LT	0.23	14.8	B	0.24	14.8	B
Brighton Avenue EB TH/RT	0.88	45.2	D	0.96	65.7	E
Brighton Avenue WB LT	0.46	18.9	B	0.55	27.3	C
Brighton Avenue WB TH/RT	1.10	89.5	F	1.17	115.7	F
Steven Avenue NB LT	0.48	42.0	D	0.49	43.0	D
Steven Avenue NB TH/RT	1.10	109.0	F	1.12	116.1	F
Steven Avenue SB LT	0.79	56.9	E	0.81	59.4	E
Steven Avenue SB TH/RT	0.51	33.4	C	0.52	34.8	C
Overall	--	68.3	E	--	84.0	F
<i>Saturday Midday:</i>						
Brighton Avenue EB LT	0.05	11.6	B	0.06	11.6	B
Brighton Avenue EB TH/RT	0.83	36.0	D	0.86	38.6	D
Brighton Avenue WB LT	0.28	14.0	B	0.31	14.6	B
Brighton Avenue WB TH/RT	0.68	24.4	C	0.72	26.1	C
Steven Avenue NB LT	0.20	34.3	C	0.22	35.8	D
Steven Avenue NB TH/RT	0.73	44.9	D	0.75	47.3	D
Steven Avenue SB LT	0.36	26.8	C	0.39	28.6	C
Steven Avenue SB TH/RT	0.69	29.5	C	0.61	31.9	C
Overall	--	31.8	C	--	33.8	C

See notes at end of table.

Table 6 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Steven Avenue at Capisic Street and Anson Road						
<i>Weekday Evening:</i>						
Capisic Street EB LT	0.86	43.3	D	0.86	43.6	D
Capisic Street EB TH/RT	0.40	4.7	A	0.41	4.8	A
Anson Road WB LT/TH/RT	0.01	0.0	A	0.01	0.0	A
Steven Avenue NB LT	0.67	15.5	B	0.69	16.1	B
Steven Avenue NB TH/RT	0.30	9.4	A	0.30	9.4	A
Steven Avenue SB LT/TH	0.60	29.0	C	0.60	28.9	C
Steven Avenue SB RT	0.47	6.1	A	0.47	6.1	A
Overall	--	19.2	B	--	19.2	B
<i>Saturday Middy:</i>						
Capisic Street EB LT	0.63	29.0	C	0.64	29.7	C
Capisic Street EB TH/RT	0.37	5.8	A	0.39	5.9	A
Anson Road WB LT/TH/RT	0.03	18.3	B	0.03	18.6	B
Steven Avenue NB LT	0.34	7.9	A	0.36	8.1	A
Steven Avenue NB TH/RT	0.19	6.7	A	0.19	6.7	A
Steven Avenue SB LT/TH	0.57	24.0	C	0.57	24.3	C
Steven Avenue SB RT	0.46	5.5	A	0.46	5.5	A
Overall	--	13.5	B	--	13.5	B

^aVolume-to-capacity ratio.

^bPercentile delay per vehicle (seconds).

^cLevel-of-Service.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; NWB = northwestbound; SWB = southwestbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Table 7
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	Demand ^a	Delay ^b	LOS ^c	Demand	Delay	LOS
<u>Westbrook Intersections</u>						
<i>Bridge Street at East Bridgewater Street</i>						
<i>Weekday Evening:</i>						
East Bridgewater Street WB LT/RT	287	19.2	C	298	20.7	C
Bridge Street NB TH/RT	403	0.0	A	421	0.0	A
Bridge Street SB LT/TH	98	0.6	A	104	0.6	A
<i>Saturday Middy:</i>						
East Bridgewater Street WB LT/RT	125	11.8	B	144	12.6	B
Bridge Street NB TH/RT	209	0.0	A	235	0.0	A
Bridge Street SB LT/TH	136	0.8	A	146	0.8	A
<i>Cumberland Street at Park Road</i>						
<i>Weekday Evening:</i>						
Cumberland Street EB LT/TH	365	0.9	A	411	0.9	A
Cumberland Street WB TH/RT	1,079	0.0	A	1,143	0.0	A
Park Road SB LT/RT	112	113.6	F	123	212.2	F
<i>Saturday Middy:</i>						
Cumberland Street EB LT/TH	444	0.2	A	522	0.2	A
Cumberland Street WB TH/RT	620	0.0	A	708	0.0	A
Park Road SB LT/RT	163	52.2	F	183	129.8	F
<i>Main Street at the Westbrook Crossing Driveway and the Project Site Driveway</i>						
<i>Weekday Evening:</i>						
Main Street EB LT	125	11.1	B	125	10.6	B
Main Street EB TH/RT	469	0.0	A	527	0.0	A
Main Street WB LT	--	--	--	208	9.8	A
Main Street WB TH/RT	874	0.0	A	809	0.0	A
Project Site Driveway NB LT/TH	--	--	--	135	2,681.6	F
Project Site Driveway NB RT	--	--	--	200	11.6	B
Westbrook Crossing SB LT/TH	50	82.7	F	56	976.8	F
Westbrook Crossing SB RT	184	15.8	C	178	13.3	B
<i>Saturday Middy:</i>						
Main Street EB LT	169	9.8	A	169	9.5	A
Main Street EB TH/RT	443	0.0	A	541	0.0	A
Main Street WB LT	--	--	--	300	10.3	B
Main Street WB TH/RT	628	0.0	A	572	0.0	A
Project Site Driveway NB LT/TH	--	--	--	151	3,366.3	F
Project Site Driveway NB RT	--	--	--	272	11.9	B
Westbrook Crossing SB LT/TH	72	55.7	F	79	1,617.2	F
Westbrook Crossing SB RT	189	12.9	B	182	11.4	B

See notes at end of table.

Table 7 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	Demand ^a	Delay ^b	LOS ^c	Demand	Delay	LOS
<i>Main Street at Stroudwater Street</i>						
<i>Weekday Evening:</i>						
Main Street EB TH/RT	442	0.0	A	471	0.0	A
Main Street WB LT/TH	583	0.5	A	616	0.5	A
Stroudwater Street NB LT/RT	191	37.1	E	191	45.3	E
<i>Saturday MIDDAY:</i>						
Main Street EB TH/RT	482	0.0	A	530	0.0	A
Main Street WB LT/TH	698	0.8	A	741	0.8	A
Stroudwater Street NB LT/RT	165	71.4	F	165	108.8	F
<i>New Gorham Road at Longfellow Street</i>						
<i>Weekday Evening:</i>						
New Gorham Road EB TH/RT	211	0.0	A	222	0.0	A
New Gorham Road WB LT/TH	446	2.8	A	465	2.8	A
Longfellow Street NB LT/RT	80	10.6	B	86	10.8	B
<i>Saturday MIDDAY:</i>						
New Gorham Road EB TH/RT	308	0.0	A	327	0.0	A
New Gorham Road WB LT/TH	290	2.6	A	316	2.6	A
Longfellow Street NB LT/RT	114	11.7	B	124	12.1	B
<i>Stroudwater Street at Forest Street</i>						
<i>Weekday Evening:</i>						
Stroudwater Street EB LT/TH	404	5.8	A	404	5.9	A
Stroudwater Street WB TH/RT	786	0.0	A	800	0.0	A
Forest Street SB LT/RT	243	233.7	F	262	335.2	F
<i>Saturday MIDDAY:</i>						
Stroudwater Street EB LT/TH	283	3.2	A	283	3.3	A
Stroudwater Street WB TH/RT	308	0.0	A	337	0.0	A
Forest Street SB LT/RT	199	27.7	D	225	39.2	E
<i>Forest Street at the Westbrook Arterial Eastbound On-Ramp</i>						
<i>Weekday Evening:</i>						
Forest Street NB TH/RT	471	0.0	A	488	0.0	A
Forest Street SB LT/TH	275	1.0	A	294	1.0	A
<i>Saturday MIDDAY:</i>						
Forest Street NB TH/RT	227	0.0	A	256	0.0	A
Forest Street SB LT/TH	228	1.0	A	228	1.0	A

See notes at end of table.

Table 7 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	Demand ^a	Delay ^b	LOS ^c	Demand	Delay	LOS
<i>Forest Street at the Westbrook Arterial</i>						
<i>Westbound Off-Ramp and Libby Avenue</i>						
<i>Weekday Evening:</i>						
Libby Avenue EB LT/RT	19	10.3	B	19	10.3	B
Westbrook Arterial Off-Ramp WB LT/TH	134	20.1	C	153	22.0	C
Westbrook Arterial Off-Ramp WB RT	196	11.8	B	196	11.8	B
Forest Street NB LT/TH	334	0.4	A	334	0.4	A
Forest Street SB TH/RT	145	0.0	A	145	0.0	A
<i>Saturday Midday:</i>						
Libby Avenue EB LT/RT	18	9.5	A	18	9.5	A
Westbrook Arterial Off-Ramp WB LT/TH	92	12.2	B	118	12.7	B
Westbrook Arterial Off-Ramp WB RT	30	9.1	A	30	96.1	A
Forest Street NB LT/TH	137	0.7	A	137	0.7	A
Forest Street SB TH/RT	133	0.0	A	133	0.0	A
<i>Larrabee Road at Terminal Street and</i>						
<i>the North Project Site Drive</i>						
<i>Weekday Evening:</i>						
Terminal Street EB LT/TH/RT	150	40.9	E	150	323.2	F
North Project Site Drive WB LT/TH/RT	7	24.2	C	--	--	--
North Project Site Drive WB LT/TH	--	--	--	122	553.5	F
North Project Site Drive WB RT	--	--	--	109	10.5	B
Larrabee Road NB LT/TH/RT	439	1.4	A	534	1.1	A
Larrabee Road SB LT/TH/RT	664	0.0	A	789	2.4	A
<i>Saturday Midday:</i>						
Terminal Street EB LT/TH/RT	62	14.0	B	62	73.1	F
North Project Site Drive WB LT/TH/RT	2	15.4	C	--	--	--
North Project Site Drive WB LT/TH	--	--	--	143	935.6	F
North Project Site Drive WB RT	--	--	--	149	11.6	B
Larrabee Road NB LT/TH/RT	364	0.6	A	515	0.4	A
Larrabee Road SB LT/TH/RT	422	0.0	A	636	3.6	A

See notes at end of table.

Table 7 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build		
	Demand ^a	Delay ^b	LOS ^c	Demand	Delay	LOS
<i>Larrabee Road at Saunders Way and the South Project Site Drive</i>						
<i>Weekday Evening:</i>						
Saunders Way LT/TH/RT	--	--	--	40	30.0	D
South Project Site Drive WB LT/TH	--	--	--	64	29.9	D
South Project Site Drive WB RT	--	--	--	65	10.2	B
Larrabee Road NB LT/TH/RT	--	--	--	479	0.1	A
Larrabee Road SB LT/TH/RT	--	--	--	824	0.5	A
<i>Saturday Middy:</i>						
Saunders Way LT/TH/RT	--	--	--	10	17.2	C
South Project Site Drive WB LT/TH	--	--	--	88	33.2	D
South Project Site Drive WB RT	--	--	--	87	10.8	B
Larrabee Road NB LT/TH/RT	--	--	--	575	0.1	A
Larrabee Road SB LT/TH/RT	--	--	--	544	1.1	A
<i>Westbrook Arterial at the Project Site Drive</i>						
<i>Weekday Evening:</i>						
Westbrook Arterial EB LT	--	--	--	106	12.2	B
Westbrook Arterial EB TH	--	--	--	769	0.0	A
Westbrook Arterial WB TH/RT	--	--	--	1,035	0.0	A
Project Site Drive SB LT	--	--	--	139	691.3	F
Project Site Drive SB RT	--	--	--	131	16.0	C
<i>Saturday Middy:</i>						
Westbrook Arterial EB LT	--	--	--	154	10.7	B
Westbrook Arterial EB TH	--	--	--	590	0.0	A
Westbrook Arterial WB TH/RT	--	--	--	755	0.0	A
Project Site Drive SB LT	--	--	--	180	459.1	F
Project Site Drive SB RT	--	--	--	139	13.2	B
<u>Portland Intersections</u>						
<i>Capisic Street at Frost Street</i>						
<i>Weekday Evening:</i>						
Capisic Street EB LT/TH/RT	314	0.0	A	340	0.0	A
Capisic Street WB LT	211	8.6	A	211	8.7	A
Capisic Street WB TH/RT	386	0.0	A	397	0.0	A
Frost Street NB LT	194	229.5	F	205	299.1	F
Frost Street SB RT	390	15.9	C	390	16.6	C
Driveway SB LT/TH/RT	0	0.0	A	0	0.0	A
<i>Saturday Middy:</i>						
Capisic Street EB LT/TH/RT	332	0.0	A	368	0.0	A
Capisic Street WB LT	221	8.8	A	221	9.0	A
Capisic Street WB TH/RT	193	0.0	A	213	0.0	A
Frost Street NB LT	102	47.0	E	121	81.2	F
Frost Street SB RT	203	11.0	B	203	11.3	B
Driveway SB LT/TH/RT	4	34.5	D	4	38.3	E

^aDemand in vehicles per hour.

^bAverage control delay per vehicle (in seconds).

^cLevel-of-Service.

^dQueue length in vehicles.

EB = eastbound; WB = westbound; NB = northbound; SB = southbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Signalized Intersections

As can be seen in Table 6, with the addition of Project-related traffic, 22 of the 28 signalized intersections within the study area were shown to continue to operate at an overall LOS D or better during the weekday evening and Saturday midday peak hours under 2021 Build Design Year conditions, where an LOS of “D” or better is generally defined as “acceptable” operating conditions. The following intersections were identified to be operating at or over the theoretical design capacity of the intersection (defined as LOS E or F, respectively):

Westbrook:

- **Main Street/Forest Street** – This intersection was found to be operating at an overall LOS E during the weekday evening peak-hour under 2021 No-Build conditions (independent of the Project) and is predicted to operate at LOS F during this period with the addition of Project-related traffic.
- **Main Street/Larrabee Road** – Overall operating conditions at this signalized intersection are predicted to degrade from LOS D to LOS E during the weekday evening peak-hour with the addition of Project-related traffic, with specific movements operating LOS E/F during both the weekday evening and Saturday midday peak hours.
- **William Clarke Drive/Spring Street** – Overall operating conditions at this signalized intersection are predicted to degrade from LOS D to LOS E during the weekday evening peak-hour with the addition of Project-related traffic, with specific movements operating at LOS E/F during both the weekday evening and Saturday midday peak hours.

Portland:

- **Riverside Street/Warren Avenue** – This signalized intersection was shown to operate at an overall LOS E during the weekday evening peak-hour under both 2021 No-Build and 2021 Build Design Year conditions independent of the Project, with specific movements operating at LOS F.
- **Riverside Street/Larrabee Road/I-95 Ramps** – Overall operating conditions at this signalized intersection are predicted to degrade from LOS E to LOS F during the weekday evening peak-hour and from LOS D to LOS E during the Saturday midday peak-hour with the addition of Project-related traffic.
- **Brighton Avenue/Steven Avenue** – Overall operating conditions at this signalized intersection are predicted to degrade from LOS E to LOS F during the weekday evening peak-hour with the addition of Project-related traffic.

Unsignalized Intersections

As can be seen in Table 7, six (6) of the 11 unsignalized intersections within the study area were found to have one or more movements operating below LOS “D” during one or more peak-hour under 2021 No-Build and 2021 Build Design Year conditions. The identified intersections are as follows:

Westbrook:

- ***Cumberland Street/Park Road*** – All movements from the Park Road approach were shown to operate at LOS F during both the weekday evening and Saturday midday peak hours under 2021 No-Build and 2021 Build Design Year conditions.
- ***Main Street/Westbrook Crossing Driveway*** – Left-turn/through movements from the Westbrook Crossing driveway were shown to operate at LOS F during both the weekday evening and Saturday midday peak hours under 2021 No-Build and 2021 Build Design Year conditions. The proposed installation of a traffic control signal at this intersection in conjunction with the Project will improve overall operating conditions and facilitate the ability of motorists to access both the Westbrook Crossing shopping center and the Project site.
- ***Main Street/Stroudwater Street*** – All movements from the Stroudwater Street approach were shown to operate at LOS E/F during both the weekday evening and Saturday midday peak hours under 2021 No-Build and 2021 Build Design Year conditions.
- ***Stroudwater Street/Forest Street*** – All movements from the Forest Street approach were shown to operate at LOS F during the weekday evening peak-hour under 2021 No-Build and 2021 Build Design Year conditions, and to degrade from LOS D to LOS E during the Saturday midday peak-hour with the addition of Project-related traffic.
- ***Larrabee Road/Terminal Street*** – All movements from the Terminal Street approach were shown to degrade from LOS E to LOS F during the weekday evening peak-hour and from LOS B to LOS F during the Saturday midday peak-hour with the addition of Project-related traffic. Planned improvements at this intersection as a part of the Project will result in improved access to Terminal Street.

Portland:

- ***Capisic Street/Frost Street*** – Left-turn movements from the Frost Street northbound approach were shown to operate at LOS F during the weekday evening peak-hour under 2021 No-Build and 2021 Build Design Year conditions, and to degrade from LOS E to LOS F during the Saturday midday peak-hour with the addition of Project-related traffic.

SIGHT DISTANCE EVALUATION

Sight distance measurements were performed at the Project site driveway intersections with Main Street, Westbrook Arterial and Larrabee Road in accordance with MDOT and American Association of State Highway and Transportation Officials (AASHTO)¹⁰ requirements. Both stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete a turning or crossing maneuver with on-coming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 8 presents the measured SSD and ISD at the subject intersections.

¹⁰*A Policy on Geometric Design of Highway and Streets*, 6th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2011.

Table 8
SIGHT DISTANCE MEASUREMENTS^a

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD) ^b	Measured
<i>Main Street at the Full Access Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Main Street approaching from the east	305	--	650+
Main Street approaching from the west	305	--	650+
<i>Intersection Sight Distance:</i>			
Looking to the east from the Project Site Driveway	305	385/445	650+
Looking to the west from the Project Site Driveway	305	385/445	650+
<i>Westbrook Arterial at the Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Westbrook Arterial approaching from the east	495	--	650+
Westbrook Arterial approaching from the west	495	--	650+
<i>Intersection Sight Distance:</i>			
Looking to the east from the Project Site Driveway	495	530/610	650+
Looking to the west from the Project Site Driveway	495	530/610	650+
<i>Larrabee Road at the North Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Larrabee Road approaching from the north	305	--	650+
Larrabee Road approaching from the south	305	--	650+
<i>Intersection Sight Distance:</i>			
Looking to the north from the Project Site Driveway	305	385/445	650+
Looking to the south from the Project Site Driveway	305	385/445	650+
<i>Larrabee Road at the South Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Larrabee Road approaching from the north	305	--	650+
Larrabee Road approaching from the south	305	--	650+
<i>Intersection Sight Distance:</i>			
Looking to the north from the Project Site Driveway	305	385/445	650+
Looking to the south from the Project Site Driveway	305	385/445	650+

^aRecommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, 6th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2011; and based on a 40 mph approach speed on Main Street and Larrabee Road, and a 55 mph approach speed on Westbrook Arterial.

^bValues shown are the intersection sight distance for a vehicle turning right/left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed.

As can be seen in Table 8, lines of sight at the Project site driveway intersections exceed the recommended minimum sight distance requirements to function in a safe (SSD) and efficient (ISD) manner based on the appropriate approach speed along the intersecting roadway.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated the proposed construction of a mixed-use commercial development to be known as Dirigo Plaza and located on an assemblage of parcels bounded by Main Street (Route 25B), Westbrook Arterial (Route 25), and Larrabee Road, in Westbrook, Maine. The following specific areas have been evaluated as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; under existing and future conditions, both with and without the Project. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the ITE¹¹ and applying appropriate adjustments to account for pass-by trips, the Project is predicted to generate approximately 13,366 new vehicle trips on an average weekday and 18,890 new vehicle trips on a Saturday (two-way volume over the operational day of the Project), with 351 new vehicle trips expected during the weekday morning peak-hour, 1,217 new vehicle trips expected during the weekday evening peak-hour and 1,853 new vehicle trips expected during the Saturday midday peak-hour;
2. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over anticipated future conditions without the Project (No-Build conditions) at the majority of the study intersections;
3. At those locations where the Project was shown to have a pronounced impact or where a capacity or safety deficiency was identified, specific improvement measures have been identified to reconcile these conditions or to advance design plans for a future improvement project by others; and
4. Lines of sight to and from the Project site driveway intersections with Main Street, Westbrook Arterial and Larrabee Road were found to exceed the required minimum distance for the intersections to function in a safe and efficient manner based on the appropriate approach speed along the intersecting roadway.

¹¹Ibid 1.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to provide safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access to the Project site is proposed as follows: two (2) driveways that will intersect Larrabee Road and will align with Terminal Street and Saunders Way, respectively; an existing driveway that serves the Project site that intersects Main Street opposite the driveway to the Westbrook Crossing shopping center that will be placed under traffic signal control; a right-turn, entrance only driveway that will intersect Main Street approximately 100 feet east of Larrabee Road; and a full access driveway that will intersect Westbrook Arterial approximately 550 feet east of Larrabee Road that will be placed under traffic signal control. As discussed with MDOT, it is proposed that the rights to construct a third full access driveway on Larrabee Road (to be located between the Westbrook Arterial and the railroad tracks) be transferred to Westbrook Arterial in order to allow for the construction of the full access driveway on Westbrook Arterial. The following recommendations are offered with respect to the design and operation of the Project site driveways and are also depicted on Figure 14:

- The Project site driveway intersections with Main Street (full access driveway to be located opposite the driveway to Westbrook Crossing) and Westbrook Arterial should be placed under traffic signal control. The proposed traffic signals should be interconnected and coordinated with the adjacent traffic signals on Main Street and Westbrook Arterial.
- The Main Street approach to the full access Project site driveway should provide a westbound left-turn, while maintaining the eastbound left-turn lane to the Westbrook Crossing shopping center and two (2) through travel lanes in both directions.
- The Westbrook Arterial approach to the Project site driveway should provide two (2) westbound travel lanes, an eastbound left-turn lane and a single eastbound through travel lane.
- The signalized project site driveways should accommodate two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or a raised median a minimum of 6-feet in width.
- The north driveway on Larrabee Road (opposite Terminal Street) should be designed to accommodate the future installation of a traffic control signal if and when warranted (see *Traffic Monitoring Program*), to include the installation of traffic signal conduit and pullboxes. Larrabee Road approaching the intersection should be widened to provide a left-turn lane in both the north and southbound directions, with the Project site driveway providing two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or raised median a

minimum of 6-feet in width, and vehicles exiting the driveway placed under STOP-sign control with a marked STOP-line provided.

- The south driveway on Larrabee Road (opposite Saunders Way) should provide two (2) 11 to 12-foot wide exiting travel lanes and a single 14-foot wide (minimum) entering lane separated by a double-yellow centerline or raised median a minimum of 6-feet in width, with vehicles exiting the driveway placed under STOP-sign control with a marked STOP-line provided.
- All signs and pavement markings to be installed within the Project site shall conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD).¹²
- Sidewalks should be provided within the Project site linking the proposed buildings to the sidewalk infrastructure along Main Street.
- Wheelchair ramps should be provided for crossing the Project site driveways where a sidewalk is present and at locations internal to the Project site where pedestrian crossings are proposed.
- Signs and landscaping to be installed internal to the Project site and at the Project site driveway intersections should be designed and maintained so as not to restrict lines of sight.
- Snow windrows along the Project site frontage within the sight triangle areas of the Project site driveways shall be promptly removed where such accumulations would exceed 2.5 feet in height.

Off-Site

The following off-site improvements are proposed to off-set the impact of the Project and improve traffic operations, and will be implemented by the Project proponent prior to the issuance of a Certificate of Occupancy for the Project and subject to receipt of all necessary rights, permits and approvals. The resulting improvement in operating conditions is summarized in Table 9, with the detailed analysis worksheets included in the Technical Appendix.

Westbrook:

- ***Cumberland Street at Bridge Street*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Main Street at Forest Street*** – Convert the Main Street westbound right-turn lane to a through/right-turn lane and design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Main Street at Larrabee Road*** – Remove the raised triangular islands on the Larrabee Road approaches to eliminate the right-turn slip-ramps; install crosswalks, wheelchair ramps and pedestrian traffic signal equipment (push buttons, signal indications and phasing); reconstruct/upgrade/replace traffic signal equipment as necessary to accommodate the intersection improvements; and interconnect and

¹²Ibid 2.

coordinate with adjacent traffic signals at the Project site driveway/Westbrook Crossing shopping center and Brighton Avenue/Riverside Street intersections.

- **Main Street at Bridge Street** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **William Clarke Drive at New Gorham Road** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **William Clarke Drive at Spring Street** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **William Clarke Drive at Stroudwater Street** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **Westbrook Arterial at Larrabee Road** – Design and implement an optimal traffic signal timing and phasing plan, and interconnect and coordinate with the proposed traffic control signal to be installed at the Project site driveway. These improvements include the installation of all necessary hardware and appurtenances to implement the changes.
- **Cumberland Street at Park Road** – Perform a detailed Traffic Signal Warrants Analysis (TSWA) in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.
- **Stroudwater Street at Forest Street** - Perform a detailed TSWA in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

Portland:

- **Riverside Street at Warren Avenue** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **Riverside Street at Larrabee Road and the I-95 Ramps** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- **Main Street at Brighton Avenue and Riverside Street** – Interconnect and coordinate with adjacent traffic signals at the Project site driveway/Westbrook Crossing shopping center and Main Street/Larrabee Road intersections. These improvements include the implementation of an optimal traffic signal timing and phasing plan, and the installation of all necessary hardware and appurtenances to implement the changes.

- ***Westbrook Arterial at Rand Road and the I-95 Ramps*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Brighton Avenue at Steven Avenue*** – Design and implement an optimal traffic signal timing and phasing plan, to include the installation of all necessary hardware and appurtenances to implement the changes.
- ***Capisic Street at Frost Street*** - Perform a detailed TSWA in accordance with the methodology established in the MUTCD, to include conducting a 12-hour (7:00 AM to 7:00 PM) manual turning movement count on an average weekday. The results of the TSWA will be summarized in a memorandum provided to the City and will include a conceptual improvement plan depicting the recommended intersection improvements.

Safety Improvements

The following safety-related improvements will be completed in conjunction with the Project and will be implemented by the Project proponent prior to the issuance of a Certificate of Occupancy for the Project and subject to receipt of all necessary rights, permits and approvals:

Westbrook:

- ***Main Street at Larrabee Road***
 - i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
 - ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
 - iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.
- ***Main Street at Cumberland Street, Warren Avenue and Harnois Avenue*** – The City of Westbrook will be implementing specific improvements at these intersections that includes the installation of traffic control signals to enhance safety and facilitate pedestrian and bicycle access. No additional improvements are required at this time.
- ***Cumberland Street at Park Road***
 - i.) Selective trimming of vegetation along Cumberland Street to improve sight lines;
 - ii.) Install “Intersection Ahead” (graphic symbol) warning signs on Cumberland Street in advance of the intersection; and
 - iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Stroudwater Street at Forest Street***

- i.) Selective trimming of vegetation along Stroudwater Street to improve sight lines;
- ii.) Install “Intersection Ahead” (graphic symbol) warning signs on Stroudwater Street in advance of the intersection; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

Portland:

➤ ***Riverside Street at Larrabee Road and the I-95 Ramps***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Brighton Avenue at Steven Avenue***

- i.) Review and upgrade the existing traffic signal system to meet current design standards which may include: signal indications; pedestrian pushbuttons and indications; vehicle detection system to include bicycle detection; controller and cabinet; emergency vehicle detection system (OPTICOM™); and all necessary appurtenances to provide a fully functional traffic signal system;
- ii.) Design and implement an optimal traffic signal timing and phasing plan to include vehicle clearance times developed in accordance with current MUTCD, City and MDOT standards; and
- iii.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

➤ ***Capisic Street at Frost Street***

- i.) Selective trimming of vegetation along Capisic Street to improve sight lines;
- ii.) Install an “Intersection Ahead” (graphic symbol) warning sign on Capisic Street west of the intersection;
- iii.) Install a “Stop Sign Ahead” (graphic symbol) warning sign on Frost Street approaching the intersection; and
- iv.) Review, upgrade and replace existing signs and pavement markings as may be necessary.

Transportation Demand Management

The Project site is ideally situated to take advantage of available public transportation resources in the area, including the METRO bus service operated by the Greater Portland Transit District. In an effort to encourage use of alternative modes of transportation to single-occupant vehicles, the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

- Information regarding public transportation services, maps, schedules and fare information will be made available to employees of the Project and posted in a central location within each building;
- A packet will be provided to new employees of the Project detailing available public transportation services, bicycle and walking alternatives, and commuter options;
- Pedestrian accommodations will be incorporated within the Project site and extending to Main Street;
- A METRO bus stop will be provided along Main Street or at an appropriate location determined in consultation with Greater Portland Transit District; and
- Secure bicycle parking will be provided, including both exterior bicycle racks and weather protected bicycle parking in a secure area where such accommodations can be made.

Traffic Monitoring Program

The Project proponent will conduct a post-development traffic monitoring program in order to validate the trip projections for the Project and to determine if and when the installation of a traffic control signal may be justified at the Larrabee Road/Project site Driveway/Terminal Street intersection. The monitoring program will include:

- i) Obtaining traffic volume information over a continuous seven day, weeklong period at the driveways serving the Project site;
- ii) Performing a continuous 12-hour (7:00 AM to 7:00 PM) manual turning movement and vehicle classification count on an average weekday at the Project site driveway intersection with Larrabee Road and Terminal Street; and
- iii) Completing a detailed TSWA at the Larrabee Road/Project site Driveway/Terminal Street intersection in accordance with the methodology established in the MUTCD.

The monitoring program will commence six (6) months after issuance of the first Certificate of Occupancy for the Project and will continue on an annual basis thereafter for a period not to exceed 2-years after Project completion and occupancy. The results of the monitoring program will be summarized in a report to be provided to the City of Westbrook within 2-months after the completion of the data collection effort. If and when the installation of traffic control signal is found to be warranted at the Larrabee Road/Project site Driveway/Terminal Street intersection, the Project proponent will advance the design and construction the traffic signal system subject to receipt of all necessary rights permits and approvals.

Loading and Deliveries

The Project has been designed to accommodate all loading and delivery functions on-site in a safe and efficient manner. Designated loading areas will be provided on-site to accommodate deliveries. Refuse/recycling will be accommodated in centralized areas for each building. Truck routes and hours of deliveries will be coordinated to minimize truck activity during the commuter peak hours. Reasonable efforts will be made to use service vendors currently delivering in the vicinity of the Project site in an effort to reduce the overall number of new trucks in the area.

With implementation of the above recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

Table 9
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build With Mitigation		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Westbrook Intersections						
Cumberland Street at Bridge Street						
<i>Weekday Evening:</i>						
Cumberland Street EB LT/TH/RT	0.32	9.5	A	0.36	11.5	B
Cumberland Street WB LT/TH/RT	0.89	27.6	C	1.00	50.6	D
Bridge Street NB LT/TH/RT	0.98	58.4	E	0.90	41.2	D
Bridge Street SB LT/TH/RT	1.00	65.7	E	1.00	63.4	E
Overall	--	41.4	D	--	45.9	D
<i>Saturday Midday:</i>						
Cumberland Street EB LT/TH/RT	0.58	12.9	B	0.60	14.8	B
Cumberland Street WB LT/TH/RT	0.67	15.1	B	0.74	19.2	B
Bridge Street NB LT/TH/RT	0.51	16.9	B	0.52	18.4	B
Bridge Street SB LT/TH/RT	0.59	19.2	B	0.69	24.8	C
Overall	--	15.6	B	--	18.8	B
Main Street at Forest Street						
<i>Weekday Evening:</i>						
Main Street EB LT/TH	0.74	19.2	B	0.69	18.8	B
Main Street EB RT	0.06	1.2	A	0.06	1.7	A
Main Street WB LT/TH	1.08	69.3	E	--	--	--
Main Street WB LT/TH/RT	--	--	--	0.76	18.7	B
Main Street WB RT	0.01	0.0	A	--	--	--
Forest Street NB LT/TH/RT	1.25	156.7	F	0.95	53.8	D
Forest Street SB LT/TH/RT	0.02	0.0	A	0.02	0.0	A
Overall	--	74.4	E	--	25.4	C
<i>Saturday Midday:</i>						
Main Street EB LT/TH	0.55	8.4	A	0.62	9.6	A
Main Street EB RT	0.05	1.0	A	0.05	1.1	A
Main Street WB LT/TH	0.88	25.6	C	--	--	--
Main Street WB LT/TH/RT	--	--	--	0.55	7.9	A
Main Street WB RT	0.03	0.3	A	--	--	--
Forest Street NB LT/TH/RT	0.56	26.6	C	0.56	22.7	C
Forest Street SB LT/TH/RT	0.08	16.2	B	0.08	14.3	B
Overall	--	17.2	B	--	9.7	A

See notes at end of table.

Table 9 (Continued)**MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY**

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build With Mitigation		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Main Street at Larrabee Road						
<i>Weekday Evening:</i>						
Main Street EB LT	0.77	57.6	E	0.92	74.2	E
Main Street EB TH/RT	0.71	42.7	D	0.75	36.9	D
Main Street WB LT	0.59	43.8	D	0.92	71.1	E
Main Street WB TH/RT	0.75	41.6	D	0.96	52.1	D
Larrabee Road NB LT/TH/RT	0.81	48.6	D	0.91	51.3	D
Larrabee Road SB LT/TH	0.74	50.8	D	0.91	56.1	E
Larrabee Road SB RT	0.61	10.0	B	0.60	8.9	A
Overall	--	42.6	D	--	48.8	D
<i>Saturday Middy:</i>						
Main Street EB LT	0.74	50.3	D	0.91	72.6	E
Main Street EB TH/RT	0.72	33.6	C	0.89	40.8	D
Main Street WB LT	0.62	48.2	D	0.89	73.1	E
Main Street WB TH/RT	0.69	36.1	D	0.88	39.3	D
Larrabee Road NB LT/TH/RT	0.65	43.3	D	0.92	55.9	E
Larrabee Road SB LT/TH	0.48	42.8	D	0.83	48.0	D
Larrabee Road SB RT	0.66	11.6	B	0.60	9.0	A
Overall	--	36.3	D	--	45.3	D
Main Street at Bridge Street						
<i>Weekday Evening:</i>						
Main Street EB LT	0.58	17.0	B	0.69	23.2	C
Main Street EB TH/RT	0.24	12.0	B	0.28	14.2	B
Main Street WB LT/TH	0.79	47.5	D	0.78	50.2	D
Main Street WB RT	0.71	23.6	C	0.70	23.8	C
Bridge Street NB LT/TH/RT	0.22	25.0	C	0.70	27.7	C
Bridge Street SB LT/TH/RT	1.02	76.2	E	0.97	61.4	E
Overall	--	40.6	D	--	38.0	D
<i>Saturday Middy:</i>						
Main Street EB LT	0.49	15.7	B	0.54	18.6	B
Main Street EB TH/RT	0.40	14.5	B	0.45	16.7	B
Main Street WB LT/TH	0.80	45.1	D	0.81	52.9	D
Main Street WB RT	0.49	16.9	B	0.50	18.4	B
Bridge Street NB LT/TH/RT	0.15	17.7	B	0.14	16.6	B
Bridge Street SB LT/TH/RT	0.88	48.3	D	0.89	49.0	D
Overall	--	31.0	C	--	33.8	C

See notes at end of table.

Table 9 (Continued)**MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY**

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build With Mitigation		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
<i>New Gorham Road at William Clarke Drive</i>						
<i>Weekday Evening:</i>						
New Gorham Road EB LT/TH	0.37	33.0	C	0.40	34.8	C
New Gorham Road EB RT	0.35	7.5	A	0.36	7.8	A
New Gorham Road WB LT/TH	0.69	42.3	D	0.74	46.4	D
New Gorham Road WB RT	0.57	10.2	B	0.55	7.4	A
William Clarke Drive NB LT	0.95	93.9	F	0.69	49.4	D
William Clarke Drive NB TH/RT	0.91	87.4	F	0.91	75.1	E
William Clarke Drive SB LT	0.67	48.0	D	0.71	51.1	D
William Clarke Drive SB TH/RT	0.24	12.2	B	0.27	14.7	B
Overall	--	49.2	D	--	42.6	D
<i>Saturday MIDDAY:</i>						
New Gorham Road EB LT/TH	0.60	33.0	C	0.60	32.7	C
New Gorham Road EB RT	0.46	7.2	A	0.45	6.8	A
New Gorham Road WB LT/TH	0.59	33.6	C	0.67	36.0	D
New Gorham Road WB RT	0.52	6.7	A	0.51	6.3	A
William Clarke Drive NB LT	0.44	40.7	D	0.44	39.5	D
William Clarke Drive NB TH/RT	0.75	26.7	C	0.77	28.1	C
William Clarke Drive SB LT	0.54	37.3	D	0.60	41.4	D
William Clarke Drive SB TH/RT	0.31	12.8	B	0.33	14.6	B
Overall	--	21.6	C	--	23.1	C
<i>William Clarke Drive at Spring Street</i>						
<i>Weekday Evening:</i>						
William Clarke Drive EB LT	0.27	47.0	D	0.27	46.9	D
William Clarke Drive EB TH/RT	0.83	38.8	D	0.84	38.9	D
William Clarke Drive WB LT	0.66	53.6	D	0.72	53.6	D
William Clarke Drive WB TH/RT	0.83	82.2	F	0.78	78.0	E
Spring Street NB LT	0.79	62.1	E	0.76	58.0	E
Spring Street NB TH	0.64	38.4	D	0.73	45.0	D
Spring Street NB RT	0.37	10.1	B	0.48	12.3	B
Spring Street SB LT	0.36	47.9	D	0.36	47.7	D
Spring Street SB TH/RT	0.56	42.8	D	0.69	51.8	D
Overall	--	54.4	D	--	53.7	D
<i>Saturday MIDDAY:</i>						
William Clarke Drive EB LT	0.27	45.9	D	0.27	46.7	D
William Clarke Drive EB TH/RT	0.82	36.1	D	0.86	40.3	D
William Clarke Drive WB LT	0.65	51.6	D	0.82	64.2	E
William Clarke Drive WB TH/RT	0.50	24.2	C	0.50	23.2	C
Spring Street NB LT	0.52	48.3	D	0.55	51.3	D
Spring Street NB TH	0.37	31.0	C	0.39	31.3	C
Spring Street NB RT	0.33	6.1	A	0.44	6.0	A
Spring Street SB LT	0.28	46.0	D	0.28	46.8	D
Spring Street SB TH/RT	0.75	63.7	E	0.79	59.8	E
Overall	--	35.1	D	--	36.7	D

See notes at end of table.

Table 9 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build With Mitigation		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
William Clarke Drive at Stroudwater Street						
<i>Weekday Evening:</i>						
William Clarke Drive EB LT	0.15	44.1	D	0.15	45.0	D
William Clarke Drive EB TH/RT	0.72	29.6	C	0.73	28.4	C
William Clarke Drive WB LT	0.30	45.3	D	0.33	47.4	D
William Clarke Drive WB TH/RT	0.66	27.1	C	0.68	28.0	C
Stroudwater Street NB LT	0.72	45.4	D	0.76	50.3	D
Stroudwater Street NB TH/RT	0.67	40.4	D	0.71	44.5	D
Stroudwater Street SB LT	0.22	39.2	D	0.23	39.9	D
Stroudwater Street SB TH/RT	0.49	41.6	D	0.50	42.7	D
Overall	--	32.9	C	--	33.7	C
<i>Saturday Midday:</i>						
William Clarke Drive EB LT	0.19	45.6	D	0.20	47.8	D
William Clarke Drive EB TH/RT	0.800	34.6	C	0.81	34.3	C
William Clarke Drive WB LT	.36	47.6	D	0.41	52.8	D
William Clarke Drive WB TH/RT	0.54	24.3	C	0.58	23.8	C
Stroudwater Street NB LT	0.55	42.8	D	0.59	46.6	D
Stroudwater Street NB TH/RT	0.66	41.6	D	0.70	46.0	D
Stroudwater Street SB LT	0.16	36.9	D	0.17	38.8	D
Stroudwater Street SB TH/RT	0.57	42.6	D	0.60	45.5	D
Overall	--	33.8	C	--	34.1	C
Westbrook Arterial at Larrabee Road						
<i>Weekday Evening:</i>						
Westbrook Arterial EB LT	0.52	24.4	C	0.73	38.7	D
Westbrook Arterial EB TH	0.27	5.2	A	0.29	5.4	A
Westbrook Arterial WB TH/RT	0.90	38.6	D	0.83	18.5	B
Larrabee Road SB LT	0.57	33.0	C	0.81	51.3	D
Larrabee Road SB RT	0.72	16.0	B	0.85	27.8	C
Overall	--	22.8	C	--	22.5	C
<i>Saturday Midday:</i>						
Westbrook Arterial EB LT	0.53	20.5	C	0.78	37.9	D
Westbrook Arterial EB TH	0.17	3.0	A	0.24	5.2	A
Westbrook Arterial WB TH/RT	0.55	17.5	B	0.67	16.3	B
Larrabee Road SB LT	0.27	24.8	C	0.64	39.1	D
Larrabee Road SB RT	0.44	8.6	A	0.53	13.3	B
Overall	--	12.8	B	--	18.4	B

See notes at end of table.

Table 9 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

	2021 No-Build			2021 Build With Mitigation				
Signalized Intersection/ Peak Hour/Movement	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS		
Main Street at the Westbrook Crossing Driveway and the Project Site Driveway								
<i>Weekday Evening:</i>								
Main Street EB LT				0.58	39.0	D		
Main Street EB TH/RT				0.39	10.8	B		
Main Street WB LT				0.54	19.3	B		
Main Street WB TH/RT				0.46	1.9	A		
Project Site Driveway NB LT/TH				0.65	47.8	D		
Project Site Driveway NB RT				0.27	6.1	A		
Westbrook Crossing SB LT/TH	See Unsignalized Intersection Capacity Analysis (Table 7)			0.34	36.1	D		
Westbrook Crossing SB RT				0.32	11.4	B		
Overall				--	12.5	B		
<i>Saturday Midday:</i>								
Main Street EB LT				0.64	51.7	D		
Main Street EB TH/RT				0.39	3.9	A		
Main Street WB LT				0.76	54.0	D		
Main Street WB TH/RT				0.35	3.7	A		
Project Site Driveway NB LT/TH				0.70	48.7	D		
Project Site Driveway NB RT				0.35	6.5	A		
Westbrook Crossing SB LT/TH				0.47	40.1	D		
Westbrook Crossing SB RT				0.27	3.0	A		
Overall				--	18.6	B		
Westbrook Arterial at the Project Site Driveway								
<i>Weekday Evening:</i>								
Westbrook Arterial EB LT				0.53	45.9	D		
Westbrook Arterial EB TH				0.33	3.4	A		
Westbrook Arterial WB TH/RT				0.57	13.8	B		
Project Site Driveway SB LT				0.57	39.8	D		
Project Site Driveway SB RT				0.40	8.9	A		
Overall	See Unsignalized Intersection Capacity Analysis (Table 7)			--	13.1	B		
<i>Saturday Midday:</i>								
Westbrook Arterial EB LT				0.60	42.4	D		
Westbrook Arterial EB TH				0.26	3.6	A		
Westbrook Arterial WB TH/RT				0.49	15.7	B		
Project Site Driveway SB LT				0.63	39.2	D		
Project Site Driveway SB RT				0.38	7.6	A		
Overall				--	15.8	B		

See notes at end of table.

Table 9 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build With Mitigation		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Portland Intersections						
Riverside Street at Warren Avenue						
<i>Weekday Evening:</i>						
Warren Street EB LT	0.33	37.0	D	0.35	39.2	D
Warren Street EB TH/RT	0.76	49.3	D	0.82	57.0	E
Warren Street WB LT	0.76	46.0	D	0.82	52.2	D
Warren Street WB LT/TH	0.77	46.1	D	0.82	54.4	D
Warren Street WB RT	0.18	3.8	A	0.19	4.6	A
Riverside Street NB LT	0.30	29.8	C	0.32	26.9	C
Riverside Street NB TH	1.17	128.2	F	0.99	69.9	E
Riverside Street NB RT	0.99	65.3	E	0.89	42.5	D
Riverside Street SB LT	0.49	33.5	C	0.54	33.3	C
Riverside Street SB TH/RT	0.80	48.1	D	0.73	42.0	D
Overall	--	66.8	E	--	51.0	D
<i>Saturday Middy:</i>						
Warren Street EB LT	0.31	36.8	D	0.31	38.2	D
Warren Street EB TH/RT	0.73	48.7	D	0.76	52.1	D
Warren Street WB LT	0.75	44.5	D	0.77	48.3	D
Warren Street WB LT/TH	0.74	43.7	D	0.77	47.8	D
Warren Street WB RT	0.19	3.7	A	0.19	4.0	A
Riverside Street NB LT	0.28	27.6	C	0.35	27.8	C
Riverside Street NB TH	0.72	44.4	D	0.75	45.0	D
Riverside Street NB RT	0.67	21.3	C	0.68	22.3	C
Riverside Street SB LT	0.65	38.1	D	0.70	40.8	D
Riverside Street SB TH/RT	0.67	40.5	D	0.72	41.8	D
Overall	--	38.2	D	--	40.3	D
Riverside Street at Larrabee Road and the I-95 Ramps						
<i>Weekday Evening:</i>						
Larrabee Road EB LT	1.51	283.5	F	1.31	197.8	F
Larrabee Road EB TH/RT	0.53	38.8	D	0.54	36.5	D
I-95 Off-Ramp WB LT	0.74	64.2	E	0.74	60.7	E
I-95 Off-Ramp WB TH	0.90	71.7	E	0.95	73.5	E
I-95 Off-Ramp WB RT	1.13	93.2	F	1.06	68.0	E
Riverside Street NB LT	0.12	35.4	D	0.16	42.9	D
Riverside Street NB TH	0.68	45.0	D	0.96	77.6	E
Riverside Street NB RT	0.48	8.2	A	0.59	10.9	B
Riverside Street SB LT	0.92	64.6	E	0.92	69.7	E
Riverside Street SB LT/TH/RT	0.82	37.4	D	1.05	79.0	E
Overall	--	77.7	E	--	76.7	E
<i>Saturday Middy:</i>						
Larrabee Road EB LT	0.87	67.9	E	0.94	77.9	E
Larrabee Road EB TH/RT	0.29	26.2	C	0.42	34.2	C
I-95 Off-Ramp WB LT	0.63	54.0	D	0.73	58.7	E
I-95 Off-Ramp WB TH	0.73	54.7	D	0.96	79.4	E
I-95 Off-Ramp WB RT	0.77	14.8	B	0.78	19.6	B
Riverside Street NB LT	0.11	35.9	D	0.14	42.7	D
Riverside Street NB TH	0.67	44.4	D	0.96	77.1	E
Riverside Street NB RT	0.42	8.3	A	0.55	10.8	B
Riverside Street SB LT	0.95	73.5	E	0.98	80.0	E
Riverside Street SB LT/TH/RT	0.90	50.5	D	1.00	70.0	E
Overall	--	44.5	D	--	58.9	D

See notes at end of table.

Table 9 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build With Mitigation		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Main Street at Riverside Street						
<i>Weekday Evening:</i>						
Main Street EB LT	0.33	40.6	D	0.53	39.7	D
Main Street EB TH/RT	0.25	11.4	B	0.26	6.3	A
Main Street WB LT	0.06	44.1	D	0.10	42.9	D
Main Street WB TH	0.63	22.4	C	0.63	24.6	C
Main Street WB RT	0.37	0.7	A	0.37	0.7	A
Driveway NB LT/TH/RT	0.12	37.9	D	0.18	35.8	D
Riverside Street SB LT	0.55	36.1	D	0.72	48.5	D
Riverside Street SB LT/TH	0.56	36.1	D	0.72	48.6	D
Riverside Street SB RT	0.04	0.1	A	0.08	0.1	A
Overall	--	17.9	B	--	19.5	B
<i>Saturday Midday:</i>						
Main Street EB LT	0.02	32.0	C	0.51	44.6	D
Main Street EB TH/RT	0.40	17.4	B	0.30	16.9	B
Main Street WB LT	0.04	31.8	C	0.09	42.6	D
Main Street WB TH	0.51	18.5	B	0.57	26.6	C
Main Street WB RT	0.27	0.4	A	0.27	0.4	A
Driveway NB LT/TH/RT	0.18	29.4	C	0.31	42.8	D
Riverside Street SB LT	0.48	22.9	C	0.73	47.4	D
Riverside Street SB LT/TH	0.49	23.0	C	0.75	48.3	D
Riverside Street SB RT	0.03	0.0	A	0.09	0.1	A
Overall	--	15.6	B	--	24.0	C
Westbrook Arterial and Rand Road at the I-95 Ramps						
<i>Weekday Evening:</i>						
Westbrook Arterial EB TH	0.73	36.4	D	0.85	51.0	D
Westbrook Arterial EB RT	0.35	2.2	A	0.45	3.8	A
Rand Road WB LT	0.63	19.2	B	0.86	48.7	D
Rand Road WB TH	0.50	15.7	B	0.62	24.3	C
I-95 Off-Ramp NB LT	0.88	40.7	D	0.91	39.0	D
I-95 Off-Ramp NB RT	0.16	1.9	A	0.16	1.9	A
Overall	--	22.3	C	--	28.7	C
<i>Saturday Midday:</i>						
Westbrook Arterial EB TH	0.53	20.4	C	0.68	30.9	C
Westbrook Arterial EB RT	0.50	4.8	A	0.68	6.8	A
Rand Road WB LT	0.25	8.4	A	0.32	13.4	B
Rand Road WB TH	0.27	8/5	A	0.34	13.3	B
I-95 Off-Ramp NB LT	0.62	23.9	C	0.85	34.9	D
I-95 Off-Ramp NB RT	0.13	2.5	A	0.12	2.0	A
Overall	--	12.9	B	--	19.8	B

See notes at end of table.

Table 9 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

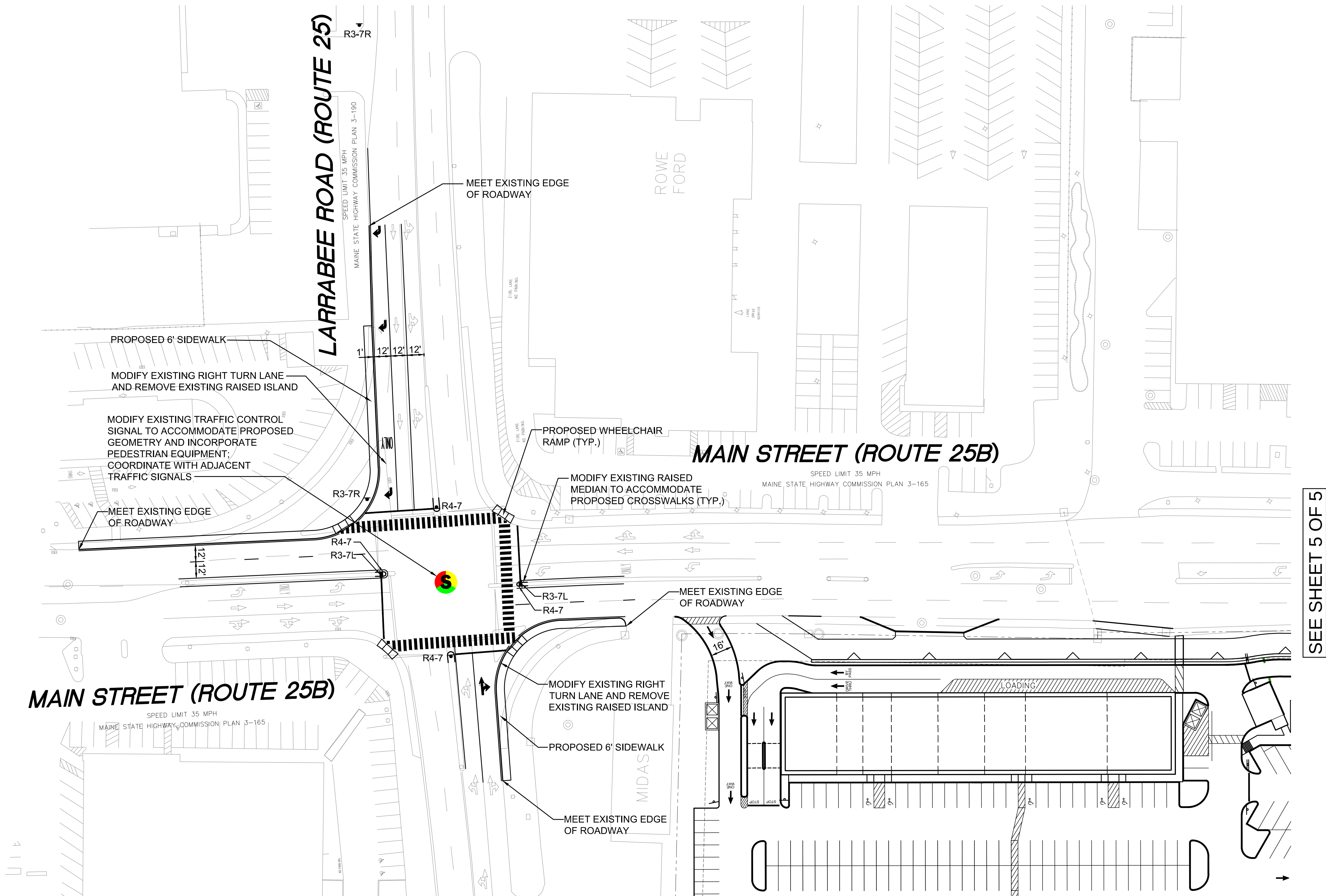
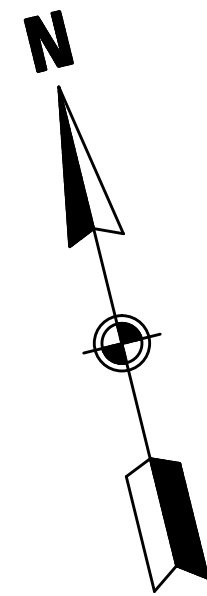
Signalized Intersection/ Peak Hour/Movement	2021 No-Build			2021 Build With Mitigation		
	V/C ^a	Delay ^b	LOS ^c	V/C	Delay	LOS
Brighton Avenue at Steven Avenue						
<i>Weekday Evening:</i>						
Brighton Avenue EB LT	0.23	14.8	B	0.25	14.4	B
Brighton Avenue EB TH/RT	0.88	45.2	D	0.91	49.3	D
Brighton Avenue WB LT	0.46	18.9	B	0.53	21.9	C
Brighton Avenue WB TH/RT	1.10	89.5	F	1.12	97.5	F
Steven Avenue NB LT	0.48	42.0	D	0.52	44.9	D
Steven Avenue NB TH/RT	1.10	109.0	F	1.14	124.5	F
Steven Avenue SB LT	0.79	56.9	E	0.87	73.7	E
Steven Avenue SB TH/RT	0.51	33.4	C	0.54	35.8	D
Overall	--	68.3	E	--	76.0	E
<i>Saturday Middy:</i>						
Brighton Avenue EB LT	0.05	11.6	B	0.06	11.9	B
Brighton Avenue EB TH/RT	0.83	36.0	D	0.86	38.4	D
Brighton Avenue WB LT	0.28	14.0	B	0.32	15.2	B
Brighton Avenue WB TH/RT	0.68	24.4	C	0.73	26.8	C
Steven Avenue NB LT	0.20	34.3	C	0.21	34.9	C
Steven Avenue NB TH/RT	0.73	44.9	D	0.74	46.0	C
Steven Avenue SB LT	0.36	26.8	C	0.38	27.9	C
Steven Avenue SB TH/RT	0.69	29.5	C	0.60	31.1	C
Overall	--	31.8	C	--	33.6	C

^aVolume-to-capacity ratio.

^bPercentile delay per vehicle (seconds).

^cLevel-of-Service.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.



SEE SHEET 5 OF 5

SIGN LEGEND	
R3-7R	RIGHT LANE MUST TURN RIGHT
R3-7L	LEFT LANE MUST TURN LEFT
R4-7	



NOTES: 1. THIS PLAN IS FOR REVIEW PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.

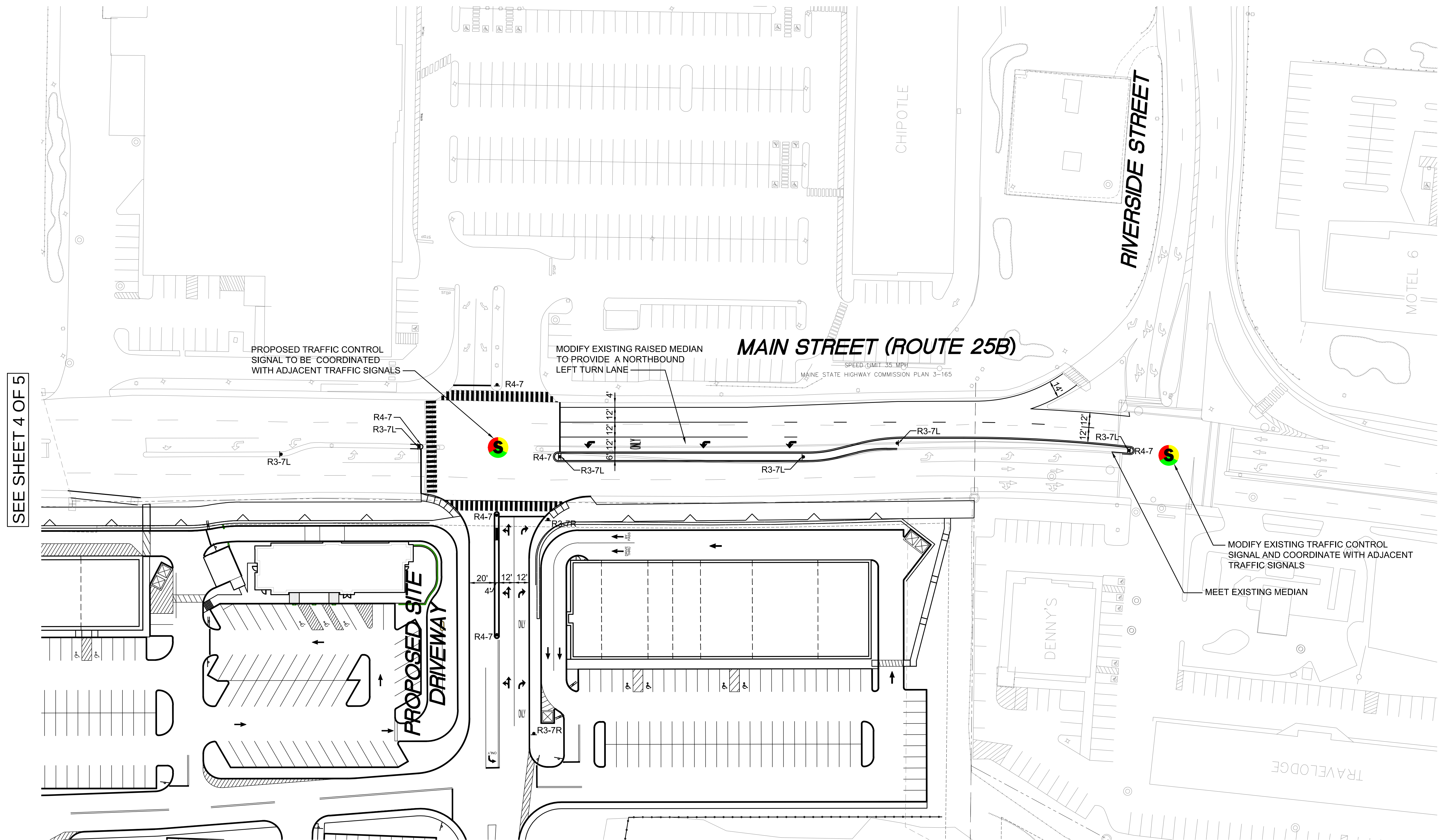
2. BASE PLAN INFORMATION OBTAINED FROM JONES & BEACH ENGINEERS, INC.

FIGURE 14
CONCEPTUAL IMPROVEMENT PLAN

PROJECT:
PROPOSED COMMERCIAL DEVELOPMENT
WESTBROOK, MAINE

PROPOSER:
J&J GOVE DEVELOPMENT, LLC
HAMPTON FALLS, NEW HAMPSHIRE

NO.	REVISIONS	DATE	 Vanasse & Associates, Inc. Transportation Engineers & Planners 35 New England Business Center Drive Suite 140 Andover, MA 01810 Office: (978) 474-8800 Fax: (978) 688-6508	
	DESIGNED BY: BG	DATE: 2/5/16		
	DRAWN BY: JTG	SCALE: 1" = 40'		
	CHECKED BY: JSD	SHEET 4 OF 5		



SIGN LEGEND	
R3-7R	RIGHT LANE MUST TURN RIGHT
R3-7L	LEFT LANE MUST TURN LEFT
R4-7	

40 0 40 8

SCALE IN FEET

NOTES: 1. THIS PLAN IS FOR REVIEW PURPOSES ONLY
AND IS NOT INTENDED FOR CONSTRUCTION.

2. BASE PLAN INFORMATION OBTAINED FROM JONES & BEACH ENGINEERS, INC.

FIGURE 14
CONCEPTUAL IMPROVEMENT PLAN

PROJECT: PROPOSED COMMERCIAL DEVELOPMENT
WESTBROOK, MAINE

PROPOSER:
J&J GOVE DEVELOPMENT, LLC
HAMPTON FALLS, NEW HAMPSHIRE

NO.	REVISIONS	DATE	 Vanasse & Associates, Inc. Transportation Engineers & Planners 30 New England Business Center Drive Suite 140 Andover, MA 01810 Office (978) 474-8800 FAX (978) 688-6508	
			DESIGNED BY: BG	DATE: 2/5/16
			DRAWN BY: JTG	SCALE: 1" = 40'
			CHECKED BY: JSD	SHEET 5 OF 5

Technical Appendix (Volume I)

Dirigo Plaza Mixed-Use Commercial Development
Westbrook Arterial, Larrabee Road and Main Street

Westbrook, ME

Prepared for:

J & J Gove Development, LLC
Hampton Falls, New Hampshire

TECHNICAL APPENDIX (VOLUMES I & II)

AUTOMATIC TRAFFIC RECORDER COUNTS
MANUAL TURNING MOVEMENT COUNTS
30TH HIGHEST HOUR ADJUSTMENT DATA
PUBLIC TRANSPORTATION SCHEDULES
FIELD INTERSECTION INVENTORY SHEETS
VEHICLE TRAVEL SPEED DATA
MAINE DOT ACCIDENT PRINTOUTS
BACKGROUND DEVELOPMENT NETWORKS
TRIP-GENERATION CALCULATIONS
CAPACITY ANALYSIS WORKSHEETS
TRAFFIC SIGNAL WARRANT ANALYSIS

TECHNICAL APPENDIX (VOLUME I)

AUTOMATIC TRAFFIC RECORDER COUNTS
MANUAL TURNING MOVEMENT COUNTS
30TH HIGHEST HOUR ADJUSTMENT DATA
FIELD INTERSECTION INVENTORY SHEETS

AUTOMATIC TRAFFIC RECORDER COUNTS

Accurate Counts

978-664-2565

Location : Main Street EB
 Location : West of Riverside Street
 City/State: Westbrook, ME

6846VOLEBC

Start Time	Thu A.M.	01-Oct-15 P.M.	Fri A.M.	02-Oct-15 P.M.	Sat A.M.	03-Oct-15 P.M.	Daily Average	
							A.M.	P.M.
12:00	5	147	6	152	7	132	6	144
12:15	2	165	4	173	7	126	4	155
12:30	3	156	8	175	5	154	5	162
12:45	9	151	6	156	13	137	9	148
01:00	4	159	6	141	14	126	8	142
01:15	3	117	0	139	11	136	5	131
01:30	3	139	2	148	6	134	4	140
01:45	3	124	1	147	2	146	2	139
02:00	3	121	0	137	7	126	3	128
02:15	3	125	4	130	3	121	3	125
02:30	5	149	6	142	3	114	5	135
02:45	2	128	2	129	3	123	2	127
03:00	4	118	3	133	3	127	3	126
03:15	3	122	4	128	2	113	3	121
03:30	5	161	4	147	4	130	4	146
03:45	4	136	4	126	2	116	3	126
04:00	9	137	4	135	2	128	5	133
04:15	4	130	7	148	4	102	5	127
04:30	15	148	11	165	10	111	12	141
04:45	23	149	10	151	12	113	15	138
05:00	8	141	15	165	5	122	9	143
05:15	18	147	20	153	8	115	15	138
05:30	36	160	35	147	14	119	28	142
05:45	39	144	37	132	23	97	33	124
06:00	45	128	50	128	23	93	39	116
06:15	54	102	60	114	31	80	48	99
06:30	106	121	94	133	56	113	85	122
06:45	98	106	96	102	42	89	79	99
07:00	118	91	119	91	53	82	97	88
07:15	141	80	129	67	44	74	105	74
07:30	151	88	138	89	44	92	111	90
07:45	134	58	159	74	66	71	120	68
08:00	120	74	116	62	71	62	102	66
08:15	136	47	158	64	55	50	116	54
08:30	130	38	135	41	76	47	114	42
08:45	136	31	137	44	90	47	121	41
09:00	93	37	113	28	93	45	100	37
09:15	105	41	120	31	128	46	118	39
09:30	116	30	122	37	104	20	114	29
09:45	124	29	123	37	114	27	120	31
10:00	125	22	121	32	131	36	126	30
10:15	139	19	145	31	125	38	136	29
10:30	121	19	136	24	131	26	129	23
10:45	129	14	125	28	127	23	127	22
11:00	127	14	133	16	130	21	130	17
11:15	119	7	118	12	153	14	130	11
11:30	132	9	150	17	148	14	143	13
11:45	127	2	156	17	130	14	138	11
Total	3039	4581	3152	4818	2335	4192	2839	4532
Combined Total	7620		7970		6527		7371	
Peak	07:15	00:15	-	07:30	12:00	-	11:00	12:00
Vol.	546	631	-	571	656	-	541	609
P.H.F.	0.904	0.956	-	0.898	0.937	-	0.946	0.940
ADT		ADT 7,372		AADT 7,372				

Location : Main Street EB
 Location : West of Riverside Street
 City/State: Westbrook, ME

Accurate Counts 978-664-2565

6846VLEB

Start Time	Mon 28-Sep-15	Tue 29-Sep-15	Wed 30-Sep-15	Thu 01-Oct-15	Fri 02-Oct-15	Average Day	Sat 03-Oct-15	Sun 04-Oct-15	Week Average
12:00 AM	*	*	*	19	24	22	32	*	25
01:00	*	*	*	13	9	11	33	*	18
02:00	*	*	*	13	12	12	16	*	14
03:00	*	*	*	16	15	16	11	*	14
04:00	*	*	*	51	32	42	28	*	37
05:00	*	*	*	101	107	104	50	*	86
06:00	*	*	*	303	300	302	152	*	252
07:00	*	*	*	544	545	544	207	*	432
08:00	*	*	*	522	546	534	292	*	453
09:00	*	*	*	438	478	458	439	*	452
10:00	*	*	*	514	527	520	514	*	518
11:00	*	*	*	505	557	531	561	*	541
12:00 PM	*	*	*	619	656	638	549	*	608
01:00	*	*	*	539	575	557	542	*	552
02:00	*	*	*	523	538	530	484	*	515
03:00	*	*	*	537	534	536	486	*	519
04:00	*	*	*	564	599	582	454	*	539
05:00	*	*	*	592	597	594	453	*	547
06:00	*	*	*	457	477	467	375	*	436
07:00	*	*	*	317	321	319	319	*	319
08:00	*	*	*	190	211	200	206	*	202
09:00	*	*	*	137	133	135	138	*	136
10:00	*	*	*	74	115	94	123	*	104
11:00	*	*	*	32	62	47	63	*	52
Day Total	0	0	0	7620	7970	7795	6527	0	7371
% Avg. WkDay	0.0%	0.0%	0.0%	97.8%	102.2%				
% Avg. Week	0.0%	0.0%	0.0%	103.4%	108.1%	105.8%	88.5%	0.0%	
AM Peak Vol.	-	-	-	07:00	11:00	-	11:00	-	11:00
PM Peak Vol.	-	-	-	12:00	12:00	-	12:00	-	12:00
Grand Total	0	0	0	7620	7970	7795	6527	0	7371
ADT	ADT 7,372		AADT 7,372						

Accurate Counts

978-664-2565

Location : Main Street WB
 Location : West of Riverside Street
 City/State: Westbrook, ME

6846VOLWBC

Start Time	Thu A.M.	01-Oct-15 P.M.	Fri A.M.	02-Oct-15 P.M.	Sat A.M.	03-Oct-15 P.M.	Daily Average	
							A.M.	P.M.
12:00	11	166	15	172	25	159	17	166
12:15	7	168	16	180	25	153	16	167
12:30	11	173	13	192	21	168	15	178
12:45	8	168	5	195	16	160	10	174
01:00	8	176	9	201	12	162	10	180
01:15	3	163	11	157	22	191	12	170
01:30	6	156	8	165	22	135	12	152
01:45	7	143	5	171	12	154	8	156
02:00	11	165	2	184	17	164	10	171
02:15	10	161	9	186	16	140	12	162
02:30	6	154	5	185	13	152	8	164
02:45	3	162	7	161	5	145	5	156
03:00	3	188	2	202	5	140	3	177
03:15	3	196	6	191	7	152	5	180
03:30	5	170	3	205	7	123	5	166
03:45	1	179	4	202	6	135	4	172
04:00	4	198	3	209	10	126	6	178
04:15	5	211	3	207	0	133	3	184
04:30	13	194	10	216	9	142	11	184
04:45	18	220	15	178	9	117	14	172
05:00	15	182	14	191	8	139	12	171
05:15	26	210	22	212	13	125	20	182
05:30	22	207	22	198	14	123	19	176
05:45	23	210	14	149	10	119	16	159
06:00	28	161	32	155	17	109	26	142
06:15	43	130	35	165	10	103	29	133
06:30	50	127	42	123	18	116	37	122
06:45	69	145	58	96	20	97	49	113
07:00	67	121	78	109	35	87	60	106
07:15	97	121	92	122	45	96	78	113
07:30	100	119	103	141	49	115	84	125
07:45	135	113	126	117	62	88	108	106
08:00	101	99	106	86	78	84	95	90
08:15	106	89	117	103	65	98	96	97
08:30	90	96	116	87	57	72	88	85
08:45	130	74	125	80	97	62	117	72
09:00	115	80	113	82	86	68	105	77
09:15	110	69	116	80	92	54	106	68
09:30	105	49	103	75	105	61	104	62
09:45	90	48	115	67	119	49	108	55
10:00	117	34	132	63	109	37	119	45
10:15	143	38	137	39	112	52	131	43
10:30	121	21	136	55	139	39	132	38
10:45	133	35	133	38	131	59	132	44
11:00	164	37	143	55	152	39	153	44
11:15	148	35	133	41	122	51	134	42
11:30	151	17	152	25	161	33	155	25
11:45	149	14	156	27	170	46	158	29
Total	2791	6192	2822	6540	2355	5172	2657	5973
Combined Total	8983		9362		7527		8630	
Peak	11:00	04:00	-	11:00	03:45	-	11:00	03:45
Vol.	612	823	-	584	834	-	600	718
P.H.F.	0.933	0.935	-	0.936	0.965	-	0.949	0.976
ADT		ADT 8,624		AADT 8,624				

Accurate Counts 978-664-2565

Location : Main Street WB
Location : West of Riverside Street
City/State: Westbrook, ME

6846VOLWBC

Start Time	Mon 28-Sep-15	Tue 29-Sep-15	Wed 30-Sep-15	Thu 01-Oct-15	Fri 02-Oct-15	Average Day	Sat 03-Oct-15	Sun 04-Oct-15	Week Average
12:00 AM	*	*	*	37	49	43	87	*	58
01:00	*	*	*	24	33	28	68	*	42
02:00	*	*	*	30	23	26	51	*	35
03:00	*	*	*	12	15	14	25	*	17
04:00	*	*	*	40	31	36	28	*	33
05:00	*	*	*	86	72	79	45	*	68
06:00	*	*	*	190	167	178	65	*	141
07:00	*	*	*	399	399	399	191	*	330
08:00	*	*	*	427	464	446	297	*	396
09:00	*	*	*	420	447	434	402	*	423
10:00	*	*	*	514	538	526	491	*	514
11:00	*	*	*	612	584	598	605	*	600
12:00 PM	*	*	*	675	739	707	640	*	685
01:00	*	*	*	638	694	666	642	*	658
02:00	*	*	*	642	716	679	601	*	653
03:00	*	*	*	733	800	766	550	*	694
04:00	*	*	*	823	810	816	518	*	717
05:00	*	*	*	809	750	780	506	*	688
06:00	*	*	*	563	539	551	425	*	509
07:00	*	*	*	474	489	482	386	*	450
08:00	*	*	*	358	356	357	316	*	343
09:00	*	*	*	246	304	275	232	*	261
10:00	*	*	*	128	195	162	187	*	170
11:00	*	*	*	103	148	126	169	*	140
Day Total	0	0	0	8983	9362	9174	7527	0	8625
% Avg. WkDay	0.0%	0.0%	0.0%	97.9%	102.0%				
% Avg. Week	0.0%	0.0%	0.0%	104.2%	108.5%	106.4%	87.3%	0.0%	
AM Peak Vol.	-	-	-	11:00	11:00	-	11:00	-	11:00
PM Peak Vol.	-	-	-	612	584	-	605	-	600
Grand Total	0	0	0	8983	9362	9174	7527	0	8625
ADT	ADT 8,624		ADT 8,624		AADT 8,624				

Accurate Counts

978-664-2565

Location : Larrabee Road NB
Location : North of Westbrook Arterial
City/State: Westbrook, ME

6846VOLNBA

Start Time	Thu A.M.	01-Oct-15 P.M.	Fri A.M.	02-Oct-15 P.M.	Sat A.M.	03-Oct-15 P.M.	Daily Average	
							A.M.	P.M.
12:00	1	90	5	94	5	71	4	85
12:15	4	94	5	128	7	91	5	104
12:30	1	87	8	105	3	96	4	96
12:45	0	98	2	91	5	82	2	90
01:00	0	108	3	85	3	71	2	88
01:15	4	73	0	98	5	79	3	83
01:30	3	67	1	85	1	81	2	78
01:45	1	68	3	80	2	81	2	76
02:00	2	69	2	99	3	73	2	80
02:15	5	88	0	97	0	60	2	82
02:30	2	95	1	91	1	63	1	83
02:45	2	77	6	107	3	69	4	84
03:00	3	80	3	91	3	69	3	80
03:15	1	83	4	96	0	72	2	84
03:30	2	104	0	109	4	54	2	89
03:45	5	95	3	100	0	72	3	89
04:00	1	93	0	81	0	61	0	78
04:15	2	97	5	109	2	56	3	87
04:30	6	112	4	92	5	52	5	85
04:45	15	104	6	95	5	46	9	82
05:00	10	88	11	93	2	49	8	77
05:15	14	101	11	97	5	49	10	82
05:30	19	87	24	72	6	53	16	71
05:45	27	90	21	60	5	52	18	67
06:00	17	63	23	62	10	35	17	53
06:15	24	45	50	65	15	38	30	49
06:30	56	63	42	62	26	36	41	54
06:45	61	45	63	34	24	36	49	38
07:00	76	40	69	36	20	36	55	37
07:15	102	44	99	29	19	30	73	34
07:30	108	35	106	41	23	31	79	36
07:45	122	20	123	32	46	25	97	26
08:00	81	19	106	34	48	25	78	26
08:15	70	18	86	31	43	22	66	24
08:30	84	20	96	27	39	19	73	22
08:45	101	14	91	22	66	21	86	19
09:00	75	18	67	17	54	22	65	19
09:15	73	13	84	24	69	19	75	19
09:30	79	10	80	19	61	13	73	14
09:45	75	8	92	17	60	13	76	13
10:00	62	7	87	14	76	13	75	11
10:15	91	7	80	11	62	13	78	10
10:30	91	5	72	9	77	9	80	8
10:45	97	5	97	9	88	6	94	7
11:00	91	5	79	3	91	9	87	6
11:15	83	1	85	5	91	9	86	5
11:30	86	8	88	7	90	7	88	7
11:45	90	0	70	4	88	6	83	3
Total	2025	2661	2063	2869	1361	2095	1816	2540
Combined Total	4686		4932		3456		4356	
Peak	07:15	04:00	07:15	12:00	10:45	12:00	10:45	00:15
Vol.	413	406	434	418	360	340	355	378
P.H.F.	0.846	0.906	0.882	0.816	0.989	0.885	0.944	0.909
ADT		ADT 4,358		AADT 4,358				

Location : Larrabee Road NB
 Location : North of Westbrook Arterial
 City/State: Westbrook, ME

Accurate Counts 978-664-2565

6846VOLNBA

Start Time	Mon 28-Sep-15	Tue 29-Sep-15	Wed 30-Sep-15	Thu 01-Oct-15	Fri 02-Oct-15	Average Day	Sat 03-Oct-15	Sun 04-Oct-15	Week Average
12:00 AM	*	*	*	6	20	13	20	*	15
01:00	*	*	*	8	7	8	11	*	9
02:00	*	*	*	11	9	10	7	*	9
03:00	*	*	*	11	10	10	7	*	9
04:00	*	*	*	24	15	20	12	*	17
05:00	*	*	*	70	67	68	18	*	52
06:00	*	*	*	158	178	168	75	*	137
07:00	*	*	*	408	397	402	108	*	304
08:00	*	*	*	336	379	358	196	*	304
09:00	*	*	*	302	323	312	244	*	290
10:00	*	*	*	341	336	338	303	*	327
11:00	*	*	*	350	322	336	360	*	344
12:00 PM	*	*	*	369	418	394	340	*	376
01:00	*	*	*	316	348	332	312	*	325
02:00	*	*	*	329	394	362	265	*	329
03:00	*	*	*	362	396	379	267	*	342
04:00	*	*	*	406	377	392	215	*	333
05:00	*	*	*	366	322	344	203	*	297
06:00	*	*	*	216	223	220	145	*	195
07:00	*	*	*	139	138	138	122	*	133
08:00	*	*	*	71	114	92	87	*	91
09:00	*	*	*	49	77	63	67	*	64
10:00	*	*	*	24	43	34	41	*	36
11:00	*	*	*	14	19	16	31	*	21
Day Total	0	0	0	4686	4932	4809	3456	0	4359
% Avg. WkDay	0.0%	0.0%	0.0%	97.4%	102.6%	110.3%	79.3%	0.0%	
% Avg. Week	0.0%	0.0%	0.0%	107.5%	113.1%				
AM Peak Vol.	-	-	-	07:00 408	07:00 397	07:00 402	-	-	11:00 344
PM Peak Vol.	-	-	-	16:00 406	12:00 418	12:00 394	-	-	12:00 376
Grand Total	0	0	0	4686	4932	4809	3456	0	4359
ADT	ADT 4,358		AADT 4,358						

Accurate Counts **978-664-2565**

Location : Larrabee Road SB
Location : North of Westbrook Arterial
City/State: Westbrook, ME

6846VOLSBA

Start Time	Thu A.M.	01-Oct-15 P.M.	Fri A.M.	02-Oct-15 P.M.	Sat A.M.	03-Oct-15 P.M.	Daily Average				
							A.M.	P.M.			
12:00	2	115	4	107	8	96	5	106			
12:15	4	90	4	114	4	76	4	93			
12:30	1	112	3	99	5	78	3	96			
12:45	3	96	2	127	7	74	4	99			
01:00	5	104	0	104	4	89	3	99			
01:15	0	82	2	98	3	78	2	86			
01:30	3	75	2	107	3	79	3	87			
01:45	4	93	2	94	6	82	4	90			
02:00	1	71	0	93	5	85	2	83			
02:15	3	75	1	101	4	66	3	81			
02:30	2	83	2	104	2	76	2	88			
02:45	0	109	6	96	3	79	3	95			
03:00	1	101	0	94	3	81	1	92			
03:15	3	96	1	121	2	65	2	94			
03:30	1	127	5	123	0	62	2	104			
03:45	1	102	2	128	1	50	1	93			
04:00	1	123	2	110	1	73	1	102			
04:15	4	165	7	158	1	58	4	127			
04:30	3	148	7	145	4	66	5	120			
04:45	6	174	4	151	1	63	4	129			
05:00	3	215	9	179	5	61	6	152			
05:15	7	142	10	150	8	58	8	117			
05:30	9	176	16	112	3	73	9	120			
05:45	12	108	17	84	4	58	11	83			
06:00	23	93	25	96	5	54	18	81			
06:15	24	57	24	65	3	28	17	50			
06:30	30	61	36	60	9	40	25	54			
06:45	29	47	37	51	7	41	24	46			
07:00	46	63	49	55	20	37	38	52			
07:15	56	41	58	53	20	46	45	47			
07:30	52	51	70	52	31	38	51	47			
07:45	65	38	61	40	20	22	49	33			
08:00	53	40	65	32	25	19	48	30			
08:15	59	41	78	39	27	26	55	35			
08:30	55	38	70	34	42	20	56	31			
08:45	57	22	56	37	38	18	50	26			
09:00	52	23	74	30	41	22	56	25			
09:15	70	17	63	25	45	19	59	20			
09:30	56	14	70	22	56	11	61	16			
09:45	64	22	52	16	61	19	59	19			
10:00	70	20	72	15	73	19	72	18			
10:15	81	17	76	12	76	18	78	16			
10:30	84	10	79	13	84	14	82	12			
10:45	78	6	81	21	78	14	79	14			
11:00	77	11	76	11	79	8	77	10			
11:15	83	11	81	11	71	9	78	10			
11:30	87	4	97	9	78	7	87	7			
11:45	88	4	91	7	76	3	85	5			
Total	1518	3533	1649	3605	1152	2278	1441	3140			
Combined Total	5051		5254		3430		4581				
Peak	11:00	04:45	-	11:00	04:15	-	10:15	01:00	-	11:00	04:15
Vol.	335	707	-	345	633	-	317	328	-	327	528
P.H.F.	0.952	0.822		0.889	0.884		0.943	0.921		0.940	0.868
ADT		ADT 4,578		AADT 4,578							

Location : Larrabee Road SB
 Location : North of Westbrook Arterial
 City/State: Westbrook, ME

Accurate Counts 978-664-2565

6846VOLSBA

Start Time	Mon 28-Sep-15	Tue 29-Sep-15	Wed 30-Sep-15	Thu 01-Oct-15	Fri 02-Oct-15	Average Day	Sat 03-Oct-15	Sun 04-Oct-15	Week Average
12:00 AM	*	*	*	10	13	12	24	*	16
01:00	*	*	*	12	6	9	16	*	11
02:00	*	*	*	6	9	8	14	*	10
03:00	*	*	*	6	8	7	6	*	7
04:00	*	*	*	14	20	17	7	*	14
05:00	*	*	*	31	52	42	20	*	34
06:00	*	*	*	106	122	114	24	*	84
07:00	*	*	*	219	238	228	91	*	183
08:00	*	*	*	224	269	246	132	*	208
09:00	*	*	*	242	259	250	203	*	235
10:00	*	*	*	313	308	310	311	*	311
11:00	*	*	*	335	345	340	304	*	328
12:00 PM	*	*	*	413	447	430	324	*	395
01:00	*	*	*	354	403	378	328	*	362
02:00	*	*	*	338	394	366	306	*	346
03:00	*	*	*	426	466	446	258	*	383
04:00	*	*	*	610	564	587	260	*	478
05:00	*	*	*	641	525	583	250	*	472
06:00	*	*	*	258	272	265	163	*	231
07:00	*	*	*	193	200	196	143	*	179
08:00	*	*	*	141	142	142	83	*	122
09:00	*	*	*	76	93	84	71	*	80
10:00	*	*	*	53	61	57	65	*	60
11:00	*	*	*	30	38	34	27	*	32
Day Total	0	0	0	5051	5254	5151	3430	0	4581
% Avg. WkDay	0.0%	0.0%	0.0%	98.1%	102.0%				
% Avg. Week	0.0%	0.0%	0.0%	110.3%	114.7%	112.4%	74.9%	0.0%	
AM Peak Vol.	-	-	-	11:00 335	11:00 345	11:00 340	10:00 311	-	11:00 328
PM Peak Vol.	-	-	-	17:00 641	16:00 564	16:00 587	13:00 328	-	16:00 478
Grand Total	0	0	0	5051	5254	5151	3430	0	4581
ADT	ADT 4,578		AADT 4,578						

Accurate Counts **978-664-2565**

Location : Westbrook Arterial
Location : East of Larrabee Road
City/State: Westbrook, ME

6846VOLB

Start Time	01-Oct-15 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	134			11	90				
12:15		7	110			7	114				
12:30		7	130			4	77				
12:45		4	140	26	514	9	122	31	403	57	917
01:00		5	135			9	98				
01:15		3	123			4	109				
01:30		6	139			8	108				
01:45		8	87	22	484	2	109	23	424	45	908
02:00		2	120			7	100				
02:15		5	141			6	119				
02:30		7	147			6	127				
02:45		8	137	22	545	1	152	20	498	42	1043
03:00		3	147			4	137				
03:15		6	121			8	128				
03:30		12	173			4	150				
03:45		8	162	29	603	7	134	23	549	52	1152
04:00		14	176			7	194				
04:15		19	149			5	185				
04:30		10	144			11	214				
04:45		25	161	68	630	20	248	43	841	111	1471
05:00		19	188			12	209				
05:15		37	174			13	200				
05:30		42	189			28	184				
05:45		48	101	146	652	36	178	89	771	235	1423
06:00		61	104			31	127				
06:15		105	123			56	117				
06:30		125	84			65	102				
06:45		151	73	442	384	90	114	242	460	684	844
07:00		184	78			97	132				
07:15		210	84			123	79				
07:30		253	49			139	78				
07:45		266	59	913	270	174	76	533	365	1446	635
08:00		211	66			136	57				
08:15		181	46			129	54				
08:30		134	43			113	69				
08:45		141	40	667	195	145	52	523	232	1190	427
09:00		132	43			112	58				
09:15		113	10			77	44				
09:30		119	26			96	43				
09:45		148	30	512	109	81	40	366	185	878	294
10:00		96	26			112	44				
10:15		124	19			103	32				
10:30		123	14			88	20				
10:45		115	21	458	80	109	19	412	115	870	195
11:00		128	16			107	10				
11:15		140	13			100	24				
11:30		117	2			116	23				
11:45		136	8	521	39	110	4	433	61	954	100
Total		3826	4505			2738	4904			6564	9409
Percent		45.9%	54.1%			35.8%	64.2%			41.1%	58.9%

Accurate Counts **978-664-2565**

Location : Westbrook Arterial
Location : East of Larrabee Road
City/State: Westbrook, ME

6846VOLB

Start Time	02-Oct-15 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		21	139			11	122				
12:15		5	129			22	120				
12:30		3	139			9	118				
12:45		10	126	39	533	10	118	52	478	91	1011
01:00		4	106			9	111				
01:15		6	114			9	125				
01:30		10	151			6	99				
01:45		6	117	26	488	9	135	33	470	59	958
02:00		1	126			12	122				
02:15		5	125			13	121				
02:30		5	141			7	160				
02:45		12	140	23	532	6	138	38	541	61	1073
03:00		4	162			7	147				
03:15		4	136			7	160				
03:30		14	173			0	169				
03:45		9	176	31	647	10	190	24	666	55	1313
04:00		7	162			6	167				
04:15		16	187			9	199				
04:30		13	168			16	201				
04:45		23	149	59	666	7	236	38	803	97	1469
05:00		20	195			16	225				
05:15		34	157			16	210				
05:30		41	135			46	173				
05:45		47	144	142	631	39	133	117	741	259	1372
06:00		64	120			31	122				
06:15		87	118			62	138				
06:30		118	90			72	92				
06:45		156	91	425	419	83	116	248	468	673	887
07:00		183	64			94	72				
07:15		206	63			127	84				
07:30		248	59			142	80				
07:45		241	62	878	248	172	76	535	312	1413	560
08:00		191	63			145	72				
08:15		141	68			131	73				
08:30		150	48			116	31				
08:45		146	39	628	218	131	49	523	225	1151	443
09:00		112	35			102	56				
09:15		129	44			96	91				
09:30		122	36			101	55				
09:45		124	35	487	150	93	42	392	244	879	394
10:00		120	40			99	58				
10:15		110	28			95	48				
10:30		124	19			94	18				
10:45		111	29	465	116	105	29	393	153	858	269
11:00		117	18			104	18				
11:15		113	14			107	39				
11:30		134	11			79	17				
11:45		116	9	480	52	84	15	374	89	854	141
Total		3683	4700			2767	5190			6450	9890
Percent		43.9%	56.1%			34.8%	65.2%			39.5%	60.5%

Accurate Counts

978-664-2565

Location : Westbrook Arterial
Location : East of Larrabee Road
City/State: Westbrook, ME

6846VOLB

Start Time	03-Oct-15 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		11	135			19	121				
12:15		3	92			18	120				
12:30		5	121			13	113				
12:45		6	102	25	450	14	101	64	455	89	905
01:00		9	127			10	77				
01:15		11	139			13	94				
01:30		5	111			4	98				
01:45		9	117	34	494	11	97	38	366	72	860
02:00		8	127			8	97				
02:15		1	92			7	95				
02:30		8	123			8	78				
02:45		5	115	22	457	3	126	26	396	48	853
03:00		3	107			4	106				
03:15		3	97			9	77				
03:30		8	108			2	78				
03:45		8	89	22	401	5	108	20	369	42	770
04:00		5	112			7	71				
04:15		6	100			1	92				
04:30		6	92			9	75				
04:45		6	111	23	415	5	71	22	309	45	724
05:00		14	84			0	90				
05:15		18	85			8	75				
05:30		16	95			8	87				
05:45		13	65	61	329	7	109	23	361	84	690
06:00		16	81			16	73				
06:15		18	56			14	79				
06:30		41	67			19	56				
06:45		34	85	109	289	28	67	77	275	186	564
07:00		57	59			46	69				
07:15		61	61			58	64				
07:30		71	69			57	48				
07:45		66	57	255	246	69	57	230	238	485	484
08:00		65	45			63	52				
08:15		75	54			53	57				
08:30		90	44			69	55				
08:45		87	37	317	180	75	60	260	224	577	404
09:00		104	34			52	35				
09:15		82	36			85	47				
09:30		103	35			89	55				
09:45		109	34	398	139	106	43	332	180	730	319
10:00		113	24			86	41				
10:15		99	30			87	38				
10:30		97	30			96	42				
10:45		118	15	427	99	115	30	384	151	811	250
11:00		106	27			93	41				
11:15		118	12			96	37				
11:30		105	13			104	32				
11:45		121	9	450	61	106	33	399	143	849	204
Total		2143	3560			1875	3467			4018	7027
Percent		37.6%	62.4%			35.1%	64.9%			36.4%	63.6%
Grand Total		9652	12765			7380	13561			17032	26326
Percent		43.1%	56.9%			35.2%	64.8%			39.3%	60.7%

ADT ADT 14,453 AADT 14,453

Location : Westbrook Arterial
Location : East of Larrabee Road
City/State : Westbrook, ME

6846VOLB

Accurate Counts 978-664-2565

Start Time	28-Sep-15		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	26	31	39	52	25	64	*	*	30	49
01:00	*	*	*	*	*	*	22	23	26	33	34	38	*	*	27	31
02:00	*	*	*	*	*	*	22	20	23	38	22	26	*	*	22	28
03:00	*	*	*	*	*	*	29	23	31	24	22	20	*	*	27	22
04:00	*	*	*	*	*	*	68	43	59	38	23	22	*	*	50	34
05:00	*	*	*	*	*	*	146	89	142	117	61	23	*	*	116	76
06:00	*	*	*	*	*	*	442	242	425	248	109	77	*	*	325	189
07:00	*	*	*	*	*	*	913	533	878	535	255	230	*	*	682	433
08:00	*	*	*	*	*	*	667	523	628	523	317	260	*	*	537	435
09:00	*	*	*	*	*	*	512	366	487	392	398	332	*	*	466	363
10:00	*	*	*	*	*	*	458	412	465	393	427	384	*	*	450	396
11:00	*	*	*	*	*	*	521	433	480	374	450	399	*	*	484	402
12:00 PM	*	*	*	*	*	*	514	403	533	478	450	455	*	*	499	445
01:00	*	*	*	*	*	*	484	424	488	470	494	366	*	*	489	420
02:00	*	*	*	*	*	*	545	498	532	541	457	396	*	*	511	478
03:00	*	*	*	*	*	*	603	549	647	666	401	359	*	*	550	528
04:00	*	*	*	*	*	*	630	841	666	803	415	309	*	*	570	651
05:00	*	*	*	*	*	*	652	771	631	741	329	361	*	*	537	624
06:00	*	*	*	*	*	*	384	460	419	468	289	275	*	*	364	401
07:00	*	*	*	*	*	*	270	365	248	312	246	238	*	*	255	305
08:00	*	*	*	*	*	*	195	232	218	225	180	224	*	*	198	227
09:00	*	*	*	*	*	*	109	185	150	244	139	180	*	*	133	203
10:00	*	*	*	*	*	*	80	115	116	153	99	151	*	*	98	140
11:00	*	*	*	*	*	*	39	61	52	89	61	143	*	*	51	98
Lane	0	0	0	0	0	0	8331	7642	8383	7957	5703	5342	0	0	7471	6978
Day	0	0	0	0	0	0	15973	15973	16340	16340	11045	11045	0	0	14449	14449
AM Peak	-	-	-	-	-	-	07:00	07:00	07:00	07:00	11:00	11:00	-	-	07:00	08:00
Vol.	-	-	-	-	-	-	913	533	878	535	450	399	-	-	682	435
PM Peak	-	-	-	-	-	-	17:00	16:00	16:00	16:00	13:00	12:00	-	-	16:00	16:00
Vol.	-	-	-	-	-	-	652	841	666	803	494	455	-	-	570	651

Comb. Total	0	0	0	0	0	0	15973	15973	16340	11045	11045	11045	0	0	14449	14449
ADT	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453	ADT 14,453

MANUAL TURNING MOVEMENT COUNTS

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 1

Groups Printed- Cars - Trucks

	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
07:00 AM	37	38	58	4	26	171	334
07:15 AM	49	56	75	10	23	200	413
07:30 AM	74	47	94	9	28	157	409
07:45 AM	54	44	90	18	27	186	419
Total	214	185	317	41	104	714	1575
08:00 AM	39	53	112	23	34	205	466
08:15 AM	34	38	74	18	28	147	339
08:30 AM	29	40	81	16	40	136	342
08:45 AM	20	30	97	21	38	136	342
Total	122	161	364	78	140	624	1489
Grand Total	336	346	681	119	244	1338	3064
Apprch %	49.3	50.7	85.1	14.9	15.4	84.6	
Total %	11	11.3	22.2	3.9	8	43.7	
Cars	333	326	652	117	227	1304	2959
% Cars	99.1	94.2	95.7	98.3	93	97.5	96.6
Trucks	3	20	29	2	17	34	105
% Trucks	0.9	5.8	4.3	1.7	7	2.5	3.4

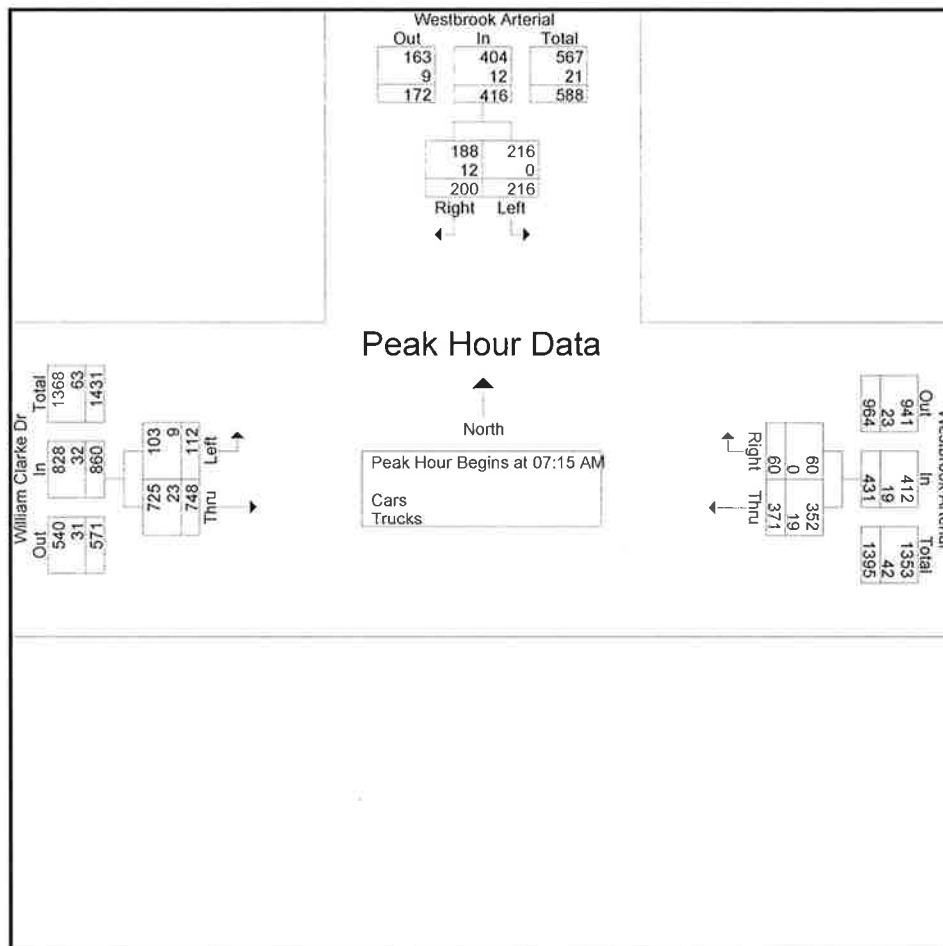
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 2

	Westbrook Arterial From North			Westbrook Arterial From East			William Clarke Dr From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	49	56	105	75	10	85	23	200	223	413
07:30 AM	74	47	121	94	9	103	28	157	185	409
07:45 AM	54	44	98	90	18	108	27	186	213	419
08:00 AM	39	53	92	112	23	135	34	205	239	466
Total Volume	216	200	416	371	60	431	112	748	860	1707
% App. Total	51.9	48.1		86.1	13.9		13	87		
PHF	.730	.893	.860	.828	.652	.798	.824	.912	.900	.916
Cars	216	188	404	352	60	412	103	725	828	1644
% Cars	100	94.0	97.1	94.9	100	95.6	92.0	96.9	96.3	96.3
Trucks	0	12	12	19	0	19	9	23	32	63
% Trucks	0	6.0	2.9	5.1	0	4.4	8.0	3.1	3.7	3.7



Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 4

Groups Printed- Cars

Start Time	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	37	34	57	3	23	170	324
07:15 AM	49	49	71	10	22	196	397
07:30 AM	74	46	90	9	26	149	394
07:45 AM	54	43	88	18	25	178	406
Total	214	172	306	40	96	693	1521
08:00 AM	39	50	103	23	30	202	447
08:15 AM	32	37	72	18	26	140	325
08:30 AM	28	39	79	15	38	135	334
08:45 AM	20	28	92	21	37	134	332
Total	119	154	346	77	131	611	1438
Grand Total	333	326	652	117	227	1304	2959
Apprch %	50.5	49.5	84.8	15.2	14.8	85.2	
Total %	11.3	11	22	4	7.7	44.1	

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	0	4	1	1	3	1	10
07:15 AM	0	7	4	0	1	4	16
07:30 AM	0	1	4	0	2	8	15
07:45 AM	0	1	2	0	2	8	13
Total	0	13	11	1	8	21	54
08:00 AM	0	3	9	0	4	3	19
08:15 AM	2	1	2	0	2	7	14
08:30 AM	1	1	2	1	2	1	8
08:45 AM	0	2	5	0	1	2	10
Total	3	7	18	1	9	13	51
Grand Total	3	20	29	2	17	34	105
Apprch %	13	87	93.5	6.5	33.3	66.7	
Total %	2.9	19	27.6	1.9	16.2	32.4	

978-664-2565

Weather : Cloudy

Page No : 10

Groups Printed- Bikes Peds

[illegible]

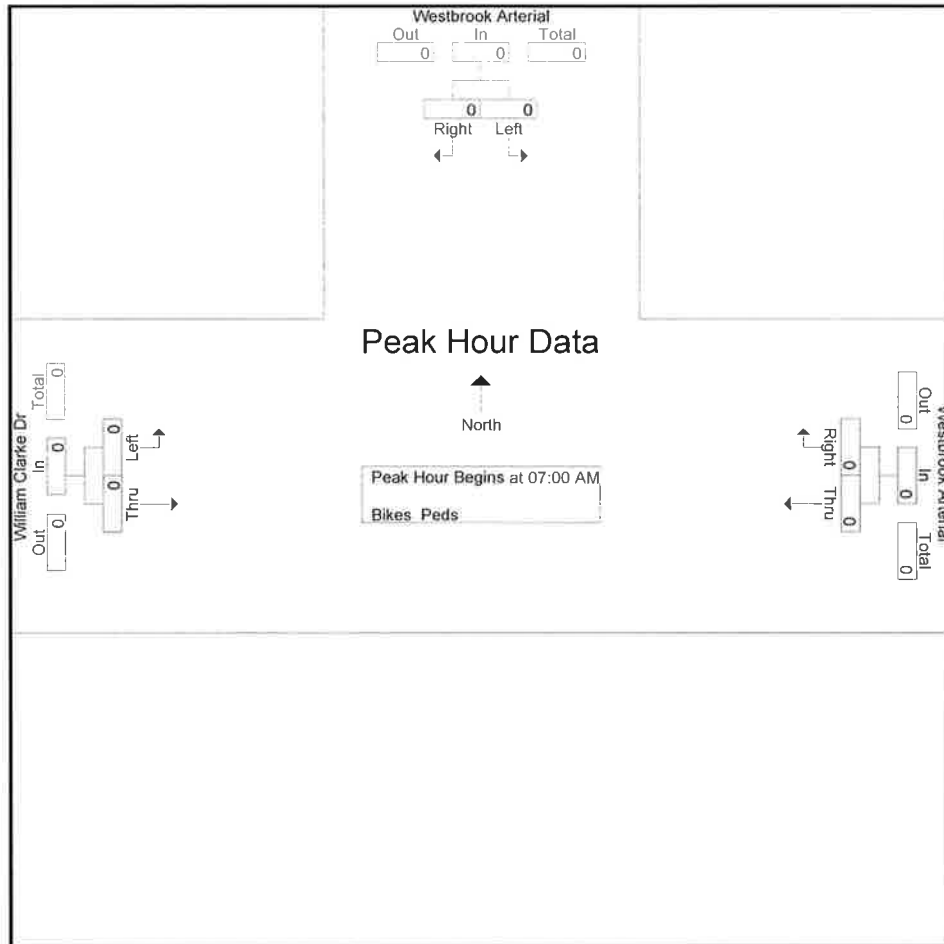
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 11

	Westbrook Arterial From North			Westbrook Arterial From East			William Clarke Dr From West			Int. Total	
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:00 AM											
07:00 AM	0	0	0	0	0	0	0	0	0	0	
07:15 AM	0	0	0	0	0	0	0	0	0	0	
07:30 AM	0	0	0	0	0	0	0	0	0	0	
07:45 AM	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	
% App. Total	0	0		0	0		0	0			
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 1

Groups Printed- Cars - Trucks								
	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West			
Start Time	Left	Right	Thru	Right	Left	Thru	Int.	Total
04:00 PM	27	45	137	14	61	138		422
04:15 PM	18	44	145	15	54	98		374
04:30 PM	26	38	166	19	63	140		452
04:45 PM	24	44	159	21	56	83		387
Total	95	171	607	69	234	459		1635
05:00 PM	39	45	178	28	46	116		452
05:15 PM	32	42	143	26	69	114		426
05:30 PM	27	26	136	16	54	101		360
05:45 PM	26	32	105	13	50	98		324
Total	124	145	562	83	219	429		1562
Grand Total	219	316	1169	152	453	888		3197
Apprch %	40.9	59.1	88.5	11.5	33.8	66.2		
Total %	6.9	9.9	36.6	4.8	14.2	27.8		
Cars	219	309	1156	152	445	868		3149
% Cars	100	97.8	98.9	100	98.2	97.7		98.5
Trucks	0	7	13	0	8	20		48
% Trucks	0	2.2	1.1	0	1.8	2.3		1.5

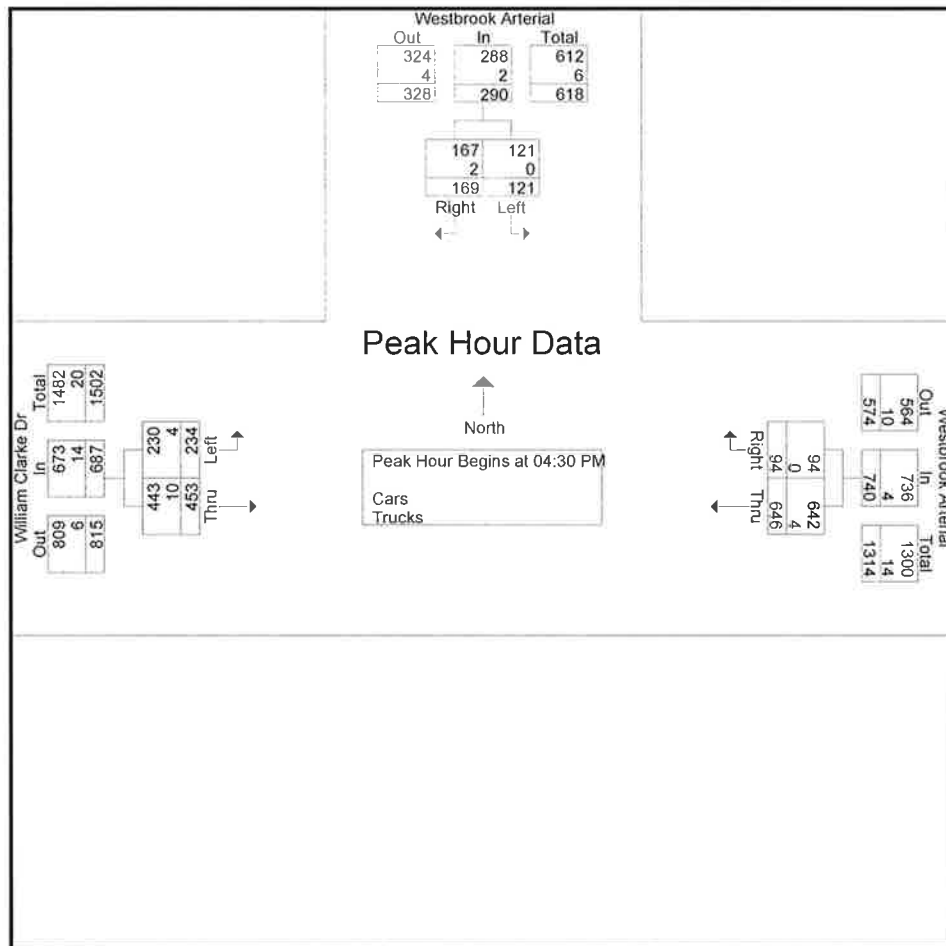
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 2

	Westbrook Arterial From North			Westbrook Arterial From East			William Clarke Dr From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	26	38	64	166	19	185	63	140	203	452
04:45 PM	24	44	68	159	21	180	56	83	139	387
05:00 PM	39	45	84	178	28	206	46	116	162	452
05:15 PM	32	42	74	143	26	169	69	114	183	426
Total Volume	121	169	290	646	94	740	234	453	687	1717
% App. Total	41.7	58.3		87.3	12.7		34.1	65.9		
PHF	.776	.939	.863	.907	.839	.898	.848	.809	.846	.950
Cars	121	167	288	642	94	736	230	443	673	1697
% Cars	100	98.8	99.3	99.4	100	99.5	98.3	97.8	98.0	98.8
Trucks	0	2	2	4	0	4	4	10	14	20
% Trucks	0	1.2	0.7	0.6	0	0.5	1.7	2.2	2.0	1.2



Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 4

Groups Printed- Cars

Start Time	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
04:00 PM	27	44	133	14	61	133	412
04:15 PM	18	43	142	15	53	96	367
04:30 PM	26	36	165	19	60	137	443
04:45 PM	24	44	158	21	55	82	384
Total	95	167	598	69	229	448	1606
05:00 PM	39	45	177	28	46	114	449
05:15 PM	32	42	142	26	69	110	421
05:30 PM	27	24	135	16	52	100	354
05:45 PM	26	31	104	13	49	96	319
Total	124	142	558	83	216	420	1543
Grand Total	219	309	1156	152	445	868	3149
Apprch %	41.5	58.5	88.4	11.6	33.9	66.1	
Total %	7	9.8	36.7	4.8	14.1	27.6	

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
04:00 PM	0	1	4	0	0	5	10
04:15 PM	0	1	3	0	1	2	7
04:30 PM	0	2	1	0	3	3	9
04:45 PM	0	0	1	0	1	1	3
Total	0	4	9	0	5	11	29
05:00 PM	0	0	1	0	0	2	3
05:15 PM	0	0	1	0	0	4	5
05:30 PM	0	2	1	0	2	1	6
05:45 PM	0	1	1	0	1	2	5
Total	0	3	4	0	3	9	19
Grand Total	0	7	13	0	8	20	48
Apprch %	0	100	100	0	28.6	71.4	
Total %	0	14.6	27.1	0	16.7	41.7	

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Westbrook Arterial From North			Westbrook Arterial From East			William Clarke Dr From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	1	1
Total	0	1	0	0	0	0	0	0	0	0	1	1
Grand Total	0	1	0	0	0	0	0	0	0	0	1	1
Apprch %	0	100		0	0		0	0				
Total %	0	100		0	0		0	0		0	100	

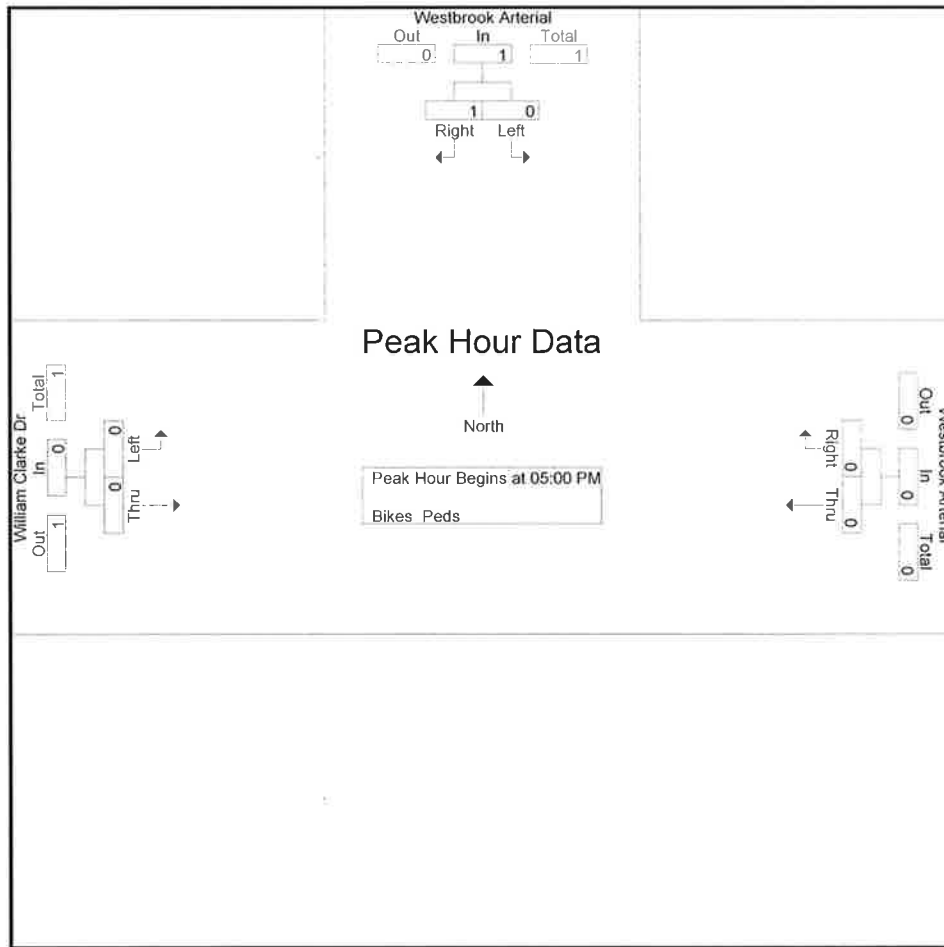
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW10
 Site Code : 68460W10
 Start Date : 9/23/2015
 Page No : 11

	Westbrook Arterial From North			Westbrook Arterial From East			William Clarke Dr From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	1	1	0	0	0	0	0	0	1
% App. Total	0	100		0	0		0	0		
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	0	0	0
% App. Total	0	100		0	0		0	0	
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	4	61	42	2	5	29	143
07:15 AM	3	60	37	1	9	45	155
07:30 AM	5	48	40	1	11	60	165
07:45 AM	2	62	29	1	7	50	151
Total	14	231	148	5	32	184	614
08:00 AM	2	43	34	0	9	33	121
08:15 AM	0	37	51	2	15	34	139
08:30 AM	2	41	27	0	14	25	109
08:45 AM	3	21	38	0	9	17	88
Total	7	142	150	2	47	109	457
Grand Total	21	373	298	7	79	293	1071
Apprch %	5.3	94.7	97.7	2.3	21.2	78.8	
Total %	2	34.8	27.8	0.7	7.4	27.4	
Cars	21	373	291	7	73	288	1053
% Cars	100	100	97.7	100	92.4	98.3	98.3
Trucks	0	0	7	0	6	5	18
% Trucks	0	0	2.3	0	7.6	1.7	1.7

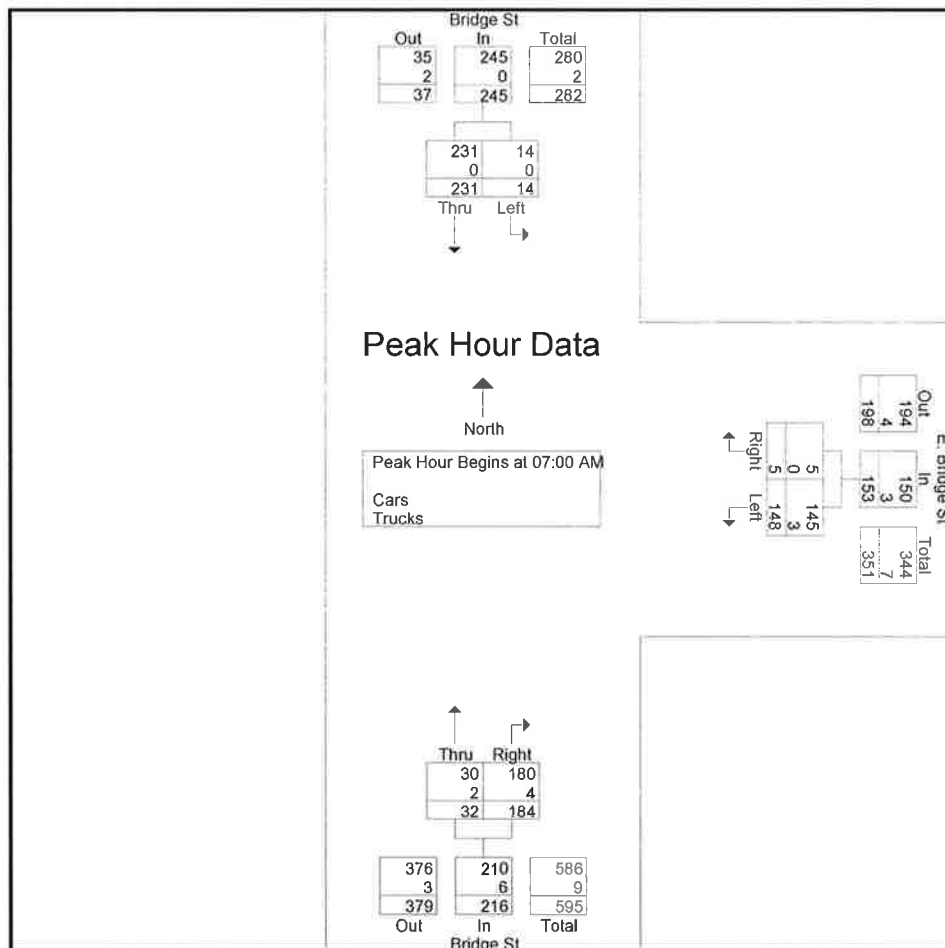
Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 2

	Bridge St From North			E. Bridge St From East			Bridge St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	4	61	65	42	2	44	5	29	34	143
07:15 AM	3	60	63	37	1	38	9	45	54	155
07:30 AM	5	48	53	40	1	41	11	60	71	165
07:45 AM	2	62	64	29	1	30	7	50	57	151
Total Volume	14	231	245	148	5	153	32	184	216	614
% App. Total	5.7	94.3		96.7	3.3		14.8	85.2		
PHF	.700	.931	.942	.881	.625	.869	.727	.767	.761	.930
Cars	14	231	245	145	5	150	30	180	210	605
% Cars	100	100	100	98.0	100	98.0	93.8	97.8	97.2	98.5
Trucks	0	0	0	3	0	3	2	4	6	9
% Trucks	0	0	0	2.0	0	2.0	6.3	2.2	2.8	1.5



Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	4	61	40	2	5	29	141
07:15 AM	3	60	37	1	9	44	154
07:30 AM	5	48	39	1	10	58	161
07:45 AM	2	62	29	1	6	49	149
Total	14	231	145	5	30	180	605
08:00 AM	2	43	33	0	8	33	119
08:15 AM	0	37	48	2	14	33	134
08:30 AM	2	41	27	0	12	25	107
08:45 AM	3	21	38	0	9	17	88
Total	7	142	146	2	43	108	448
Grand Total	21	373	291	7	73	288	1053
Apprch %	5.3	94.7	97.7	2.3	20.2	79.8	
Total %	2	35.4	27.6	0.7	6.9	27.4	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	2	0	0	0	2
07:15 AM	0	0	0	0	0	1	1
07:30 AM	0	0	1	0	1	2	4
07:45 AM	0	0	0	0	1	1	2
Total	0	0	3	0	2	4	9
08:00 AM	0	0	1	0	1	0	2
08:15 AM	0	0	3	0	1	1	5
08:30 AM	0	0	0	0	2	0	2
08:45 AM	0	0	0	0	0	0	0
Total	0	0	4	0	4	1	9
Grand Total	0	0	7	0	6	5	18
Apprch %	0	0	100	0	54.5	45.5	
Total %	0	0	38.9	0	33.3	27.8	

978-664-2565

N/S Street : Bridge Street
E/W Street : East Bridge Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW11
Site Code : 68460W11
Start Date : 9/30/2015
Page No : 10

Groups Printed- Bikes Peds

[illegible]

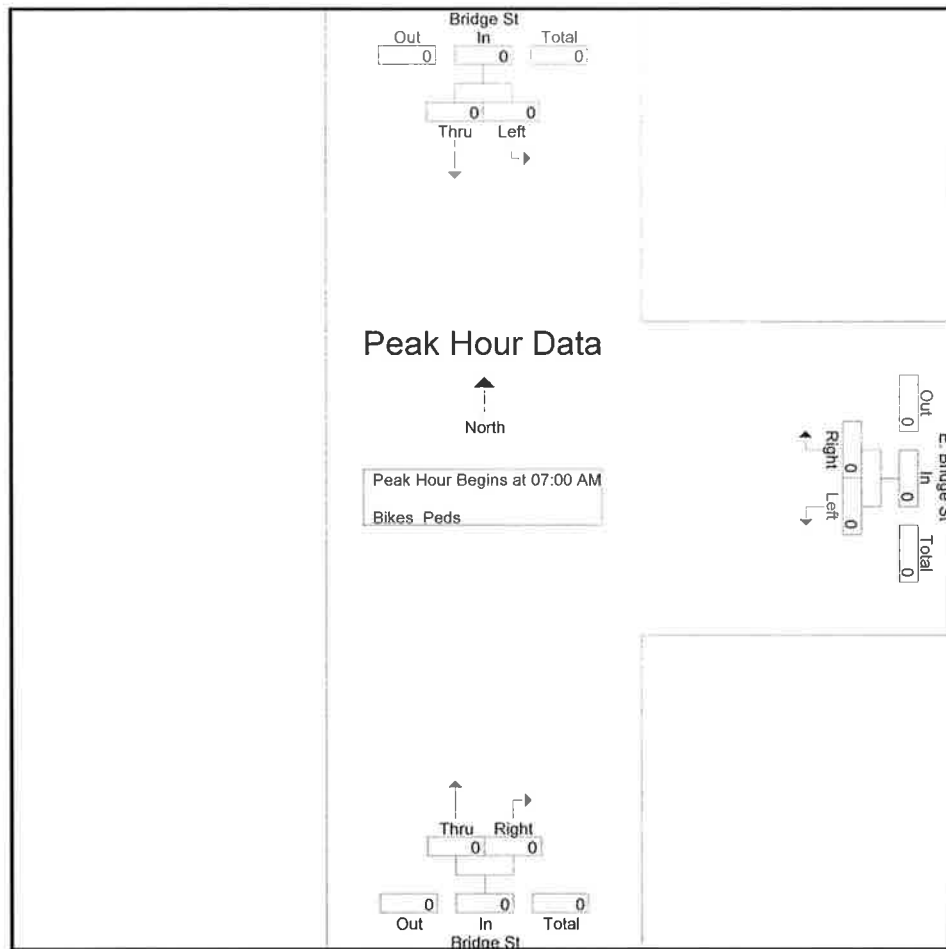
Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 11

	Bridge St From North			E. Bridge St From East			Bridge St From South			Int. Total
	Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	15	45	1	42	41	144
04:15 PM	1	9	53	6	64	25	158
04:30 PM	1	18	63	1	56	35	174
04:45 PM	0	21	64	2	45	35	167
Total	2	63	225	10	207	136	643
05:00 PM	3	21	66	3	56	46	195
05:15 PM	3	23	61	2	51	42	182
05:30 PM	1	11	41	4	42	27	126
05:45 PM	0	18	32	1	36	39	126
Total	7	73	200	10	185	154	629
Grand Total	9	136	425	20	392	290	1272
Apprch %	6.2	93.8	95.5	4.5	57.5	42.5	
Total %	0.7	10.7	33.4	1.6	30.8	22.8	
Cars	9	136	423	20	389	288	1265
% Cars	100	100	99.5	100	99.2	99.3	99.4
Trucks	0	0	2	0	3	2	7
% Trucks	0	0	0.5	0	0.8	0.7	0.6

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	15	45	1	42	41	144
04:15 PM	1	9	53	6	64	25	158
04:30 PM	1	18	62	1	55	35	172
04:45 PM	0	21	64	2	45	34	166
Total	2	63	224	10	206	135	640
05:00 PM	3	21	66	3	56	46	195
05:15 PM	3	23	60	2	50	42	180
05:30 PM	1	11	41	4	41	26	124
05:45 PM	0	18	32	1	36	39	126
Total	7	73	199	10	183	153	625
Grand Total	9	136	423	20	389	288	1265
Apprch %	6.2	93.8	95.5	4.5	57.5	42.5	
Total %	0.7	10.8	33.4	1.6	30.8	22.8	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0
04:30 PM	0	0	1	0	1	0	2
04:45 PM	0	0	0	0	0	1	1
Total	0	0	1	0	1	1	3
05:00 PM	0	0	0	0	0	0	0
05:15 PM	0	0	1	0	1	0	2
05:30 PM	0	0	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0
Total	0	0	1	0	2	1	4
Grand Total	0	0	2	0	3	2	7
Apprch %	0	0	100	0	60	40	
Total %	0	0	28.6	0	42.9	28.6	

978-664-2565

Weather : Clear

Page No 10

Groups Printed- Bikes Peds

[illegible]

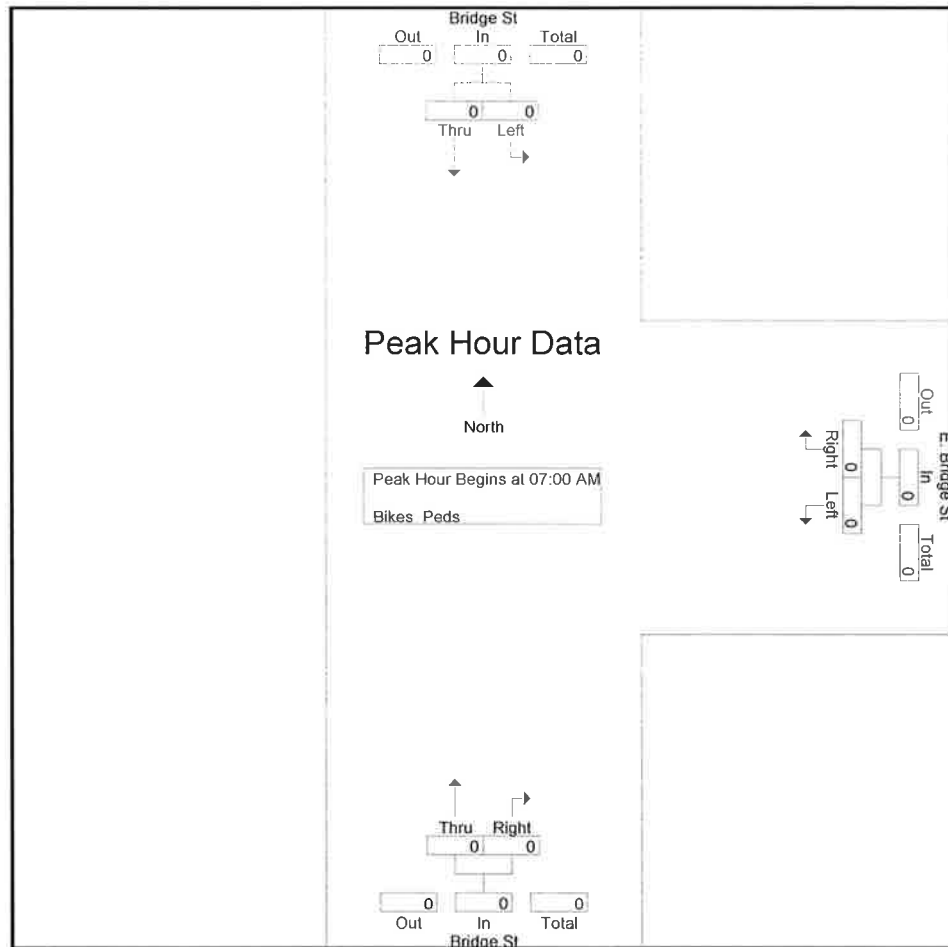
Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW11
 Site Code : 68460W11
 Start Date : 9/30/2015
 Page No : 11

	Bridge St From North			E. Bridge St From East			Bridge St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	50	48	6	4	20	5	1	32	18	8	146	14	352
07:15 AM	38	68	5	4	16	10	5	46	17	12	88	8	317
07:30 AM	19	69	3	9	34	10	5	44	18	18	76	7	312
07:45 AM	38	56	6	10	30	16	8	40	14	16	95	11	340
Total	145	241	20	27	100	41	19	162	67	54	405	40	1321
08:00 AM	21	52	6	10	31	11	3	36	17	15	78	11	291
08:15 AM	26	50	3	6	35	10	6	35	13	19	126	12	341
08:30 AM	24	59	9	10	52	11	10	32	16	9	74	15	321
08:45 AM	17	39	8	9	36	14	7	23	9	10	65	8	245
Total	88	200	26	35	154	46	26	126	55	53	343	46	1198
Grand Total	233	441	46	62	254	87	45	288	122	107	748	86	2519
Apprch %	32.4	61.2	6.4	15.4	63	21.6	9.9	63.3	26.8	11.4	79.5	9.1	
Total %	9.2	17.5	1.8	2.5	10.1	3.5	1.8	11.4	4.8	4.2	29.7	3.4	
Cars	231	434	45	55	249	85	45	282	112	104	744	86	2472
% Cars	99.1	98.4	97.8	88.7	98	97.7	100	97.9	91.8	97.2	99.5	100	98.1
Trucks	2	7	1	7	5	2	0	6	10	3	4	0	47
% Trucks	0.9	1.6	2.2	11.3	2	2.3	0	2.1	8.2	2.8	0.5	0	1.9

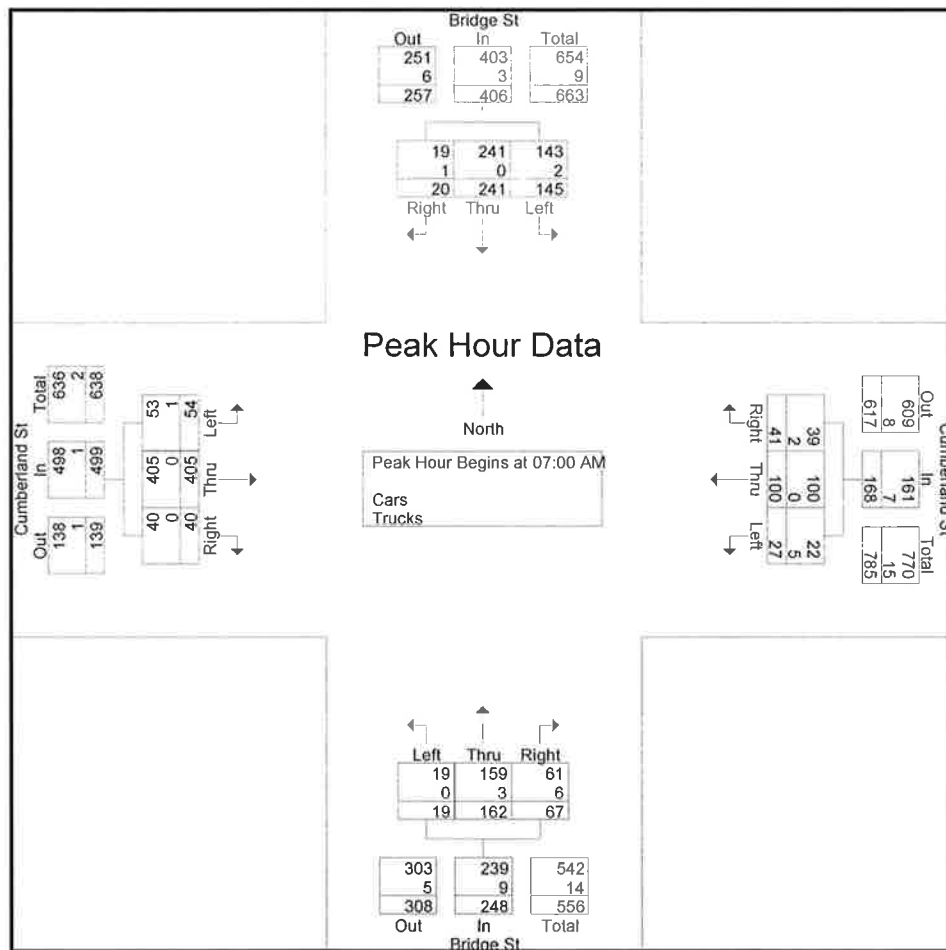
Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 2

	Bridge St From North				Cumberland St From East				Bridge St From South				Cumberland St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	50	48	6	104	4	20	5	29	1	32	18	51	8	146	14	168	352
07:15 AM	38	68	5	111	4	16	10	30	5	46	17	68	12	88	8	108	317
07:30 AM	19	69	3	91	9	34	10	53	5	44	18	67	18	76	7	101	312
07:45 AM	38	56	6	100	10	30	16	56	8	40	14	62	16	95	11	122	340
Total Volume	145	241	20	406	27	100	41	168	19	162	67	248	54	405	40	499	1321
% App. Total	35.7	59.4	4.9		16.1	59.5	24.4		7.7	65.3	27		10.8	81.2	8		
PHF	.725	.873	.833	.914	.675	.735	.641	.750	.594	.880	.931	.912	.750	.693	.714	.743	.938
Cars	143	241	19	403	22	100	39	161	19	159	61	239	53	405	40	498	1301
% Cars	98.6	100	95.0	99.3	81.5	100	95.1	95.8	100	98.1	91.0	96.4	98.1	100	100	99.8	98.5
Trucks	2	0	1	3	5	0	2	7	0	3	6	9	1	0	0	1	20
% Trucks	1.4	0	5.0	0.7	18.5	0	4.9	4.2	0	1.9	9.0	3.6	1.9	0	0	0.2	1.5



Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	49	48	5	3	20	5	1	31	16	8	146	14	346
07:15 AM	38	68	5	4	16	10	5	45	15	12	88	8	314
07:30 AM	19	69	3	6	34	9	5	44	17	17	76	7	306
07:45 AM	37	56	6	9	30	15	8	39	13	16	95	11	335
Total	143	241	19	22	100	39	19	159	61	53	405	40	1301
08:00 AM	21	52	6	9	30	11	3	36	16	15	78	11	288
08:15 AM	26	48	3	6	33	10	6	34	13	18	123	12	332
08:30 AM	24	56	9	9	52	11	10	31	13	9	74	15	313
08:45 AM	17	37	8	9	34	14	7	22	9	9	64	8	238
Total	88	193	26	33	149	46	26	123	51	51	339	46	1171
Grand Total	231	434	45	55	249	85	45	282	112	104	744	86	2472
Apprch %	32.5	61.1	6.3	14.1	64	21.9	10.3	64.2	25.5	11.1	79.7	9.2	
Total %	9.3	17.6	1.8	2.2	10.1	3.4	1.8	11.4	4.5	4.2	30.1	3.5	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	1	0	1	1	0	0	0	1	2	0	0	0	6
07:15 AM	0	0	0	0	0	0	0	1	2	0	0	0	3
07:30 AM	0	0	0	3	0	1	0	0	1	1	0	0	6
07:45 AM	1	0	0	1	0	1	0	1	1	0	0	0	5
Total	2	0	1	5	0	2	0	3	6	1	0	0	20
08:00 AM	0	0	0	1	1	0	0	0	1	0	0	0	3
08:15 AM	0	2	0	0	2	0	0	1	0	1	3	0	9
08:30 AM	0	3	0	1	0	0	0	1	3	0	0	0	8
08:45 AM	0	2	0	0	2	0	0	1	0	1	1	0	7
Total	0	7	0	2	5	0	0	3	4	2	4	0	27
Grand Total	2	7	1	7	5	2	0	6	10	3	4	0	47
Apprch %	20	70	10	50	35.7	14.3	0	37.5	62.5	42.9	57.1	0	
Total %	4.3	14.9	2.1	14.9	10.6	4.3	0	12.8	21.3	6.4	8.5	0	

978-664-2565

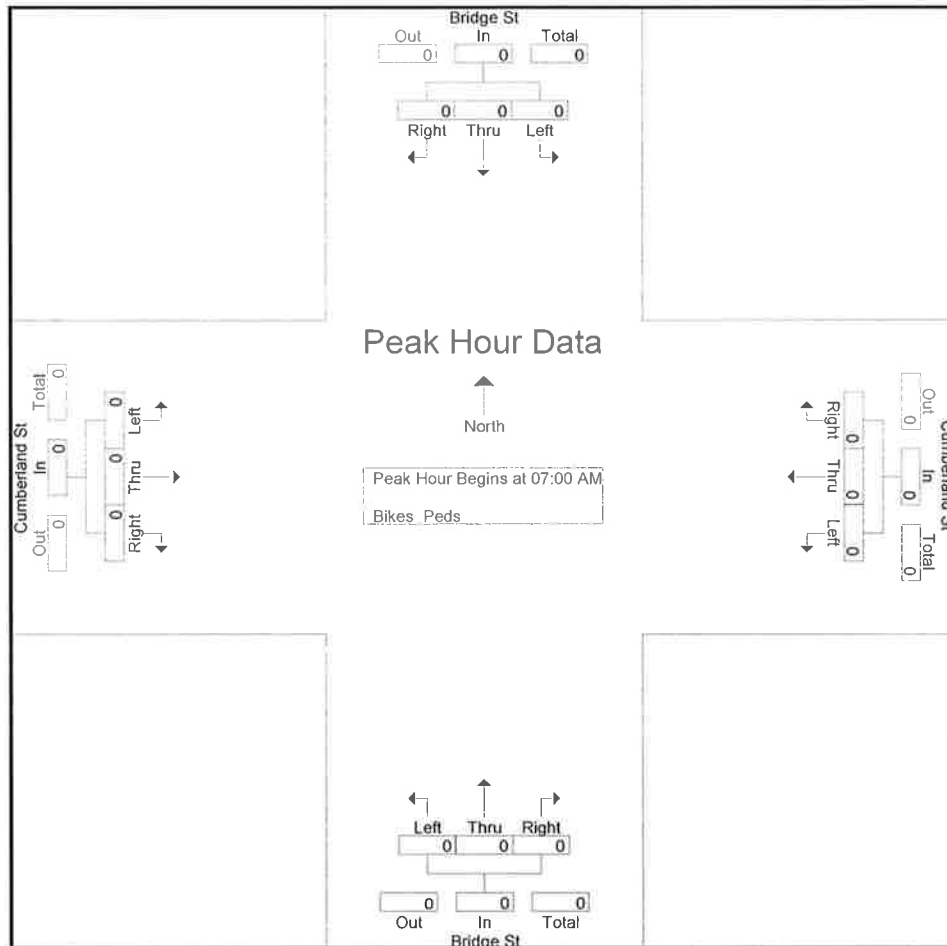
File Name : 6846WW12
Site Code : 68460W12
Start Date : 9/30/2015
Page No : 10

[illegible]

Accurate Counts
978-664-2565

N/S Street : Bridge Street
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW12
Site Code : 68460W12
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	15	40	17	7	104	25	22	58	11	8	48	2	357
04:15 PM	15	47	9	14	116	40	18	55	11	5	57	4	391
04:30 PM	13	59	17	11	150	30	16	71	7	5	50	9	438
04:45 PM	22	65	25	10	139	38	21	59	13	6	50	7	455
Total	65	211	68	42	509	133	77	243	42	24	205	22	1641
05:00 PM	28	45	24	12	146	33	15	78	21	6	44	4	456
05:15 PM	20	62	21	14	134	25	17	86	14	7	46	7	453
05:30 PM	23	47	12	19	107	31	15	56	17	5	41	4	377
05:45 PM	26	34	10	11	80	18	11	57	22	5	38	5	317
Total	97	188	67	56	467	107	58	277	74	23	169	20	1603
Grand Total	162	399	135	98	976	240	135	520	116	47	374	42	3244
Apprch %	23.3	57.3	19.4	7.5	74.3	18.3	17.5	67.4	15	10.2	80.8	9.1	
Total %	5	12.3	4.2	3	30.1	7.4	4.2	16	3.6	1.4	11.5	1.3	
Cars	161	399	135	96	975	240	135	519	114	46	372	42	3234
% Cars	99.4	100	100	98	99.9	100	100	99.8	98.3	97.9	99.5	100	99.7
Trucks	1	0	0	2	1	0	0	1	2	1	2	0	10
% Trucks	0.6	0	0	2	0.1	0	0	0.2	1.7	2.1	0.5	0	0.3

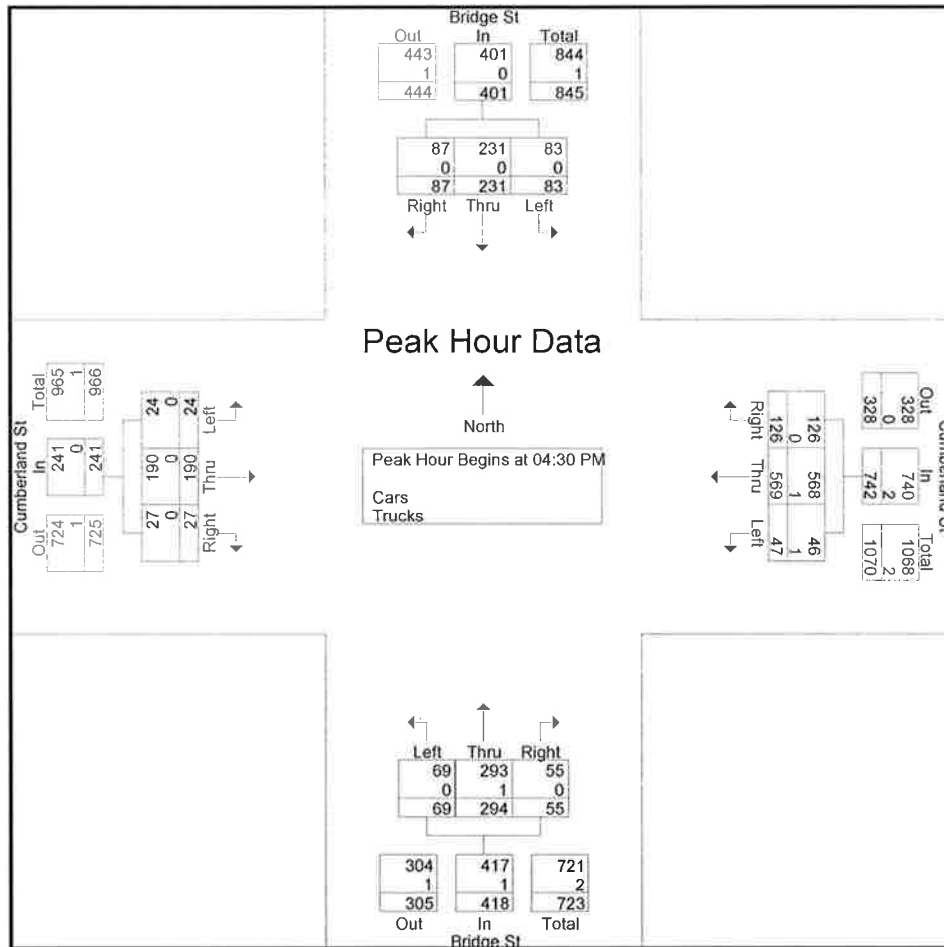
Accurate Counts

978-664-2565

N/S Street : Bridge Street
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW12
Site Code : 68460W12
Start Date : 9/30/2015
Page No : 2

	Bridge St From North				Cumberland St From East				Bridge St From South				Cumberland St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	13	59	17	89	11	150	30	191	16	71	7	94	5	50	9	64	438
04:45 PM	22	65	25	112	10	139	38	187	21	59	13	93	6	50	7	63	455
05:00 PM	28	45	24	97	12	146	33	191	15	78	21	114	6	44	4	54	456
05:15 PM	20	62	21	103	14	134	25	173	17	86	14	117	7	46	7	60	453
Total Volume	83	231	87	401	47	569	126	742	69	294	55	418	24	190	27	241	1802
% App. Total	20.7	57.6	21.7		6.3	76.7	17		16.5	70.3	13.2		10	78.8	11.2		
PHF	.741	.888	.870	.895	.839	.948	.829	.971	.821	.855	.655	.893	.857	.950	.750	.941	.988
Cars	83	231	87	401	46	568	126	740	69	293	55	417	24	190	27	241	1799
% Cars	100	100	100	100	97.9	99.8	100	99.7	100	99.7	100	99.8	100	100	100	100	99.8
Trucks	0	0	0	0	1	1	0	2	0	1	0	1	0	0	0	0	3
% Trucks	0	0	0	0	2.1	0.2	0	0.3	0	0.3	0	0.2	0	0	0	0	0.2



Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	14	40	17	6	104	25	22	58	10	7	46	2	351
04:15 PM	15	47	9	14	116	40	18	55	11	5	57	4	391
04:30 PM	13	59	17	11	150	30	16	70	7	5	50	9	437
04:45 PM	22	65	25	10	138	38	21	59	13	6	50	7	454
Total	64	211	68	41	508	133	77	242	41	23	203	22	1633
05:00 PM	28	45	24	12	146	33	15	78	21	6	44	4	456
05:15 PM	20	62	21	13	134	25	17	86	14	7	46	7	452
05:30 PM	23	47	12	19	107	31	15	56	17	5	41	4	377
05:45 PM	26	34	10	11	80	18	11	57	21	5	38	5	316
Total	97	188	67	55	467	107	58	277	73	23	169	20	1601
Grand Total	161	399	135	96	975	240	135	519	114	46	372	42	3234
Apprch %	23.2	57.4	19.4	7.3	74.4	18.3	17.6	67.6	14.8	10	80.9	9.1	
Total %	5	12.3	4.2	3	30.1	7.4	4.2	16	3.5	1.4	11.5	1.3	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	1	0	0	1	0	0	0	0	1	1	2	0	6
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	1	0	0	1	1	0	0	1	1	1	2	0	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	1	0	0	0	0	1	0	0	0	2
Grand Total	1	0	0	2	1	0	0	1	2	1	2	0	10
Apprch %	100	0	0	66.7	33.3	0	0	33.3	66.7	33.3	66.7	0	
Total %	10	0	0	20	10	0	0	10	20	10	20	0	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Bridge St From North				Cumberland St From East				Bridge St From South				Cumberland St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0				
Total %	0	0	0		0	0	0		0	100	0		0	0	0		0	100	

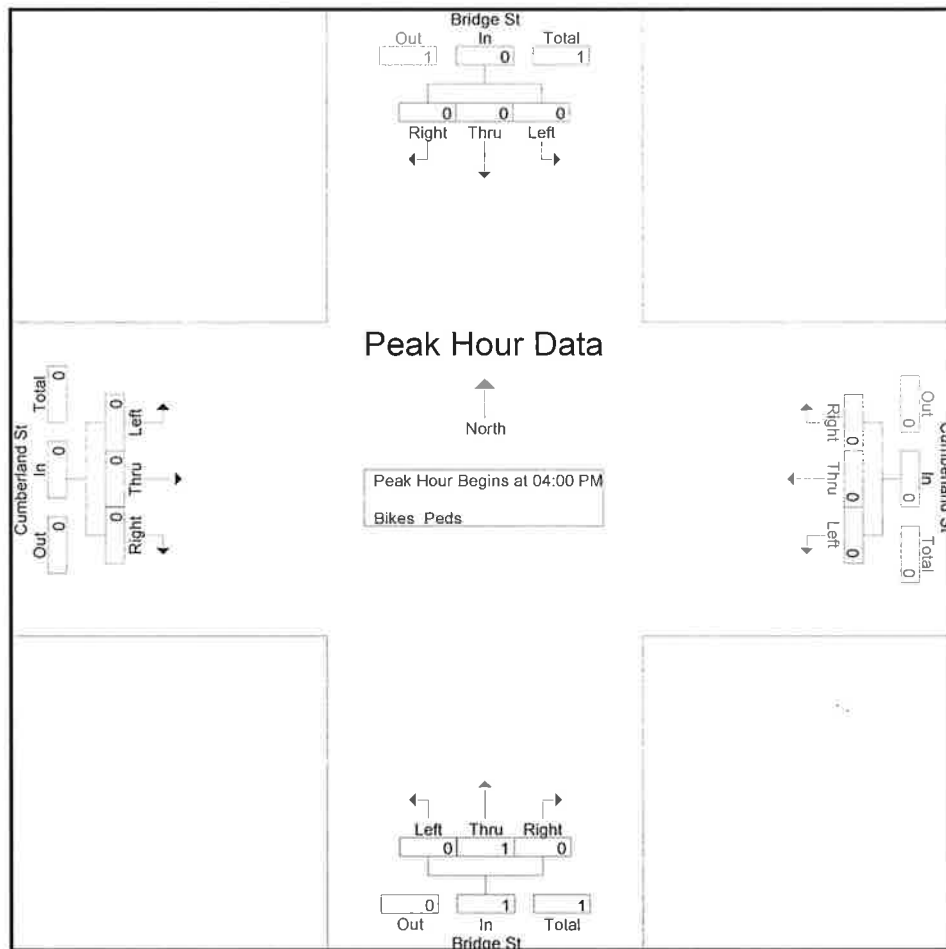
Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW12
 Site Code : 68460W12
 Start Date : 9/30/2015
 Page No : 11

	Bridge St From North				Cumberland St From East				Bridge St From South				Cumberland St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW13
 Site Code : 68460W13
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks							
Start Time	Park Rd From North		Cumberland St From East		Cumberland St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	58	2	28	8	7	193	296
07:15 AM	75	0	28	19	2	134	258
07:30 AM	50	2	50	22	4	128	256
07:45 AM	38	1	58	24	4	136	261
Total	221	5	164	73	17	591	1071
08:00 AM	32	8	46	25	3	127	241
08:15 AM	50	5	48	22	9	160	294
08:30 AM	36	2	66	17	7	116	244
08:45 AM	34	1	62	15	3	97	212
Total	152	16	222	79	22	500	991
Grand Total	373	21	386	152	39	1091	2062
Apprch %	94.7	5.3	71.7	28.3	3.5	96.5	
Total %	18.1	1	18.7	7.4	1.9	52.9	
Cars	364	21	371	149	39	1075	2019
% Cars	97.6	100	96.1	98	100	98.5	97.9
Trucks	9	0	15	3	0	16	43
% Trucks	2.4	0	3.9	2	0	1.5	2.1

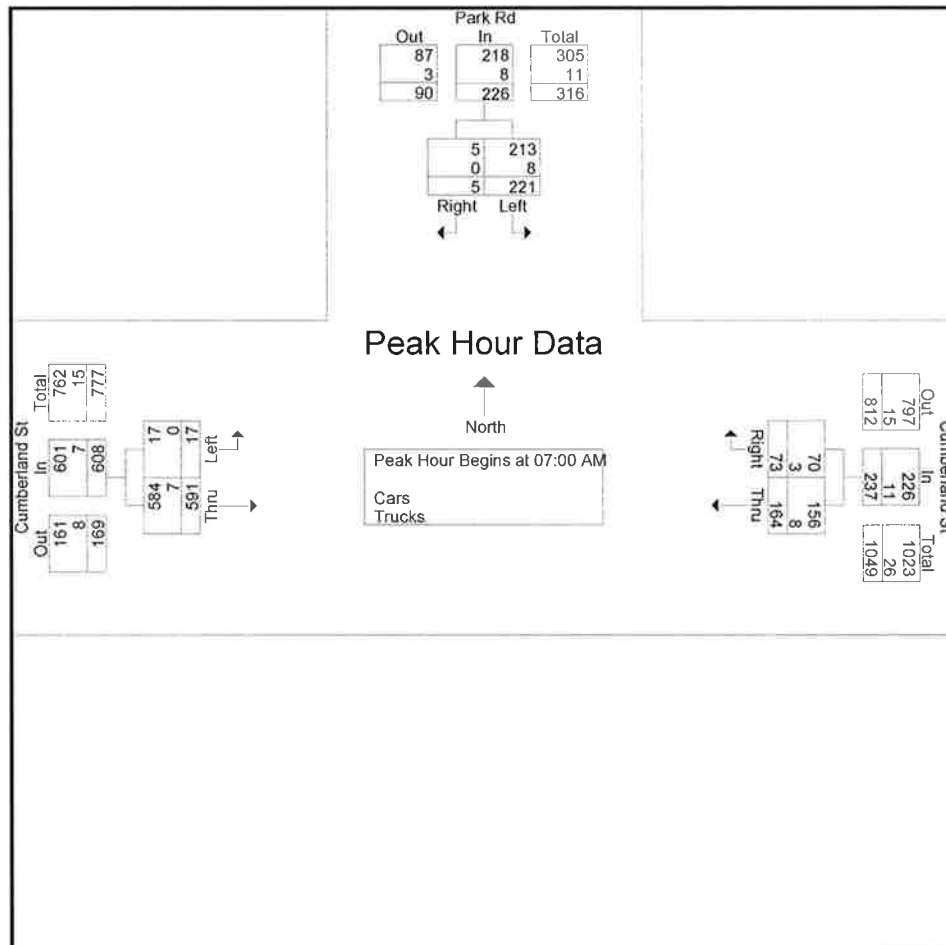
Accurate Counts

978-664-2565

N/S Street : Park Road
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW13
Site Code : 68460W13
Start Date : 9/30/2015
Page No : 2

	Park Rd From North			Cumberland St From East			Cumberland St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	58	2	60	28	8	36	7	193	200	296
07:15 AM	75	0	75	28	19	47	2	134	136	258
07:30 AM	50	2	52	50	22	72	4	128	132	256
07:45 AM	38	1	39	58	24	82	4	136	140	261
Total Volume	221	5	226	164	73	237	17	591	608	1071
% App. Total	97.8	2.2		69.2	30.8		2.8	97.2		
PHF	.737	.625	.753	.707	.760	.723	.607	.766	.760	.905
Cars	213	5	218	156	70	226	17	584	601	1045
% Cars	96.4	100	96.5	95.1	95.9	95.4	100	98.8	98.8	97.6
Trucks	8	0	8	8	3	11	0	7	7	26
% Trucks	3.6	0	3.5	4.9	4.1	4.6	0	1.2	1.2	2.4



Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW13
 Site Code : 68460W13
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars								
	Park Rd		Cumberland St		Cumberland St			
	From North		From East		From West			
Start Time	Left	Right	Thru	Right	Left	Thru		Int. Total
07:00 AM	54	2	26	8	7	191		288
07:15 AM	71	0	28	17	2	132		250
07:30 AM	50	2	46	21	4	127		250
07:45 AM	38	1	56	24	4	134		257
Total	213	5	156	70	17	584		1045
08:00 AM	31	8	44	25	3	125		236
08:15 AM	50	5	46	22	9	157		289
08:30 AM	36	2	65	17	7	113		240
08:45 AM	34	1	60	15	3	96		209
Total	151	16	215	79	22	491		974
Grand Total	364	21	371	149	39	1075		2019
Apprch %	94.5	5.5	71.3	28.7	3.5	96.5		
Total %	18	1	18.4	7.4	1.9	53.2		

Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW13
 Site Code : 68460W13
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Park Rd From North		Cumberland St From East		Cumberland St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	4	0	2	0	0	2	8
07:15 AM	4	0	0	2	0	2	8
07:30 AM	0	0	4	1	0	1	6
07:45 AM	0	0	2	0	0	2	4
Total	8	0	8	3	0	7	26
08:00 AM	1	0	2	0	0	2	5
08:15 AM	0	0	2	0	0	3	5
08:30 AM	0	0	1	0	0	3	4
08:45 AM	0	0	2	0	0	1	3
Total	1	0	7	0	0	9	17
Grand Total	9	0	15	3	0	16	43
Apprch %	100	0	83.3	16.7	0	100	
Total %	20.9	0	34.9	7	0	37.2	

978-664-2565

N/S Street : Park Road
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW13
Site Code : 68460W13
Start Date : 9/30/2015
Page No : 10

[illegible]

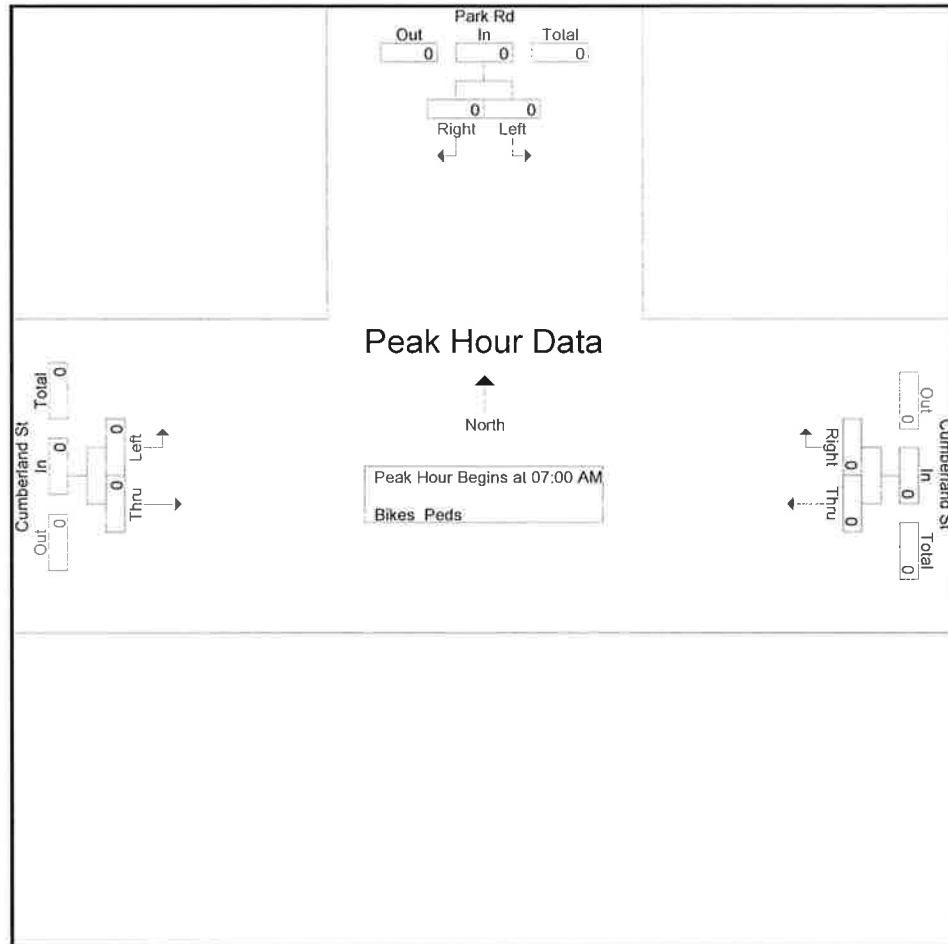
Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW13
 Site Code : 68460W13
 Start Date : 9/30/2015
 Page No : 11

	Park Rd From North			Cumberland St From East			Cumberland St From West			Int. Total
	Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0			0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	

Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW13
 Site Code : 68460W13
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks							
	Park Rd From North		Cumberland St From East		Cumberland St From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
04:00 PM	21	4	132	41	4	75	277
04:15 PM	24	2	169	62	6	76	339
04:30 PM	22	3	189	57	9	65	345
04:45 PM	19	1	193	53	10	72	348
Total	86	10	683	213	29	288	1309
05:00 PM	27	1	198	53	6	92	377
05:15 PM	29	1	171	68	1	78	348
05:30 PM	26	3	154	49	2	79	313
05:45 PM	42	2	112	31	3	81	271
Total	124	7	635	201	12	330	1309
Grand Total	210	17	1318	414	41	618	2618
Apprch %	92.5	7.5	76.1	23.9	6.2	93.8	
Total %	8	0.6	50.3	15.8	1.6	23.6	
Cars	209	15	1313	414	41	610	2602
% Cars	99.5	88.2	99.6	100	100	98.7	99.4
Trucks	1	2	5	0	0	8	16
% Trucks	0.5	11.8	0.4	0	0	1.3	0.6

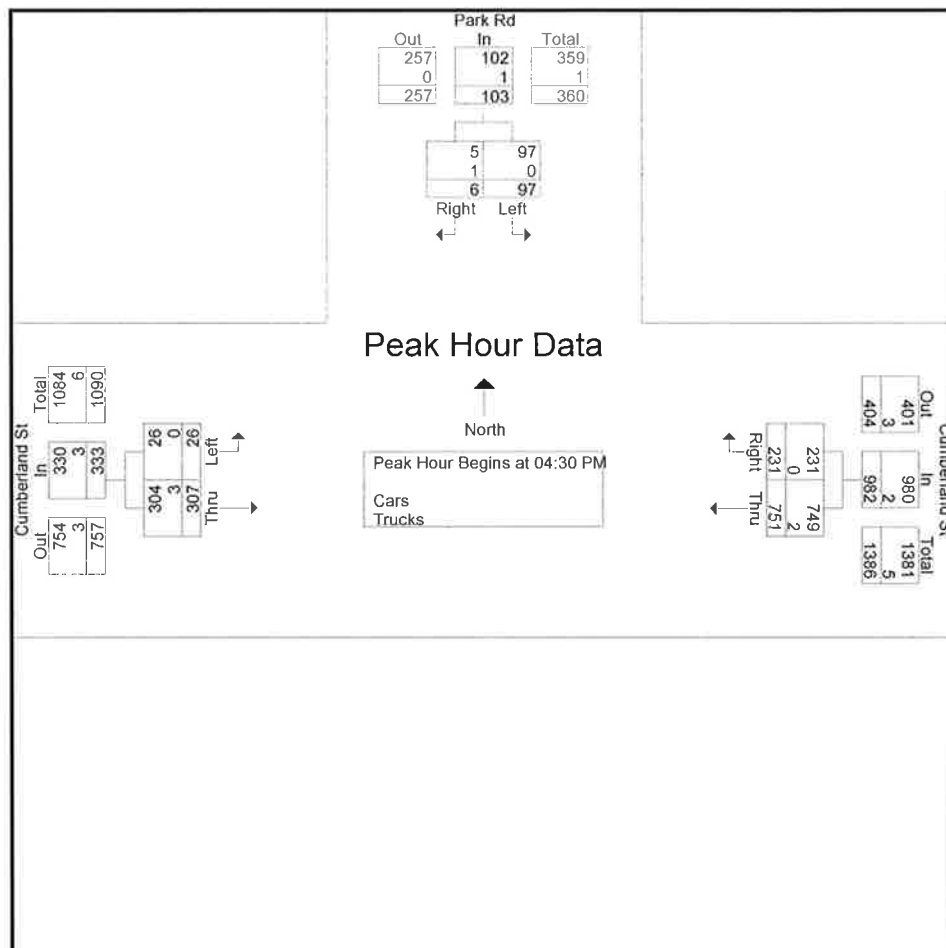
Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW13
 Site Code : 68460W13
 Start Date : 9/30/2015
 Page No : 2

	Park Rd From North			Cumberland St From East			Cumberland St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	22	3	25	189	57	246	9	65	74	345
04:45 PM	19	1	20	193	53	246	10	72	82	348
05:00 PM	27	1	28	198	53	251	6	92	98	377
05:15 PM	29	1	30	171	68	239	1	78	79	348
Total Volume	97	6	103	751	231	982	26	307	333	1418
% App. Total	94.2	5.8		76.5	23.5		7.8	92.2		
PHF	.836	.500	.858	.948	.849	.978	.650	.834	.849	.940
Cars	97	5	102	749	231	980	26	304	330	1412
% Cars	100	83.3	99.0	99.7	100	99.8	100	99.0	99.1	99.6
Trucks	0	1	1	2	0	2	0	3	3	6
% Trucks	0	16.7	1.0	0.3	0	0.2	0	1.0	0.9	0.4



Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW13
 Site Code : 68460W13
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Park Rd From North		Cumberland St From East		Cumberland St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
04:00 PM	21	4	131	41	4	72	273
04:15 PM	24	1	169	62	6	76	338
04:30 PM	22	2	189	57	9	65	344
04:45 PM	19	1	192	53	10	70	345
Total	86	8	681	213	29	283	1300
05:00 PM	27	1	198	53	6	91	376
05:15 PM	29	1	170	68	1	78	347
05:30 PM	26	3	154	49	2	78	312
05:45 PM	41	2	110	31	3	80	267
Total	123	7	632	201	12	327	1302
Grand Total	209	15	1313	414	41	610	2602
Apprch %	93.3	6.7	76	24	6.3	93.7	
Total %	8	0.6	50.5	15.9	1.6	23.4	

Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW13
 Site Code : 68460W13
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Park Rd From North		Cumberland St From East		Cumberland St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
04:00 PM	0	0	1	0	0	3	4
04:15 PM	0	1	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	0	1	0	0	2	3
Total	0	2	2	0	0	5	9
05:00 PM	0	0	0	0	0	1	1
05:15 PM	0	0	1	0	0	0	1
05:30 PM	0	0	0	0	0	1	1
05:45 PM	1	0	2	0	0	1	4
Total	1	0	3	0	0	3	7
Grand Total	1	2	5	0	0	8	16
Apprch %	33.3	66.7	100	0	0	100	
Total %	6.2	12.5	31.2	0	0	50	

Accurate Counts
978-664-2565

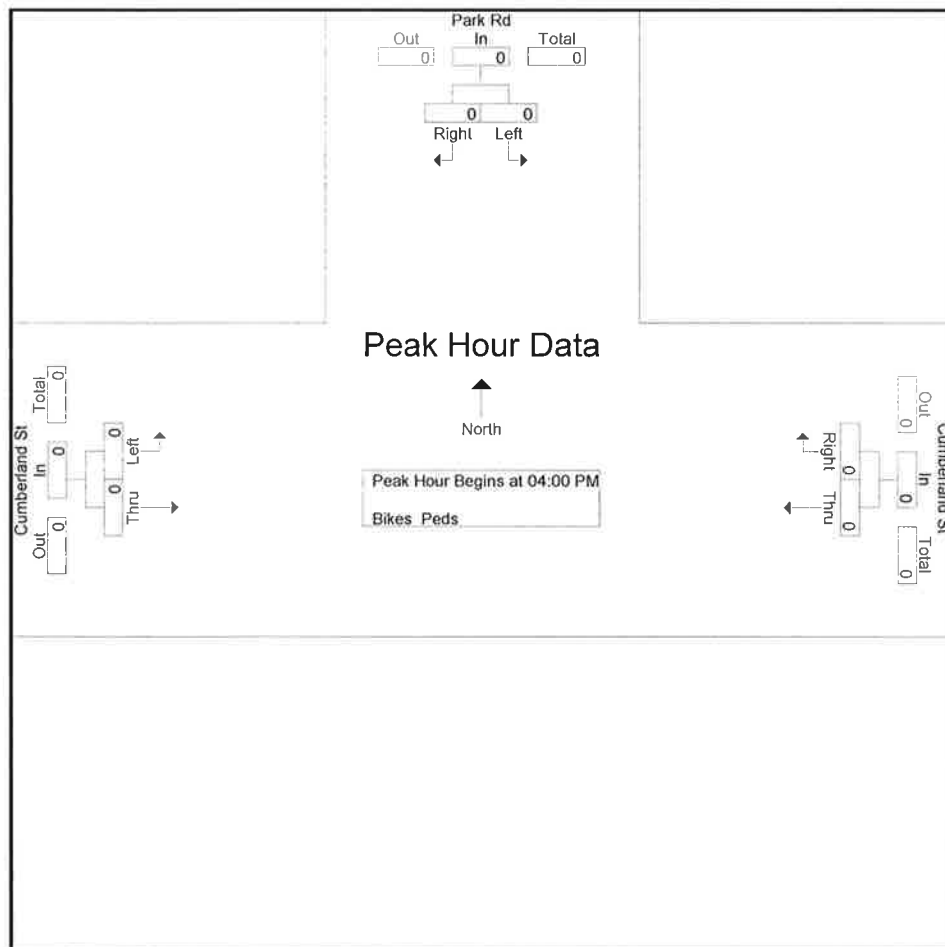
N/S Street : Park Road
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW13
Site Code : 68460W13
Start Date : 9/30/2015
Page No : 10

[illegible]

978-664-2565

File Name : 6846WW13
Site Code : 68460W13
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks								
Start Time	Cumberland St From East		Main St From South		Cumberland St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	80	49	0	0	0	269	398	
07:15 AM	108	58	0	0	0	252	418	
07:30 AM	107	83	0	0	0	264	454	
07:45 AM	132	98	0	0	0	235	465	
Total	427	288	0	0	0	1020	1735	
08:00 AM	117	76	0	0	0	221	414	
08:15 AM	111	80	0	0	0	237	428	
08:30 AM	113	92	0	0	0	224	429	
08:45 AM	148	87	0	0	0	153	388	
Total	489	335	0	0	0	835	1659	
Grand Total	916	623	0	0	0	1855	3394	
Apprch %	59.5	40.5	0	0	0	100		
Total %	27	18.4	0	0	0	54.7		
Cars	885	605	0	0	0	1829	3319	
% Cars	96.6	97.1	0	0	0	98.6	97.8	
Trucks	31	18	0	0	0	26	75	
% Trucks	3.4	2.9	0	0	0	1.4	2.2	

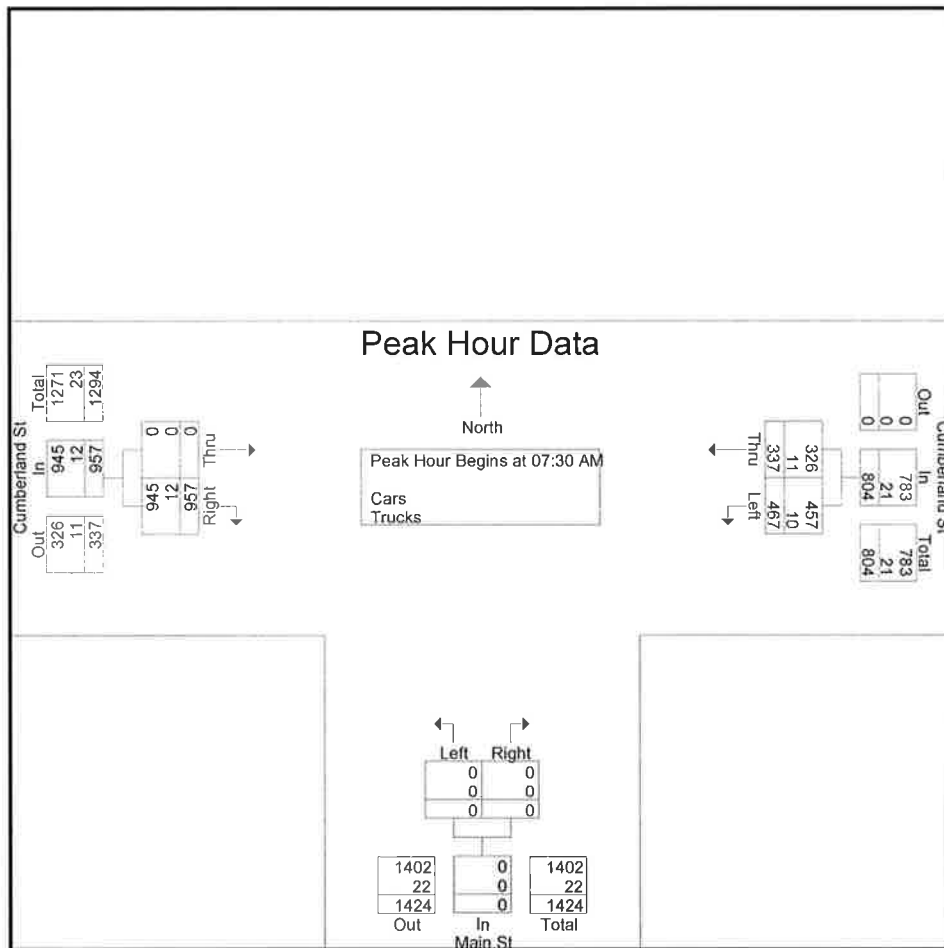
Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 2

	Cumberland St From East			Main St From South			Cumberland St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	107	83	190	0	0	0	0	264	264	454
07:45 AM	132	98	230	0	0	0	0	235	235	465
08:00 AM	117	76	193	0	0	0	0	221	221	414
08:15 AM	111	80	191	0	0	0	0	237	237	428
Total Volume	467	337	804	0	0	0	0	957	957	1761
% App. Total	58.1	41.9		0	0		0	100		
PHF	.884	.860	.874	.000	.000	.000	.000	.906	.906	.947
Cars	457	326	783	0	0	0	0	945	945	1728
% Cars	97.9	96.7	97.4	0	0	0	0	98.7	98.7	98.1
Trucks	10	11	21	0	0	0	0	12	12	33
% Trucks	2.1	3.3	2.6	0	0	0	0	1.3	1.3	1.9



Accurate Counts
978-664-2565

N/S Street : Main Street
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW14
Site Code : 68460W14
Start Date : 9/30/2015
Page No : 4

Groups Printed- Cars								
	Cumberland St From East		Main St From South		Cumberland St From West			
Start Time	Left	Thru	Left	Right	Thru	Right	Int.	Total
07:00 AM	75	47	0	0	0	266		388
07:15 AM	103	56	0	0	0	245		404
07:30 AM	106	79	0	0	0	262		447
07:45 AM	129	96	0	0	0	232		457
Total	413	278	0	0	0	1005		1696
08:00 AM	114	73	0	0	0	216		403
08:15 AM	108	78	0	0	0	235		421
08:30 AM	108	91	0	0	0	221		420
08:45 AM	142	85	0	0	0	152		379
Total	472	327	0	0	0	824		1623
Grand Total	885	605	0	0	0	1829		3319
Apprch %	59.4	40.6	0	0	0	100		
Total %	26.7	18.2	0	0	0	55.1		

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks								
	Cumberland St From East		Main St From South		Cumberland St From West			
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total	
07:00 AM	5	2	0	0	0	3		10
07:15 AM	5	2	0	0	0	7		14
07:30 AM	1	4	0	0	0	2		7
07:45 AM	3	2	0	0	0	3		8
Total	14	10	0	0	0	15		39
08:00 AM	3	3	0	0	0	5		11
08:15 AM	3	2	0	0	0	2		7
08:30 AM	5	1	0	0	0	3		9
08:45 AM	6	2	0	0	0	1		9
Total	17	8	0	0	0	11		36
Grand Total	31	18	0	0	0	26		75
Apprch %	63.3	36.7	0	0	0	100		
Total %	41.3	24	0	0	0	34.7		

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Cumberland St From East			Main St From South			Cumberland St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	1
08:30 AM	0	1	0	0	0	0	0	0	0	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	1	0	0	0	1	1	2
Grand Total	0	1	0	0	0	1	0	0	0	1	1	2
Apprch %	0	100		0	0		0	0				
Total %	0	100		0	0		0	0		50	50	

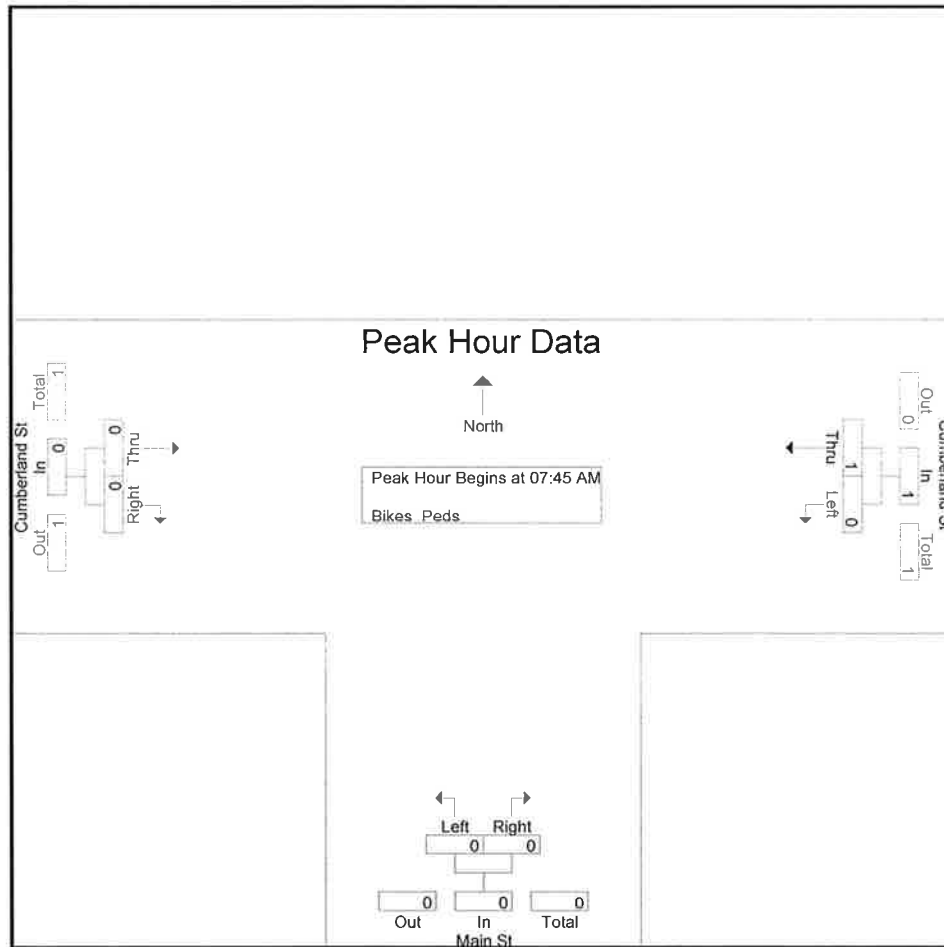
Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 11

	Cumberland St From East			Main St From South			Cumberland St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	1	1	0	0	0	0	0	0	1
% App. Total	0	100		0	0		0	0		
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	0	0	0
% App. Total	0	100		0	0		0	0	
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Cumberland St From East		Main St From South		Cumberland St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	157	206	0	0	0	109	472
04:15 PM	137	258	0	0	0	124	519
04:30 PM	123	287	0	0	0	119	529
04:45 PM	118	279	0	0	0	121	518
Total	535	1030	0	0	0	473	2038
05:00 PM	117	280	0	0	0	149	546
05:15 PM	139	282	0	0	0	137	558
05:30 PM	118	222	0	0	0	134	474
05:45 PM	118	172	0	0	0	142	432
Total	492	956	0	0	0	562	2010
Grand Total	1027	1986	0	0	0	1035	4048
Apprch %	34.1	65.9	0	0	0	100	
Total %	25.4	49.1	0	0	0	25.6	
Cars	1018	1983	0	0	0	1030	4031
% Cars	99.1	99.8	0	0	0	99.5	99.6
Trucks	9	3	0	0	0	5	17
% Trucks	0.9	0.2	0	0	0	0.5	0.4

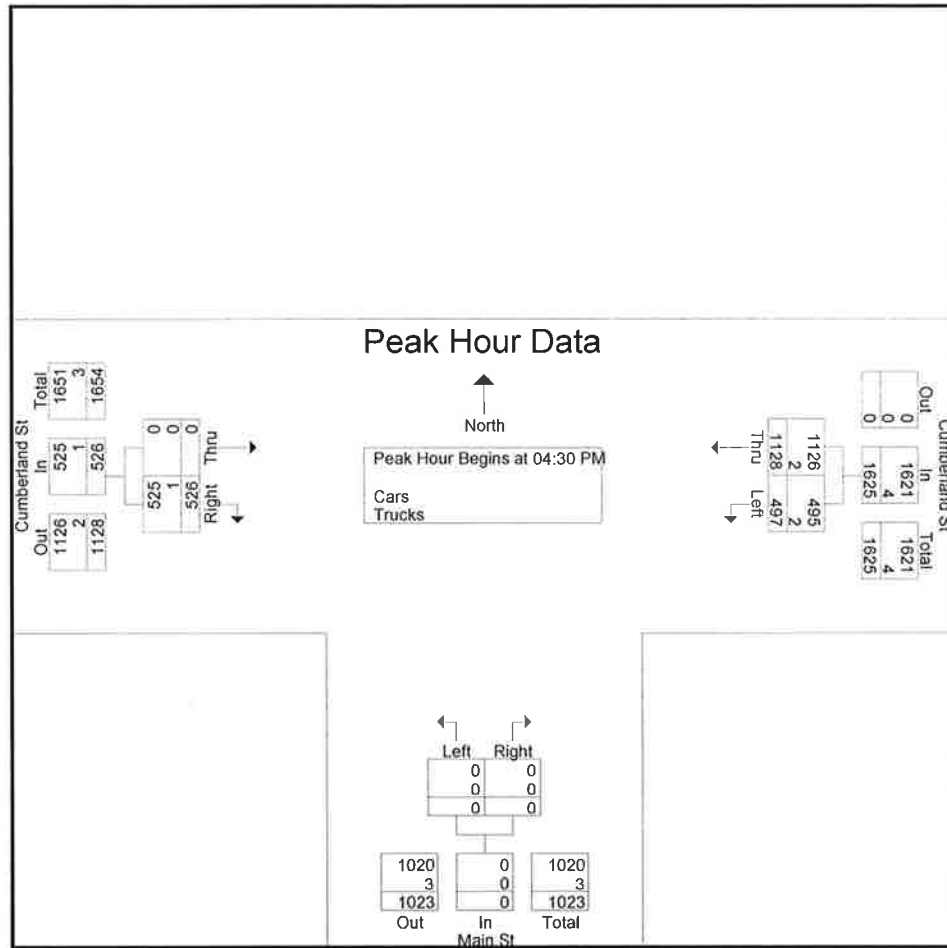
Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 2

	Cumberland St From East			Main St From South			Cumberland St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	123	287	410	0	0	0	0	119	119	529
04:45 PM	118	279	397	0	0	0	0	121	121	518
05:00 PM	117	280	397	0	0	0	0	149	149	546
05:15 PM	139	282	421	0	0	0	0	137	137	558
Total Volume	497	1128	1625	0	0	0	0	526	526	2151
% App. Total	30.6	69.4		0	0		0	100		
PHF	.894	.983	.965	.000	.000	.000	.000	.883	.883	.964
Cars	495	1126	1621	0	0	0	0	525	525	2146
% Cars	99.6	99.8	99.8	0	0	0	0	99.8	99.8	99.8
Trucks	2	2	4	0	0	0	0	1	1	5
% Trucks	0.4	0.2	0.2	0	0	0	0	0.2	0.2	0.2



Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars								
	Cumberland St From East		Main St From South		Cumberland St From West			
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total	
04:00 PM	156	205	0	0	0	105	466	
04:15 PM	135	258	0	0	0	124	517	
04:30 PM	122	287	0	0	0	119	528	
04:45 PM	117	278	0	0	0	121	516	
Total	530	1028	0	0	0	469	2027	
05:00 PM	117	279	0	0	0	148	544	
05:15 PM	139	282	0	0	0	137	558	
05:30 PM	117	222	0	0	0	134	473	
05:45 PM	115	172	0	0	0	142	429	
Total	488	955	0	0	0	561	2004	
Grand Total	1018	1983	0	0	0	1030	4031	
Apprch %	33.9	66.1	0	0	0	100		
Total %	25.3	49.2	0	0	0	25.6		

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW14
 Site Code : 68460W14
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks								
Start Time	Cumberland St From East		Main St From South		Cumberland St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	1	1	0	0	0	4	6	
04:15 PM	2	0	0	0	0	0	2	
04:30 PM	1	0	0	0	0	0	1	
04:45 PM	1	1	0	0	0	0	2	
Total	5	2	0	0	0	4	11	
05:00 PM	0	1	0	0	0	1	2	
05:15 PM	0	0	0	0	0	0	0	
05:30 PM	1	0	0	0	0	0	1	
05:45 PM	3	0	0	0	0	0	3	
Total	4	1	0	0	0	1	6	
Grand Total	9	3	0	0	0	5	17	
Apprch %	75	25	0	0	0	100		
Total %	52.9	17.6	0	0	0	29.4		

978-664-2565

N/S Street : Main Street

E/W Street : Cumberland Street

City/State : Westbrook, ME

Weather : Cloudy

File Name : 6846WW14

Site Code : 68460W14

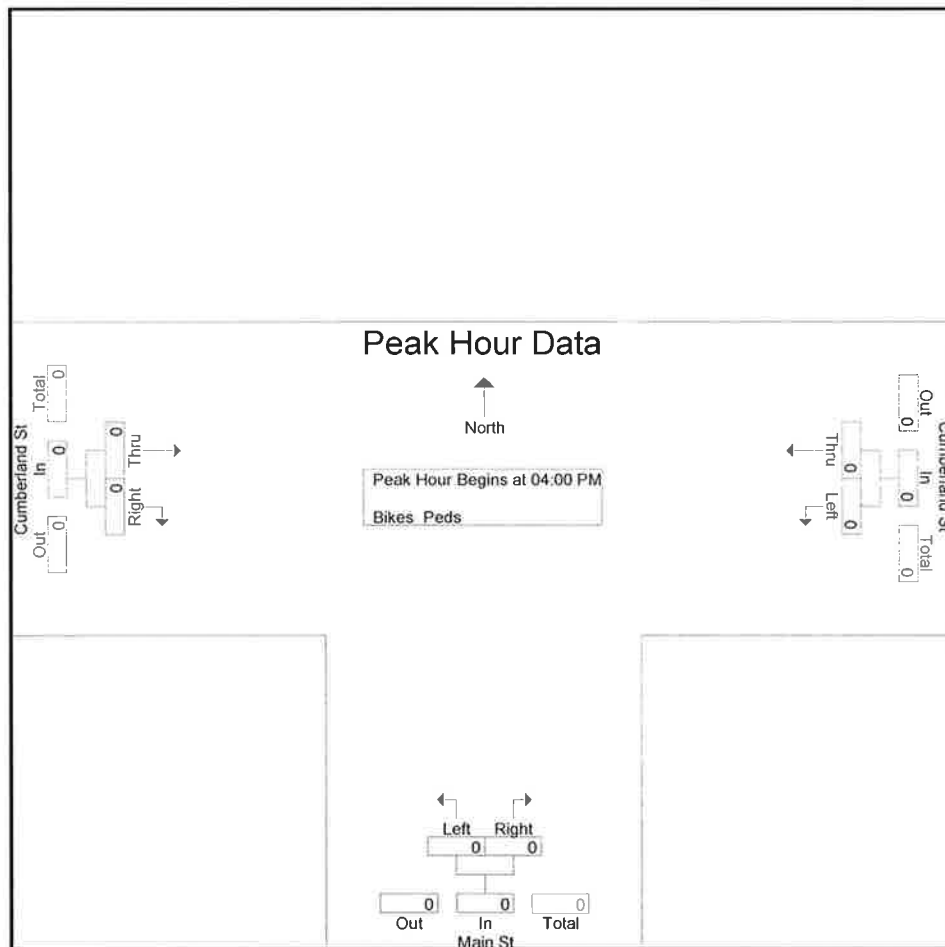
Start Date : 9/30/2015

Page No : 10

[illegible]

978-664-2565

File Name : 6846WW14
Site Code : 68460W14
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Main Street Connector
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW15
Site Code : 68460W15
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Main St From East		Connector From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	75	119	188	0	0	382
07:15 AM	0	93	120	183	0	0	396
07:30 AM	0	122	118	213	0	0	453
07:45 AM	0	150	111	219	0	0	480
Total	0	440	468	803	0	0	1711
08:00 AM	0	103	102	187	0	0	392
08:15 AM	0	110	92	201	0	0	403
08:30 AM	0	117	77	178	0	0	372
08:45 AM	0	139	89	146	0	0	374
Total	0	469	360	712	0	0	1541
Grand Total	0	909	828	1515	0	0	3252
Apprch %	0	100	35.3	64.7	0	0	
Total %	0	28	25.5	46.6	0	0	
Cars	0	890	809	1503	0	0	3202
% Cars	0	97.9	97.7	99.2	0	0	98.5
Trucks	0	19	19	12	0	0	50
% Trucks	0	2.1	2.3	0.8	0	0	1.5

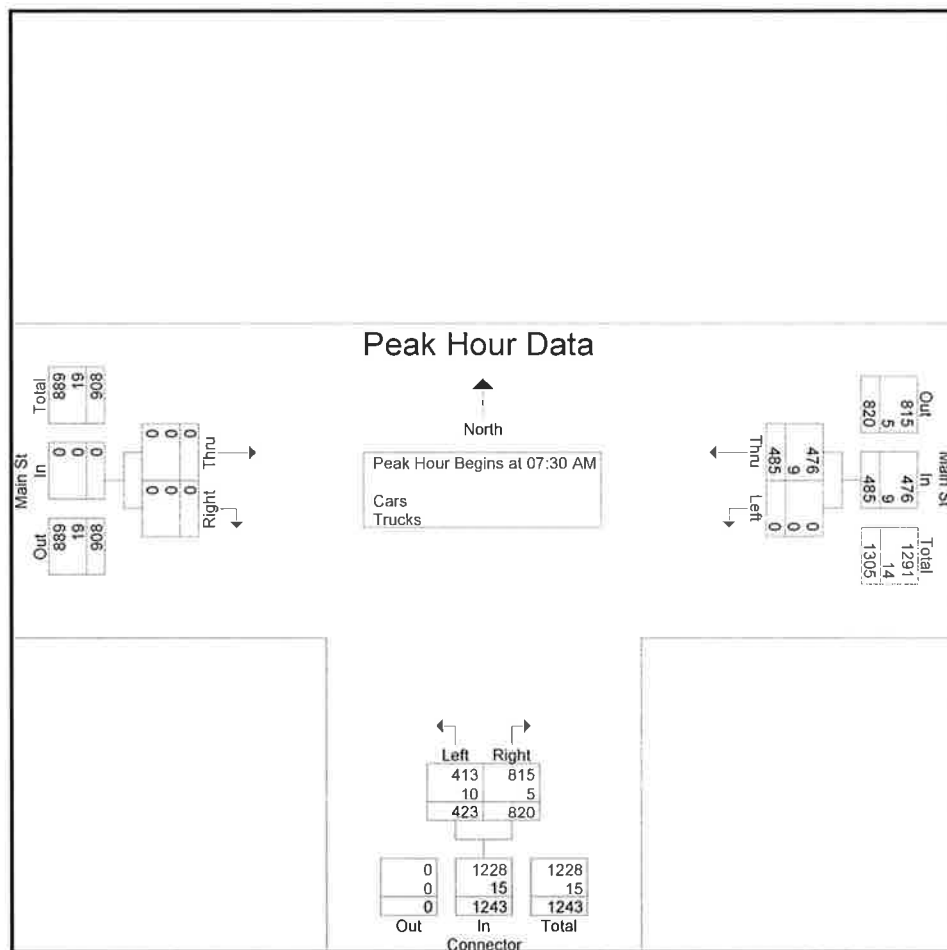
Accurate Counts

978-664-2565

N/S Street : Main Street Connector
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW15
 Site Code : 68460W15
 Start Date : 9/30/2015
 Page No : 2

	Main St From East			Connector From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	122	122	118	213	331	0	0	0	453
07:45 AM	0	150	150	111	219	330	0	0	0	480
08:00 AM	0	103	103	102	187	289	0	0	0	392
08:15 AM	0	110	110	92	201	293	0	0	0	403
Total Volume	0	485	485	423	820	1243	0	0	0	1728
% App. Total	0	100		34	66		0	0		
PHF	.000	.808	.808	.896	.936	.939	.000	.000	.000	.900
Cars	0	476	476	413	815	1228	0	0	0	1704
% Cars	0	98.1	98.1	97.6	99.4	98.8	0	0	0	98.6
Trucks	0	9	9	10	5	15	0	0	0	24
% Trucks	0	1.9	1.9	2.4	0.6	1.2	0	0	0	1.4



Accurate Counts

978-664-2565

N/S Street : Main Street Connector
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW15
Site Code : 68460W15
Start Date : 9/30/2015
Page No : 4

Groups Printed- Cars								
Start Time	Main St From East		Connector From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	0	72	116	186	0	0	374	
07:15 AM	0	91	119	181	0	0	391	
07:30 AM	0	119	117	213	0	0	449	
07:45 AM	0	146	107	218	0	0	471	
Total	0	428	459	798	0	0	1685	
08:00 AM	0	103	99	184	0	0	386	
08:15 AM	0	108	90	200	0	0	398	
08:30 AM	0	114	74	176	0	0	364	
08:45 AM	0	137	87	145	0	0	369	
Total	0	462	350	705	0	0	1517	
Grand Total	0	890	809	1503	0	0	3202	
Apprch %	0	100	35	65	0	0		
Total %	0	27.8	25.3	46.9	0	0		

Accurate Counts

978-664-2565

N/S Street : Main Street Connector
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW15
Site Code : 68460W15
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks							
Start Time	Main St From East		Connector From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	3	3	2	0	0	8
07:15 AM	0	2	1	2	0	0	5
07:30 AM	0	3	1	0	0	0	4
07:45 AM	0	4	4	1	0	0	9
Total	0	12	9	5	0	0	26
08:00 AM	0	0	3	3	0	0	6
08:15 AM	0	2	2	1	0	0	5
08:30 AM	0	3	3	2	0	0	8
08:45 AM	0	2	2	1	0	0	5
Total	0	7	10	7	0	0	24
Grand Total	0	19	19	12	0	0	50
Apprch %	0	100	61.3	38.7	0	0	
Total %	0	38	38	24	0	0	

Accurate Counts

978-664-2565

N/S Street : Main Street Connector
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW15
 Site Code : 68460W15
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Main St From East			Connector From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	0	0	1	1
Grand Total	0	0	0	0	1	1	0	0	0	1	1	2
Apprch %	0	0		0	100		0	0				
Total %	0	0		0	100		0	0		50	50	

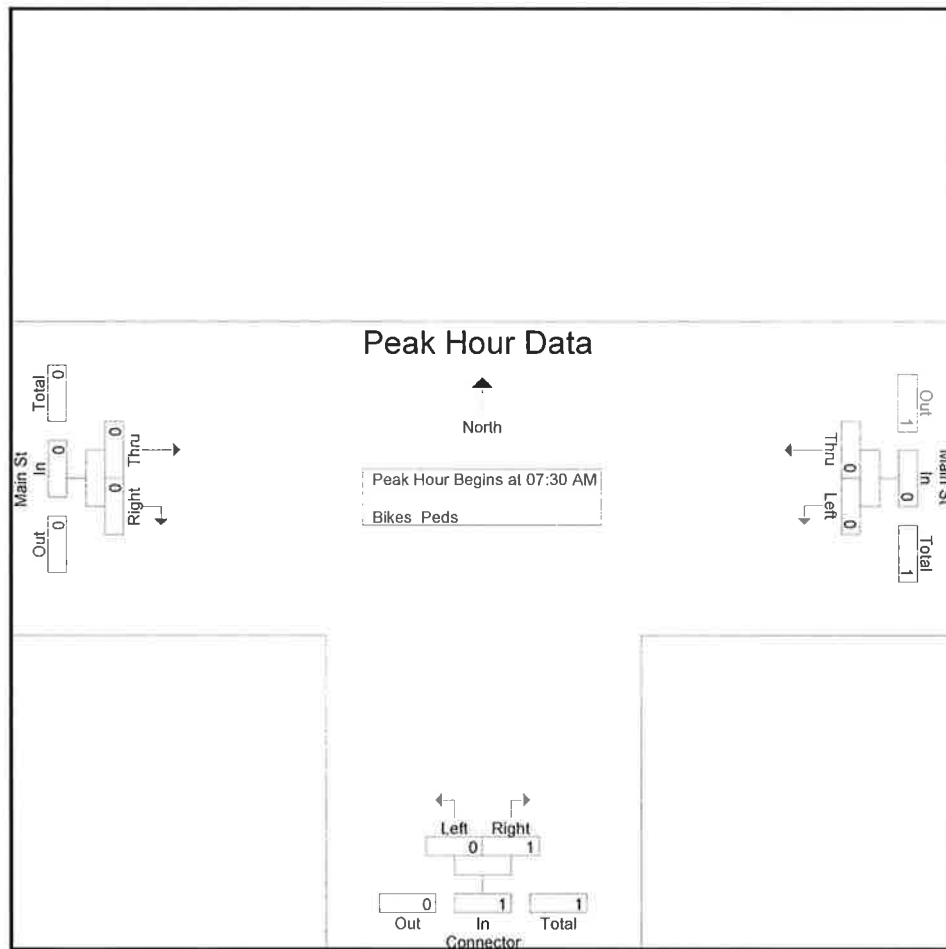
Accurate Counts

978-664-2565

N/S Street : Main Street Connector
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW15
 Site Code : 68460W15
 Start Date : 9/30/2015
 Page No : 11

	Main St From East			Connector From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0		0	100		0	0	

Accurate Counts

978-664-2565

N/S Street : Main Street Connector
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW15
 Site Code : 68460W15
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Main St From East		Connector From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	229	117	94	0	0	440
04:15 PM	0	258	96	143	0	0	497
04:30 PM	0	287	91	115	0	0	493
04:45 PM	0	293	85	141	0	0	519
Total	0	1067	389	493	0	0	1949
05:00 PM	0	316	90	119	0	0	525
05:15 PM	0	313	101	126	0	0	540
05:30 PM	0	205	98	112	0	0	415
05:45 PM	0	202	106	118	0	0	426
Total	0	1036	395	475	0	0	1906
Grand Total	0	2103	784	968	0	0	3855
Apprch %	0	100	44.7	55.3	0	0	
Total %	0	54.6	20.3	25.1	0	0	
Cars	0	2097	777	962	0	0	3836
% Cars	0	99.7	99.1	99.4	0	0	99.5
Trucks	0	6	7	6	0	0	19
% Trucks	0	0.3	0.9	0.6	0	0	0.5

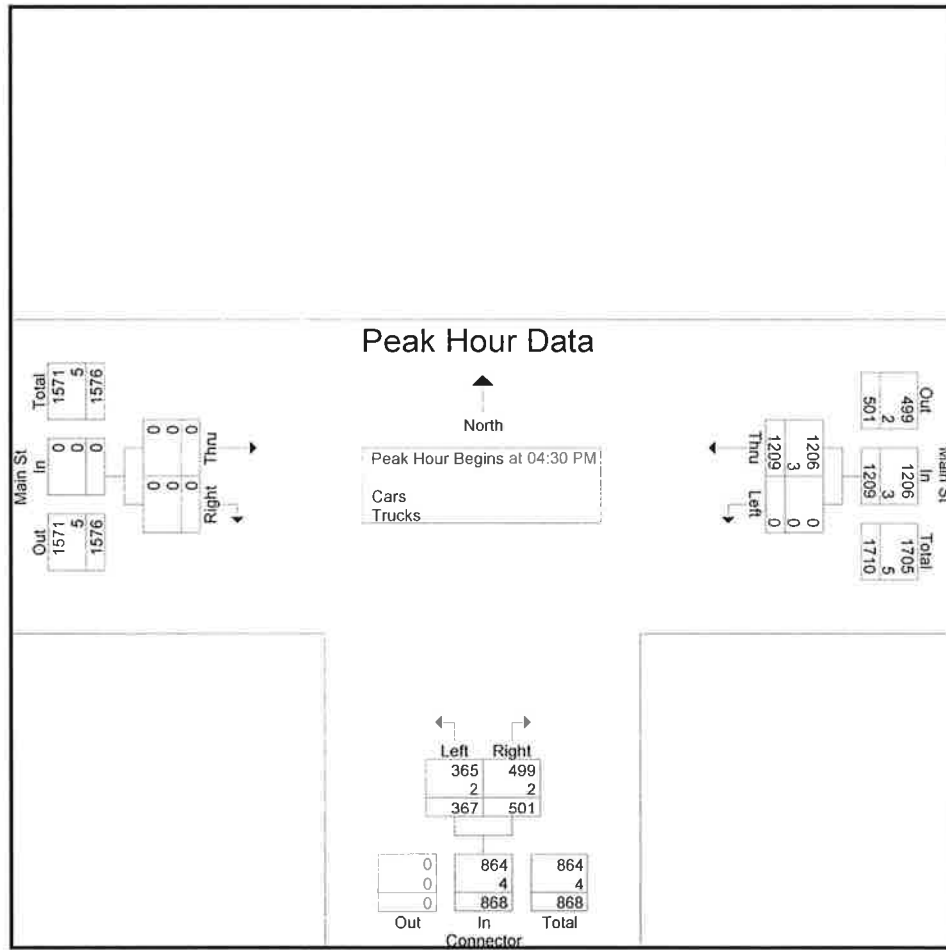
Accurate Counts

978-664-2565

N/S Street : Main Street Connector
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW15
Site Code : 68460W15
Start Date : 9/30/2015
Page No : 2

	Main St From East			Connector From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	287	287	91	115	206	0	0	0	493
04:45 PM	0	293	293	85	141	226	0	0	0	519
05:00 PM	0	316	316	90	119	209	0	0	0	525
05:15 PM	0	313	313	101	126	227	0	0	0	540
Total Volume	0	1209	1209	367	501	868	0	0	0	2077
% App. Total	0	100		42.3	57.7		0	0		
PHF	.000	.956	.956	.908	.888	.956	.000	.000	.000	.962
Cars	0	1206	1206	365	499	864	0	0	0	2070
% Cars	0	99.8	99.8	99.5	99.6	99.5	0	0	0	99.7
Trucks	0	3	3	2	2	4	0	0	0	7
% Trucks	0	0.2	0.2	0.5	0.4	0.5	0	0	0	0.3



Accurate Counts

978-664-2565

N/S Street : Main Street Connector
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW15
Site Code : 68460W15
Start Date : 9/30/2015
Page No : 4

Groups Printed- Cars

Start Time	Main St From East		Connector From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	228	117	92	0	0	437
04:15 PM	0	258	94	142	0	0	494
04:30 PM	0	286	91	114	0	0	491
04:45 PM	0	292	83	141	0	0	516
Total	0	1064	385	489	0	0	1938
05:00 PM	0	315	90	118	0	0	523
05:15 PM	0	313	101	126	0	0	540
05:30 PM	0	204	96	112	0	0	412
05:45 PM	0	201	105	117	0	0	423
Total	0	1033	392	473	0	0	1898
Grand Total	0	2097	777	962	0	0	3836
Apprch %	0	100	44.7	55.3	0	0	
Total %	0	54.7	20.3	25.1	0	0	

Accurate Counts

978-664-2565

N/S Street : Main Street Connector
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW15
Site Code : 68460W15
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks

Start Time	Main St From East		Connector From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	1	0	2	0	0	3
04:15 PM	0	0	2	1	0	0	3
04:30 PM	0	1	0	1	0	0	2
04:45 PM	0	1	2	0	0	0	3
Total	0	3	4	4	0	0	11
05:00 PM	0	1	0	1	0	0	2
05:15 PM	0	0	0	0	0	0	0
05:30 PM	0	1	2	0	0	0	3
05:45 PM	0	1	1	1	0	0	3
Total	0	3	3	2	0	0	8
Grand Total	0	6	7	6	0	0	19
Apprch %	0	100	53.8	46.2	0	0	
Total %	0	31.6	36.8	31.6	0	0	

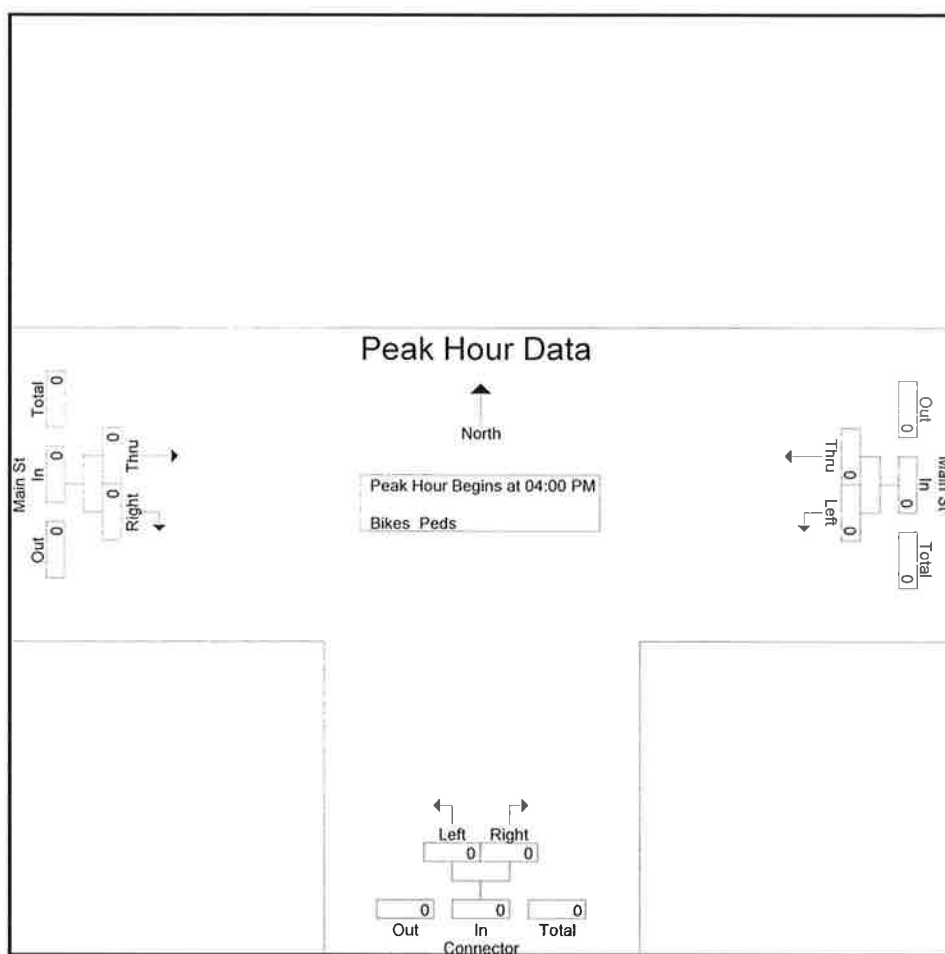
978-664-2565

File Name : 6846WW15
Site Code : 68460W15
Start Date : 9/30/2015
Page No : 10

[illegible]

978-664-2565

File Name : 6846WW15
Site Code : 68460W15
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW16
Site Code : 68460W16
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks							
Start Time	Main St From North		Connector From East		Main St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	194	154	0	0	0	102	450
07:15 AM	162	198	0	0	0	139	499
07:30 AM	164	207	0	0	0	159	530
07:45 AM	173	192	0	0	0	153	518
Total	693	751	0	0	0	553	1997
08:00 AM	147	189	0	0	0	131	467
08:15 AM	169	178	0	0	0	119	466
08:30 AM	146	191	0	0	0	101	438
08:45 AM	116	182	0	0	0	112	410
Total	578	740	0	0	0	463	1781
Grand Total	1271	1491	0	0	0	1016	3778
Apprch %	46	54	0	0	0	100	
Total %	33.6	39.5	0	0	0	26.9	
Cars	1258	1446	0	0	0	994	3698
% Cars	99	97	0	0	0	97.8	97.9
Trucks	13	45	0	0	0	22	80
% Trucks	1	3	0	0	0	2.2	2.1

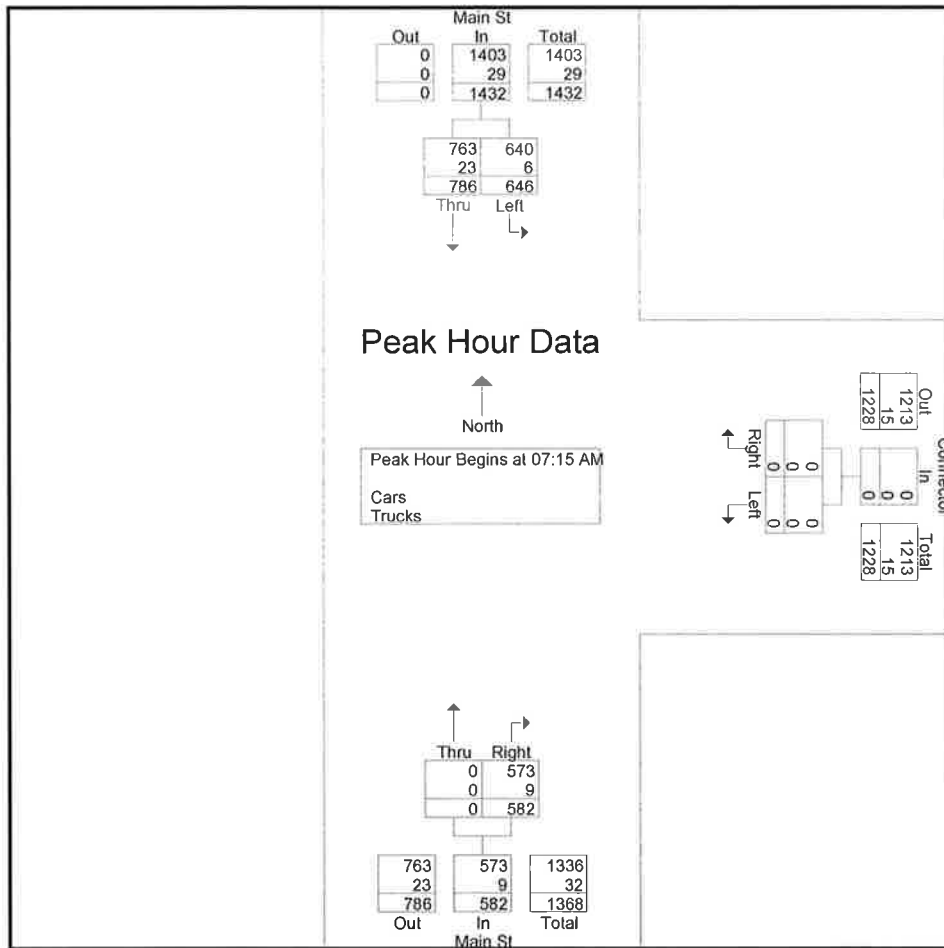
Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Main Street Connector
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW16
 Site Code : 68460W16
 Start Date : 9/30/2015
 Page No : 2

	Main St From North			Connector From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	162	198	360	0	0	0	0	139	139	499
07:30 AM	164	207	371	0	0	0	0	159	159	530
07:45 AM	173	192	365	0	0	0	0	153	153	518
08:00 AM	147	189	336	0	0	0	0	131	131	467
Total Volume	646	786	1432	0	0	0	0	582	582	2014
% App. Total	45.1	54.9		0	0		0	100		
PHF	.934	.949	.965	.000	.000	.000	.000	.915	.915	.950
Cars	640	763	1403	0	0	0	0	573	573	1976
% Cars	99.1	97.1	98.0	0	0	0	0	98.5	98.5	98.1
Trucks	6	23	29	0	0	0	0	9	9	38
% Trucks	0.9	2.9	2.0	0	0	0	0	1.5	1.5	1.9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW16
Site Code : 68460W16
Start Date : 9/30/2015
Page No : 4

Groups Printed- Cars								
Start Time	Main St From North		Connector From East		Main St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	193	147	0	0	0	99	439	
07:15 AM	160	188	0	0	0	138	486	
07:30 AM	164	204	0	0	0	157	525	
07:45 AM	170	189	0	0	0	151	510	
Total	687	728	0	0	0	545	1960	
08:00 AM	146	182	0	0	0	127	455	
08:15 AM	168	174	0	0	0	117	459	
08:30 AM	143	186	0	0	0	97	426	
08:45 AM	114	176	0	0	0	108	398	
Total	571	718	0	0	0	449	1738	
Grand Total	1258	1446	0	0	0	994	3698	
Apprch %	46.5	53.5	0	0	0	100		
Total %	34	39.1	0	0	0	26.9		

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW16
Site Code : 68460W16
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks							
Start Time	Main St From North		Connector From East		Main St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	1	7	0	0	0	3	11
07:15 AM	2	10	0	0	0	1	13
07:30 AM	0	3	0	0	0	2	5
07:45 AM	3	3	0	0	0	2	8
Total	6	23	0	0	0	8	37
08:00 AM	1	7	0	0	0	4	12
08:15 AM	1	4	0	0	0	2	7
08:30 AM	3	5	0	0	0	4	12
08:45 AM	2	6	0	0	0	4	12
Total	7	22	0	0	0	14	43
Grand Total	13	45	0	0	0	22	80
Apprch %	22.4	77.6	0	0	0	100	
Total %	16.2	56.2	0	0	0	27.5	

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

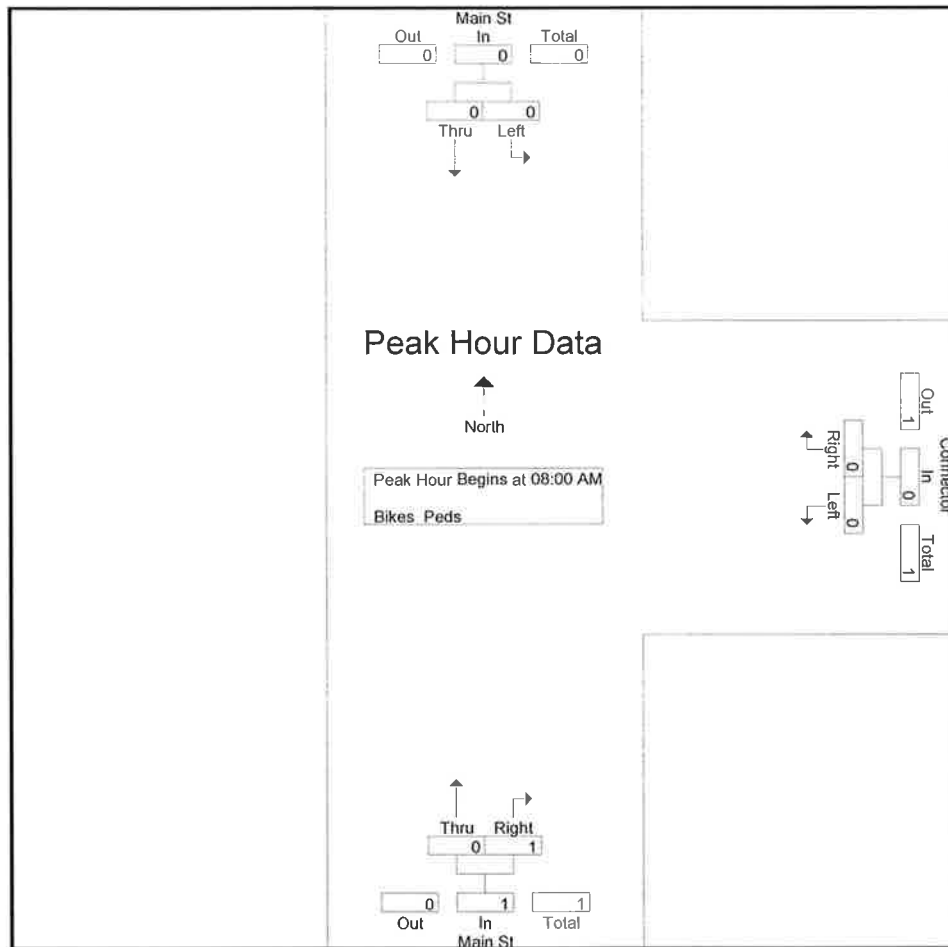
File Name : 6846WW16
Site Code : 68460W16
Start Date : 9/30/2015
Page No : 10

Groups Printed- Bikes Peds												
Start Time	Main St From North			Connector From East			Main St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	1	0	1
07:45 AM	0	0	0	0	0	2	0	0	0	2	0	2
Total	0	0	0	0	0	2	0	0	1	3	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	1	2	0	2
08:30 AM	0	0	0	0	0	1	0	0	1	2	0	2
08:45 AM	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	2	0	1	2	4	1	5
Grand Total	0	0	0	0	0	4	0	1	3	7	1	8
Apprch %	0	0		0	0		0	100				
Total %	0	0		0	0		0	100		87.5	12.5	

978-664-2565

File Name : 6846WW16
Site Code : 68460W16
Start Date : 9/30/2015
Page No : 11

Start Time	Main St From North			Connector From East			Main St From South			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	1	1	1
% App. Total	0	0		0	0		0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Main Street Connector
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW16
 Site Code : 68460W16
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks								
Start Time	Main St From North		Connector From East		Main St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	75	179	0	0	0	125	379	
04:15 PM	89	165	0	0	0	136	390	
04:30 PM	71	156	0	0	0	137	364	
04:45 PM	79	152	0	0	0	130	361	
Total	314	652	0	0	0	528	1494	
05:00 PM	85	166	0	0	0	109	360	
05:15 PM	94	173	0	0	0	136	403	
05:30 PM	97	147	0	0	0	130	374	
05:45 PM	89	165	0	0	0	113	367	
Total	365	651	0	0	0	488	1504	
Grand Total	679	1303	0	0	0	1016	2998	
Apprch %	34.3	65.7	0	0	0	100		
Total %	22.6	43.5	0	0	0	33.9		
Cars	675	1293	0	0	0	1013	2981	
% Cars	99.4	99.2	0	0	0	99.7	99.4	
Trucks	4	10	0	0	0	3	17	
% Trucks	0.6	0.8	0	0	0	0.3	0.6	

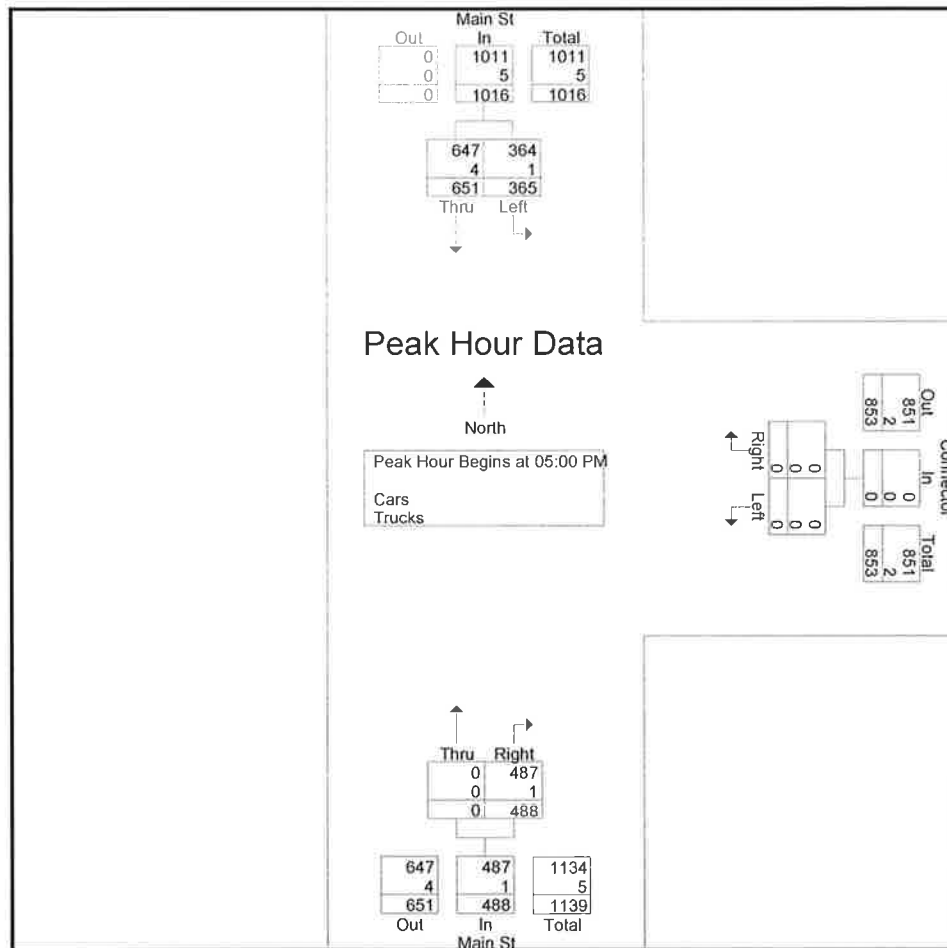
Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW16
Site Code : 68460W16
Start Date : 9/30/2015
Page No : 2

	Main St From North			Connector From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	85	166	251	0	0	0	0	109	109	360
05:15 PM	94	173	267	0	0	0	0	136	136	403
05:30 PM	97	147	244	0	0	0	0	130	130	374
05:45 PM	89	165	254	0	0	0	0	113	113	367
Total Volume	365	651	1016	0	0	0	0	488	488	1504
% App. Total	35.9	64.1		0	0		0	100		
PHF	.941	.941	.951	.000	.000	.000	.000	.897	.897	.933
Cars	364	647	1011	0	0	0	0	487	487	1498
% Cars	99.7	99.4	99.5	0	0	0	0	99.8	99.8	99.6
Trucks	1	4	5	0	0	0	0	1	1	6
% Trucks	0.3	0.6	0.5	0	0	0	0	0.2	0.2	0.4



Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Main Street Connector
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW16
 Site Code : 68460W16
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Main St From North		Connector From East		Main St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	72	177	0	0	0	125	374	
04:15 PM	89	163	0	0	0	136	388	
04:30 PM	71	155	0	0	0	136	362	
04:45 PM	79	151	0	0	0	129	359	
Total	311	646	0	0	0	526	1483	
05:00 PM	84	166	0	0	0	109	359	
05:15 PM	94	173	0	0	0	136	403	
05:30 PM	97	146	0	0	0	129	372	
05:45 PM	89	162	0	0	0	113	364	
Total	364	647	0	0	0	487	1498	
Grand Total	675	1293	0	0	0	1013	2981	
Apprch %	34.3	65.7	0	0	0	100		
Total %	22.6	43.4	0	0	0	34		

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Main Street Connector
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW16
 Site Code : 68460W16
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks								
Start Time	Main St From North		Connector From East		Main St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	3	2	0	0	0	0	5	
04:15 PM	0	2	0	0	0	0	2	
04:30 PM	0	1	0	0	0	1	2	
04:45 PM	0	1	0	0	0	1	2	
Total	3	6	0	0	0	2	11	
05:00 PM	1	0	0	0	0	0	1	
05:15 PM	0	0	0	0	0	0	0	
05:30 PM	0	1	0	0	0	1	2	
05:45 PM	0	3	0	0	0	0	3	
Total	1	4	0	0	0	1	6	
Grand Total	4	10	0	0	0	3	17	
Apprch %	28.6	71.4	0	0	0	100		
Total %	23.5	58.8	0	0	0	17.6		

978-664-2565

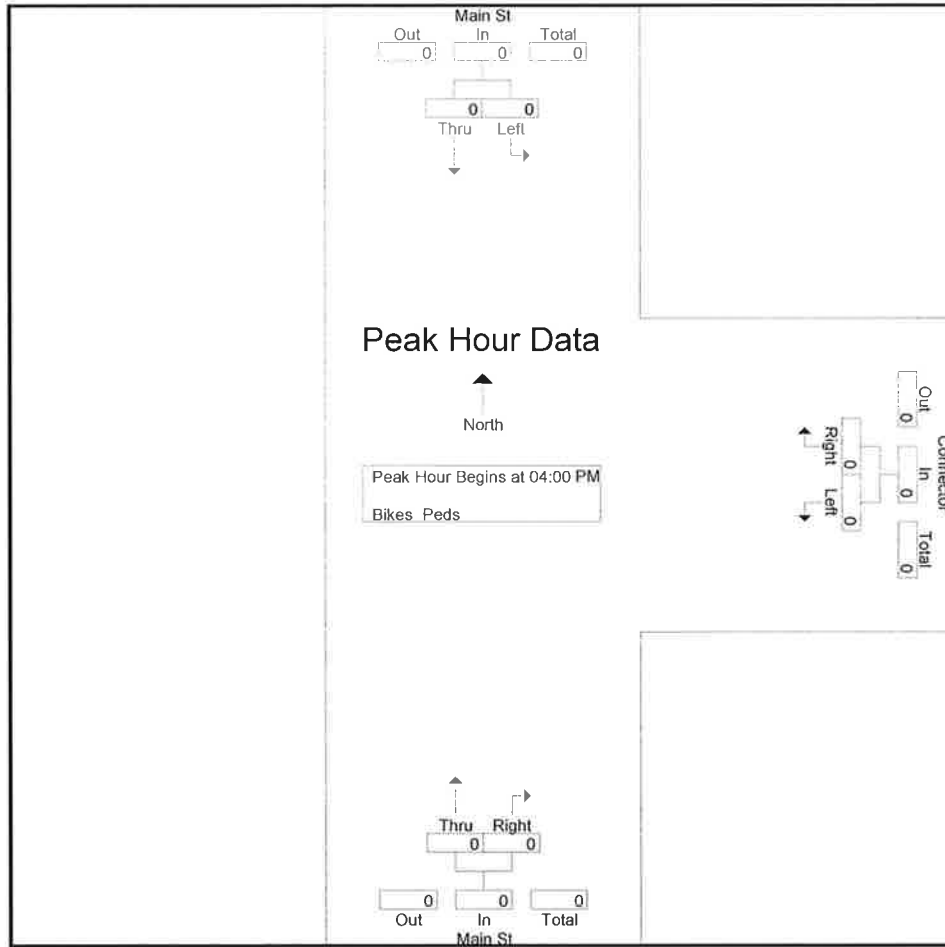
File Name : 6846WW16
Site Code : 68460W16
Start Date : 9/30/2015
Page No : 10

[illegible]

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW16
Site Code : 68460W16
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW17
 Site Code : 68460W17
 Start Date : 10/1/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	2	31	13	16	36	3	6	20	17	26	127	18	315
07:15 AM	4	36	46	23	58	12	11	37	26	43	131	15	442
07:30 AM	3	32	41	21	63	10	13	46	30	47	126	19	451
07:45 AM	6	30	59	26	85	8	16	40	30	62	129	32	523
Total	15	129	159	86	242	33	46	143	103	178	513	84	1731
08:00 AM	4	35	44	21	64	6	6	37	29	47	106	14	413
08:15 AM	6	30	50	19	72	4	5	29	21	48	140	14	438
08:30 AM	8	50	48	26	64	9	15	33	21	42	109	17	442
08:45 AM	11	34	46	34	67	7	13	40	29	37	118	14	450
Total	29	149	188	100	267	26	39	139	100	174	473	59	1743
Grand Total	44	278	347	186	509	59	85	282	203	352	986	143	3474
Apprch %	6.6	41.6	51.9	24.7	67.5	7.8	14.9	49.5	35.6	23.8	66.6	9.7	
Total %	1.3	8	10	5.4	14.7	1.7	2.4	8.1	5.8	10.1	28.4	4.1	
Cars	44	266	339	183	496	58	81	260	200	351	976	141	3395
% Cars	100	95.7	97.7	98.4	97.4	98.3	95.3	92.2	98.5	99.7	99	98.6	97.7
Trucks	0	12	8	3	13	1	4	22	3	1	10	2	79
% Trucks	0	4.3	2.3	1.6	2.6	1.7	4.7	7.8	1.5	0.3	1	1.4	2.3

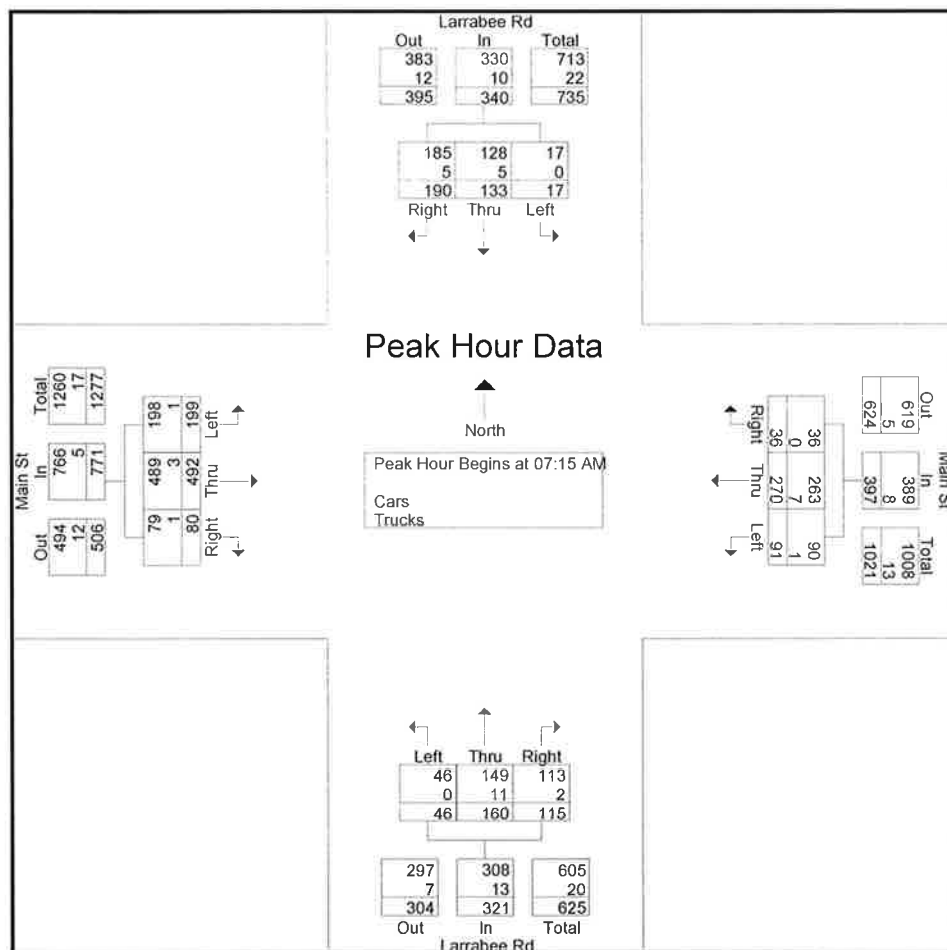
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW17
Site Code : 68460W17
Start Date : 10/1/2015
Page No : 2

	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	4	36	46	86	23	58	12	93	11	37	26	74	43	131	15	189	442
07:30 AM	3	32	41	76	21	63	10	94	13	46	30	89	47	126	19	192	451
07:45 AM	6	30	59	95	26	85	8	119	16	40	30	86	62	129	32	223	523
08:00 AM	4	35	44	83	21	64	6	91	6	37	29	72	47	106	14	167	413
Total Volume	17	133	190	340	91	270	36	397	46	160	115	321	199	492	80	771	1829
% App. Total	5	39.1	55.9		22.9	68	9.1		14.3	49.8	35.8		25.8	63.8	10.4		
PHF	.708	.924	.805	.895	.875	.794	.750	.834	.719	.870	.958	.902	.802	.939	.625	.864	.874
Cars	17	128	185	330	90	263	36	389	46	149	113	308	198	489	79	766	1793
% Cars	100	96.2	97.4	97.1	98.9	97.4	100	98.0	100	93.1	98.3	96.0	99.5	99.4	98.8	99.4	98.0
Trucks	0	5	5	10	1	7	0	8	0	11	2	13	1	3	1	5	36
% Trucks	0	3.8	2.6	2.9	1.1	2.6	0	2.0	0	6.9	1.7	4.0	0.5	0.6	1.3	0.6	2.0



Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW17
 Site Code : 68460W17
 Start Date : 10/1/2015
 Page No : 4

Groups Printed- Cars

Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	2	29	13	16	34	2	4	19	16	26	126	17	304
07:15 AM	4	35	46	22	57	12	11	35	26	43	130	15	436
07:30 AM	3	32	41	21	60	10	13	45	30	47	126	19	447
07:45 AM	6	28	54	26	83	8	16	37	29	62	128	31	508
Total	15	124	154	85	234	32	44	136	101	178	510	82	1695
08:00 AM	4	33	44	21	63	6	6	32	28	46	105	14	402
08:15 AM	6	26	49	19	70	4	5	24	21	48	138	14	424
08:30 AM	8	50	46	25	63	9	15	29	21	42	107	17	432
08:45 AM	11	33	46	33	66	7	11	39	29	37	116	14	442
Total	29	142	185	98	262	26	37	124	99	173	466	59	1700
Grand Total	44	266	339	183	496	58	81	260	200	351	976	141	3395
Apprch %	6.8	41	52.2	24.8	67.3	7.9	15	48.1	37	23.9	66.5	9.6	
Total %	1.3	7.8	10	5.4	14.6	1.7	2.4	7.7	5.9	10.3	28.7	4.2	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW17
Site Code : 68460W17
Start Date : 10/1/2015
Page No : 7

Groups Printed- Trucks

Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	2	0	0	2	1	2	1	1	0	1	1	11
07:15 AM	0	1	0	1	1	0	0	2	0	0	1	0	6
07:30 AM	0	0	0	0	3	0	0	1	0	0	0	0	4
07:45 AM	0	2	5	0	2	0	0	3	1	0	1	1	15
Total	0	5	5	1	8	1	2	7	2	0	3	2	36
08:00 AM	0	2	0	0	1	0	0	5	1	1	1	0	11
08:15 AM	0	4	1	0	2	0	0	5	0	0	2	0	14
08:30 AM	0	0	2	1	1	0	0	4	0	0	2	0	10
08:45 AM	0	1	0	1	1	0	2	1	0	0	2	0	8
Total	0	7	3	2	5	0	2	15	1	1	7	0	43
Grand Total	0	12	8	3	13	1	4	22	3	1	10	2	79
Apprch %	0	60	40	17.6	76.5	5.9	13.8	75.9	10.3	7.7	76.9	15.4	
Total %	0	15.2	10.1	3.8	16.5	1.3	5.1	27.8	3.8	1.3	12.7	2.5	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW17
Site Code : 68460W17
Start Date : 10/1/2015
Page No : 10

Groups Printed- Bikes Peds																			
Start Time	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	2	3
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	2
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	1	0	2	0	0	1	0	0	1	0	3	0	0	2	6	8
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
08:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	2	1	3
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	2	0	1	0	0	0	0	0	1	0	2	0	0	3	3	6
Grand Total	0	0	0	3	0	3	0	0	1	0	0	2	0	5	0	0	5	9	14
Apprch %	0	0	0		0	100	0		100	0	0		0	100	0				
Total %	0	0	0		0	33.3	0		11.1	0	0		0	55.6	0		35.7	64.3	

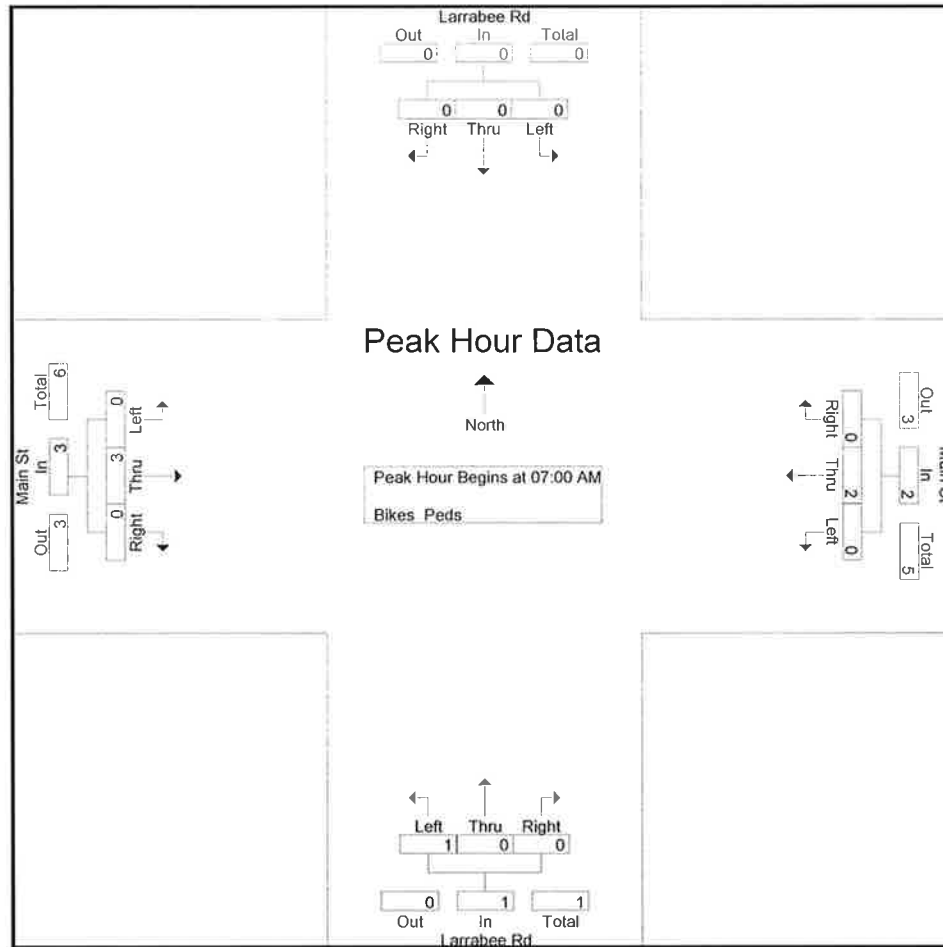
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW17
Site Code : 68460W17
Start Date : 10/1/2015
Page No : 11

	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	2	0	2	1	0	0	1	0	3	0	3	6
% App. Total	0	0	0		0	100	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.250	.000	.000	.250	.000	.750	.000	.750	.750



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	1	0	0	1	0	3	0	3
% App. Total	0	0	0		0	100	0		100	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.250	.000	.000	.250	.000	.750	.000	.750

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW17
 Site Code : 68460W17
 Start Date : 10/1/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	12	55	51	42	161	11	13	48	26	41	113	16	589
04:15 PM	7	44	63	40	143	6	19	49	35	67	100	19	592
04:30 PM	4	67	53	56	160	11	16	36	39	40	85	17	584
04:45 PM	12	67	72	44	144	5	28	59	33	71	100	15	650
Total	35	233	239	182	608	33	76	192	133	219	398	67	2415
05:00 PM	10	63	62	48	161	8	24	35	35	54	107	18	625
05:15 PM	7	96	65	65	127	3	26	58	39	48	104	25	663
05:30 PM	12	61	68	56	154	2	18	38	39	55	97	20	620
05:45 PM	7	54	62	65	144	4	23	55	45	52	104	35	650
Total	36	274	257	234	586	17	91	186	158	209	412	98	2558
Grand Total	71	507	496	416	1194	50	167	378	291	428	810	165	4973
Apprch %	6.6	47.2	46.2	25.1	71.9	3	20	45.2	34.8	30.5	57.7	11.8	
Total %	1.4	10.2	10	8.4	24	1	3.4	7.6	5.9	8.6	16.3	3.3	
Cars	71	500	490	413	1187	49	166	365	291	427	802	161	4922
% Cars	100	98.6	98.8	99.3	99.4	98	99.4	96.6	100	99.8	99	97.6	99
Trucks	0	7	6	3	7	1	1	13	0	1	8	4	51
% Trucks	0	1.4	1.2	0.7	0.6	2	0.6	3.4	0	0.2	1	2.4	1

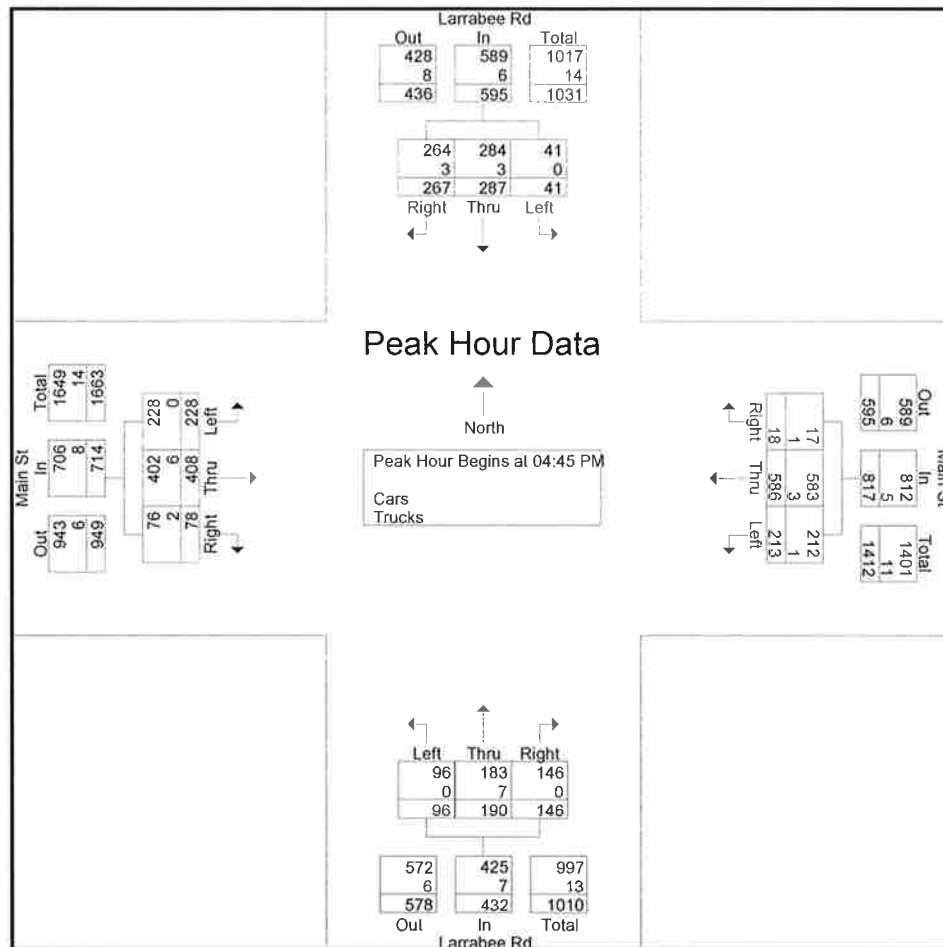
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW17
Site Code : 68460W17
Start Date : 10/1/2015
Page No : 2

	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	12	67	72	151	44	144	5	193	28	59	33	120	71	100	15	186	650
05:00 PM	10	63	62	135	48	161	8	217	24	35	35	94	54	107	18	179	625
05:15 PM	7	96	65	168	65	127	3	195	26	58	39	123	48	104	25	177	663
05:30 PM	12	61	68	141	56	154	2	212	18	38	39	95	55	97	20	172	620
Total Volume	41	287	267	595	213	586	18	817	96	190	146	432	228	408	78	714	2558
% App. Total	6.9	48.2	44.9		26.1	71.7	2.2		22.2	44	33.8		31.9	57.1	10.9		
PHF	.854	.747	.927	.885	.819	.910	.563	.941	.857	.805	.936	.878	.803	.953	.780	.960	.965
Cars	41	284	264	589	212	583	17	812	96	183	146	425	228	402	76	706	2532
% Cars	100	99.0	98.9	99.0	99.5	99.5	94.4	99.4	100	96.3	100	98.4	100	98.5	97.4	98.9	99.0
Trucks	0	3	3	6	1	3	1	5	0	7	0	7	0	6	2	8	26
% Trucks	0	1.0	1.1	1.0	0.5	0.5	5.6	0.6	0	3.7	0	1.6	0	1.5	2.6	1.1	1.0



Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW17
 Site Code : 68460W17
 Start Date : 10/1/2015
 Page No : 4

Groups Printed- Cars

Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	12	53	51	41	161	11	12	44	26	41	113	16	581
04:15 PM	7	44	60	39	141	6	19	48	35	67	98	17	581
04:30 PM	4	66	53	56	159	11	16	35	39	40	85	17	581
04:45 PM	12	66	72	44	143	4	28	57	33	71	98	13	641
Total	35	229	236	180	604	32	75	184	133	219	394	63	2384
05:00 PM	10	62	62	48	160	8	24	35	35	54	105	18	621
05:15 PM	7	96	63	64	126	3	26	54	39	48	102	25	653
05:30 PM	12	60	67	56	154	2	18	37	39	55	97	20	617
05:45 PM	7	53	62	65	143	4	23	55	45	51	104	35	647
Total	36	271	254	233	583	17	91	181	158	208	408	98	2538
Grand Total	71	500	490	413	1187	49	166	365	291	427	802	161	4922
Apprch %	6.7	47.1	46.2	25	72	3	20.2	44.4	35.4	30.7	57.7	11.6	
Total %	1.4	10.2	10	8.4	24.1	1	3.4	7.4	5.9	8.7	16.3	3.3	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW17
 Site Code : 68460W17
 Start Date : 10/1/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	2	0	1	0	0	1	4	0	0	0	0	8
04:15 PM	0	0	3	1	2	0	0	1	0	0	2	2	11
04:30 PM	0	1	0	0	1	0	0	1	0	0	0	0	3
04:45 PM	0	1	0	0	1	1	0	2	0	0	2	2	9
Total	0	4	3	2	4	1	1	8	0	0	4	4	31
05:00 PM	0	1	0	0	1	0	0	0	0	0	2	0	4
05:15 PM	0	0	2	1	1	0	0	4	0	0	2	0	10
05:30 PM	0	1	1	0	0	0	0	1	0	0	0	0	3
05:45 PM	0	1	0	0	1	0	0	0	0	1	0	0	3
Total	0	3	3	1	3	0	0	5	0	1	4	0	20
Grand Total	0	7	6	3	7	1	1	13	0	1	8	4	51
Apprch %	0	53.8	46.2	27.3	63.6	9.1	7.1	92.9	0	7.7	61.5	30.8	
Total %	0	13.7	11.8	5.9	13.7	2	2	25.5	0	2	15.7	7.8	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW17
 Site Code : 68460W17
 Start Date : 10/1/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	1	3	2	5
04:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	2	0	2	0	0	0	0	0	1	0	2	0	1	4	4	8
05:00 PM	0	0	0	4	0	0	0	0	0	0	0	1	0	1	0	0	5	1	6
05:15 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3	3
05:45 PM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	0	2	2	4
Total	0	0	1	7	0	2	0	0	0	0	0	2	0	2	1	0	9	6	15
Grand Total	0	0	1	9	0	4	0	0	0	0	0	3	0	4	1	1	13	10	23
Apprch %	0	0	100		0	100	0		0	0	0		0	80	20				
Total %	0	0	10		0	40	0		0	0	0		0	40	10		56.5	43.5	

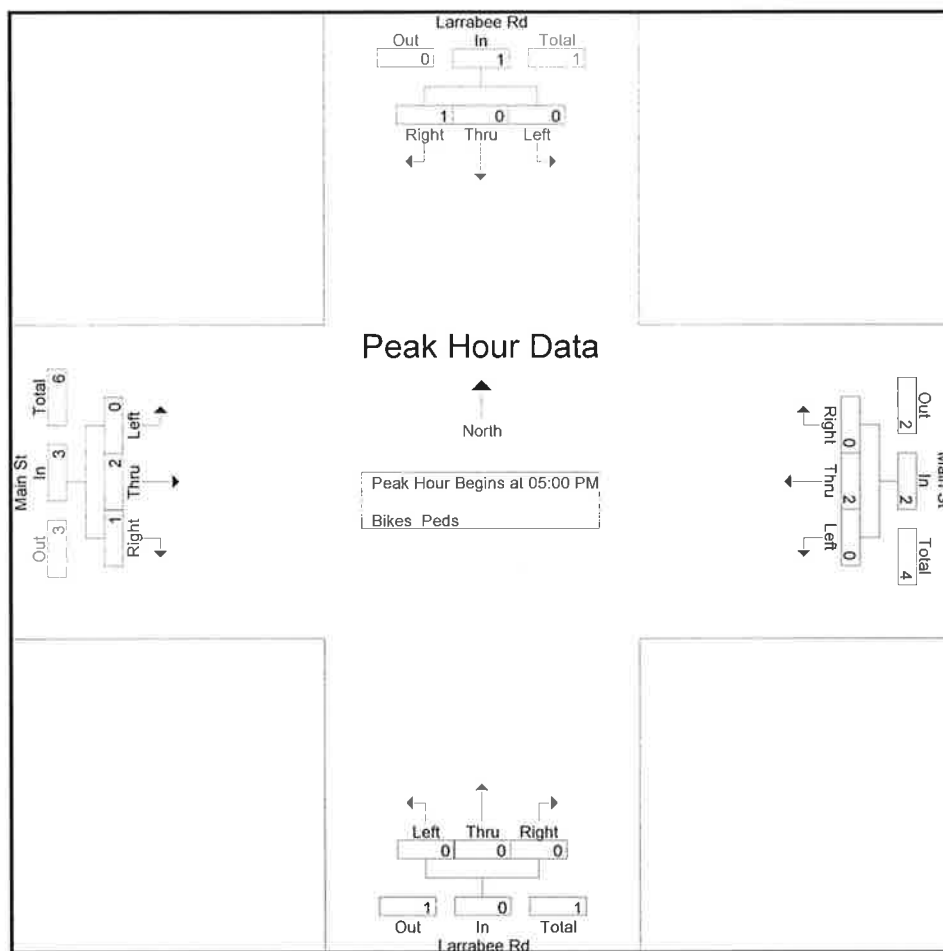
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW17
Site Code : 68460W17
Start Date : 10/1/2015
Page No : 11

	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Total Volume	0	0	1	1	0	2	0	2	0	0	0	0	0	2	1	3	6
% App. Total	0	0	100		0	100	0		0	0	0		0	66.7	33.3		
PHF	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.250	.750	.500



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				04:45 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	1	1	0	2	0	2	0	0	0	0	0	3	0	3
% App. Total	0	0	100		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.250	.250	.000	.500	.000	.500	.000	.000	.000	.000	.000	.750	.000	.750

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Westbrook Arterial
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW18
Site Code : 68460W18
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	20	42	55	25	56	168	366
07:15 AM	23	36	91	38	74	215	477
07:30 AM	25	36	97	47	62	190	457
07:45 AM	18	32	98	43	76	253	520
Total	86	146	341	153	268	826	1820
08:00 AM	24	40	78	28	61	205	436
08:15 AM	22	35	84	28	62	156	387
08:30 AM	20	41	72	24	68	127	352
08:45 AM	17	43	95	36	66	112	369
Total	83	159	329	116	257	600	1544
Grand Total	169	305	670	269	525	1426	3364
Apprch %	35.7	64.3	71.4	28.6	26.9	73.1	
Total %	5	9.1	19.9	8	15.6	42.4	
Cars	155	291	638	251	513	1378	3226
% Cars	91.7	95.4	95.2	93.3	97.7	96.6	95.9
Trucks	14	14	32	18	12	48	138
% Trucks	8.3	4.6	4.8	6.7	2.3	3.4	4.1

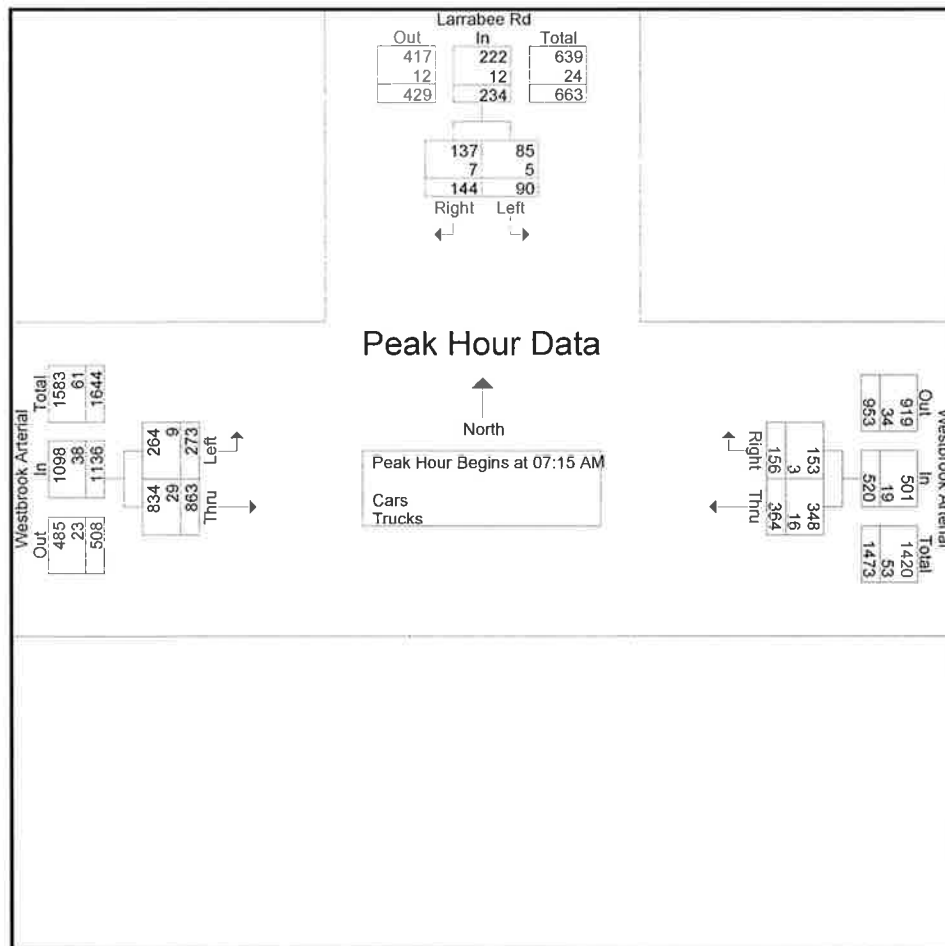
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 2

	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			
Start Time :	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	23	36	59	91	38	129	74	215	289	477
07:30 AM	25	36	61	97	47	144	62	190	252	457
07:45 AM	18	32	50	98	43	141	76	253	329	520
08:00 AM	24	40	64	78	28	106	61	205	266	436
Total Volume	90	144	234	364	156	520	273	863	1136	1890
% App. Total	38.5	61.5		70	30		24	76		
PHF	.900	.900	.914	.929	.830	.903	.898	.853	.863	.909
Cars	85	137	222	348	153	501	264	834	1098	1821
% Cars	94.4	95.1	94.9	95.6	98.1	96.3	96.7	96.6	96.7	96.3
Trucks	5	7	12	16	3	19	9	29	38	69
% Trucks	5.6	4.9	5.1	4.4	1.9	3.7	3.3	3.4	3.3	3.7



Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	18	39	54	19	56	162	348
07:15 AM	22	36	88	36	74	209	465
07:30 AM	24	33	93	46	62	186	444
07:45 AM	17	29	94	43	69	241	493
Total	81	137	329	144	261	798	1750
08:00 AM	22	39	73	28	59	198	419
08:15 AM	20	35	81	25	59	152	372
08:30 AM	18	39	69	20	68	125	339
08:45 AM	14	41	86	34	66	105	346
Total	74	154	309	107	252	580	1476
Grand Total	155	291	638	251	513	1378	3226
Apprch %	34.8	65.2	71.8	28.2	27.1	72.9	
Total %	4.8	9	19.8	7.8	15.9	42.7	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	2	3	1	6	0	6	18
07:15 AM	1	0	3	2	0	6	12
07:30 AM	1	3	4	1	0	4	13
07:45 AM	1	3	4	0	7	12	27
Total	5	9	12	9	7	28	70
08:00 AM	2	1	5	0	2	7	17
08:15 AM	2	0	3	3	3	4	15
08:30 AM	2	2	3	4	0	2	13
08:45 AM	3	2	9	2	0	7	23
Total	9	5	20	9	5	20	68
Grand Total	14	14	32	18	12	48	138
Apprch %	50	50	64	36	20	80	
Total %	10.1	10.1	23.2	13	8.7	34.8	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	0	0	0	1	0	0	2	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	1	0	0	2	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	0	1	1
Grand Total	0	0	0	2	0	0	0	1	0	0	3	3
Apprch %	0	0		100	0		0	100				
Total %	0	0		66.7	0		0	33.3		0	100	

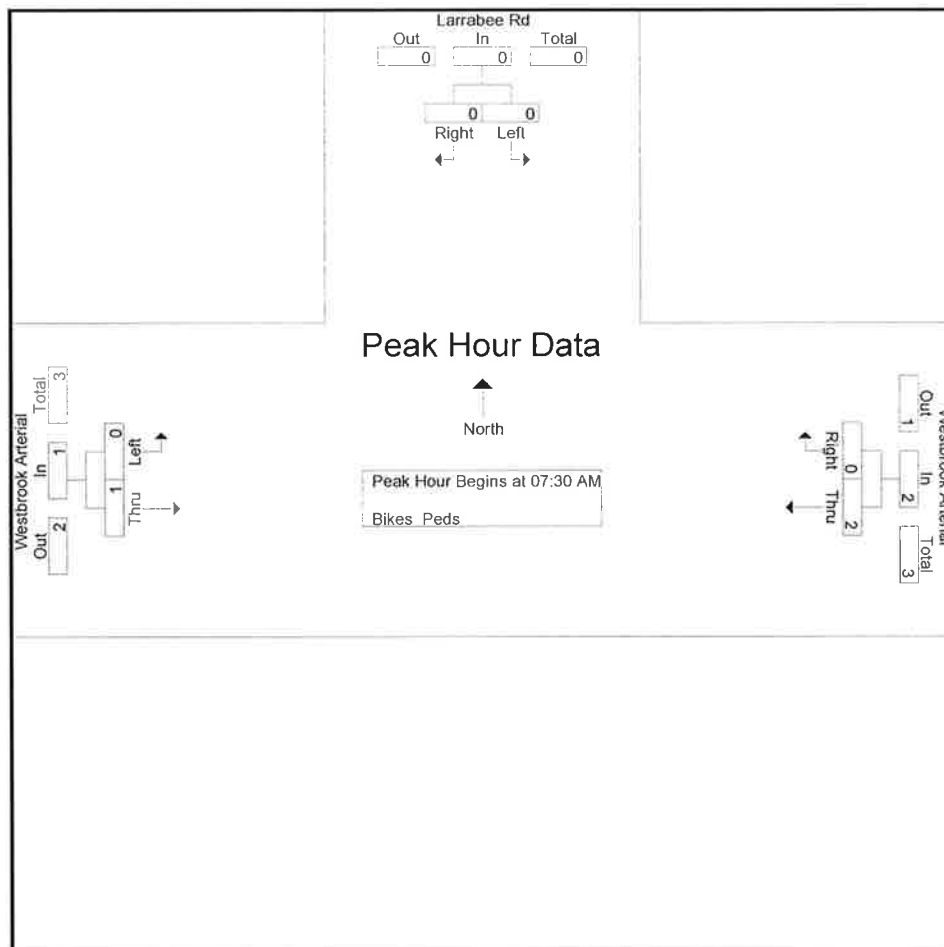
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 11

	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	1	0	1	0	1	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	0	0	2	0	2	0	1	1	3
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250	.375



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:00 AM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	0	0	2	0	2	0	1	1
% App. Total	0	0		100	0		0	100	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
04:00 PM	15	82	121	25	50	109	402
04:15 PM	26	127	121	40	69	126	509
04:30 PM	39	120	166	32	69	136	562
04:45 PM	30	115	140	23	44	115	467
Total	110	444	548	120	232	486	1940
05:00 PM	43	124	186	26	57	135	571
05:15 PM	35	151	188	28	47	138	587
05:30 PM	35	104	147	23	72	122	503
05:45 PM	27	80	104	19	46	75	351
Total	140	459	625	96	222	470	2012
Grand Total	250	903	1173	216	454	956	3952
Apprch %	21.7	78.3	84.4	15.6	32.2	67.8	
Total %	6.3	22.8	29.7	5.5	11.5	24.2	
Cars	241	892	1148	212	447	939	3879
% Cars	96.4	98.8	97.9	98.1	98.5	98.2	98.2
Trucks	9	11	25	4	7	17	73
% Trucks	3.6	1.2	2.1	1.9	1.5	1.8	1.8

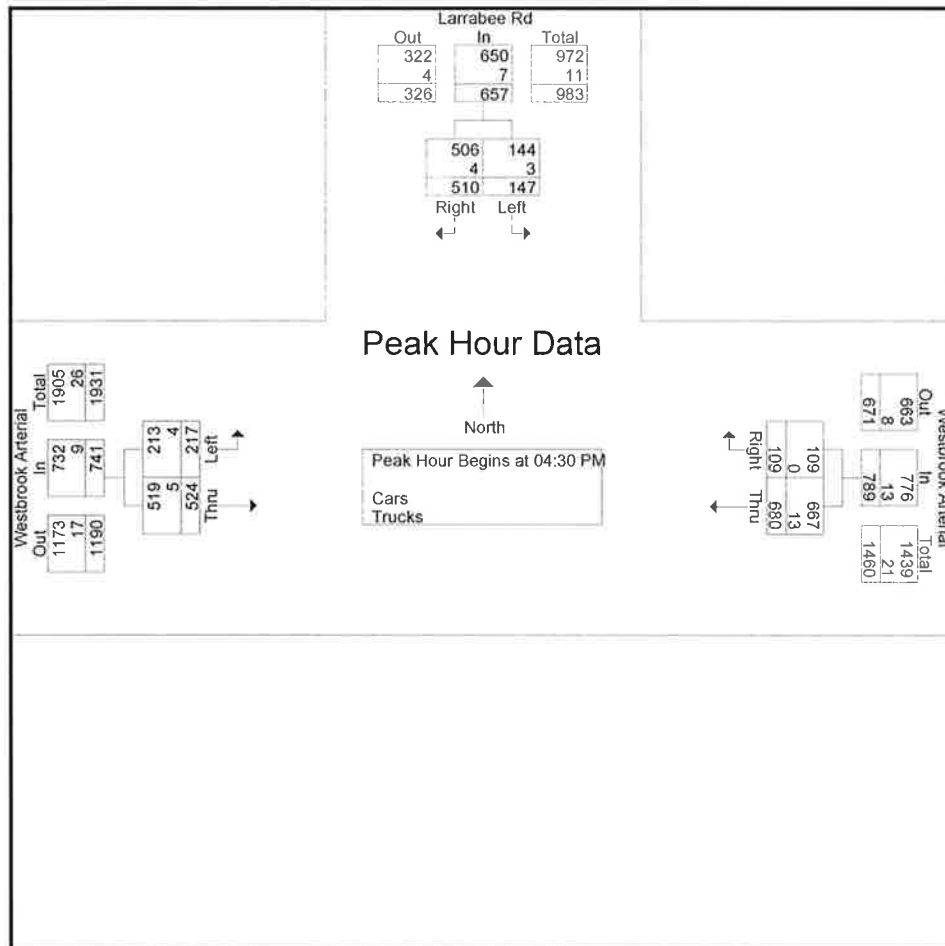
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 2

	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	39	120	159	166	32	198	69	136	205	562
04:45 PM	30	115	145	140	23	163	44	115	159	467
05:00 PM	43	124	167	186	26	212	57	135	192	571
05:15 PM	35	151	186	188	28	216	47	138	185	587
Total Volume	147	510	657	680	109	789	217	524	741	2187
% App. Total	22.4	77.6		86.2	13.8		29.3	70.7		
PHF	855	844	883	904	852	913	786	949	904	931
Cars	144	506	650	667	109	776	213	519	732	2158
% Cars	98.0	99.2	98.9	98.1	100	98.4	98.2	99.0	98.8	98.7
Trucks	3	4	7	13	0	13	4	5	9	29
% Trucks	2.0	0.8	1.1	1.9	0	1.6	1.8	1.0	1.2	1.3



Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		Int. Total	
	Left	Right	Thru	Right	Left	Thru		
04:00 PM	14	81	116	25	48	104	388	
04:15 PM	24	126	118	38	69	122	497	
04:30 PM	39	120	160	32	67	134	552	
04:45 PM	29	113	137	23	44	115	461	
Total	106	440	531	118	228	475	1898	
05:00 PM	42	124	183	26	55	134	564	
05:15 PM	34	149	187	28	47	136	581	
05:30 PM	33	102	144	21	71	120	491	
05:45 PM	26	77	103	19	46	74	345	
Total	135	452	617	94	219	464	1981	
Grand Total	241	892	1148	212	447	939	3879	
Apprch %	21.3	78.7	84.4	15.6	32.3	67.7		
Total %	6.2	23	29.6	5.5	11.5	24.2		

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks								
Start Time	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		Int. Total	
	Left	Right	Thru	Right	Left	Thru		
04:00 PM	1	1	5	0	2	5	14	
04:15 PM	2	1	3	2	0	4	12	
04:30 PM	0	0	6	0	2	2	10	
04:45 PM	1	2	3	0	0	0	6	
Total	4	4	17	2	4	11	42	
05:00 PM	1	0	3	0	2	1	7	
05:15 PM	1	2	1	0	0	2	6	
05:30 PM	2	2	3	2	1	2	12	
05:45 PM	1	3	1	0	0	1	6	
Total	5	7	8	2	3	6	31	
Grand Total	9	11	25	4	7	17	73	
Apprch %	45	55	86.2	13.8	29.2	70.8		
Total %	12.3	15.1	34.2	5.5	9.6	23.3		

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW18
 Site Code : 68460W18
 Start Date : 9/29/2015
 Page No : 10

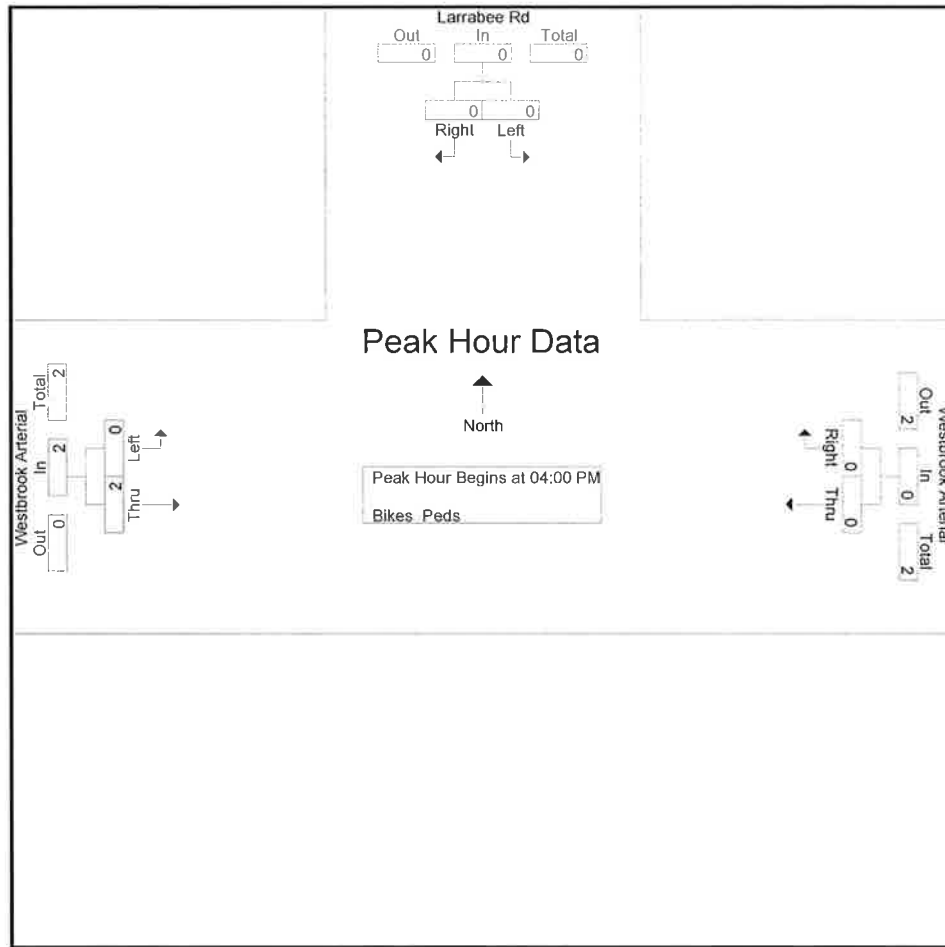
Groups Printed- Bikes Peds												
Start Time	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	1	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	1	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	2	0	0	2	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	2	0	0	2	2
Apprch %	0	0		0	0		0	100				
Total %	0	0		0	0		0	100		0	100	

Accurate Counts
978-664-2565

N/S Street : Larrabee Road
E/W Street : Westbrook Arterial
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW18
Site Code : 68460W18
Start Date : 9/29/2015
Page No : 11

	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	1	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	2	2	2
% App. Total	0	0		0	0		0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.500	.500	.500



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	61	1	26	0	3	0	11	0	0	0	5	107
07:15 AM	0	85	0	17	1	4	0	24	0	1	0	7	139
07:30 AM	0	84	0	11	0	6	1	39	0	0	0	8	149
07:45 AM	0	45	0	12	0	6	2	30	0	1	0	10	106
Total	0	275	1	66	1	19	3	104	0	2	0	30	501
08:00 AM	0	33	0	15	0	7	0	16	0	0	0	2	73
08:15 AM	0	43	1	28	2	3	3	23	0	1	0	5	109
08:30 AM	0	49	0	18	0	5	0	8	0	1	0	2	83
08:45 AM	0	29	0	17	1	4	0	14	0	2	0	7	74
Total	0	154	1	78	3	19	3	61	0	4	0	16	339
Grand Total	0	429	2	144	4	38	6	165	0	6	0	46	840
Apprch %	0	99.5	0.5	77.4	2.2	20.4	3.5	96.5	0	11.5	0	88.5	
Total %	0	51.1	0.2	17.1	0.5	4.5	0.7	19.6	0	0.7	0	5.5	
Cars	0	415	1	141	4	37	6	156	0	6	0	46	812
% Cars	0	96.7	50	97.9	100	97.4	100	94.5	0	100	0	100	96.7
Trucks	0	14	1	3	0	1	0	9	0	0	0	0	28
% Trucks	0	3.3	50	2.1	0	2.6	0	5.5	0	0	0	0	3.3

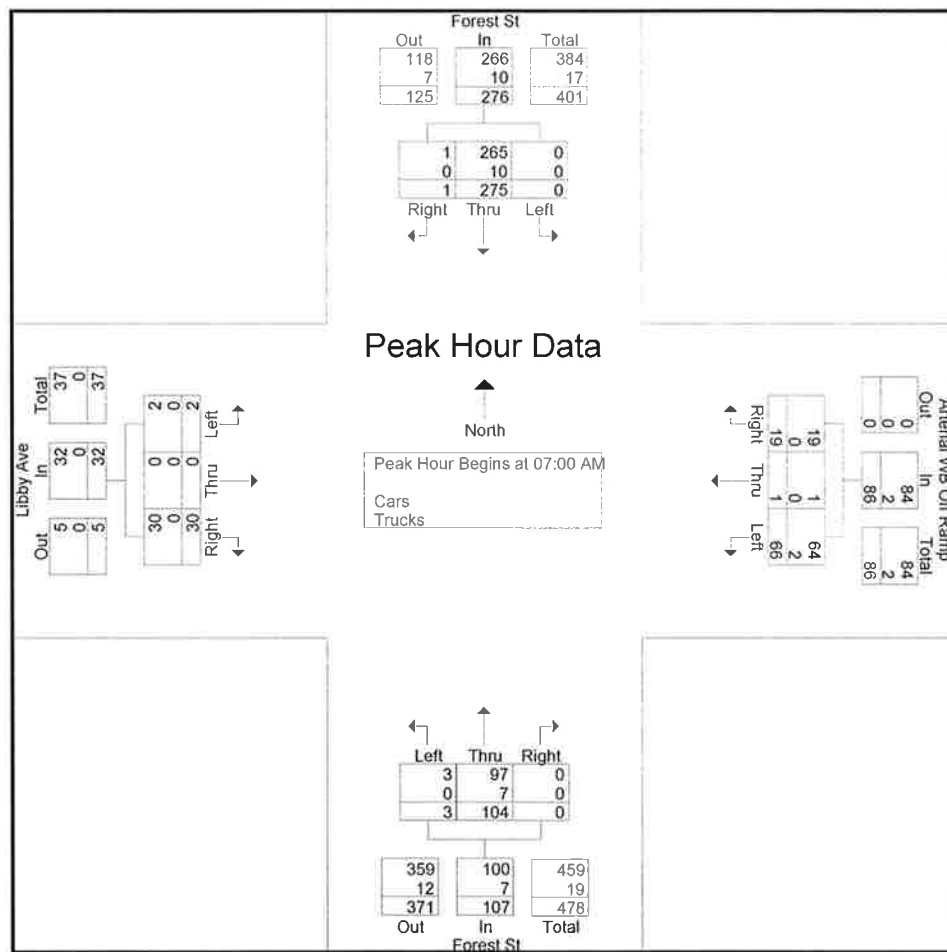
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 2

	Forest St From North				Arterial WB Off Ramp From East				Forest St From South				Libby Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	61	1	62	26	0	3	29	0	11	0	11	0	0	5	5	107
07:15 AM	0	85	0	85	17	1	4	22	0	24	0	24	1	0	7	8	139
07:30 AM	0	84	0	84	11	0	6	17	1	39	0	40	0	0	8	8	149
07:45 AM	0	45	0	45	12	0	6	18	2	30	0	32	1	0	10	11	106
Total Volume	0	275	1	276	66	1	19	86	3	104	0	107	2	0	30	32	501
% App. Total	0	99.6	0.4		76.7	1.2	22.1		2.8	97.2	0		6.2	0	93.8		
PHF	.000	.809	.250	.812	.635	.250	.792	.741	.375	.667	.000	.669	.500	.000	.750	.727	.841
Cars	0	265	1	266	64	1	19	84	3	97	0	100	2	0	30	32	482
% Cars	0	96.4	100	96.4	97.0	100	100	97.7	100	93.3	0	93.5	100	0	100	100	96.2
Trucks	0	10	0	10	2	0	0	2	0	7	0	7	0	0	0	0	19
% Trucks	0	3.6	0	3.6	3.0	0	0	2.3	0	6.7	0	6.5	0	0	0	0	3.8



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 4

Groups Printed- Cars

Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	60	1	25	0	3	0	10	0	0	0	5	104
07:15 AM	0	78	0	17	1	4	0	21	0	1	0	7	129
07:30 AM	0	82	0	10	0	6	1	36	0	0	0	8	143
07:45 AM	0	45	0	12	0	6	2	30	0	1	0	10	106
Total	0	265	1	64	1	19	3	97	0	2	0	30	482
08:00 AM	0	32	0	15	0	7	0	15	0	0	0	2	71
08:15 AM	0	41	0	28	2	3	3	22	0	1	0	5	105
08:30 AM	0	48	0	17	0	5	0	8	0	1	0	2	81
08:45 AM	0	29	0	17	1	3	0	14	0	2	0	7	73
Total	0	150	0	77	3	18	3	59	0	4	0	16	330
Grand Total	0	415	1	141	4	37	6	156	0	6	0	46	812
Apprch %	0	99.8	0.2	77.5	2.2	20.3	3.7	96.3	0	11.5	0	88.5	
Total %	0	51.1	0.1	17.4	0.5	4.6	0.7	19.2	0	0.7	0	5.7	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	1	0	1	0	0	0	1	0	0	0	0	3
07:15 AM	0	7	0	0	0	0	0	3	0	0	0	0	10
07:30 AM	0	2	0	1	0	0	0	3	0	0	0	0	6
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	10	0	2	0	0	0	7	0	0	0	0	19
08:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
08:15 AM	0	2	1	0	0	0	0	1	0	0	0	0	4
08:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	4	1	1	0	1	0	2	0	0	0	0	9
Grand Total	0	14	1	3	0	1	0	9	0	0	0	0	28
Apprch %	0	93.3	6.7	75	0	25	0	100	0	0	0	0	
Total %	0	50	3.6	10.7	0	3.6	0	32.1	0	0	0	0	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 10

Groups Printed- Bikes Peds																			
	Forest St From North				Arterial WB Off Ramp From East				Forest St From South				Libby Ave From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	2	11
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	2	1	3
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7	7	1	8
Grand Total	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	16	16	3	19
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0				
Total %	0	66.7	0		0	0	0		0	33.3	0		0	0	0		84.2	15.8	

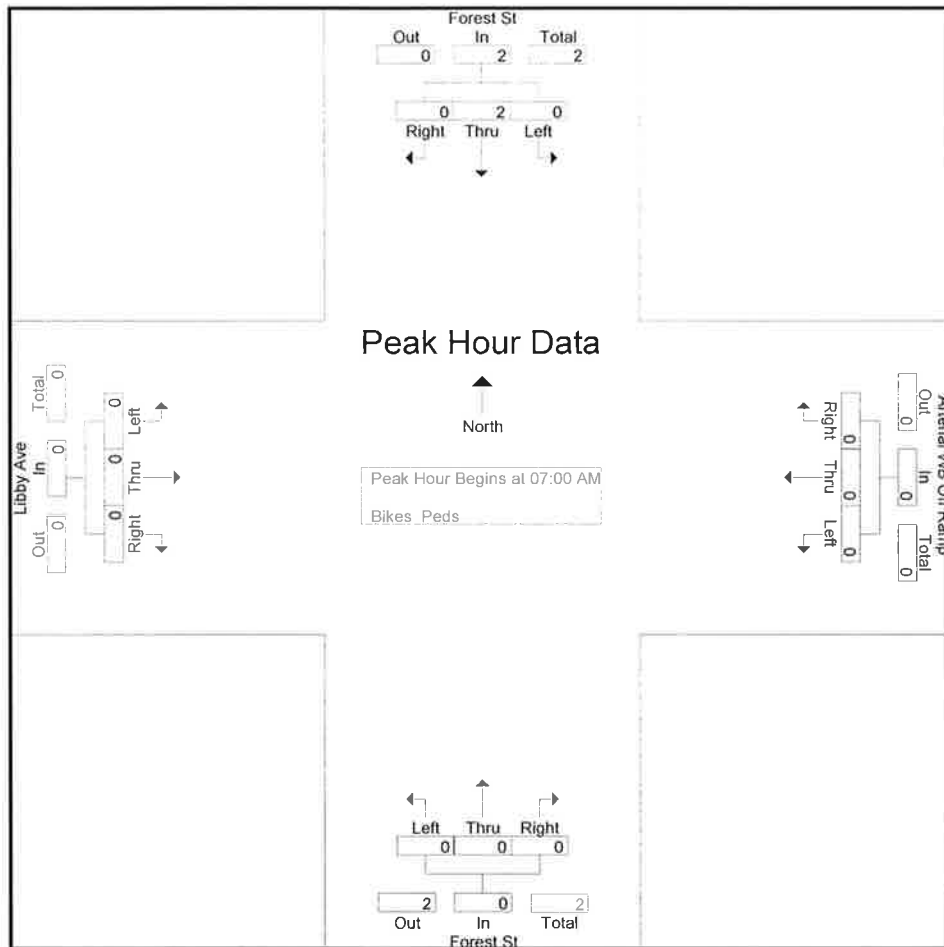
Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Westbrook Arterial Off Ramp
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW19
Site Code : 68460W19
Start Date : 10/1/2015
Page No : 11

	Forest St From North				Arterial WB Off Ramp From East				Forest St From South				Libby Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				08:00 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	19	1	17	3	15	0	50	0	1	0	1	107
04:15 PM	0	24	1	30	1	10	2	66	0	0	0	6	140
04:30 PM	0	21	0	21	3	31	1	73	0	0	0	5	155
04:45 PM	0	26	1	23	1	22	3	66	0	1	0	3	146
Total	0	90	3	91	8	78	6	255	0	2	0	15	548
05:00 PM	0	31	2	24	4	45	7	70	0	1	0	1	185
05:15 PM	0	36	0	26	4	58	3	59	0	1	0	6	193
05:30 PM	0	22	1	28	3	43	2	86	0	0	0	2	187
05:45 PM	0	30	0	27	5	33	4	74	0	0	0	6	179
Total	0	119	3	105	16	179	16	289	0	2	0	15	744
Grand Total	0	209	6	196	24	257	22	544	0	4	0	30	1292
Apprch %	0	97.2	2.8	41.1	5	53.9	3.9	96.1	0	11.8	0	88.2	
Total %	0	16.2	0.5	15.2	1.9	19.9	1.7	42.1	0	0.3	0	2.3	
Cars	0	208	6	195	24	257	22	541	0	4	0	29	1286
% Cars	0	99.5	100	99.5	100	100	100	99.4	0	100	0	96.7	99.5
Trucks	0	1	0	1	0	0	0	3	0	0	0	1	6
% Trucks	0	0.5	0	0.5	0	0	0	0.6	0	0	0	3.3	0.5

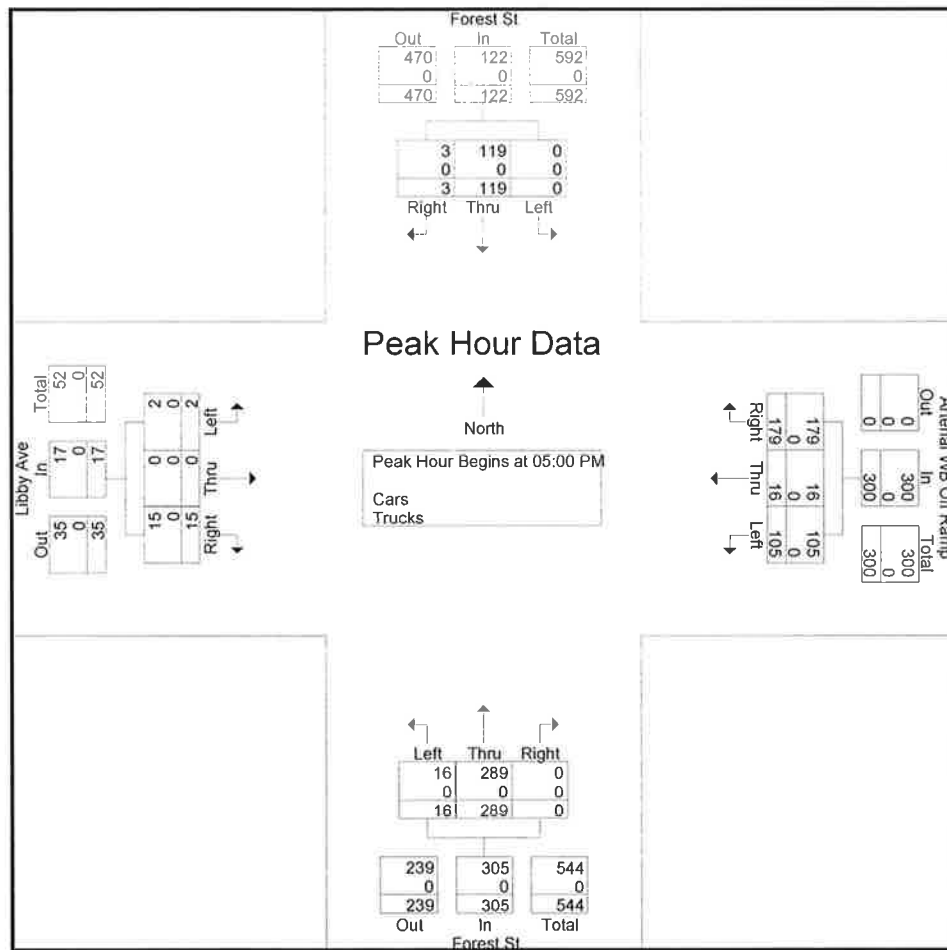
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 2

	Forest St From North				Arterial WB Off Ramp From East				Forest St From South				Libby Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	31	2	33	24	4	45	73	7	70	0	77	1	0	1	2	185
05:15 PM	0	36	0	36	26	4	58	88	3	59	0	62	1	0	6	7	193
05:30 PM	0	22	1	23	28	3	43	74	2	86	0	88	0	0	2	2	187
05:45 PM	0	30	0	30	27	5	33	65	4	74	0	78	0	0	6	6	179
Total Volume	0	119	3	122	105	16	179	300	16	289	0	305	2	0	15	17	744
% App. Total	0	97.5	2.5		35	5.3	59.7		5.2	94.8	0		11.8	0	88.2		
PHF	.000	.826	.375	.847	.938	.800	.772	.852	.571	.840	.000	.866	.500	.000	.625	.607	.964
Cars	0	119	3	122	105	16	179	300	16	289	0	305	2	0	15	17	744
% Cars	0	100	100	100	100	100	100	100	100	100	0	100	100	0	100	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 4

Groups Printed- Cars													
Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	18	1	17	3	15	0	50	0	1	0	1	106
04:15 PM	0	24	1	30	1	10	2	64	0	0	0	5	137
04:30 PM	0	21	0	20	3	31	1	72	0	0	0	5	153
04:45 PM	0	26	1	23	1	22	3	66	0	1	0	3	146
Total	0	89	3	90	8	78	6	252	0	2	0	14	542
05:00 PM	0	31	2	24	4	45	7	70	0	1	0	1	185
05:15 PM	0	36	0	26	4	58	3	59	0	1	0	6	193
05:30 PM	0	22	1	28	3	43	2	86	0	0	0	2	187
05:45 PM	0	30	0	27	5	33	4	74	0	0	0	6	179
Total	0	119	3	105	16	179	16	289	0	2	0	15	744
Grand Total	0	208	6	195	24	257	22	541	0	4	0	29	1286
Apprch %	0	97.2	2.8	41	5	54	3.9	96.1	0	12.1	0	87.9	
Total %	0	16.2	0.5	15.2	1.9	20	1.7	42.1	0	0.3	0	2.3	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	2	0	0	0	1	3
04:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	3	0	0	0	1	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	3	0	0	0	1	6
Apprch %	0	100	0	100	0	0	0	100	0	0	0	100	
Total %	0	16.7	0	16.7	0	0	0	50	0	0	0	16.7	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 10

Groups Printed- Bikes Peds																			
Start Time	Forest St From North				Arterial WB Off Ramp From East				Forest St From South				Libby Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4	0	4
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	5	1	6
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	8	10	1	11
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	5
Grand Total	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	13	15	1	16
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0				
Total %	0	0	0		0	0	0		0	100	0		0	0	0		93.8	6.2	

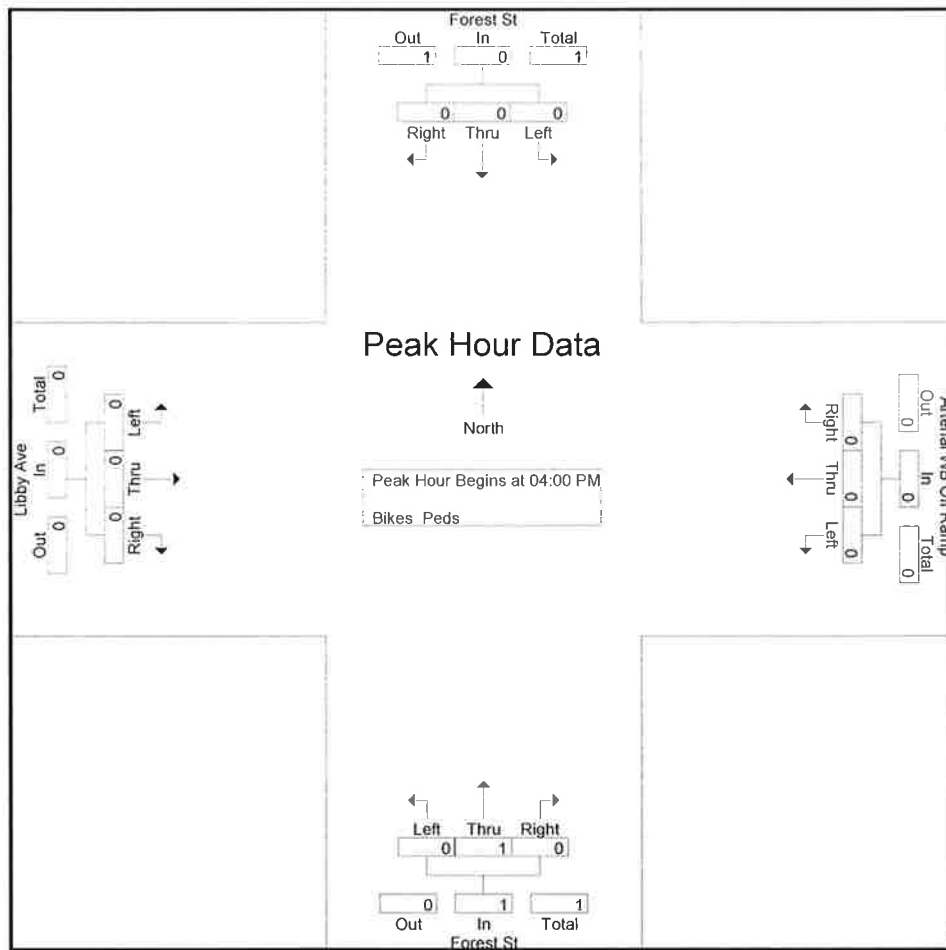
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW19
 Site Code : 68460W19
 Start Date : 10/1/2015
 Page No : 11

Forest St From North					Arterial WB Off Ramp From East					Forest St From South					Libby Ave From West					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total			
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 04:00 PM																				
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1			
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1			
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0					
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250			



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Longfellow Street
E/W Street : New Gorham Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW01
Site Code : 68460W02
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks							
Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	8	19	0	44	137	0	208
07:15 AM	11	18	1	41	150	0	221
07:30 AM	9	32	0	67	162	0	270
07:45 AM	11	33	1	48	156	1	250
Total	39	102	2	200	605	1	949
08:00 AM	5	23	0	35	140	0	203
08:15 AM	15	28	0	34	85	0	162
08:30 AM	19	27	0	34	99	0	179
08:45 AM	13	20	0	34	77	0	144
Total	52	98	0	137	401	0	688
Grand Total	91	200	2	337	1006	1	1637
Apprch %	31.3	68.7	0.6	99.4	99.9	0.1	
Total %	5.6	12.2	0.1	20.6	61.5	0.1	
Cars	90	193	2	335	1004	1	1625
% Cars	98.9	96.5	100	99.4	99.8	100	99.3
Trucks	1	7	0	2	2	0	12
% Trucks	1.1	3.5	0	0.6	0.2	0	0.7

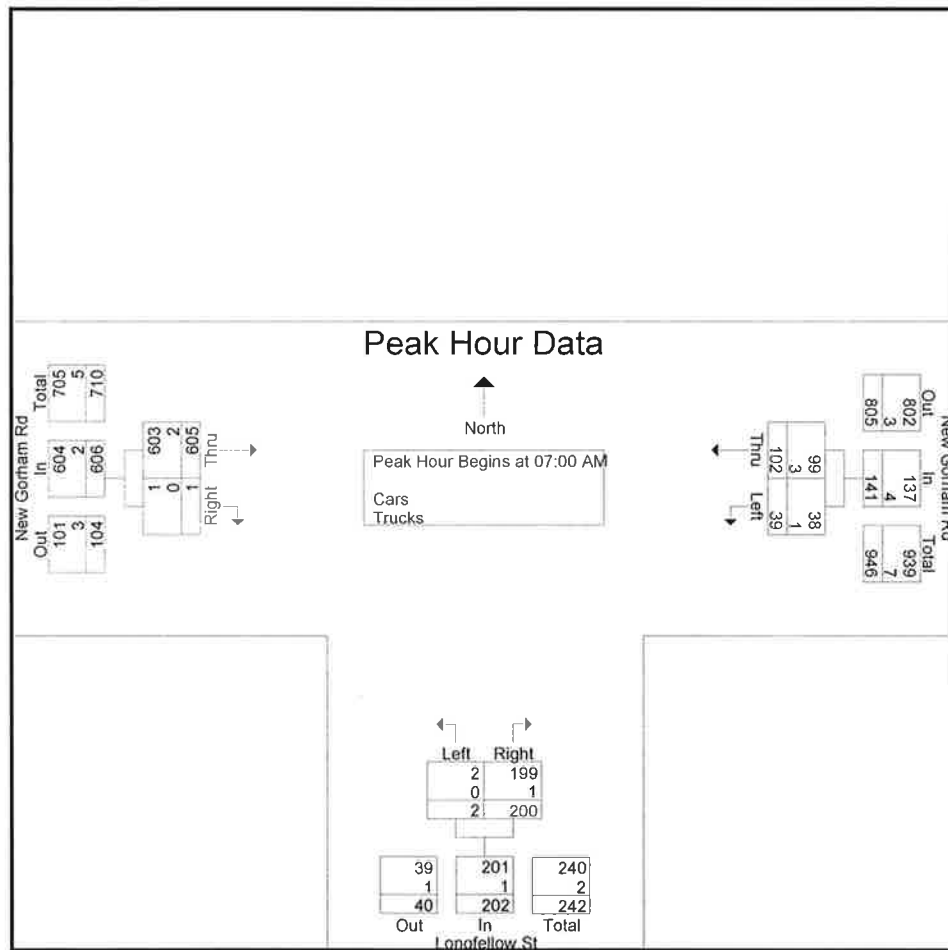
Accurate Counts

978-664-2565

N/S Street : Longfellow Street
E/W Street : New Gorham Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW01
Site Code : 68460W02
Start Date : 9/30/2015
Page No : 2

	New Gorham Rd From East			Longfellow St From South			New Gorham Rd From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	8	19	27	0	44	44	137	0	137	208
07:15 AM	11	18	29	1	41	42	150	0	150	221
07:30 AM	9	32	41	0	67	67	162	0	162	270
07:45 AM	11	33	44	1	48	49	156	1	157	250
Total Volume	39	102	141	2	200	202	605	1	606	949
% App. Total	27.7	72.3		1	99		99.8	0.2		
PHF	.886	.773	.801	.500	.746	.754	.934	.250	.935	.879
Cars	38	99	137	2	199	201	603	1	604	942
% Cars	97.4	97.1	97.2	100	99.5	99.5	99.7	100	99.7	99.3
Trucks	1	3	4	0	1	1	2	0	2	7
% Trucks	2.6	2.9	2.8	0	0.5	0.5	0.3	0	0.3	0.7



Accurate Counts

978-664-2565

N/S Street : Longfellow Street
E/W Street : New Gorham Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW01
Site Code : 68460W02
Start Date : 9/30/2015
Page No : 4

Groups Printed- Cars								
Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	8	17	0	43	136	0	204	
07:15 AM	11	18	1	41	150	0	221	
07:30 AM	9	31	0	67	161	0	268	
07:45 AM	10	33	1	48	156	1	249	
Total	38	99	2	199	603	1	942	
08:00 AM	5	22	0	35	140	0	202	
08:15 AM	15	25	0	33	85	0	158	
08:30 AM	19	27	0	34	99	0	179	
08:45 AM	13	20	0	34	77	0	144	
Total	52	94	0	136	401	0	683	
Grand Total	90	193	2	335	1004	1	1625	
Apprch %	31.8	68.2	0.6	99.4	99.9	0.1		
Total %	5.5	11.9	0.1	20.6	61.8	0.1		

Accurate Counts

978-664-2565

N/S Street : Longfellow Street
E/W Street : New Gorham Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW01
Site Code : 68460W02
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks							
Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	2	0	1	1	0	4
07:15 AM	0	0	0	0	0	0	0
07:30 AM	0	1	0	0	1	0	2
07:45 AM	1	0	0	0	0	0	1
Total	1	3	0	1	2	0	7
08:00 AM	0	1	0	0	0	0	1
08:15 AM	0	3	0	1	0	0	4
08:30 AM	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0
Total	0	4	0	1	0	0	5
Grand Total	1	7	0	2	2	0	12
Apprch %	12.5	87.5	0	100	100	0	
Total %	8.3	58.3	0	16.7	16.7	0	

978-664-2565

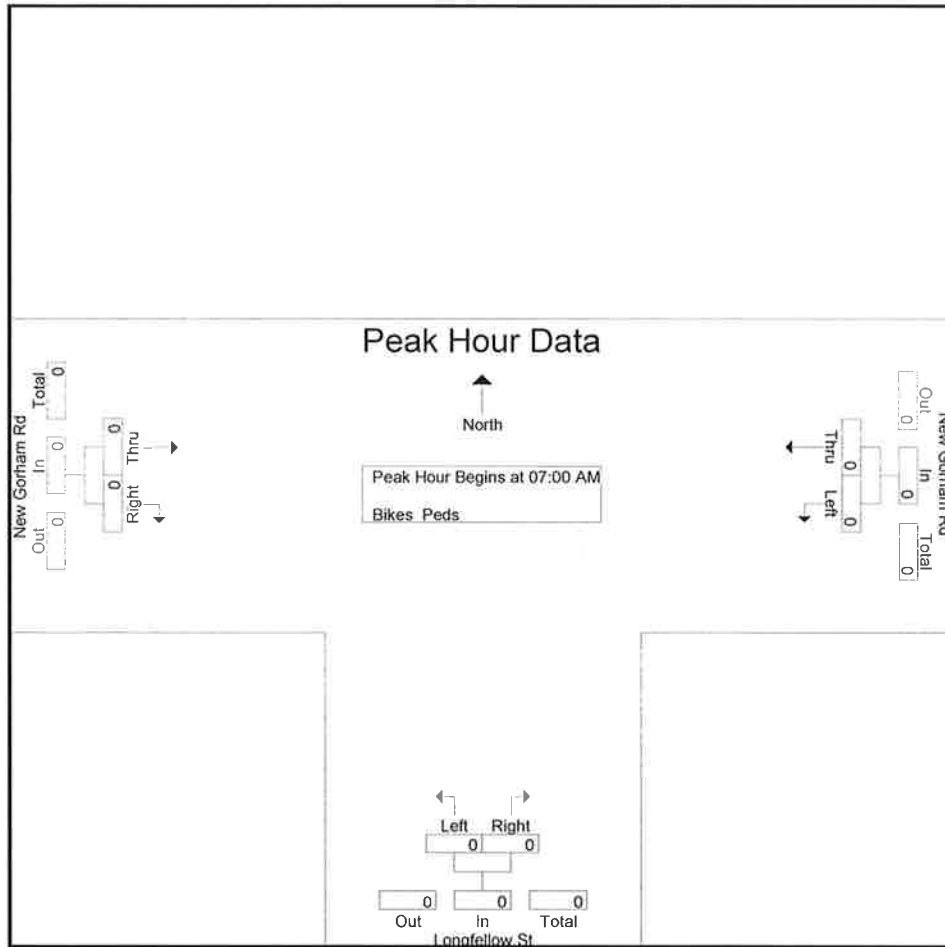
File Name : 6846WW01
Site Code : 68460W02
Start Date : 9/30/2015
Page No : 10

[illegible]

Accurate Counts
978-664-2565

N/S Street : Longfellow Street
E/W Street : New Gorham Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW01
Site Code : 68460W02
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Longfellow Street
E/W Street : New Gorham Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW01
Site Code : 68460W02
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks							
Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	43	48	0	38	16	3	148
04:15 PM	29	73	0	24	31	0	157
04:30 PM	33	57	0	20	37	2	149
04:45 PM	39	83	0	15	45	1	183
Total	144	261	0	97	129	6	637
05:00 PM	31	46	1	16	48	0	142
05:15 PM	35	62	1	18	51	0	167
05:30 PM	37	59	1	22	42	0	161
05:45 PM	33	61	0	21	44	0	159
Total	136	228	3	77	185	0	629
Grand Total	280	489	3	174	314	6	1266
Apprch %	36.4	63.6	1.7	98.3	98.1	1.9	
Total %	22.1	38.6	0.2	13.7	24.8	0.5	
Cars	279	485	3	173	311	6	1257
% Cars	99.6	99.2	100	99.4	99	100	99.3
Trucks	1	4	0	1	3	0	9
% Trucks	0.4	0.8	0	0.6	1	0	0.7

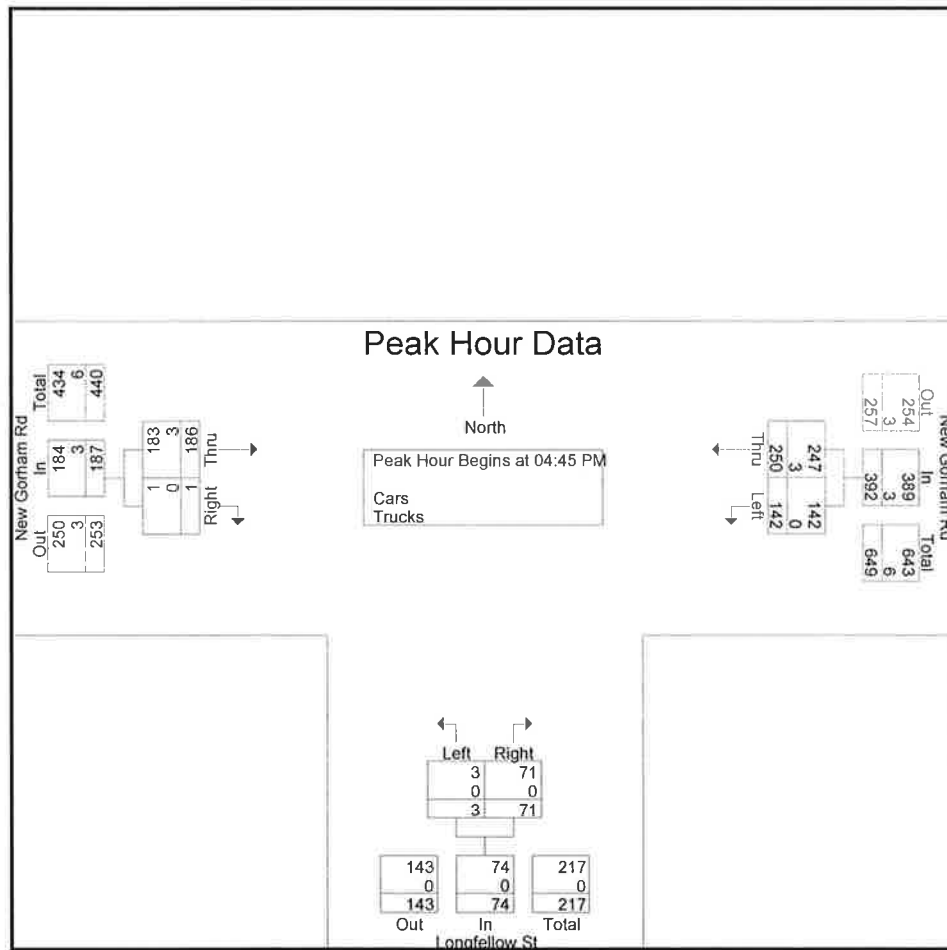
Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW01
 Site Code : 68460W02
 Start Date : 9/30/2015
 Page No : 2

	New Gorham Rd From East			Longfellow St From South			New Gorham Rd From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	39	83	122	0	15	15	45	1	46	183
05:00 PM	31	46	77	1	16	17	48	0	48	142
05:15 PM	35	62	97	1	18	19	51	0	51	167
05:30 PM	37	59	96	1	22	23	42	0	42	161
Total Volume	142	250	392	3	71	74	186	1	187	653
% App. Total	36.2	63.8		4.1	95.9		99.5	0.5		
PHF	.910	.753	.803	.750	.807	.804	.912	.250	.917	.892
Cars	142	247	389	3	71	74	183	1	184	647
% Cars	100	98.8	99.2	100	100	100	98.4	100	98.4	99.1
Trucks	0	3	3	0	0	0	3	0	3	6
% Trucks	0	1.2	0.8	0	0	0	1.6	0	1.6	0.9



Accurate Counts

978-664-2565

N/S Street : Longfellow Street
E/W Street : New Gorham Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW01
Site Code : 68460W02
Start Date : 9/30/2015
Page No : 4

Groups Printed- Cars

Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	42	48	0	37	16	3	146
04:15 PM	29	73	0	24	31	0	157
04:30 PM	33	56	0	20	37	2	148
04:45 PM	39	82	0	15	45	1	182
Total	143	259	0	96	129	6	633
05:00 PM	31	44	1	16	48	0	140
05:15 PM	35	62	1	18	48	0	164
05:30 PM	37	59	1	22	42	0	161
05:45 PM	33	61	0	21	44	0	159
Total	136	226	3	77	182	0	624
Grand Total	279	485	3	173	311	6	1257
Apprch %	36.5	63.5	1.7	98.3	98.1	1.9	
Total %	22.2	38.6	0.2	13.8	24.7	0.5	

Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW01
 Site Code : 68460W02
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks							
Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	1	0	0	1	0	0	2
04:15 PM	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	1	0	0	0	0	1
Total	1	2	0	1	0	0	4
05:00 PM	0	2	0	0	0	0	2
05:15 PM	0	0	0	0	3	0	3
05:30 PM	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0
Total	0	2	0	0	3	0	5
Grand Total	1	4	0	1	3	0	9
Apprch %	20	80	0	100	100	0	
Total %	11.1	44.4	0	11.1	33.3	0	

Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW01
 Site Code : 68460W02
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	New Gorham Rd From East			Longfellow St From South			New Gorham Rd From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	1	0	0	1	2	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	0	0	0	0	0	0	0	0	1	1
Total	1	0	0	0	0	1	0	0	1	2	1	3
05:00 PM	0	0	0	0	0	1	0	0	0	1	0	1
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	0	0	2	0	2
Grand Total	1	0	0	0	0	3	0	0	1	4	1	5
Apprch %	100	0		0	0		0	0				
Total %	100	0		0	0		0	0		80	20	

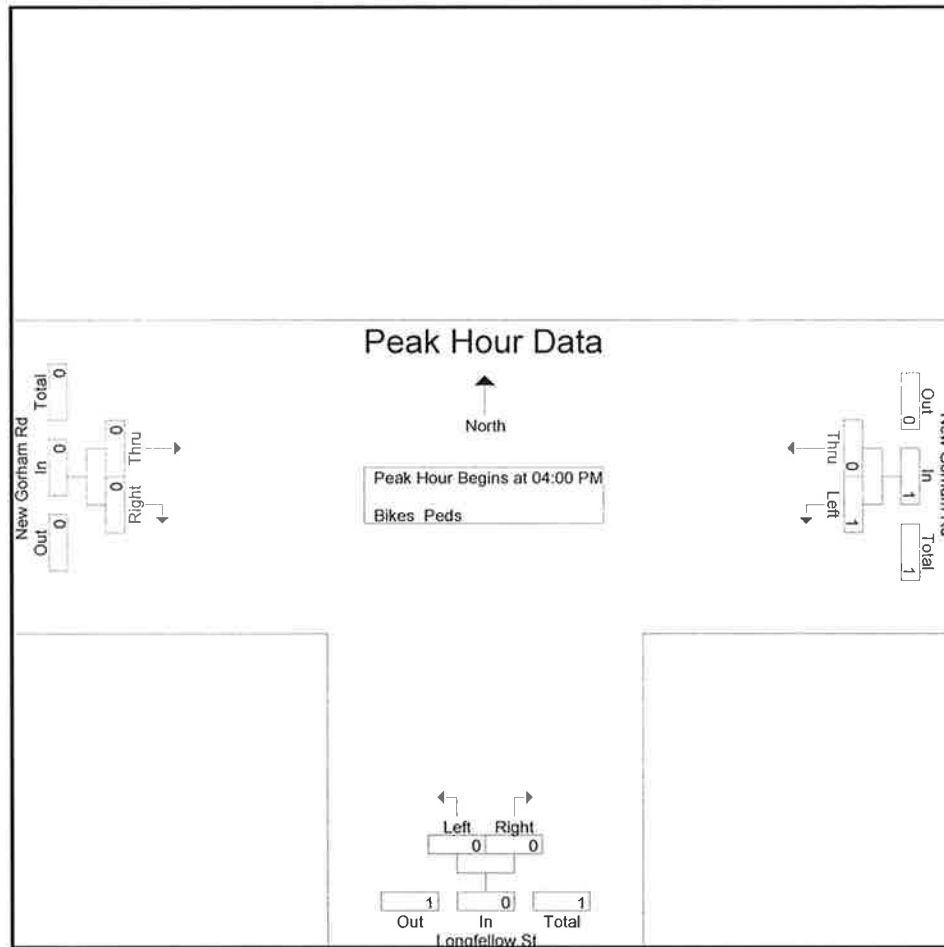
Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW01
 Site Code : 6846W02
 Start Date : 9/30/2015
 Page No : 11

	New Gorham Rd From East			Longfellow St From South			New Gorham Rd From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	1	0	0	0	0	0	0	1
Total Volume	1	0	1	0	0	0	0	0	0	1
% App. Total	100	0		0	0		0	0		
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	1	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	0	0	0
% App. Total	100	0		0	0		0	0	
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW20
 Site Code : 68460W20
 Start Date : 10/1/2015
 Page No : 1

Groups Printed- Cars - Trucks							
Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	7	85	0	0	11	18	121
07:15 AM	9	100	0	0	24	23	156
07:30 AM	14	89	0	0	40	28	171
07:45 AM	7	60	0	0	32	37	136
Total	37	334	0	0	107	106	584
08:00 AM	11	39	0	0	16	14	80
08:15 AM	13	63	0	0	26	14	116
08:30 AM	6	63	0	0	8	14	91
08:45 AM	9	44	0	0	14	16	83
Total	39	209	0	0	64	58	370
Grand Total	76	543	0	0	171	164	954
Apprch %	12.3	87.7	0	0	51	49	
Total %	8	56.9	0	0	17.9	17.2	
Cars	76	526	0	0	162	159	923
% Cars	100	96.9	0	0	94.7	97	96.8
Trucks	0	17	0	0	9	5	31
% Trucks	0	3.1	0	0	5.3	3	3.2

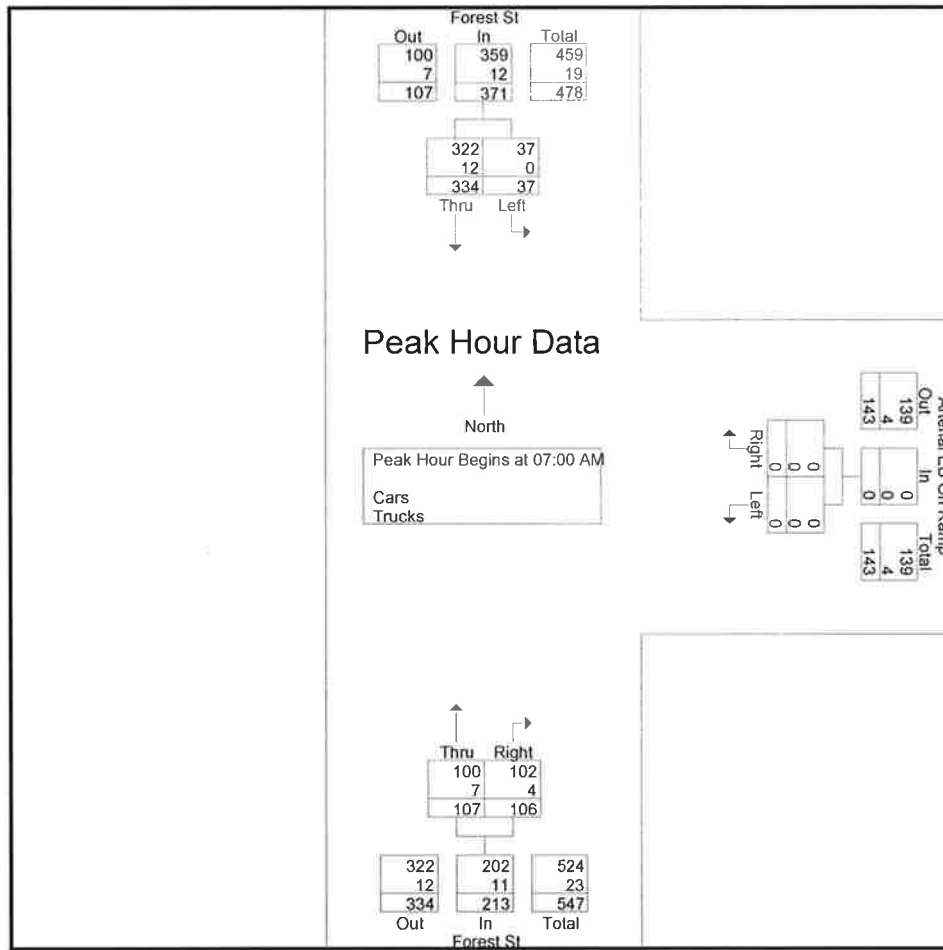
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW20
 Site Code : 68460W20
 Start Date : 10/1/2015
 Page No : 2

	Forest St From North			Arterial EB On Ramp From East			Forest St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	7	85	92	0	0	0	11	18	29	121
07:15 AM	9	100	109	0	0	0	24	23	47	156
07:30 AM	14	89	103	0	0	0	40	28	68	171
07:45 AM	7	60	67	0	0	0	32	37	69	136
Total Volume	37	334	371	0	0	0	107	106	213	584
% App. Total	10	90		0	0		50.2	49.8		
PHF	.661	.835	.851	.000	.000	.000	.669	.716	.772	.854
Cars	37	322	359	0	0	0	100	102	202	561
% Cars	100	96.4	96.8	0	0	0	93.5	96.2	94.8	96.1
Trucks	0	12	12	0	0	0	7	4	11	23
% Trucks	0	3.6	3.2	0	0	0	6.5	3.8	5.2	3.9



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW20
 Site Code : 68460W20
 Start Date : 10/1/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	7	83	0	0	10	17	117	
07:15 AM	9	93	0	0	21	23	146	
07:30 AM	14	86	0	0	37	28	165	
07:45 AM	7	60	0	0	32	34	133	
Total	37	322	0	0	100	102	561	
08:00 AM	11	38	0	0	15	14	78	
08:15 AM	13	61	0	0	25	13	112	
08:30 AM	6	61	0	0	8	14	89	
08:45 AM	9	44	0	0	14	16	83	
Total	39	204	0	0	62	57	362	
Grand Total	76	526	0	0	162	159	923	
Apprch %	12.6	87.4	0	0	50.5	49.5		
Total %	8.2	57	0	0	17.6	17.2		

Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Westbrook Arterial On Ramp
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW20
Site Code : 68460W20
Start Date : 10/1/2015
Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	2	0	0	1	1	4
07:15 AM	0	7	0	0	3	0	10
07:30 AM	0	3	0	0	3	0	6
07:45 AM	0	0	0	0	0	3	3
Total	0	12	0	0	7	4	23
08:00 AM	0	1	0	0	1	0	2
08:15 AM	0	2	0	0	1	1	4
08:30 AM	0	2	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0
Total	0	5	0	0	2	1	8
Grand Total	0	17	0	0	9	5	31
Apprch %	0	100	0	0	64.3	35.7	
Total %	0	54.8	0	0	29	16.1	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW20
 Site Code : 68460W20
 Start Date : 10/1/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Forest St From North			Arterial EB On Ramp From East			Forest St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	2	0	0	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	0	0	0	1	0	0	3	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	1	0	0	0	1	1
Grand Total	0	2	0	0	0	0	1	1	0	0	4	4
Apprch %	0	100		0	0		50	50				
Total %	0	50		0	0		25	25		0	100	

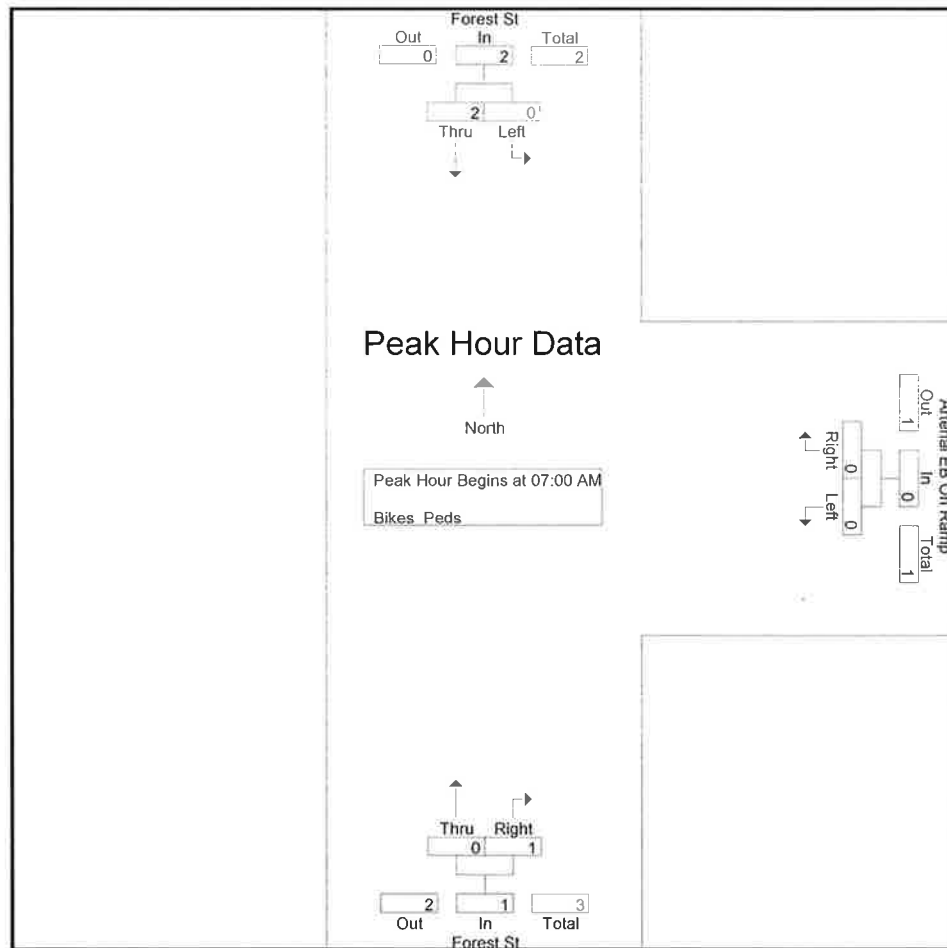
Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Westbrook Arterial On Ramp
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW20
Site Code : 6846W20
Start Date : 10/1/2015
Page No : 11

	Forest St From North			Arterial EB On Ramp From East			Forest St From South			Int. Total
	Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	2	2	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	2	0	0	0	0	1	1	3
% App. Total	0	100		0	0		0	100		
PHF	.000	.250	.250	.000	.000	.000	.000	.250	.250	.375



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	2	2	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	2	2	0	0	0	0	1	1
% App. Total	0	100		0	0		0	100	
PHF	.000	.250	.250	.000	.000	.000	.000	.250	.250

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW20
 Site Code : 68460W20
 Start Date : 10/1/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	2	35	0	0	50	32	119
04:15 PM	6	54	0	0	68	32	160
04:30 PM	6	41	0	0	74	25	146
04:45 PM	5	47	0	0	69	34	155
Total	19	177	0	0	261	123	580
05:00 PM	5	51	0	0	77	32	165
05:15 PM	8	60	0	0	62	35	165
05:30 PM	7	45	0	0	88	33	173
05:45 PM	9	54	0	0	78	25	166
Total	29	210	0	0	305	125	669
Grand Total	48	387	0	0	566	248	1249
Apprch %	11	89	0	0	69.5	30.5	
Total %	3.8	31	0	0	45.3	19.9	
Cars	48	384	0	0	563	245	1240
% Cars	100	99.2	0	0	99.5	98.8	99.3
Trucks	0	3	0	0	3	3	9
% Trucks	0	0.8	0	0	0.5	1.2	0.7

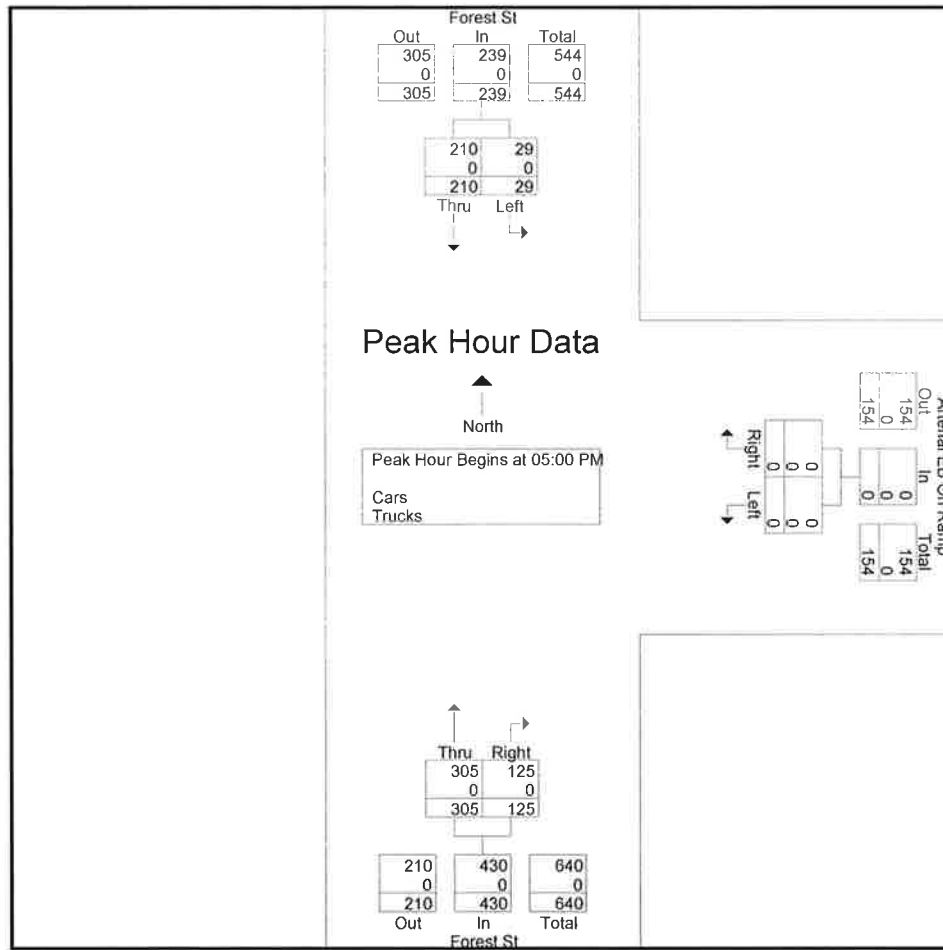
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW20
 Site Code : 68460W20
 Start Date : 10/1/2015
 Page No : 2

	Forest St From North			Arterial EB On Ramp From East			Forest St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	5	51	56	0	0	0	77	32	109	165
05:15 PM	8	60	68	0	0	0	62	35	97	165
05:30 PM	7	45	52	0	0	0	88	33	121	173
05:45 PM	9	54	63	0	0	0	78	25	103	166
Total Volume	29	210	239	0	0	0	305	125	430	669
% App. Total	12.1	87.9		0	0		70.9	29.1		
PHF	.806	.875	.879	.000	.000	.000	.866	.893	.888	.967
Cars	29	210	239	0	0	0	305	125	430	669
% Cars	100	100	100	0	0	0	100	100	100	100
Trucks	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0



Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Westbrook Arterial On Ramp
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW20
Site Code : 68460W20
Start Date : 10/1/2015
Page No : 4

Groups Printed- Cars

Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	2	34	0	0	50	31	117
04:15 PM	6	53	0	0	66	30	155
04:30 PM	6	40	0	0	73	25	144
04:45 PM	5	47	0	0	69	34	155
Total	19	174	0	0	258	120	571
05:00 PM	5	51	0	0	77	32	165
05:15 PM	8	60	0	0	62	35	165
05:30 PM	7	45	0	0	88	33	173
05:45 PM	9	54	0	0	78	25	166
Total	29	210	0	0	305	125	669
Grand Total	48	384	0	0	563	245	1240
Apprch %	11.1	88.9	0	0	69.7	30.3	
Total %	3.9	31	0	0	45.4	19.8	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW20
 Site Code : 68460W20
 Start Date : 10/1/2015
 Page No : 7

Groups Printed- Trucks								
Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	0	1	0	0	0	1	2	
04:15 PM	0	1	0	0	2	2	5	
04:30 PM	0	1	0	0	1	0	2	
04:45 PM	0	0	0	0	0	0	0	
Total	0	3	0	0	3	3	9	
05:00 PM	0	0	0	0	0	0	0	
05:15 PM	0	0	0	0	0	0	0	
05:30 PM	0	0	0	0	0	0	0	
05:45 PM	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	
Grand Total	0	3	0	0	3	3	9	
Apprch %	0	100	0	0	50	50		
Total %	0	33.3	0	0	33.3	33.3		

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW20
 Site Code : 68460W20
 Start Date : 10/1/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Forest St From North			Arterial EB On Ramp From East			Forest St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	2	2	0	2
04:30 PM	0	0	0	0	0	0	1	0	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	2	2	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	1	0	2	2	1	3
Apprch %	0	0		0	0		100	0				
Total %	0	0		0	0		100	0		66.7	33.3	

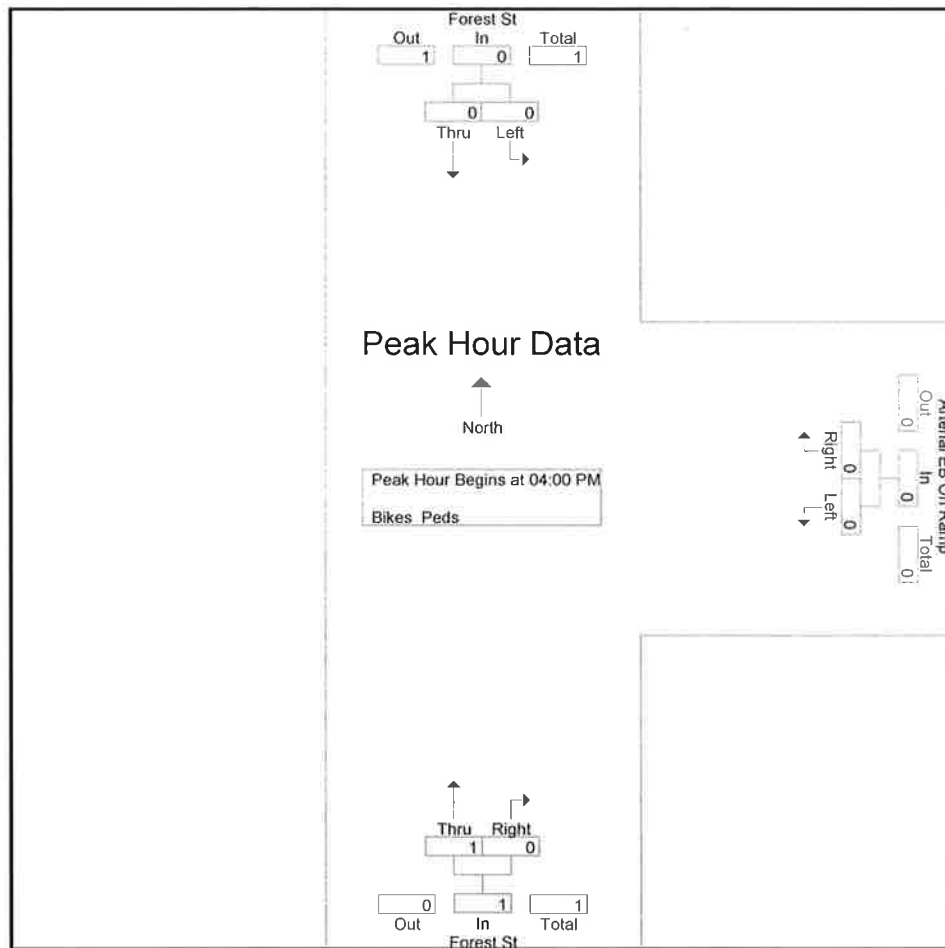
Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Westbrook Arterial On Ramp
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW20
Site Code : 68460W20
Start Date : 10/1/2015
Page No : 11

	Forest St From North			Arterial EB On Ramp From East			Forest St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0		0	0		100	0	
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest St From North		Stoudwater St From East		Stoudwater St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	40	47	34	11	16	115	263
07:15 AM	45	53	42	17	29	165	351
07:30 AM	47	37	72	25	42	174	397
07:45 AM	33	23	70	24	47	139	336
Total	165	160	218	77	134	593	1347
08:00 AM	25	20	33	10	19	100	207
08:15 AM	35	33	41	13	24	110	256
08:30 AM	45	17	33	5	17	89	206
08:45 AM	31	19	30	11	17	61	169
Total	136	89	137	39	77	360	838
Grand Total	301	249	355	116	211	953	2185
Apprch %	54.7	45.3	75.4	24.6	18.1	81.9	
Total %	13.8	11.4	16.2	5.3	9.7	43.6	
Cars	287	244	330	111	203	927	2102
% Cars	95.3	98	93	95.7	96.2	97.3	96.2
Trucks	14	5	25	5	8	26	83
% Trucks	4.7	2	7	4.3	3.8	2.7	3.8

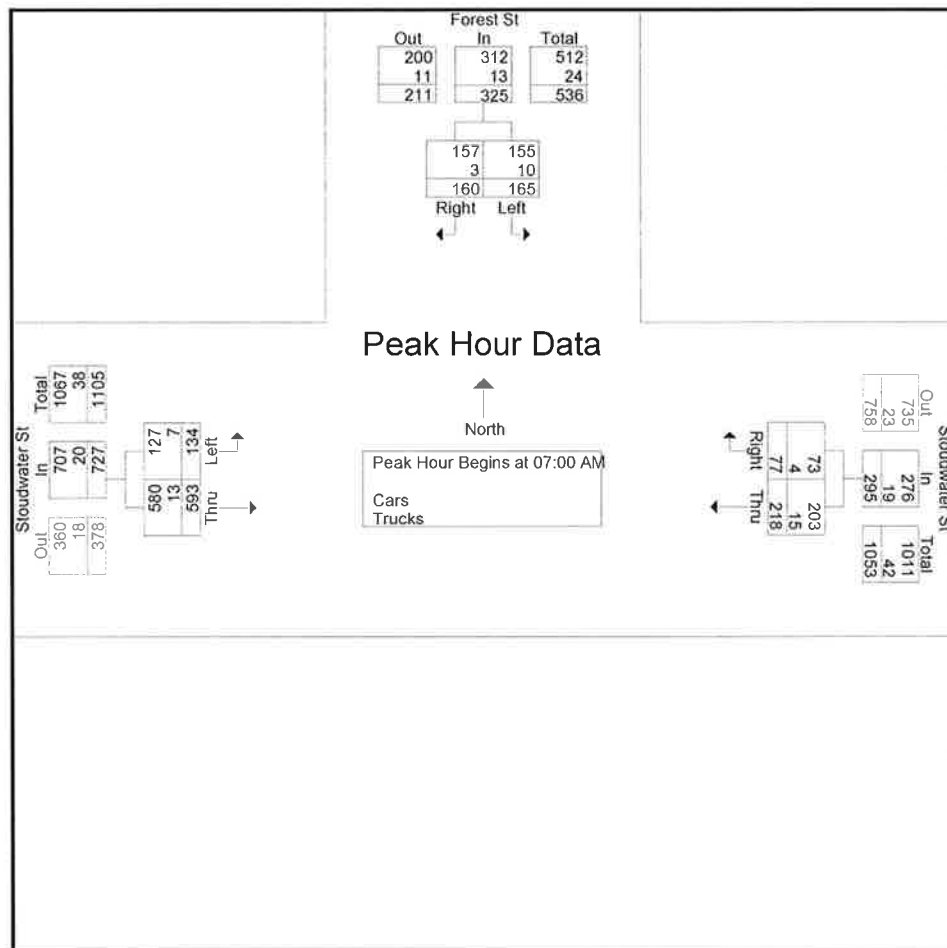
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 2

	Forest St From North			Stoudwater St From East			Stoudwater St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	40	47	87	34	11	45	16	115	131	263
07:15 AM	45	53	98	42	17	59	29	165	194	351
07:30 AM	47	37	84	72	25	97	42	174	216	397
07:45 AM	33	23	56	70	24	94	47	139	186	336
Total Volume	165	160	325	218	77	295	134	593	727	1347
% App. Total	50.8	49.2		73.9	26.1		18.4	81.6		
PHF	.878	.755	.829	.757	.770	.760	.713	.852	.841	.848
Cars	155	157	312	203	73	276	127	580	707	1295
% Cars	93.9	98.1	96.0	93.1	94.8	93.6	94.8	97.8	97.2	96.1
Trucks	10	3	13	15	4	19	7	13	20	52
% Trucks	6.1	1.9	4.0	6.9	5.2	6.4	5.2	2.2	2.8	3.9



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 4

Groups Printed- Cars

Start Time	Forest St From North		Stoudwater St From East		Stoudwater St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	37	47	33	10	15	114	256
07:15 AM	40	51	42	17	26	158	334
07:30 AM	45	36	65	22	42	172	382
07:45 AM	33	23	63	24	44	136	323
Total	155	157	203	73	127	580	1295
08:00 AM	25	20	32	10	19	97	203
08:15 AM	34	31	37	12	23	105	242
08:30 AM	42	17	29	5	17	84	194
08:45 AM	31	19	29	11	17	61	168
Total	132	87	127	38	76	347	807
Grand Total	287	244	330	111	203	927	2102
Apprch %	54	46	74.8	25.2	18	82	
Total %	13.7	11.6	15.7	5.3	9.7	44.1	

Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Stoudwater Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW21
Site Code : 68460W21
Start Date : 10/1/2015
Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North		Stoudwater St From East		Stoudwater St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	3	0	1	1	1	1	7
07:15 AM	5	2	0	0	3	7	17
07:30 AM	2	1	7	3	0	2	15
07:45 AM	0	0	7	0	3	3	13
Total	10	3	15	4	7	13	52
08:00 AM	0	0	1	0	0	3	4
08:15 AM	1	2	4	1	1	5	14
08:30 AM	3	0	4	0	0	5	12
08:45 AM	0	0	1	0	0	0	1
Total	4	2	10	1	1	13	31
Grand Total	14	5	25	5	8	26	83
Apprch %	73.7	26.3	83.3	16.7	23.5	76.5	
Total %	16.9	6	30.1	6	9.6	31.3	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Forest St From North			Stoudwater St From East			Stoudwater St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
07:00 AM	0	1	0	0	0	0	0	0	4	4	1	5
07:15 AM	0	0	0	0	0	0	0	3	2	2	3	5
07:30 AM	0	0	0	0	0	0	1	0	1	1	1	2
07:45 AM	0	0	1	0	0	1	0	0	1	3	0	3
Total	0	1	1	0	0	1	1	3	8	10	5	15
08:00 AM	0	0	0	1	0	0	0	0	2	2	1	3
08:15 AM	0	0	0	0	0	0	0	0	1	1	0	1
08:30 AM	0	0	0	0	0	0	1	1	4	4	2	6
08:45 AM	0	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	2	0	0	1	1	7	7	4	11
Grand Total	0	1	1	2	0	1	2	4	15	17	9	26
Apprch %	0	100		100	0		33.3	66.7				
Total %	0	11.1		22.2	0		22.2	44.4		65.4	34.6	

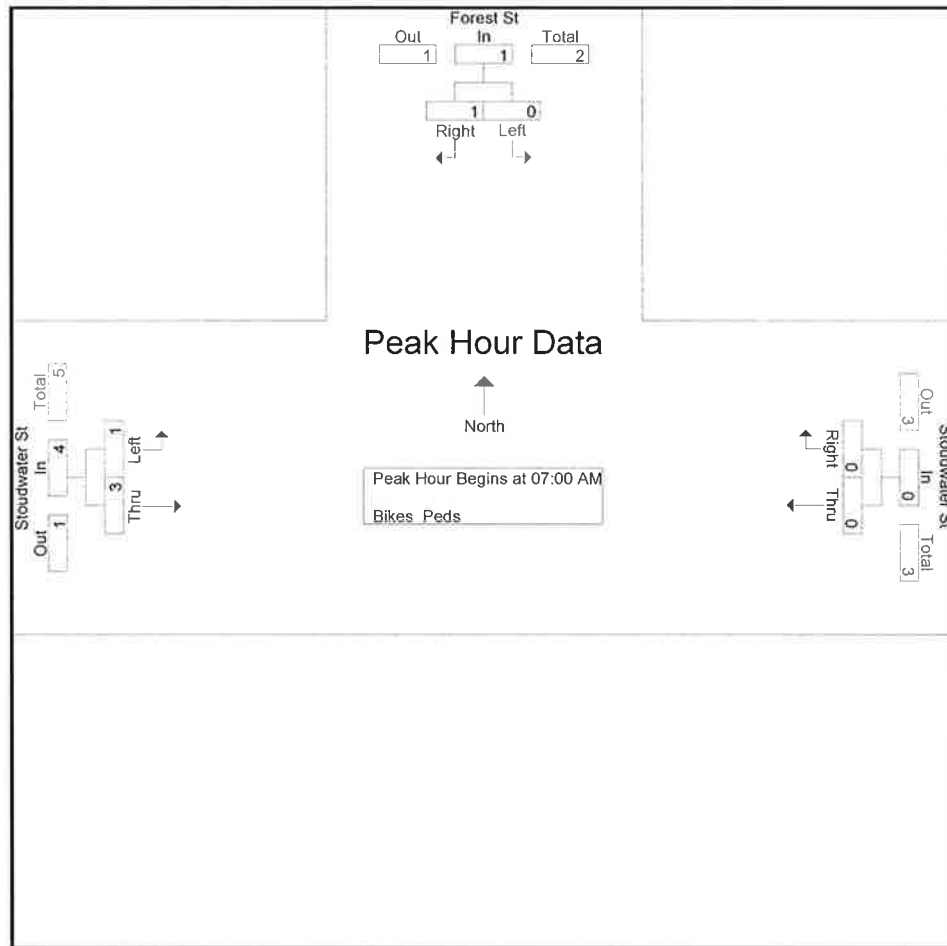
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 11

	Forest St From North			Stoudwater St From East			Stoudwater St From West			
Start Time :	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	3	3	3
07:30 AM	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	1	3	4	5
% App. Total	0	100		0	0		25	75		
PHF	.000	.250	.250	.000	.000	.000	.250	.250	.333	.417



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			07:00 AM		
+0 mins.	0	1	1	1	0	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	3	3
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	1	1	2	0	2	1	3	4
% App. Total	0	100		100	0		25	75	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 1

Groups Printed- Cars - Trucks							
Start Time	Forest St From North		Stoudwater St From East		Stoudwater St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
04:00 PM	16	21	83	37	46	52	255
04:15 PM	25	23	98	53	40	57	296
04:30 PM	21	26	83	62	45	47	284
04:45 PM	14	32	104	64	34	49	297
Total	76	102	368	216	165	205	1132
05:00 PM	21	35	97	57	40	59	309
05:15 PM	17	42	119	61	46	43	328
05:30 PM	17	30	138	81	38	48	352
05:45 PM	21	38	110	47	54	40	310
Total	76	145	464	246	178	190	1299
Grand Total	152	247	832	462	343	395	2431
Apprch %	38.1	61.9	64.3	35.7	46.5	53.5	
Total %	6.3	10.2	34.2	19	14.1	16.2	
Cars	152	244	822	457	342	390	2407
% Cars	100	98.8	98.8	98.9	99.7	98.7	99
Trucks	0	3	10	5	1	5	24
% Trucks	0	1.2	1.2	1.1	0.3	1.3	1

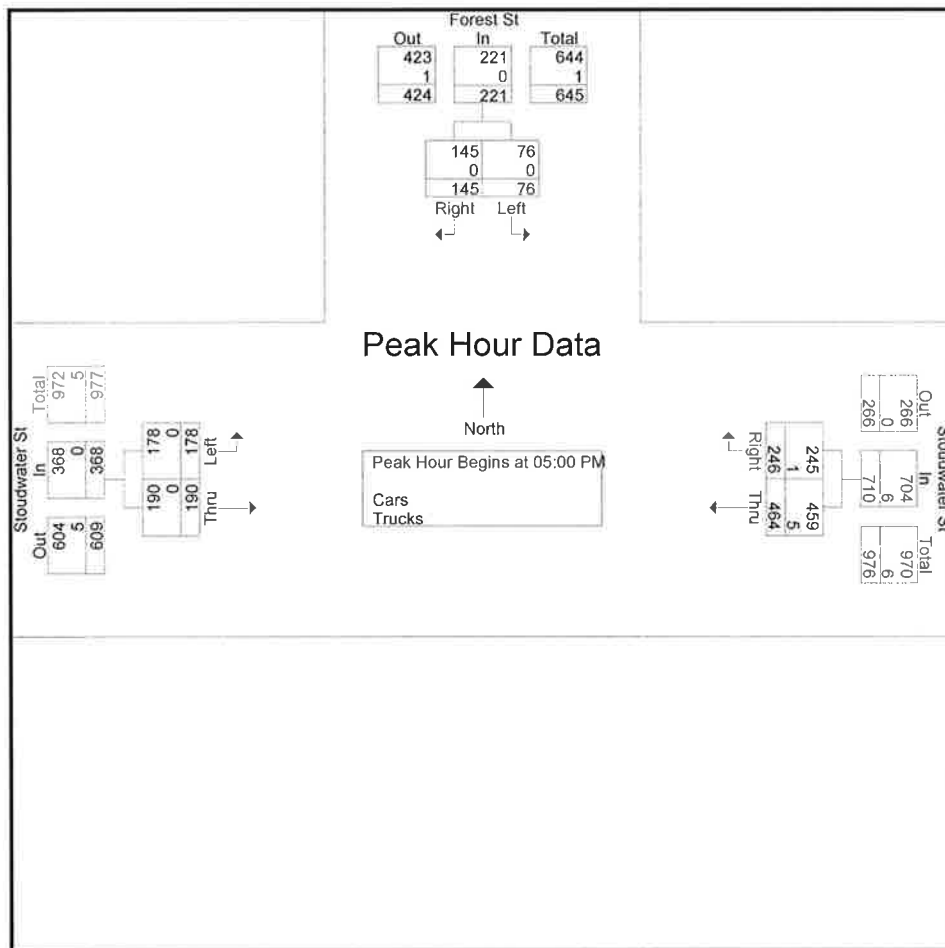
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 2

	Forest St From North			Stoudwater St From East			Stoudwater St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	21	35	56	97	57	154	40	59	99	309
05:15 PM	17	42	59	119	61	180	46	43	89	328
05:30 PM	17	30	47	138	81	219	38	48	86	352
05:45 PM	21	38	59	110	47	157	54	40	94	310
Total Volume	76	145	221	464	246	710	178	190	368	1299
% App. Total	34.4	65.6		65.4	34.6		48.4	51.6		
PHF	.905	.863	.936	.841	.759	.811	.824	.805	.929	.923
Cars	76	145	221	459	245	704	178	190	368	1293
% Cars	100	100	100	98.9	99.6	99.2	100	100	100	99.5
Trucks	0	0	0	5	1	6	0	0	0	6
% Trucks	0	0	0	1.1	0.4	0.8	0	0	0	0.5



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 4

Groups Printed- Cars							
Start Time	Forest St From North		Stoudwater St From East		Stoudwater St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
04:00 PM	16	20	83	36	46	49	250
04:15 PM	25	22	97	52	39	55	290
04:30 PM	21	25	79	61	45	47	278
04:45 PM	14	32	104	63	34	49	296
Total	76	99	363	212	164	200	1114
05:00 PM	21	35	95	57	40	59	307
05:15 PM	17	42	117	60	46	43	325
05:30 PM	17	30	138	81	38	48	352
05:45 PM	21	38	109	47	54	40	309
Total	76	145	459	245	178	190	1293
Grand Total	152	244	822	457	342	390	2407
Apprch %	38.4	61.6	64.3	35.7	46.7	53.3	
Total %	6.3	10.1	34.2	19	14.2	16.2	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North		Stoudwater St From East		Stoudwater St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
04:00 PM	0	1	0	1	0	3	5
04:15 PM	0	1	1	1	1	2	6
04:30 PM	0	1	4	1	0	0	6
04:45 PM	0	0	0	1	0	0	1
Total	0	3	5	4	1	5	18
05:00 PM	0	0	2	0	0	0	2
05:15 PM	0	0	2	1	0	0	3
05:30 PM	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	0	1
Total	0	0	5	1	0	0	6
Grand Total	0	3	10	5	1	5	24
Apprch %	0	100	66.7	33.3	16.7	83.3	
Total %	0	12.5	41.7	20.8	4.2	20.8	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW21
 Site Code : 68460W21
 Start Date : 10/1/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Forest St From North			Stoudwater St From East			Stoudwater St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
04:00 PM	0	0	0	0	0	0	0	1	0	0	1	1
04:15 PM	0	0	0	1	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	1	0	0	2	3	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	1	2	3	2	5
05:00 PM	0	0	0	0	0	0	0	1	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	2	1	1	2	3
05:30 PM	0	0	6	0	0	0	0	0	0	6	0	6
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	6	0	0	0	0	3	1	7	3	10
Grand Total	0	0	6	1	0	1	0	4	3	10	5	15
Apprch %	0	0		100	0		0	100				
Total %	0	0		20	0		0	80		66.7	33.3	

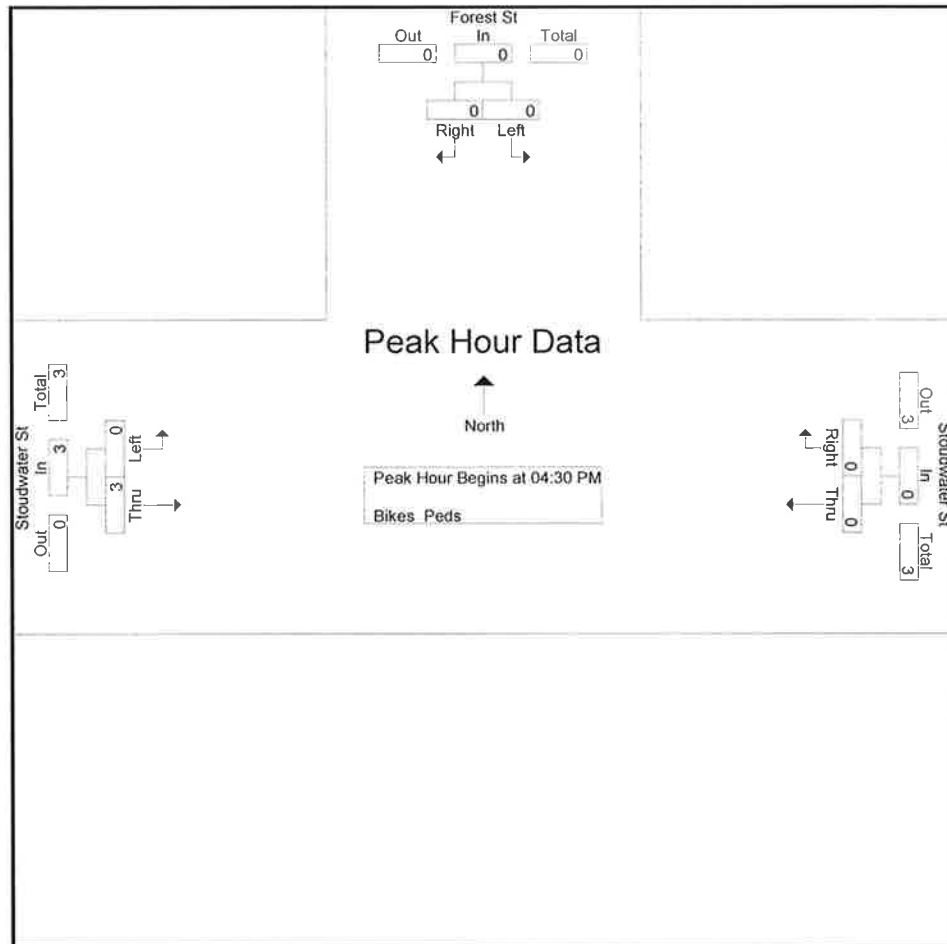
Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Stoudwater Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW21
Site Code : 68460W21
Start Date : 10/1/2015
Page No : 11

	Forest St From North			Stoudwater St From East			Stoudwater St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	0	0	2	2	2
Total Volume	0	0	0	0	0	0	0	3	3	3
% App. Total	0	0		0	0		0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.375	.375	.375



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	2	2
Total Volume	0	0	0	1	0	1	0	3	3
% App. Total	0	0	0	100	0		0	100	
PHF	.000	.000	.000	.250	.000	.250	.000	.375	.375

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW24
 Site Code : 68460W24
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest St From North			Main St From East			Forest St From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	1	2	6	52	1	17	1	12	0	160	19	271
07:15 AM	2	1	1	4	71	0	23	1	13	0	148	39	303
07:30 AM	3	1	6	8	83	1	32	1	13	1	168	37	354
07:45 AM	0	0	6	3	108	0	40	0	15	0	201	21	394
Total	5	3	15	21	314	2	112	3	53	1	677	116	1322
08:00 AM	1	1	1	10	92	0	18	0	6	0	163	17	309
08:15 AM	0	0	1	7	95	0	16	0	12	1	184	23	339
08:30 AM	1	1	0	10	111	2	9	0	10	0	148	26	318
08:45 AM	1	0	0	4	124	2	15	1	14	1	121	22	305
Total	3	2	2	31	422	4	58	1	42	2	616	88	1271
Grand Total	8	5	17	52	736	6	170	4	95	3	1293	204	2593
Apprch %	26.7	16.7	56.7	6.5	92.7	0.8	63.2	1.5	35.3	0.2	86.2	13.6	
Total %	0.3	0.2	0.7	2	28.4	0.2	6.6	0.2	3.7	0.1	49.9	7.9	
Cars	8	4	17	50	722	6	165	4	95	3	1284	202	2560
% Cars	100	80	100	96.2	98.1	100	97.1	100	100	100	99.3	99	98.7
Trucks	0	1	0	2	14	0	5	0	0	0	9	2	33
% Trucks	0	20	0	3.8	1.9	0	2.9	0	0	0	0.7	1	1.3

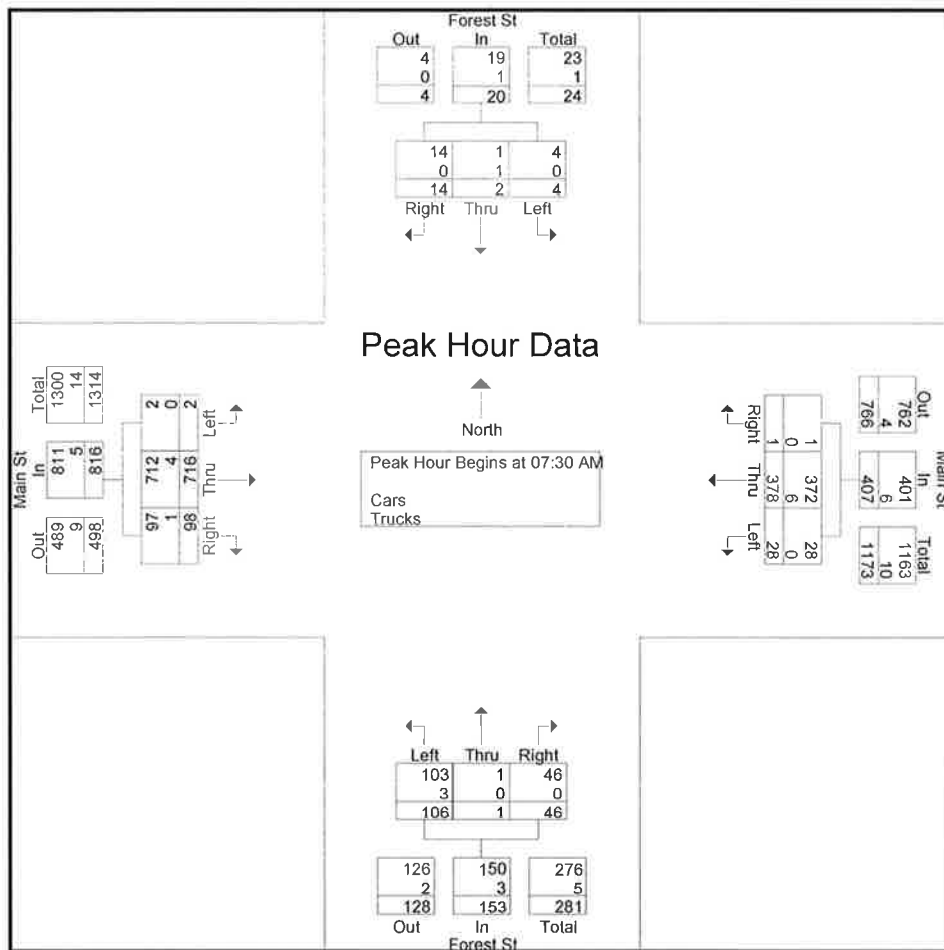
Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW24
Site Code : 68460W24
Start Date : 9/30/2015
Page No : 2

	Forest St From North				Main St From East				Forest St From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	3	1	6	10	8	83	1	92	32	1	13	46	1	168	37	206	354
07:45 AM	0	0	6	6	3	108	0	111	40	0	15	55	0	201	21	222	394
08:00 AM	1	1	1	3	10	92	0	102	18	0	6	24	0	163	17	180	309
08:15 AM	0	0	1	1	7	95	0	102	16	0	12	28	1	184	23	208	339
Total Volume	4	2	14	20	28	378	1	407	106	1	46	153	2	716	98	816	1396
% App. Total	20	10	70		6.9	92.9	0.2		69.3	0.7	30.1		0.2	87.7	12		
PHF	.333	.500	.583	.500	.700	.875	.250	.917	.663	.250	.767	.695	.500	.891	.662	.919	.886
Cars	4	1	14	19	28	372	1	401	103	1	46	150	2	712	97	811	1381
% Cars	100	50.0	100	95.0	100	98.4	100	98.5	97.2	100	100	98.0	100	99.4	99.0	99.4	98.9
Trucks	0	1	0	1	0	6	0	6	3	0	0	3	0	4	1	5	15
% Trucks	0	50.0	0	5.0	0	1.6	0	1.5	2.8	0	0	2.0	0	0.6	1.0	0.6	1.1



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW24
 Site Code : 68460W24
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Forest St From North			Main St From East			Forest St From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	1	2	6	49	1	17	1	12	0	158	19	266
07:15 AM	2	1	1	3	71	0	21	1	13	0	148	38	299
07:30 AM	3	1	6	8	81	1	31	1	13	1	168	37	351
07:45 AM	0	0	6	3	106	0	38	0	15	0	199	21	388
Total	5	3	15	20	307	2	107	3	53	1	673	115	1304
08:00 AM	1	0	1	10	92	0	18	0	6	0	162	16	306
08:15 AM	0	0	1	7	93	0	16	0	12	1	183	23	336
08:30 AM	1	1	0	9	108	2	9	0	10	0	146	26	312
08:45 AM	1	0	0	4	122	2	15	1	14	1	120	22	302
Total	3	1	2	30	415	4	58	1	42	2	611	87	1256
Grand Total	8	4	17	50	722	6	165	4	95	3	1284	202	2560
Apprch %	27.6	13.8	58.6	6.4	92.8	0.8	62.5	1.5	36	0.2	86.2	13.6	
Total %	0.3	0.2	0.7	2	28.2	0.2	6.4	0.2	3.7	0.1	50.2	7.9	

Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW24
Site Code : 68460W24
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North			Main St From East			Forest St From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	3	0	0	0	0	0	2	0	5
07:15 AM	0	0	0	1	0	0	2	0	0	0	0	1	4
07:30 AM	0	0	0	0	2	0	1	0	0	0	0	0	3
07:45 AM	0	0	0	0	2	0	2	0	0	0	2	0	6
Total	0	0	0	1	7	0	5	0	0	0	4	1	18
08:00 AM	0	1	0	0	0	0	0	0	0	0	1	1	3
08:15 AM	0	0	0	0	2	0	0	0	0	0	1	0	3
08:30 AM	0	0	0	1	3	0	0	0	0	0	2	0	6
08:45 AM	0	0	0	0	2	0	0	0	0	0	1	0	3
Total	0	1	0	1	7	0	0	0	0	0	5	1	15
Grand Total	0	1	0	2	14	0	5	0	0	0	9	2	33
Apprch %	0	100	0	12.5	87.5	0	100	0	0	0	81.8	18.2	
Total %	0	3	0	6.1	42.4	0	15.2	0	0	0	27.3	6.1	

Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW24
Site Code : 68460W24
Start Date : 9/30/2015
Page No : 10

Groups Printed- Bikes Peds

Start Time	Forest St From North				Main St From East				Forest St From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	3	5	1	6
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	0	0	2	0	3	0	3	6	4	10
Grand Total	0	0	0	1	0	1	0	0	0	0	0	2	0	3	0	3	6	4	10
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0				
Total %	0	0	0		0	25	0		0	0	0		0	75	0		60	40	

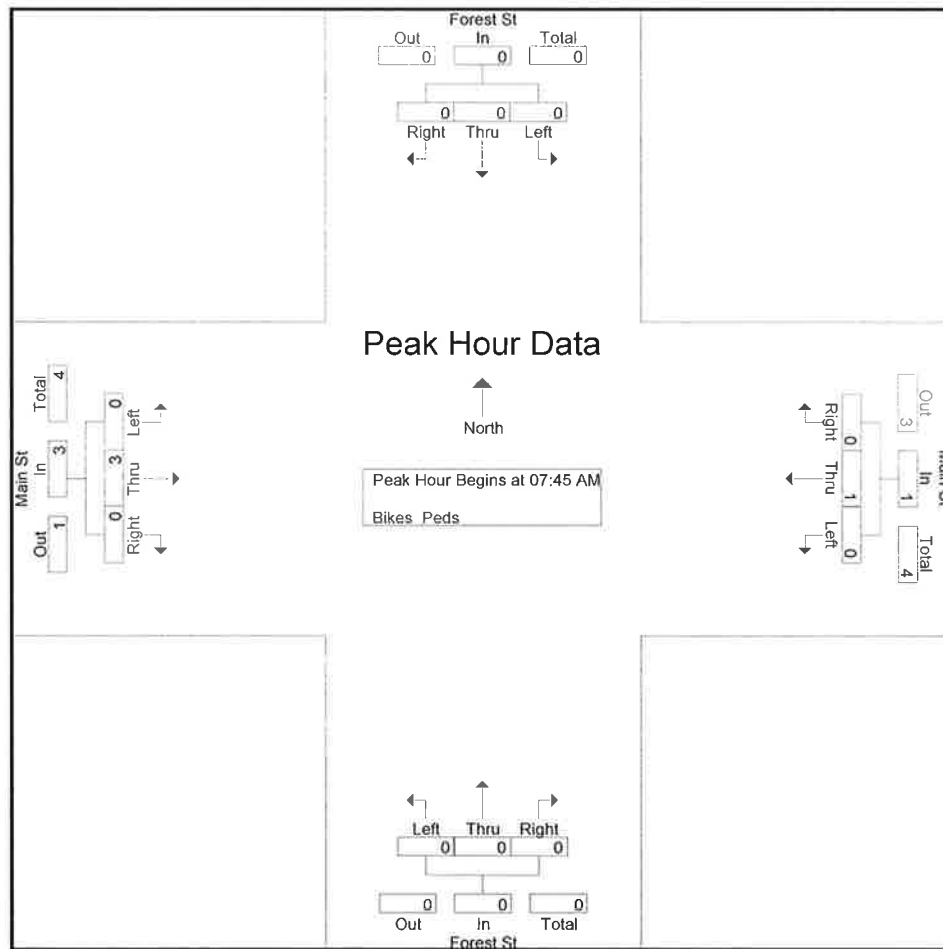
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW24
 Site Code : 68460W24
 Start Date : 9/30/2015
 Page No : 11

	Forest St From North				Main St From East				Forest St From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
% App. Total	0	0	0	0	0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.375	.000	.375	.500



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:00 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	2	0	2	2
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3	3
% App. Total	0	0	0	0	0	100	0		0	0	0	0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.375	.000	.375	

Accurate Counts
978-664-2565

N/S Street : Forest Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW24
Site Code : 68460W24
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks

	Forest St From North			Main St From East			Forest St From South			Main St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	2	0	1	4	191	1	45	0	9	0	87	5	345
04:15 PM	0	0	1	4	199	0	66	1	8	4	127	12	422
04:30 PM	0	0	0	4	200	2	105	1	9	0	93	11	425
04:45 PM	0	0	1	0	203	1	72	2	6	1	111	15	412
Total	2	0	3	12	793	4	288	4	32	5	418	43	1604
05:00 PM	0	0	0	0	236	0	78	3	10	1	108	7	443
05:15 PM	2	0	1	6	254	2	77	2	10	3	120	11	488
05:30 PM	1	0	0	5	152	0	36	2	6	0	102	8	312
05:45 PM	1	0	1	5	149	1	42	1	4	2	95	13	314
Total	4	0	2	16	791	3	233	8	30	6	425	39	1557
Grand Total	6	0	5	28	1584	7	521	12	62	11	843	82	3161
Apprch %	54.5	0	45.5	1.7	97.8	0.4	87.6	2	10.4	1.2	90.1	8.8	
Total %	0.2	0	0.2	0.9	50.1	0.2	16.5	0.4	2	0.3	26.7	2.6	
Cars	6	0	5	28	1578	7	521	12	62	11	837	82	3149
% Cars	100	0	100	100	99.6	100	100	100	100	100	99.3	100	99.6
Trucks	0	0	0	0	6	0	0	0	0	0	6	0	12
% Trucks	0	0	0	0	0.4	0	0	0	0	0	0.7	0	0.4

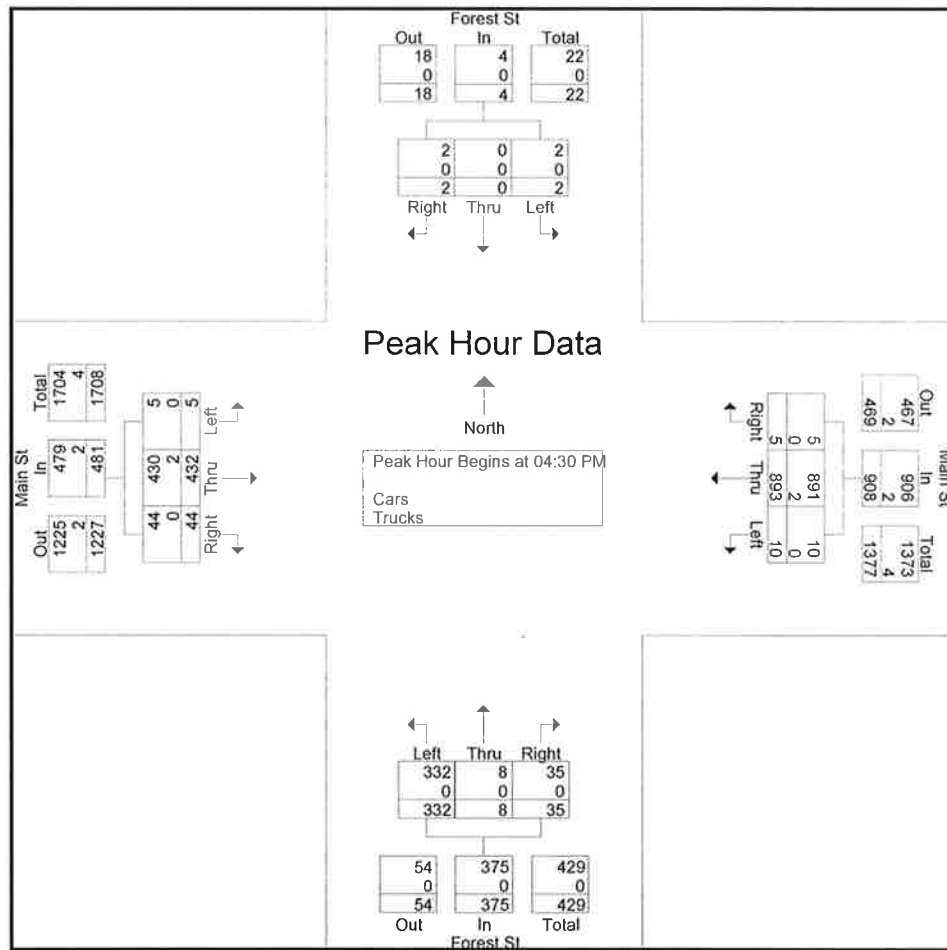
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW24
 Site Code : 68460W24
 Start Date : 9/30/2015
 Page No : 2

	Forest St From North				Main St From East				Forest St From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	4	200	2	206	105	1	9	115	0	93	11	104	425
04:45 PM	0	0	1	1	0	203	1	204	72	2	6	80	1	111	15	127	412
05:00 PM	0	0	0	0	0	236	0	236	78	3	10	91	1	108	7	116	443
05:15 PM	2	0	1	3	6	254	2	262	77	2	10	89	3	120	11	134	488
Total Volume	2	0	2	4	10	893	5	908	332	8	35	375	5	432	44	481	1768
% App. Total	50	0	50		1.1	98.3	0.6		88.5	2.1	9.3		1	89.8	9.1		
PHF	.250	.000	.500	.333	.417	.879	.625	.866	.790	.667	.875	.815	.417	.900	.733	.897	.906
Cars	2	0	2	4	10	891	5	906	332	8	35	375	5	430	44	479	1764
% Cars	100	0	100	100	100	99.8	100	99.8	100	100	100	100	100	99.5	100	99.6	99.8
Trucks	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
% Trucks	0	0	0	0	0	0.2	0	0.2	0	0	0	0	0	0.5	0	0.4	0.2



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW24
 Site Code : 68460W24
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Forest St From North			Main St From East			Forest St From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	2	0	1	4	190	1	45	0	9	0	85	5	342
04:15 PM	0	0	1	4	198	0	66	1	8	4	127	12	421
04:30 PM	0	0	0	4	199	2	105	1	9	0	92	11	423
04:45 PM	0	0	1	0	203	1	72	2	6	1	111	15	412
Total	2	0	3	12	790	4	288	4	32	5	415	43	1598
05:00 PM	0	0	0	0	235	0	78	3	10	1	107	7	441
05:15 PM	2	0	1	6	254	2	77	2	10	3	120	11	488
05:30 PM	1	0	0	5	151	0	36	2	6	0	101	8	310
05:45 PM	1	0	1	5	148	1	42	1	4	2	94	13	312
Total	4	0	2	16	788	3	233	8	30	6	422	39	1551
Grand Total	6	0	5	28	1578	7	521	12	62	11	837	82	3149
Apprch %	54.5	0	45.5	1.7	97.8	0.4	87.6	2	10.4	1.2	90	8.8	
Total %	0.2	0	0.2	0.9	50.1	0.2	16.5	0.4	2	0.3	26.6	2.6	

Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW24
Site Code : 68460W24
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North			Main St From East			Forest St From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
04:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	0	0	0	0	0	3	0	6
05:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
05:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
Total	0	0	0	0	3	0	0	0	0	0	3	0	6
Grand Total	0	0	0	0	6	0	0	0	0	0	6	0	12
Apprch %	0	0	0	0	100	0	0	0	0	0	100	0	
Total %	0	0	0	0	50	0	0	0	0	0	50	0	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW24
 Site Code : 68460W24
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Forest St From North				Main St From East				Forest St From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	3	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2
Total	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	1	6	0	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	2
Total	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	1	3	2	5
Grand Total	0	0	0	2	0	1	0	0	0	0	0	5	0	1	0	2	9	2	11
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0				
Total %	0	0	0		0	50	0		0	0	0		0	50	0		81.8	18.2	

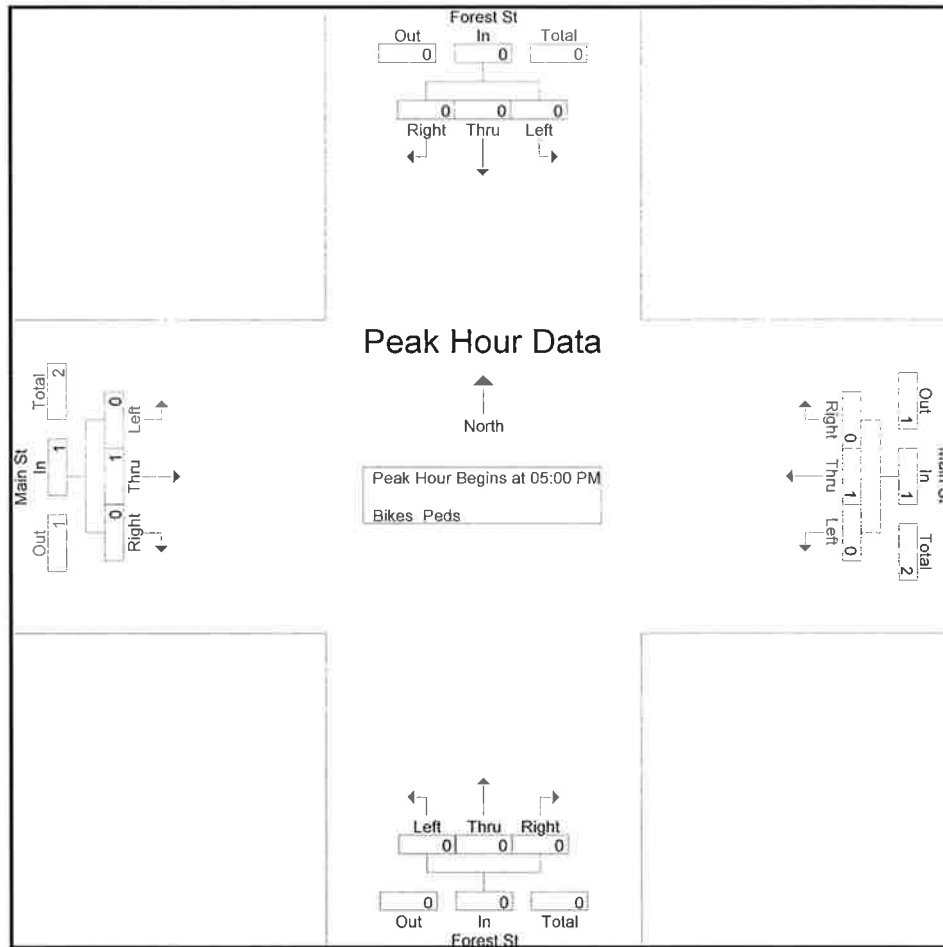
Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW24
Site Code : 6846W24
Start Date : 9/30/2015
Page No : 11

	Forest St From North				Main St From East				Forest St From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.500



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : William Clark Road
 E/W Street : Main St / New Gorham Rd
 City/State : Westbrook
 Weather : Cloudy

File Name : 6846WW02
 Site Code : 68460WB2
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	58	192	3	1	14	25	7	66	2	0	87	89	544
07:15 AM	74	215	0	1	11	34	17	67	0	1	99	99	618
07:30 AM	64	190	2	0	21	35	22	68	0	0	96	120	618
07:45 AM	67	191	1	1	19	42	14	96	1	5	96	118	651
Total	263	788	6	3	65	136	60	297	3	6	378	426	2431
08:00 AM	64	171	1	0	19	44	9	67	5	1	79	99	559
08:15 AM	60	163	0	1	23	49	18	73	5	1	49	75	517
08:30 AM	46	146	1	0	30	46	10	57	2	0	44	89	471
08:45 AM	57	150	3	3	27	46	10	72	1	1	48	66	484
Total	227	630	5	4	99	185	47	269	13	3	220	329	2031
Grand Total	490	1418	11	7	164	321	107	566	16	9	598	755	4462
Apprch %	25.5	73.9	0.6	1.4	33.3	65.2	15.5	82.1	2.3	0.7	43.9	55.4	
Total %	11	31.8	0.2	0.2	3.7	7.2	2.4	12.7	0.4	0.2	13.4	16.9	
Cars	489	1373	7	7	163	316	105	515	14	9	596	754	4348
% Cars	99.8	96.8	63.6	100	99.4	98.4	98.1	91	87.5	100	99.7	99.9	97.4
Trucks	1	45	4	0	1	5	2	51	2	0	2	1	114
% Trucks	0.2	3.2	36.4	0	0.6	1.6	1.9	9	12.5	0	0.3	0.1	2.6

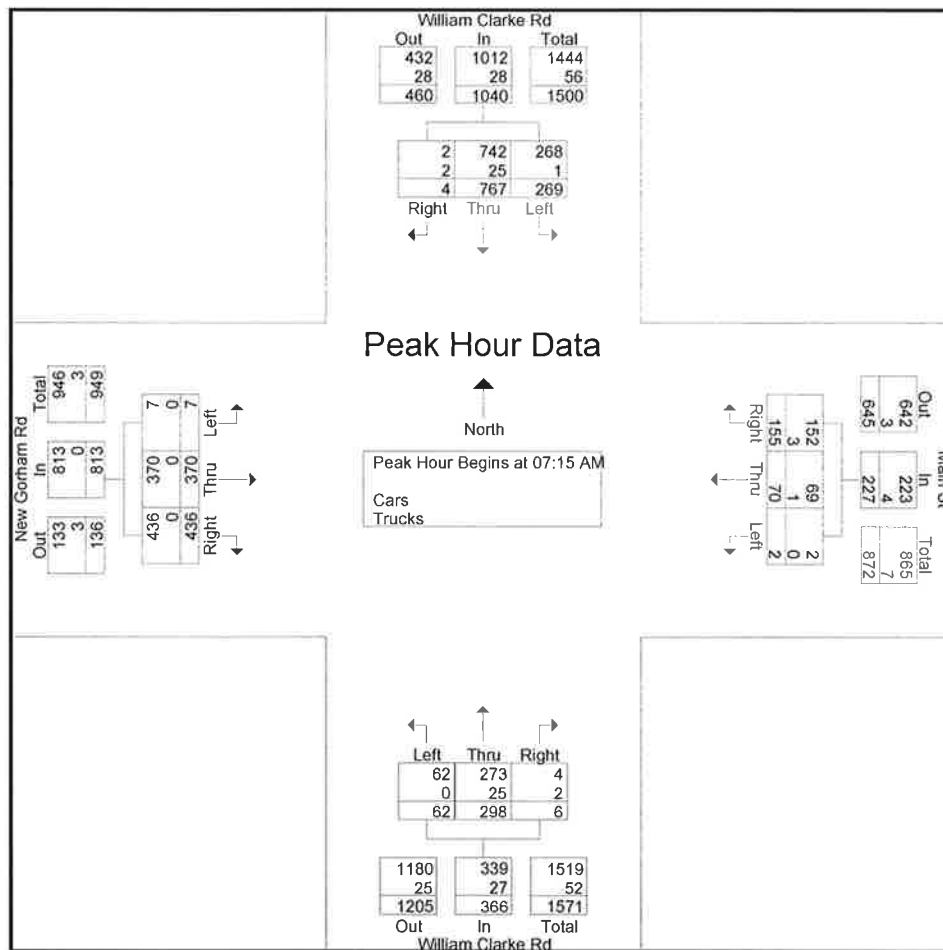
Accurate Counts

978-664-2565

N/S Street : William Clark Road
 E/W Street : Main St / New Gorham Rd
 City/State : Westbrook
 Weather : Cloudy

File Name : 6846WW02
 Site Code : 68460WB2
 Start Date : 9/30/2015
 Page No : 2

	William Clarke Rd From North				Main St From East				William Clarke Rd From South				New Gorham Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	74	215	0	289	1	11	34	46	17	67	0	84	1	99	99	199	618
07:30 AM	64	190	2	256	0	21	35	56	22	68	0	90	0	96	120	216	618
07:45 AM	67	191	1	259	1	19	42	62	14	96	1	111	5	96	118	219	651
08:00 AM	64	171	1	236	0	19	44	63	9	67	5	81	1	79	99	179	559
Total Volume	269	767	4	1040	2	70	155	227	62	298	6	366	7	370	436	813	2446
% App. Total	25.9	73.8	0.4		0.9	30.8	68.3		16.9	81.4	1.6		0.9	45.5	53.6		
PHF	.909	.892	.500	.900	.500	.833	.881	.901	.705	.776	.300	.824	.350	.934	.908	.928	.939
Cars	268	742	2	1012	2	69	152	223	62	273	4	339	7	370	436	813	2387
% Cars	99.6	96.7	50.0	97.3	100	98.6	98.1	98.2	100	91.6	66.7	92.6	100	100	100	100	97.6
Trucks	1	25	2	28	0	1	3	4	0	25	2	27	0	0	0	0	59
% Trucks	0.4	3.3	50.0	2.7	0	1.4	1.9	1.8	0	8.4	33.3	7.4	0	0	0	0	2.4



Accurate Counts

978-664-2565

N/S Street : William Clark Road
 E/W Street : Main St / New Gorham Rd
 City/State : Westbrook
 Weather : Cloudy

File Name : 6846WW02
 Site Code : 68460WB2
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	58	188	1	1	14	25	7	57	2	0	85	89	527
07:15 AM	74	207	0	1	11	33	17	57	0	1	99	99	599
07:30 AM	64	182	1	0	21	35	22	65	0	0	96	120	606
07:45 AM	66	185	1	1	18	40	14	92	1	5	96	118	637
Total	262	762	3	3	64	133	60	271	3	6	376	426	2369
08:00 AM	64	168	0	0	19	44	9	59	3	1	79	99	545
08:15 AM	60	155	0	1	23	48	16	68	5	1	49	74	500
08:30 AM	46	141	1	0	30	46	10	52	2	0	44	89	461
08:45 AM	57	147	3	3	27	45	10	65	1	1	48	66	473
Total	227	611	4	4	99	183	45	244	11	3	220	328	1979
Grand Total	489	1373	7	7	163	316	105	515	14	9	596	754	4348
Apprch %	26.2	73.5	0.4	1.4	33.5	65	16.6	81.2	2.2	0.7	43.9	55.5	
Total %	11.2	31.6	0.2	0.2	3.7	7.3	2.4	11.8	0.3	0.2	13.7	17.3	

Accurate Counts

978-664-2565

N/S Street : William Clark Road
E/W Street : Main St / New Gorham Rd
City/State : Westbrook
Weather : Cloudy

File Name : 6846WW02
Site Code : 68460WB2
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks

Start Time	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	4	2	0	0	0	0	9	0	0	2	0	17
07:15 AM	0	8	0	0	0	1	0	10	0	0	0	0	19
07:30 AM	0	8	1	0	0	0	0	3	0	0	0	0	12
07:45 AM	1	6	0	0	1	2	0	4	0	0	0	0	14
Total	1	26	3	0	1	3	0	26	0	0	2	0	62
08:00 AM	0	3	1	0	0	0	0	8	2	0	0	0	14
08:15 AM	0	8	0	0	0	1	2	5	0	0	0	1	17
08:30 AM	0	5	0	0	0	0	0	5	0	0	0	0	10
08:45 AM	0	3	0	0	0	1	0	7	0	0	0	0	11
Total	0	19	1	0	0	2	2	25	2	0	0	1	52
Grand Total	1	45	4	0	1	5	2	51	2	0	2	1	114
Apprch %	2	90	8	0	16.7	83.3	3.6	92.7	3.6	0	66.7	33.3	
Total %	0.9	39.5	3.5	0	0.9	4.4	1.8	44.7	1.8	0	1.8	0.9	

978-664-2565

N/S Street : William Clark Road
E/W Street : Main St / New Gorham Rd
City/State : Westbrook
Weather : Cloudy

File Name : 6846WW02
Site Code : 68460WB2
Start Date : 9/30/2015
Page No : 10

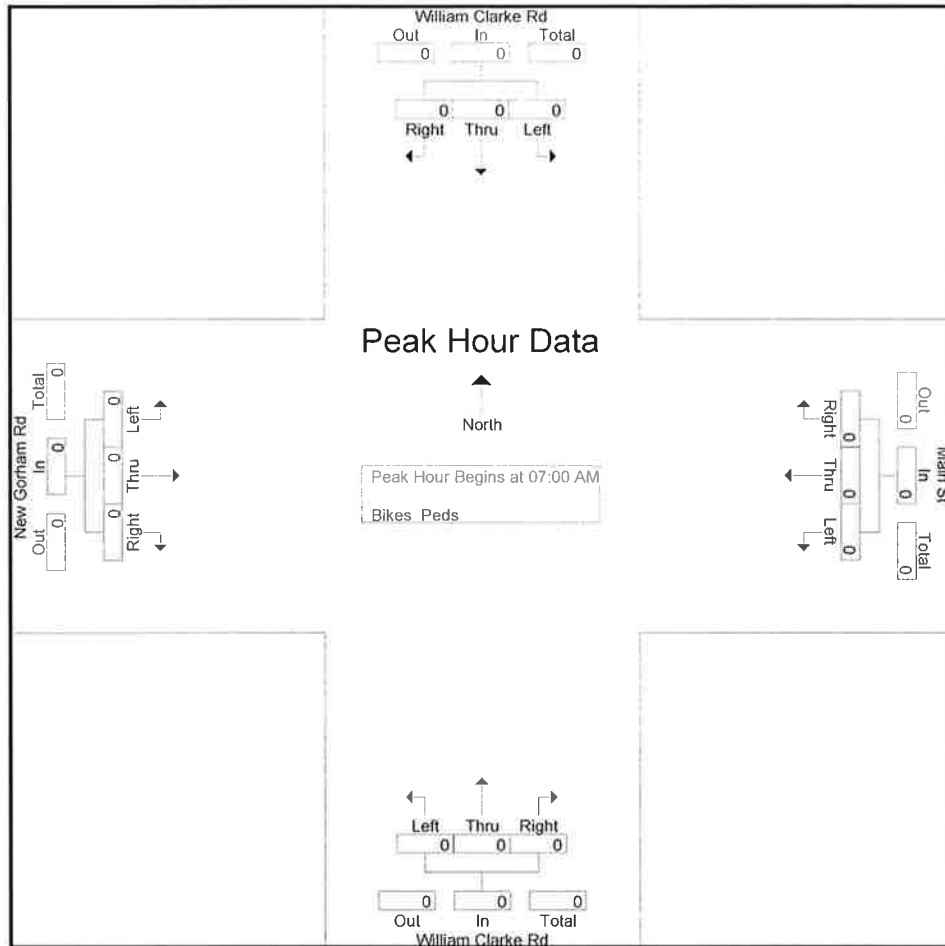
Groups Printed- Bikes Peds

[illegible]

978-664-2565

N/S Street : William Clark Road
E/W Street : Main St / New Gorham Rd
City/State : Westbrook
Weather : Cloudy

File Name : 6846WW02
Site Code : 68460WB2
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : William Clark Road
E/W Street : Main St / New Gorham Rd
City/State : Westbrook
Weather : Cloudy

File Name : 6846WW02
Site Code : 68460WB2
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	37	119	3	2	45	69	39	160	1	9	19	27	530
04:15 PM	29	106	0	1	61	84	49	169	1	2	21	31	554
04:30 PM	44	98	2	4	47	68	37	167	3	0	29	29	528
04:45 PM	46	84	3	1	60	77	64	163	4	3	29	30	564
Total	156	407	8	8	213	298	189	659	9	14	98	117	2176
05:00 PM	30	90	5	1	42	67	37	190	1	2	29	32	526
05:15 PM	48	93	4	0	64	73	38	195	2	0	32	36	585
05:30 PM	27	75	5	0	59	71	35	165	2	1	29	35	504
05:45 PM	48	79	0	1	56	58	37	124	2	1	34	29	469
Total	153	337	14	2	221	269	147	674	7	4	124	132	2084
Grand Total	309	744	22	10	434	567	336	1333	16	18	222	249	4260
Apprch %	28.7	69.2	2	1	42.9	56.1	19.9	79.1	0.9	3.7	45.4	50.9	
Total %	7.3	17.5	0.5	0.2	10.2	13.3	7.9	31.3	0.4	0.4	5.2	5.8	
Cars	309	722	22	10	434	567	336	1318	16	18	222	249	4223
% Cars	100	97	100	100	100	100	100	98.9	100	100	100	100	99.1
Trucks	0	22	0	0	0	0	0	15	0	0	0	0	37
% Trucks	0	3	0	0	0	0	0	1.1	0	0	0	0	0.9

Accurate Counts

978-664-2565

N/S Street : William Clark Road
E/W Street : Main St / New Gorham Rd
City/State : Westbrook
Weather : Cloudy

File Name : 6846WW02
Site Code : 68460WB2
Start Date : 9/30/2015
Page No : 4

Groups Printed- Cars

Start Time	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	37	113	3	2	45	69	39	157	1	9	19	27	521
04:15 PM	29	103	0	1	61	84	49	164	1	2	21	31	546
04:30 PM	44	96	2	4	47	68	37	167	3	0	29	29	526
04:45 PM	46	81	3	1	60	77	64	161	4	3	29	30	559
Total	156	393	8	8	213	298	189	649	9	14	98	117	2152
05:00 PM	30	88	5	1	42	67	37	190	1	2	29	32	524
05:15 PM	48	90	4	0	64	73	38	193	2	0	32	36	580
05:30 PM	27	73	5	0	59	71	35	164	2	1	29	35	501
05:45 PM	48	78	0	1	56	58	37	122	2	1	34	29	466
Total	153	329	14	2	221	269	147	669	7	4	124	132	2071
Grand Total	309	722	22	10	434	567	336	1318	16	18	222	249	4223
Apprch %	29.3	68.6	2.1	1	42.9	56.1	20.1	78.9	1	3.7	45.4	50.9	
Total %	7.3	17.1	0.5	0.2	10.3	13.4	8	31.2	0.4	0.4	5.3	5.9	

Accurate Counts

978-664-2565

N/S Street : William Clark Road
E/W Street : Main St / New Gorham Rd
City/State : Westbrook
Weather : Cloudy

File Name : 6846WW02
Site Code : 68460WB2
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks

Start Time	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	6	0	0	0	0	0	3	0	0	0	0	9
04:15 PM	0	3	0	0	0	0	0	5	0	0	0	0	8
04:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	0	3	0	0	0	0	0	2	0	0	0	0	5
Total	0	14	0	0	0	0	0	10	0	0	0	0	24
05:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	3	0	0	0	0	0	2	0	0	0	0	5
05:30 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
05:45 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
Total	0	8	0	0	0	0	0	5	0	0	0	0	13
Grand Total	0	22	0	0	0	0	0	15	0	0	0	0	37
Apprch %	0	100	0	0	0	0	0	100	0	0	0	0	
Total %	0	59.5	0	0	0	0	0	40.5	0	0	0	0	

Accurate Counts

978-664-2565

N/S Street : William Clark Road
E/W Street : Main St / New Gorham Rd
City/State : Westbrook
Weather : Cloudy

File Name : 6846WW02
Site Code : 68460WB2
Start Date : 9/30/2015
Page No : 10

Groups Printed- Bikes Peds

Start Time	William Clarke Rd From North				Main St From East				William Clarke Rd From South				New Gorham Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	2
Total	0	0	0	0	0	1	0	0	0	0	0	4	0	0	0	0	4	1	5
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	3	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	0	0	4	0	0	0	0	5	0	5
Grand Total	0	0	0	0	0	1	0	1	0	0	0	8	0	0	0	0	9	1	10
Apprch %	0	0	0		0	100	0		0	0	0		0	0	0				
Total %	0	0	0		0	100	0		0	0	0		0	0	0		90	10	

978-664-2565

File Name : 6846WW02
Site Code : 68460WB2
Start Date : 9/30/2015
Page No : 11

William Clarke Rd

Out In Total

0 0 0

0 0 0

Right Thru Left

North

Peak Hour Begins at 07:00 AM

Bikes Peds

New Gorham Rd

Out In Total

0 0 0

0 0 0

Right Thru Left

Main St

Out In Total

0 0 0

0 0 0

Right Thru Left

William Clarke Rd

Out In Total

0 0 0

0 0 0

Left Thru Right

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW03
Site Code : 68460W03
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks

	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	91	0	32	0	31	34	1	4	0	38	109	0	340
07:15 AM	111	2	29	0	51	51	0	2	4	48	160	1	459
07:30 AM	117	2	29	0	50	57	0	1	2	34	149	0	441
07:45 AM	85	3	36	1	57	58	1	3	1	42	159	0	446
Total	404	7	126	1	189	200	2	10	7	162	577	1	1686
08:00 AM	97	4	47	0	57	56	0	7	1	36	111	0	416
08:15 AM	84	4	42	0	64	62	0	7	0	46	95	1	405
08:30 AM	85	6	48	0	50	43	0	5	4	33	58	0	332
08:45 AM	52	4	43	1	77	55	1	2	5	39	102	0	381
Total	318	18	180	1	248	216	1	21	10	154	366	1	1534
Grand Total	722	25	306	2	437	416	3	31	17	316	943	2	3220
Apprch %	68.6	2.4	29.1	0.2	51.1	48.7	5.9	60.8	33.3	25.1	74.8	0.2	
Total %	22.4	0.8	9.5	0.1	13.6	12.9	0.1	1	0.5	9.8	29.3	0.1	
Cars	713	23	306	2	422	410	3	31	17	302	931	2	3162
% Cars	98.8	92	100	100	96.6	98.6	100	100	100	95.6	98.7	100	98.2
Trucks	9	2	0	0	15	6	0	0	0	14	12	0	58
% Trucks	1.2	8	0	0	3.4	1.4	0	0	0	4.4	1.3	0	1.8

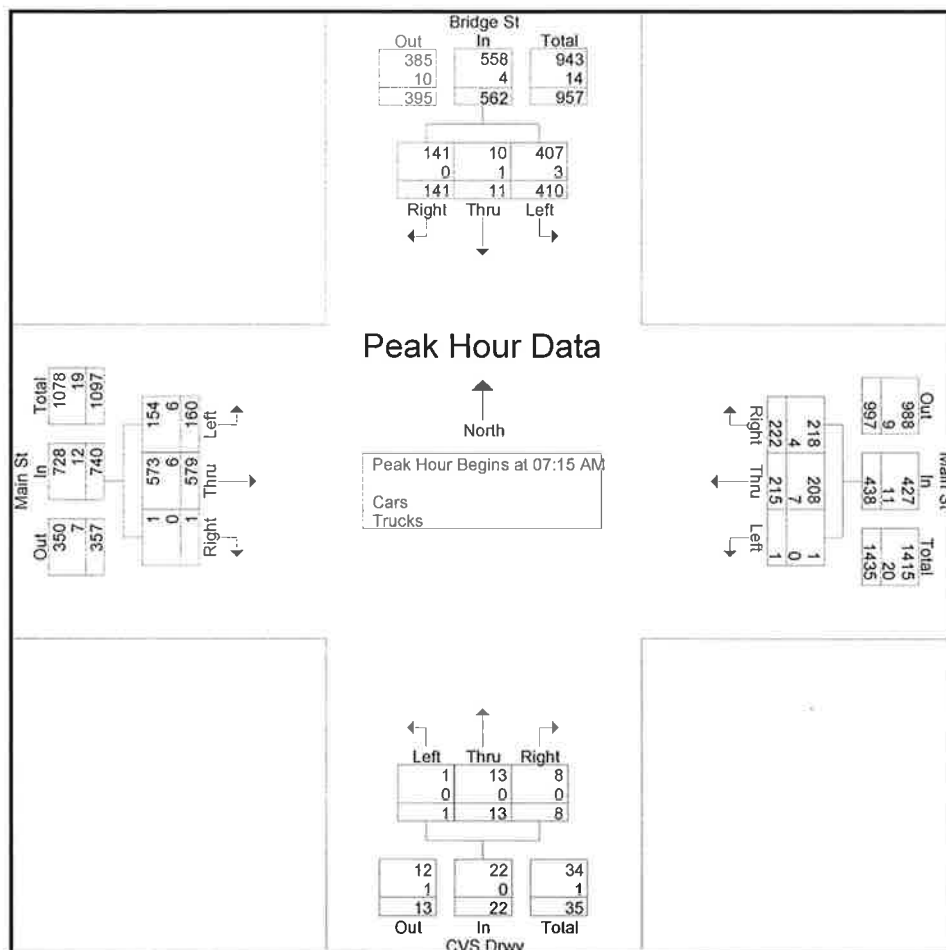
Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW03
Site Code : 68460W03
Start Date : 9/30/2015
Page No : 2

	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	111	2	29	142	0	51	51	102	0	2	4	6	48	160	1	209	459
07:30 AM	117	2	29	148	0	50	57	107	0	1	2	3	34	149	0	183	441
07:45 AM	85	3	36	124	1	57	58	116	1	3	1	5	42	159	0	201	446
08:00 AM	97	4	47	148	0	57	56	113	0	7	1	8	36	111	0	147	416
Total Volume	410	11	141	562	1	215	222	438	1	13	8	22	160	579	1	740	1762
% App. Total	73	2	25.1		0.2	49.1	50.7		4.5	59.1	36.4		21.6	78.2	0.1		
PHF	.876	.688	.750	.949	.250	.943	.957	.944	.250	.464	.500	.688	.833	.905	.250	.885	.960
Cars	407	10	141	558	1	208	218	427	1	13	8	22	154	573	1	728	1735
% Cars	99.3	90.9	100	99.3	100	96.7	98.2	97.5	100	100	100	100	96.3	99.0	100	98.4	98.5
Trucks	3	1	0	4	0	7	4	11	0	0	0	0	6	6	0	12	27
% Trucks	0.7	9.1	0	0.7	0	3.3	1.8	2.5	0	0	0	0	3.8	1.0	0	1.6	1.5



Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW03
Site Code : 68460W03
Start Date : 9/30/2015
Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	91	0	32	0	29	33	1	4	0	33	108	0	331
07:15 AM	110	2	29	0	51	51	0	2	4	46	158	1	454
07:30 AM	116	2	29	0	45	56	0	1	2	34	148	0	433
07:45 AM	85	2	36	1	55	58	1	3	1	39	157	0	438
Total	402	6	126	1	180	198	2	10	7	152	571	1	1656
08:00 AM	96	4	47	0	57	53	0	7	1	35	110	0	410
08:15 AM	84	4	42	0	62	62	0	7	0	45	94	1	401
08:30 AM	79	6	48	0	49	43	0	5	4	32	55	0	321
08:45 AM	52	3	43	1	74	54	1	2	5	38	101	0	374
Total	311	17	180	1	242	212	1	21	10	150	360	1	1506
Grand Total	713	23	306	2	422	410	3	31	17	302	931	2	3162
Apprch %	68.4	2.2	29.4	0.2	50.6	49.2	5.9	60.8	33.3	24.5	75.4	0.2	
Total %	22.5	0.7	9.7	0.1	13.3	13	0.1	1	0.5	9.6	29.4	0.1	

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW03
Site Code : 68460W03
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	2	1	0	0	0	5	1	0	9
07:15 AM	1	0	0	0	0	0	0	0	0	2	2	0	5
07:30 AM	1	0	0	0	5	1	0	0	0	0	1	0	8
07:45 AM	0	1	0	0	2	0	0	0	0	3	2	0	8
Total	2	1	0	0	9	2	0	0	0	10	6	0	30
08:00 AM	1	0	0	0	0	3	0	0	0	1	1	0	6
08:15 AM	0	0	0	0	2	0	0	0	0	1	1	0	4
08:30 AM	6	0	0	0	1	0	0	0	0	1	3	0	11
08:45 AM	0	1	0	0	3	1	0	0	0	1	1	0	7
Total	7	1	0	0	6	4	0	0	0	4	6	0	28
Grand Total	9	2	0	0	15	6	0	0	0	14	12	0	58
Apprch %	81.8	18.2	0	0	71.4	28.6	0	0	0	53.8	46.2	0	
Total %	15.5	3.4	0	0	25.9	10.3	0	0	0	24.1	20.7	0	

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW03
Site Code : 68460W03
Start Date : 9/30/2015
Page No : 10

Groups Printed- Bikes Peds

Start Time	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
08:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	2
Grand Total	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	3
Apprch %	0	50	50		0	0	0		0	0	0		0	100	0				
Total %	0	33.3	33.3		0	0	0		0	0	0		0	33.3	0		0	100	

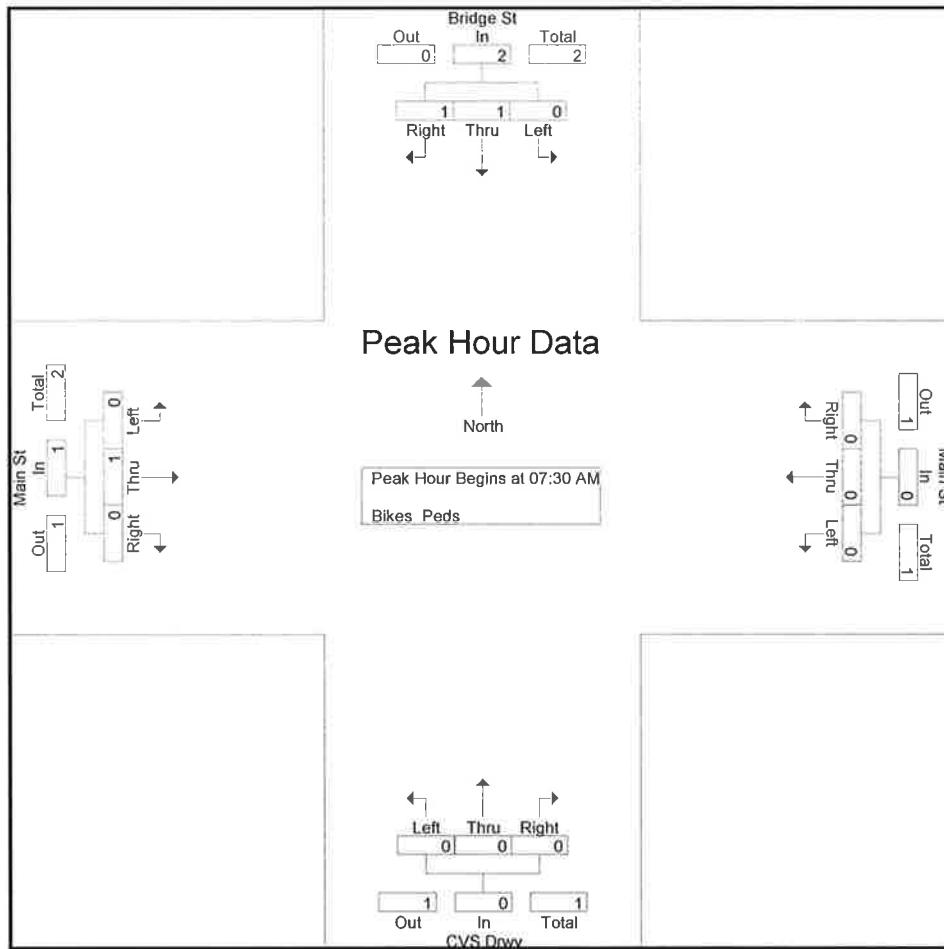
Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW03
 Site Code : 6846W03
 Start Date : 9/30/2015
 Page No : 11

	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	1	2	0	0	0	0	0	0	0	0	0	1	0	1	3
% App. Total	0	50	50		0	0	0		0	0	0		0	100	0		
PHF	.000	.250	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.750



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:00 AM				07:15 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	1	1	2	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	50	50		0	0	0		0	0	0		0	100	0	
PHF	.000	.250	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW03
Site Code : 68460W03
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	57	8	43	2	90	85	2	17	8	38	42	1	393
04:15 PM	38	4	59	2	110	88	4	17	8	50	42	5	427
04:30 PM	59	5	64	1	84	90	5	14	2	55	60	0	439
04:45 PM	57	3	57	1	78	90	7	20	4	46	53	1	417
Total	211	20	223	6	362	353	18	68	22	189	197	7	1676
05:00 PM	72	5	41	0	93	97	5	19	8	62	40	5	447
05:15 PM	46	4	48	0	104	94	6	16	7	65	52	2	444
05:30 PM	66	5	47	1	91	94	4	10	2	53	45	4	422
05:45 PM	49	2	58	0	78	68	2	18	8	43	49	1	376
Total	233	16	194	1	366	353	17	63	25	223	186	12	1689
Grand Total	444	36	417	7	728	706	35	131	47	412	383	19	3365
Apprch %	49.5	4	46.5	0.5	50.5	49	16.4	61.5	22.1	50.6	47.1	2.3	
Total %	13.2	1.1	12.4	0.2	21.6	21	1	3.9	1.4	12.2	11.4	0.6	
Cars	444	36	415	7	724	704	35	131	47	410	381	19	3353
% Cars	100	100	99.5	100	99.5	99.7	100	100	100	99.5	99.5	100	99.6
Trucks	0	0	2	0	4	2	0	0	0	2	2	0	12
% Trucks	0	0	0.5	0	0.5	0.3	0	0	0	0.5	0.5	0	0.4

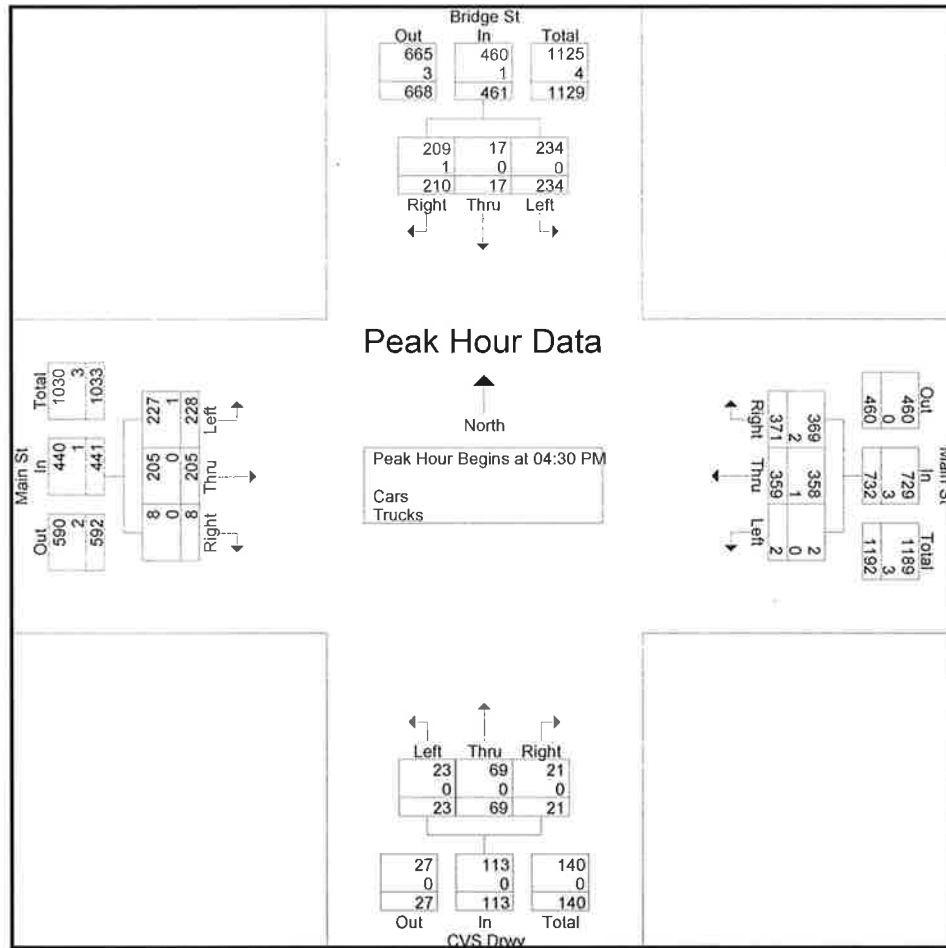
Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW03
 Site Code : 68460W03
 Start Date : 9/30/2015
 Page No : 2

	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	59	5	64	128	1	84	90	175	5	14	2	21	55	60	0	115	439
04:45 PM	57	3	57	117	1	78	90	169	7	20	4	31	46	53	1	100	417
05:00 PM	72	5	41	118	0	93	97	190	5	19	8	32	62	40	5	107	447
05:15 PM	46	4	48	98	0	104	94	198	6	16	7	29	65	52	2	119	444
Total Volume	234	17	210	461	2	359	371	732	23	69	21	113	228	205	8	441	1747
% App. Total	50.8	3.7	45.6		0.3	49	50.7		20.4	61.1	18.6		51.7	46.5	1.8		
PHF	.813	.850	.820	.900	.500	.863	.956	.924	.821	.863	.656	.883	.877	.854	.400	.926	.977
Cars	234	17	209	460	2	358	369	729	23	69	21	113	227	205	8	440	1742
% Cars	100	100	99.5	99.8	100	99.7	99.5	99.6	100	100	100	100	99.6	100	100	99.8	99.7
Trucks	0	0	1	1	0	1	2	3	0	0	0	0	1	0	0	1	5
% Trucks	0	0	0.5	0.2	0	0.3	0.5	0.4	0	0	0	0	0.4	0	0	0.2	0.3



Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW03
 Site Code : 68460W03
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	57	8	43	2	90	85	2	17	8	37	42	1	392
04:15 PM	38	4	58	2	109	88	4	17	8	50	41	5	424
04:30 PM	59	5	64	1	84	89	5	14	2	55	60	0	438
04:45 PM	57	3	57	1	77	90	7	20	4	46	53	1	416
Total	211	20	222	6	360	352	18	68	22	188	196	7	1670
05:00 PM	72	5	41	0	93	96	5	19	8	61	40	5	445
05:15 PM	46	4	47	0	104	94	6	16	7	65	52	2	443
05:30 PM	66	5	47	1	91	94	4	10	2	53	44	4	421
05:45 PM	49	2	58	0	76	68	2	18	8	43	49	1	374
Total	233	16	193	1	364	352	17	63	25	222	185	12	1683
Grand Total	444	36	415	7	724	704	35	131	47	410	381	19	3353
Apprch %	49.6	4	46.4	0.5	50.5	49.1	16.4	61.5	22.1	50.6	47	2.3	
Total %	13.2	1.1	12.4	0.2	21.6	21	1	3.9	1.4	12.2	11.4	0.6	

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW03
Site Code : 68460W03
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
04:15 PM	0	0	1	0	1	0	0	0	0	0	1	0	3
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	1	0	2	1	0	0	0	1	1	0	6
05:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	2
05:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	0	0	1	0	2	1	0	0	0	1	1	0	6
Grand Total	0	0	2	0	4	2	0	0	0	2	2	0	12
Apprch %	0	0	100	0	66.7	33.3	0	0	0	50	50	0	
Total %	0	0	16.7	0	33.3	16.7	0	0	0	16.7	16.7	0	

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW03
 Site Code : 68460W03
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	2	0	0	0	8	0	0	0	0	0	0	0	4	14	0	14
04:15 PM	0	0	0	0	0	2	0	1	0	0	0	1	0	0	0	0	2	2	4
04:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2
04:45 PM	0	0	0	3	0	0	0	0	0	0	0	2	1	0	0	0	5	1	6
Total	0	0	0	6	0	2	0	10	0	0	0	3	1	0	0	4	23	3	26
05:00 PM	0	0	0	2	0	0	0	4	0	0	0	0	0	0	0	2	8	0	8
05:15 PM	0	0	0	3	0	0	0	5	0	0	0	0	0	0	0	4	12	0	12
05:30 PM	0	0	0	2	0	0	0	11	0	0	0	3	0	0	0	1	17	0	17
05:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	4	0	4
Total	0	0	0	8	0	0	0	20	0	0	0	4	0	0	0	9	41	0	41
Grand Total	0	0	0	14	0	2	0	30	0	0	0	7	1	0	0	13	64	3	67
Apprch %	0	0	0		0	100	0		0	0	0		100	0	0				
Total %	0	0	0		0	66.7	0		0	0	0		33.3	0	0		95.5	4.5	

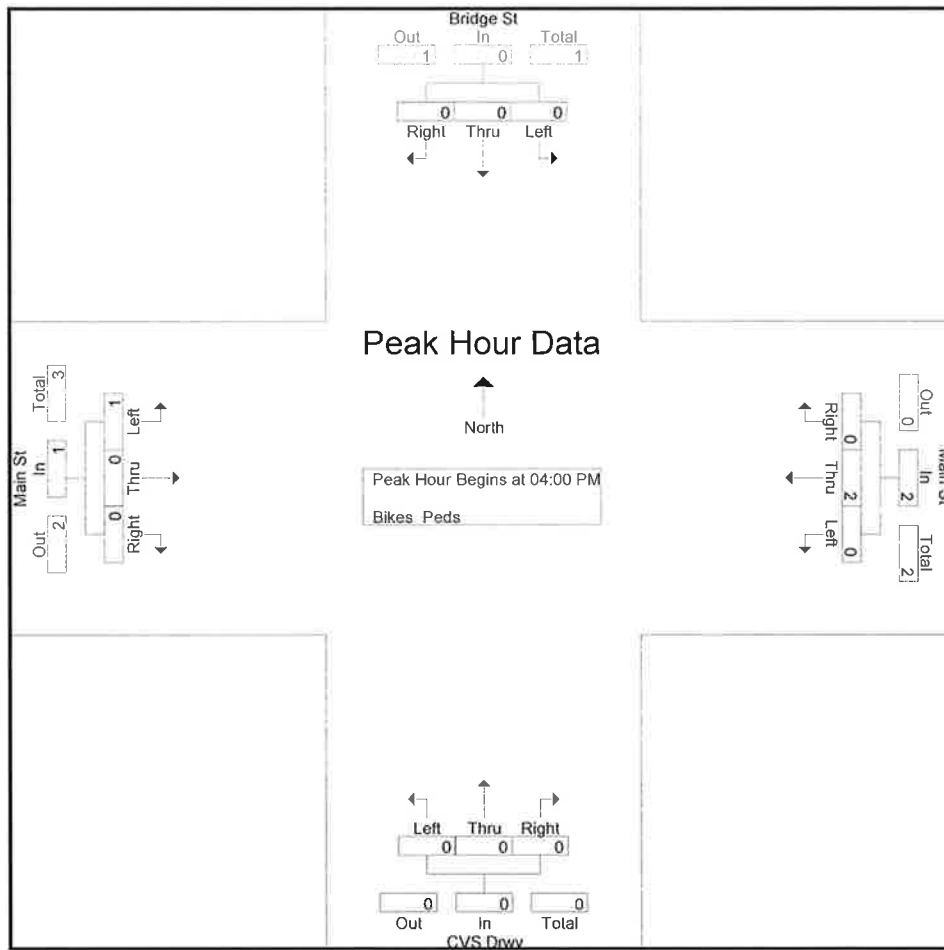
Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW03
Site Code : 68460W03
Start Date : 9/30/2015
Page No : 11

	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	1	0	0	1	3
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250	.000	.000	.250	.375



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	1	0	0	1
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks							
Start Time	Main St From East		Spring St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	11	47	19	9	147	44	277
07:15 AM	19	80	33	12	187	59	390
07:30 AM	13	87	26	19	184	68	397
07:45 AM	18	96	34	18	159	61	386
Total	61	310	112	58	677	232	1450
08:00 AM	14	108	27	16	136	65	366
08:15 AM	19	94	37	11	111	50	322
08:30 AM	25	101	26	15	99	37	303
08:45 AM	19	118	32	16	111	38	334
Total	77	421	122	58	457	190	1325
Grand Total	138	731	234	116	1134	422	2775
Apprch %	15.9	84.1	66.9	33.1	72.9	27.1	
Total %	5	26.3	8.4	4.2	40.9	15.2	
Cars	131	713	230	114	1117	422	2727
% Cars	94.9	97.5	98.3	98.3	98.5	100	98.3
Trucks	7	18	4	2	17	0	48
% Trucks	5.1	2.5	1.7	1.7	1.5	0	1.7

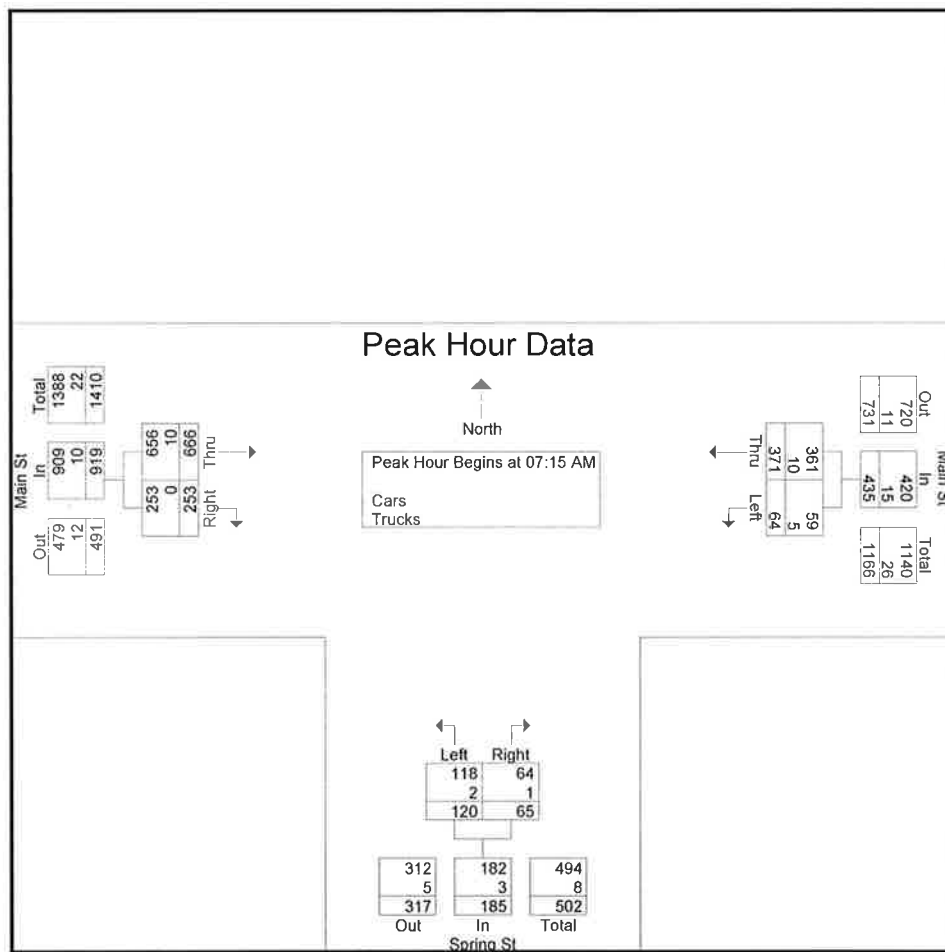
Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 2

	Main St From East			Spring St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	19	80	99	33	12	45	187	59	246	390
07:30 AM	13	87	100	26	19	45	184	68	252	397
07:45 AM	18	96	114	34	18	52	159	61	220	386
08:00 AM	14	108	122	27	16	43	136	65	201	366
Total Volume	64	371	435	120	65	185	666	253	919	1539
% App. Total	14.7	85.3		64.9	35.1		72.5	27.5		
PHF	.842	.859	.891	.882	.855	.889	.890	.930	.912	.969
Cars	59	361	420	118	64	182	656	253	909	1511
% Cars	92.2	97.3	96.6	98.3	98.5	98.4	98.5	100	98.9	98.2
Trucks	5	10	15	2	1	3	10	0	10	28
% Trucks	7.8	2.7	3.4	1.7	1.5	1.6	1.5	0	1.1	1.8



Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Main St From East		Spring St From South		Main St From West		Int Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	11	45	18	9	146	44	273
07:15 AM	17	78	33	11	184	59	382
07:30 AM	13	83	25	19	182	68	390
07:45 AM	17	93	34	18	156	61	379
Total	58	299	110	57	668	232	1424
08:00 AM	12	107	26	16	134	65	360
08:15 AM	19	92	37	11	110	50	319
08:30 AM	23	100	26	15	94	37	295
08:45 AM	19	115	31	15	111	38	329
Total	73	414	120	57	449	190	1303
Grand Total	131	713	230	114	1117	422	2727
Apprch %	15.5	84.5	66.9	33.1	72.6	27.4	
Total %	4.8	26.1	8.4	4.2	41	15.5	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks							
Start Time	Main St From East		Spring St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	2	1	0	1	0	4
07:15 AM	2	2	0	1	3	0	8
07:30 AM	0	4	1	0	2	0	7
07:45 AM	1	3	0	0	3	0	7
Total	3	11	2	1	9	0	26
08:00 AM	2	1	1	0	2	0	6
08:15 AM	0	2	0	0	1	0	3
08:30 AM	2	1	0	0	5	0	8
08:45 AM	0	3	1	1	0	0	5
Total	4	7	2	1	8	0	22
Grand Total	7	18	4	2	17	0	48
Apprch %	28	72	66.7	33.3	100	0	
Total %	14.6	37.5	8.3	4.2	35.4	0	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Main St From East			Spring St From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:15 AM	0	0	1	0	0	1	0	0	0	2	0	2
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	1
Total	0	0	1	0	0	4	0	0	0	5	0	5
08:00 AM	0	0	0	1	1	0	0	0	0	0	2	2
08:15 AM	0	0	0	0	0	1	0	0	1	2	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	3	0	0	0	3	0	3
Total	0	0	0	1	1	4	0	0	1	5	2	7
Grand Total	0	0	1	1	1	8	0	0	1	10	2	12
Apprch %	0	0		50	50		0	0				
Total %	0	0		50	50		0	0		83.3	16.7	

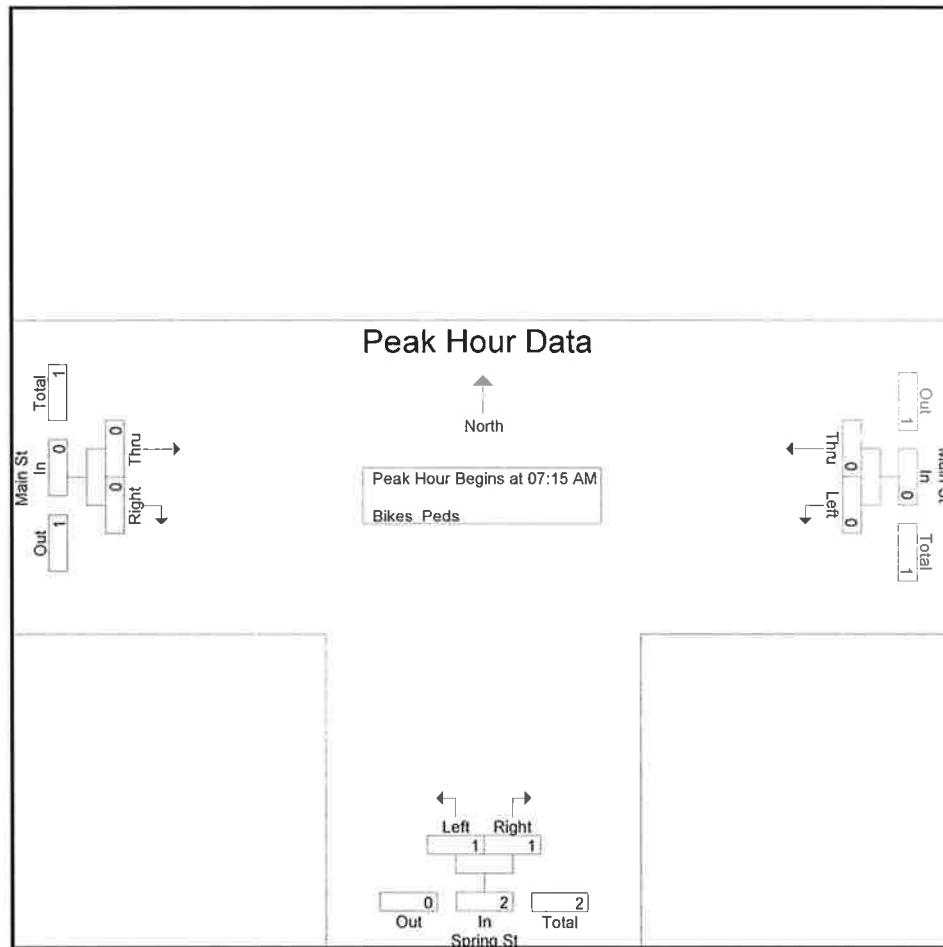
Accurate Counts

978-664-2565

N/S Street : Spring Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW04
Site Code : 68460W04
Start Date : 9/30/2015
Page No : 11

	Main St From East			Spring St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	1	1	2	0	0	0	2
Total Volume	0	0	0	1	1	2	0	0	0	2
% App. Total	0	0		50	50		0	0		
PHF	.000	.000	.000	.250	.250	.250	.000	.000	.000	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:15 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	1	1	2	0	0	0
Total Volume	0	0	0	1	1	2	0	0	0
% App. Total	0	0		50	50		0	0	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Main St From East		Spring St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	27	135	61	22	94	29	368
04:15 PM	21	132	68	30	79	23	353
04:30 PM	20	130	75	27	96	37	385
04:45 PM	22	154	59	30	81	39	385
Total	90	551	263	109	350	128	1491
05:00 PM	15	143	79	22	84	31	374
05:15 PM	18	135	70	20	72	30	345
05:30 PM	26	128	75	16	77	23	345
05:45 PM	13	109	59	20	85	28	314
Total	72	515	283	78	318	112	1378
Grand Total	162	1066	546	187	668	240	2869
Apprch %	13.2	86.8	74.5	25.5	73.6	26.4	
Total %	5.6	37.2	19	6.5	23.3	8.4	
Cars	162	1060	543	186	665	240	2856
% Cars	100	99.4	99.5	99.5	99.6	100	99.5
Trucks	0	6	3	1	3	0	13
% Trucks	0	0.6	0.5	0.5	0.4	0	0.5

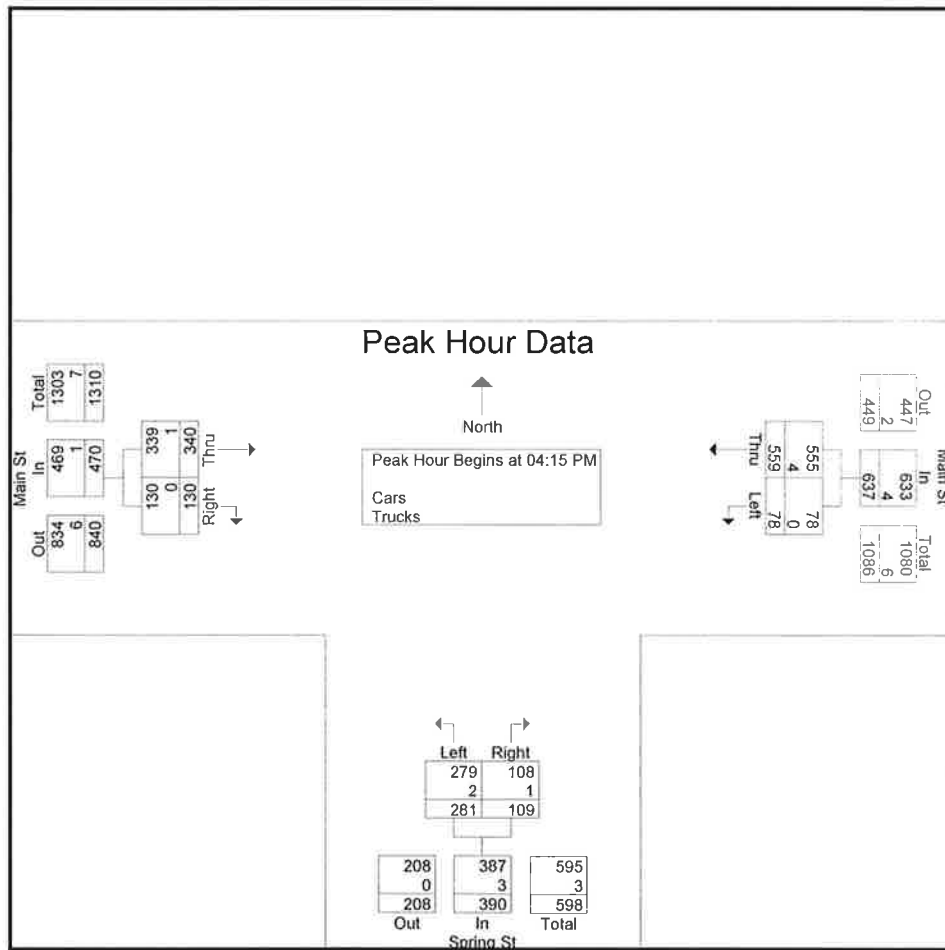
Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 2

	Main St From East			Spring St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	21	132	153	68	30	98	79	23	102	353
04:30 PM	20	130	150	75	27	102	96	37	133	385
04:45 PM	22	154	176	59	30	89	81	39	120	385
05:00 PM	15	143	158	79	22	101	84	31	115	374
Total Volume	78	559	637	281	109	390	340	130	470	1497
% App. Total	12.2	87.8		72.1	27.9		72.3	27.7		
PHF	.886	.907	.905	.889	.908	.956	.885	.833	.883	.972
Cars	78	555	633	279	108	387	339	130	469	1489
% Cars	100	99.3	99.4	99.3	99.1	99.2	99.7	100	99.8	99.5
Trucks	0	4	4	2	1	3	1	0	1	8
% Trucks	0	0.7	0.6	0.7	0.9	0.8	0.3	0	0.2	0.5



Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars							
Start Time	Main St From East		Spring St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	27	135	61	22	94	29	368
04:15 PM	21	131	67	30	78	23	350
04:30 PM	20	128	74	27	96	37	382
04:45 PM	22	153	59	29	81	39	383
Total	90	547	261	108	349	128	1483
05:00 PM	15	143	79	22	84	31	374
05:15 PM	18	135	70	20	72	30	345
05:30 PM	26	128	74	16	76	23	343
05:45 PM	13	107	59	20	84	28	311
Total	72	513	282	78	316	112	1373
Grand Total	162	1060	543	186	665	240	2856
Apprch %	13.3	86.7	74.5	25.5	73.5	26.5	
Total %	5.7	37.1	19	6.5	23.3	8.4	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW04
 Site Code : 68460W04
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks							
Start Time	Main St From East		Spring St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	0	0	0	0	0	0
04:15 PM	0	1	1	0	1	0	3
04:30 PM	0	2	1	0	0	0	3
04:45 PM	0	1	0	1	0	0	2
Total	0	4	2	1	1	0	8
05:00 PM	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0
05:30 PM	0	0	1	0	1	0	2
05:45 PM	0	2	0	0	1	0	3
Total	0	2	1	0	2	0	5
Grand Total	0	6	3	1	3	0	13
Apprch %	0	100	75	25	100	0	
Total %	0	46.2	23.1	7.7	23.1	0	

978-664-2565

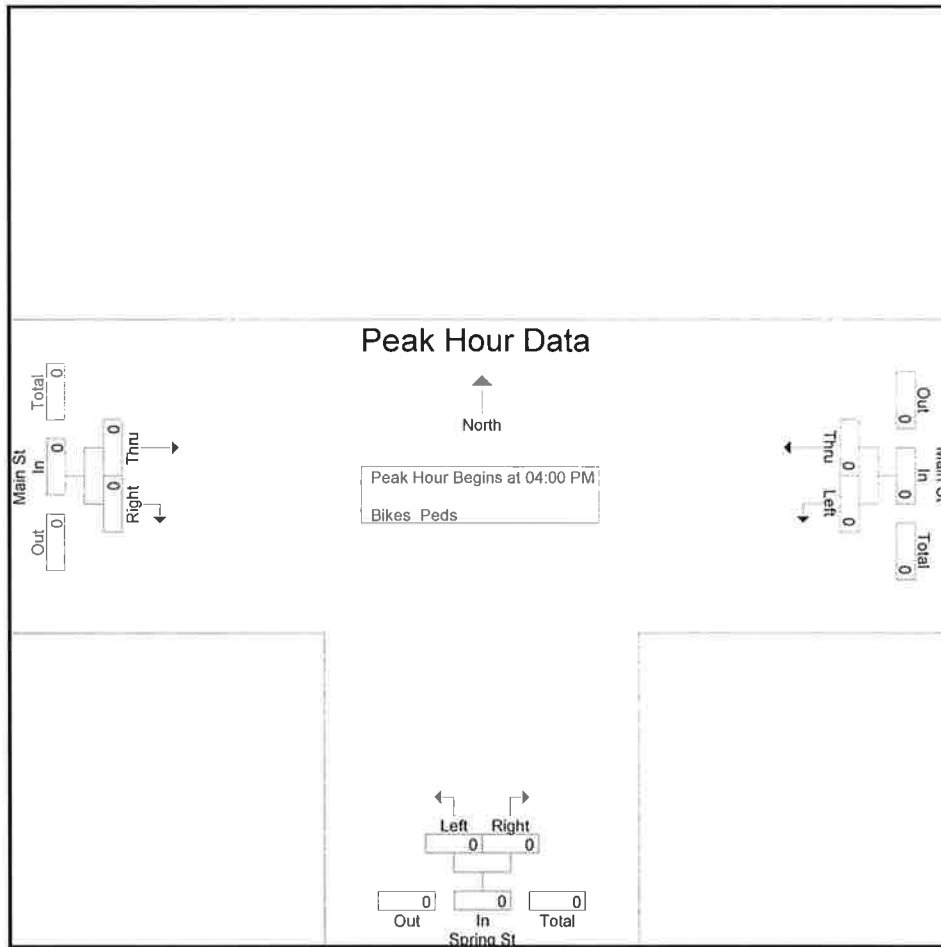
File Name : 6846WW04
Site Code : 68460W04
Start Date : 9/30/2015
Page No : 10

[illegible]

Accurate Counts
978-664-2565

N/S Street : Spring Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW04
Site Code : 68460W04
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks							
Start Time	Main St From East		Stoudwater St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	25	63	9	13	119	28	257
07:15 AM	12	86	8	10	149	59	324
07:30 AM	10	78	19	15	147	51	320
07:45 AM	16	113	14	19	143	38	343
Total	63	340	50	57	558	176	1244
08:00 AM	14	106	17	8	120	29	294
08:15 AM	16	111	9	21	88	29	274
08:30 AM	19	118	11	12	76	27	263
08:45 AM	16	124	9	19	96	26	290
Total	65	459	46	60	380	111	1121
Grand Total	128	799	96	117	938	287	2365
Apprch %	13.8	86.2	45.1	54.9	76.6	23.4	
Total %	5.4	33.8	4.1	4.9	39.7	12.1	
Cars	125	780	94	115	928	281	2323
% Cars	97.7	97.6	97.9	98.3	98.9	97.9	98.2
Trucks	3	19	2	2	10	6	42
% Trucks	2.3	2.4	2.1	1.7	1.1	2.1	1.8

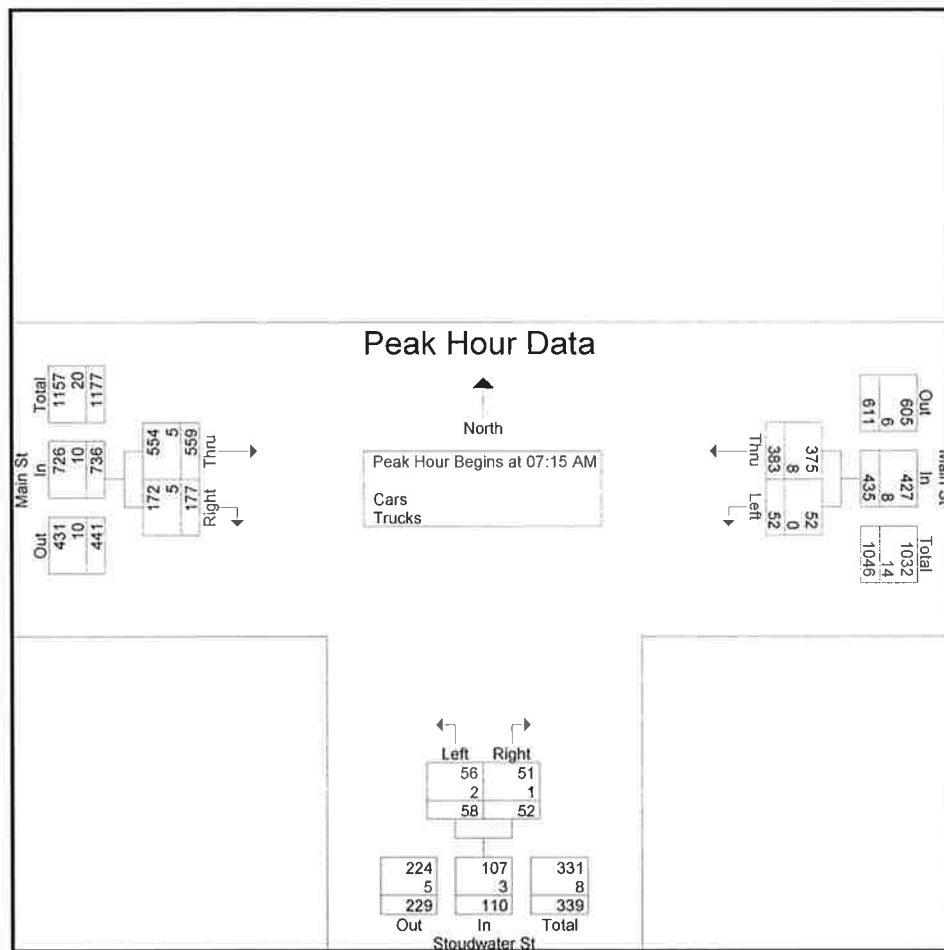
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 2

	Main St From East			Stoudwater St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	12	86	98	8	10	18	149	59	208	324
07:30 AM	10	78	88	19	15	34	147	51	198	320
07:45 AM	16	113	129	14	19	33	143	38	181	343
08:00 AM	14	106	120	17	8	25	120	29	149	294
Total Volume	52	383	435	58	52	110	559	177	736	1281
% App. Total	12	88		52.7	47.3		76	24		
PHF	.813	.847	.843	.763	.684	.809	.938	.750	.885	.934
Cars	52	375	427	56	51	107	554	172	726	1260
% Cars	100	97.9	98.2	96.6	98.1	97.3	99.1	97.2	98.6	98.4
Trucks	0	8	8	2	1	3	5	5	10	21
% Trucks	0	2.1	1.8	3.4	1.9	2.7	0.9	2.8	1.4	1.6



Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Main St From East		Stoudwater St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	25	59	9	13	118	28	252
07:15 AM	12	86	8	10	147	57	320
07:30 AM	10	77	19	14	146	51	317
07:45 AM	16	109	13	19	142	36	335
Total	63	331	49	56	553	172	1224
08:00 AM	14	103	16	8	119	28	288
08:15 AM	15	110	9	21	87	29	271
08:30 AM	18	115	11	12	75	26	257
08:45 AM	15	121	9	18	94	26	283
Total	62	449	45	59	375	109	1099
Grand Total	125	780	94	115	928	281	2323
Apprch %	13.8	86.2	45	55	76.8	23.2	
Total %	5.4	33.6	4	5	39.9	12.1	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 7

	Groups Printed- Trucks						Int. Total
	Main St From East		Stoudwater St From South		Main St From West		
	Left	Thru	Left	Right	Thru	Right	
Start Time							
07:00 AM	0	4	0	0	1	0	5
07:15 AM	0	0	0	0	2	2	4
07:30 AM	0	1	0	1	1	0	3
07:45 AM	0	4	1	0	1	2	8
Total	0	9	1	1	5	4	20
08:00 AM	0	3	1	0	1	1	6
08:15 AM	1	1	0	0	1	0	3
08:30 AM	1	3	0	0	1	1	6
08:45 AM	1	3	0	1	2	0	7
Total	3	10	1	1	5	2	22
Grand Total	3	19	2	2	10	6	42
Apprch %	13.6	86.4	50	50	62.5	37.5	
Total %	7.1	45.2	4.8	4.8	23.8	14.3	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Main St From East			Stoudwater St From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:15 AM	0	0	0	0	0	0	0	0	2	2	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	2	3	0	3
08:00 AM	0	0	2	0	0	1	1	0	0	3	1	4
08:15 AM	0	0	0	0	0	1	0	0	1	2	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	0	2	1	0	1	5	1	6
Grand Total	0	0	2	0	0	3	1	0	3	8	1	9
Apprch %	0	0		0	0		100	0				
Total %	0	0		0	0		100	0		88.9	11.1	

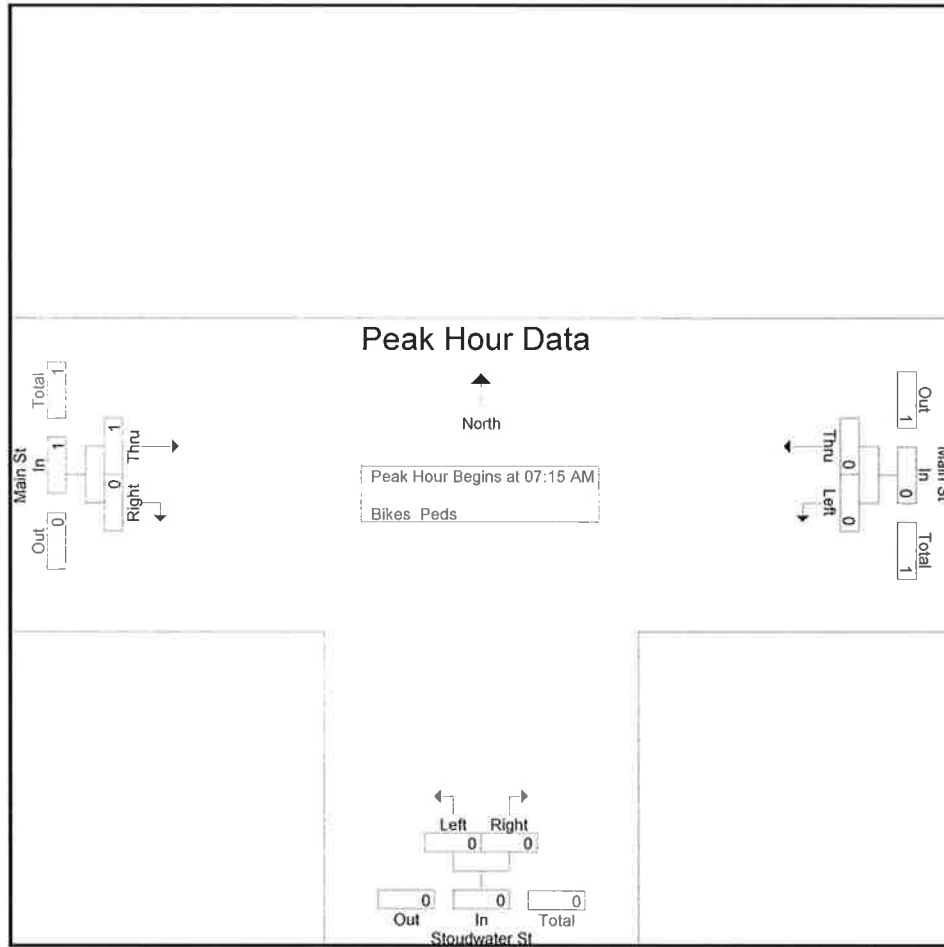
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 11

	Main St From East			Stoudwater St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0		0	0		100	0	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks							
Start Time	Main St From East	Stoudwater St From South			Main St From West	Int. Total	
	Left	Thru	Left	Right	Thru		
04:00 PM	9	140	20	15	92	16	292
04:15 PM	7	120	27	21	92	16	283
04:30 PM	12	116	29	14	99	18	288
04:45 PM	4	115	21	18	82	22	262
Total	32	491	97	68	365	72	1125
05:00 PM	12	128	22	22	89	25	298
05:15 PM	10	130	16	15	79	14	264
05:30 PM	8	136	22	21	72	19	278
05:45 PM	13	94	15	15	75	19	231
Total	43	488	75	73	315	77	1071
Grand Total	75	979	172	141	680	149	2196
Apprch %	7.1	92.9	55	45	82	18	
Total %	3.4	44.6	7.8	6.4	31	6.8	
Cars	75	975	171	141	678	149	2189
% Cars	100	99.6	99.4	100	99.7	100	99.7
Trucks	0	4	1	0	2	0	7
% Trucks	0	0.4	0.6	0	0.3	0	0.3

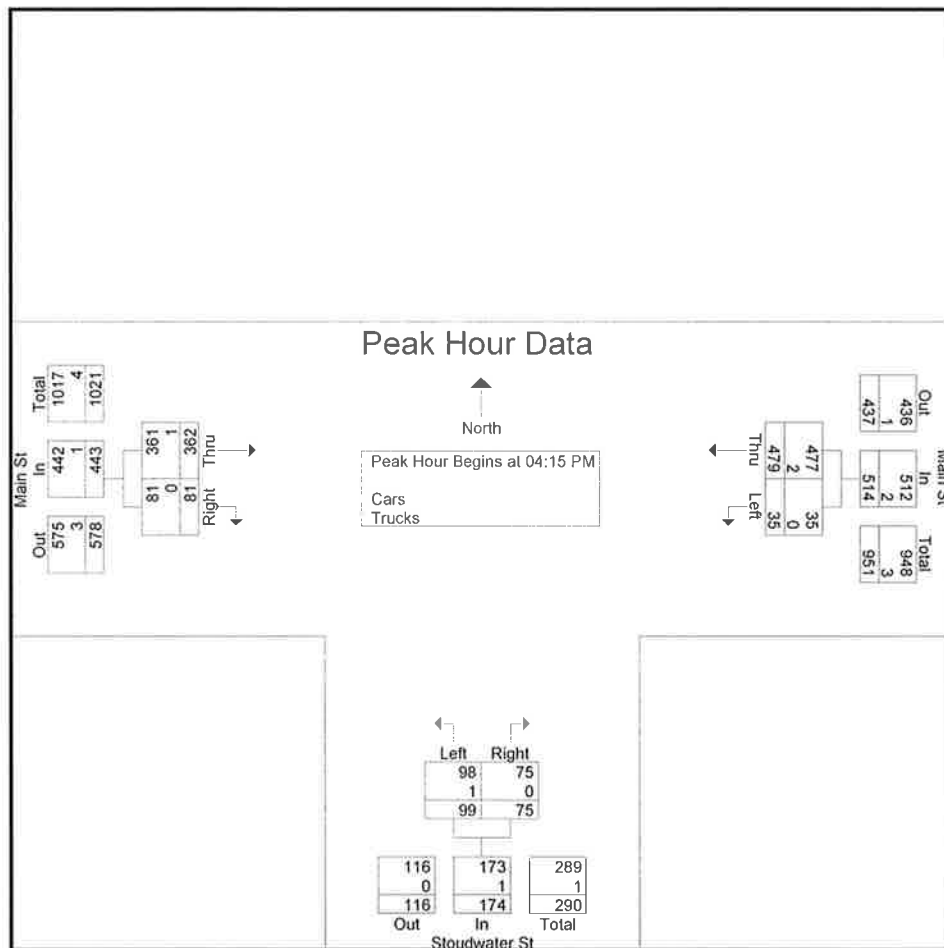
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 2

	Main St From East			Stoudwater St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	7	120	127	27	21	48	92	16	108	283
04:30 PM	12	116	128	29	14	43	99	18	117	288
04:45 PM	4	115	119	21	18	39	82	22	104	262
05:00 PM	12	128	140	22	22	44	89	25	114	298
Total Volume	35	479	514	99	75	174	362	81	443	1131
% App. Total	6.8	93.2		56.9	43.1		81.7	18.3		
PHF	.729	.936	.918	.853	.852	.906	.914	.810	.947	.949
Cars	35	477	512	98	75	173	361	81	442	1127
% Cars	100	99.6	99.6	99.0	100	99.4	99.7	100	99.8	99.6
Trucks	0	2	2	1	0	1	1	0	1	4
% Trucks	0	0.4	0.4	1.0	0	0.6	0.3	0	0.2	0.4



Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Main St From East		Stoudwater St From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	9	140	20	15	92	16	292	
04:15 PM	7	119	27	21	91	16	281	
04:30 PM	12	115	29	14	99	18	287	
04:45 PM	4	115	21	18	82	22	262	
Total	32	489	97	68	364	72	1122	
05:00 PM	12	128	21	22	89	25	297	
05:15 PM	10	130	16	15	79	14	264	
05:30 PM	8	136	22	21	71	19	277	
05:45 PM	13	92	15	15	75	19	229	
Total	43	486	74	73	314	77	1067	
Grand Total	75	975	171	141	678	149	2189	
Apprch %	7.1	92.9	54.8	45.2	82	18		
Total %	3.4	44.5	7.8	6.4	31	6.8		

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks							
Start Time	Main St From East		Stoudwater St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	1	0	2
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0
Total	0	2	0	0	1	0	3
05:00 PM	0	0	1	0	0	0	1
05:15 PM	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	1	0	1
05:45 PM	0	2	0	0	0	0	2
Total	0	2	1	0	1	0	4
Grand Total	0	4	1	0	2	0	7
Apprch %	0	100	100	0	100	0	
Total %	0	57.1	14.3	0	28.6	0	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Main St From East			Stoudwater St From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	2	0	0	11	13	0	13
04:15 PM	0	0	0	0	0	1	0	0	1	2	0	2
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	1
04:45 PM	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	0	0	3	0	0	15	18	0	18
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	2	0	0	1	3	0	3
05:30 PM	0	0	0	0	0	0	1	0	1	1	1	2
05:45 PM	0	0	0	0	0	2	0	0	0	2	0	2
Total	0	0	0	0	0	4	1	0	2	6	1	7
Grand Total	0	0	0	0	0	7	1	0	17	24	1	25
Apprch %	0	0		0	0		100	0				
Total %	0	0		0	0		100	0		96	4	

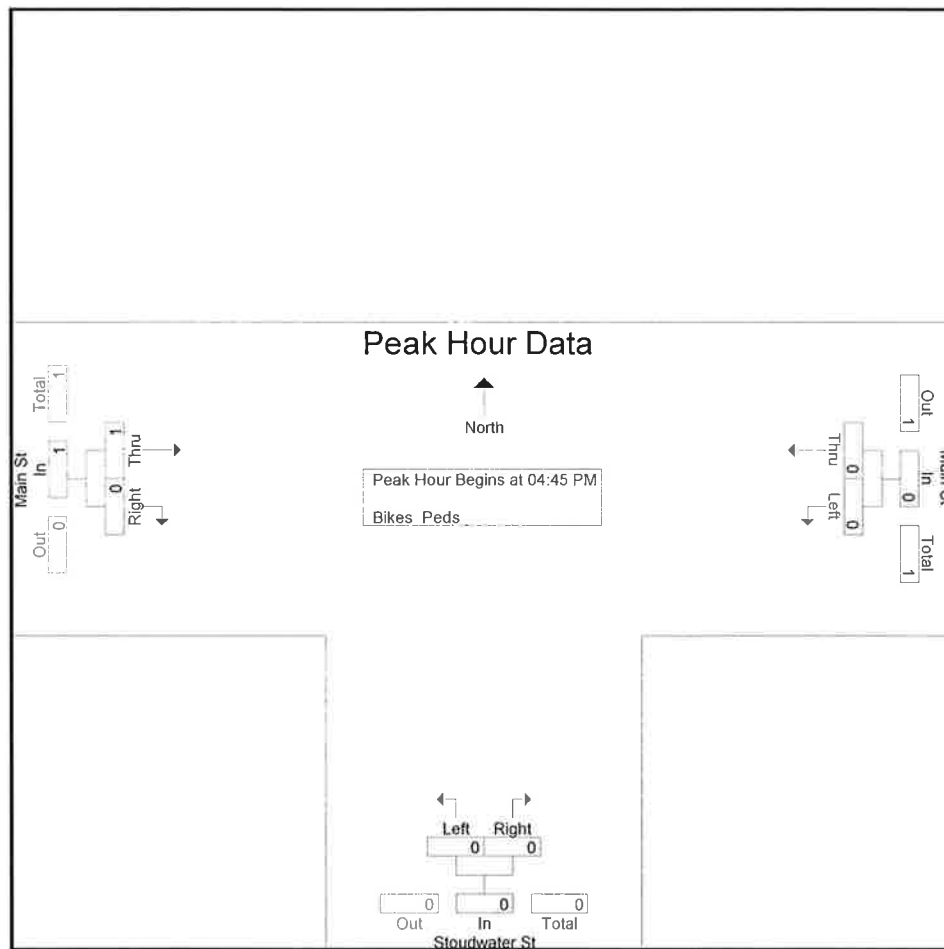
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW05
 Site Code : 684600W5
 Start Date : 9/30/2015
 Page No : 11

	Main St From East			Stoudwater St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0		0	0		100	0	
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW06
Site Code : 68460W06
Start Date : 9/30/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	52	88	4	28	106	21	299
07:15 AM	75	91	7	27	135	34	369
07:30 AM	65	92	8	29	121	48	363
07:45 AM	58	108	12	23	130	35	366
Total	250	379	31	107	492	138	1397
08:00 AM	72	102	18	39	112	22	365
08:15 AM	57	102	14	29	100	19	321
08:30 AM	56	127	18	43	75	14	333
08:45 AM	32	125	19	42	98	14	330
Total	217	456	69	153	385	69	1349
Grand Total	467	835	100	260	877	207	2746
Apprch %	35.9	64.1	27.8	72.2	80.9	19.1	
Total %	17	30.4	3.6	9.5	31.9	7.5	
Cars	444	817	96	246	866	204	2673
% Cars	95.1	97.8	96	94.6	98.7	98.6	97.3
Trucks	23	18	4	14	11	3	73
% Trucks	4.9	2.2	4	5.4	1.3	1.4	2.7

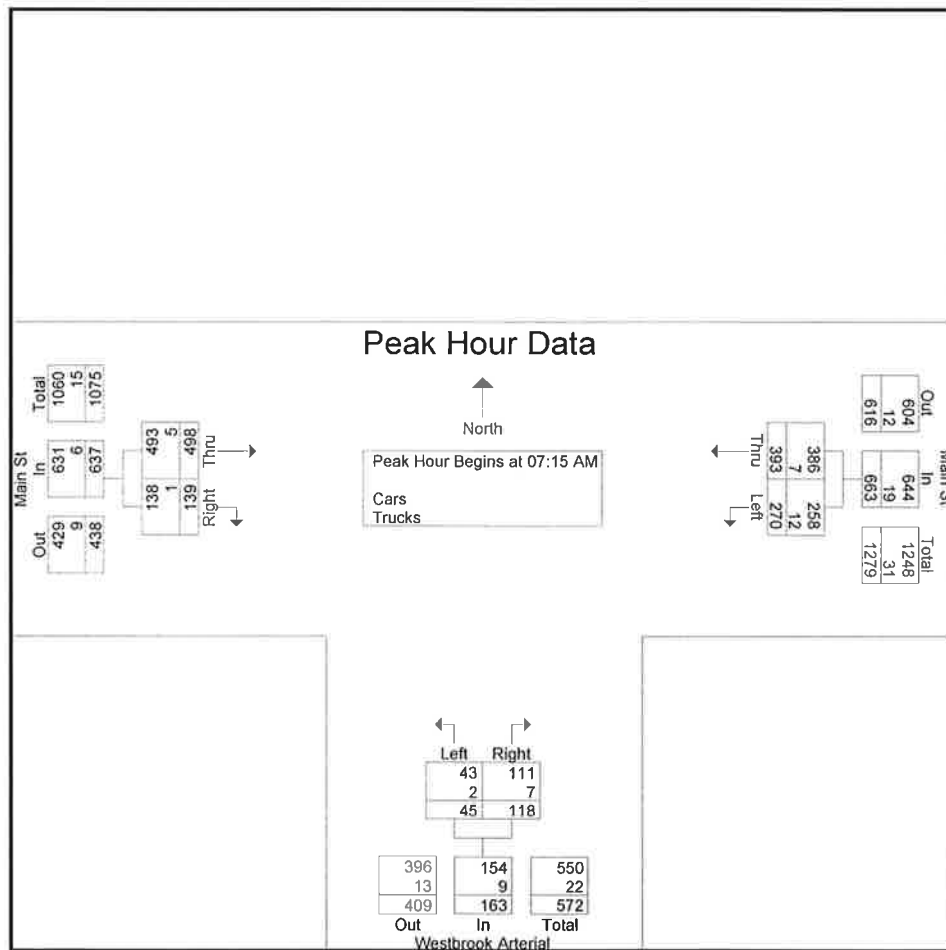
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 2

	Main St From East			Westbrook Arterial From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	75	91	166	7	27	34	135	34	169	369
07:30 AM	65	92	157	8	29	37	121	48	169	363
07:45 AM	58	108	166	12	23	35	130	35	165	366
08:00 AM	72	102	174	18	39	57	112	22	134	365
Total Volume	270	393	663	45	118	163	498	139	637	1463
% App. Total	40.7	59.3		27.6	72.4		78.2	21.8		
PHF	.900	.910	.953	.625	.756	.715	.922	.724	.942	.991
Cars	258	386	644	43	111	154	493	138	631	1429
% Cars	95.6	98.2	97.1	95.6	94.1	94.5	99.0	99.3	99.1	97.7
Trucks	12	7	19	2	7	9	5	1	6	34
% Trucks	4.4	1.8	2.9	4.4	5.9	5.5	1.0	0.7	0.9	2.3



Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	47	86	2	26	105	21	287	
07:15 AM	68	91	7	26	133	34	359	
07:30 AM	64	91	7	28	118	48	356	
07:45 AM	57	105	12	21	130	35	360	
Total	236	373	28	101	486	138	1362	
08:00 AM	69	99	17	36	112	21	354	
08:15 AM	55	100	14	28	99	18	314	
08:30 AM	54	124	18	40	74	14	324	
08:45 AM	30	121	19	41	95	13	319	
Total	208	444	68	145	380	66	1311	
Grand Total	444	817	96	246	866	204	2673	
Apprch %	35.2	64.8	28.1	71.9	80.9	19.1		
Total %	16.6	30.6	3.6	9.2	32.4	7.6		

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks								
Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	5	2	2	2	1	0	12	
07:15 AM	7	0	0	1	2	0	10	
07:30 AM	1	1	1	1	3	0	7	
07:45 AM	1	3	0	2	0	0	6	
Total	14	6	3	6	6	0	35	
08:00 AM	3	3	1	3	0	1	11	
08:15 AM	2	2	0	1	1	1	7	
08:30 AM	2	3	0	3	1	0	9	
08:45 AM	2	4	0	1	3	1	11	
Total	9	12	1	8	5	3	38	
Grand Total	23	18	4	14	11	3	73	
Apprch %	56.1	43.9	22.2	77.8	78.6	21.4		
Total %	31.5	24.7	5.5	19.2	15.1	4.1		

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Main St From East			Westbrook Arterial From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	1	1	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	1
Total	0	0	0	0	0	2	0	0	1	3	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	1	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	1	0	1
Total	0	0	0	0	0	1	1	0	0	1	1	2
Grand Total	0	0	0	0	0	3	1	0	1	4	1	5
Apprch %	0	0		0	0		100	0				
Total %	0	0		0	0		100	0		80	20	

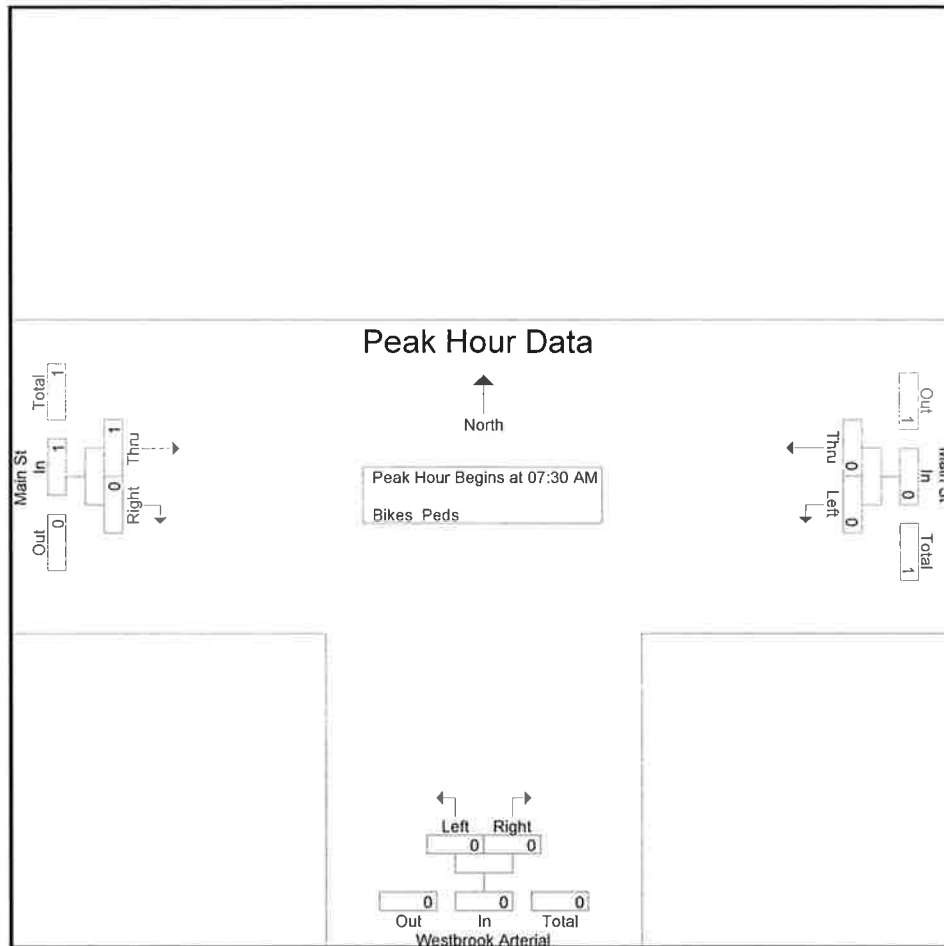
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 11

	Main St From East			Westbrook Arterial From South			Main St From West			Int. Total
	Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0			0	0		100	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:30 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0		0	0		100	0	

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks								
Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	44	136	9	60	89	18	356	
04:15 PM	46	104	13	60	87	20	330	
04:30 PM	48	113	18	62	96	9	346	
04:45 PM	42	102	19	61	71	23	318	
Total	180	455	59	243	343	70	1350	
05:00 PM	51	104	21	52	72	31	331	
05:15 PM	48	121	27	71	79	20	366	
05:30 PM	28	117	17	63	78	26	329	
05:45 PM	36	90	13	47	73	15	274	
Total	163	432	78	233	302	92	1300	
Grand Total	343	887	137	476	645	162	2650	
Apprch %	27.9	72.1	22.3	77.7	79.9	20.1		
Total %	12.9	33.5	5.2	18	24.3	6.1		
Cars	336	884	135	468	645	160	2628	
% Cars	98	99.7	98.5	98.3	100	98.8	99.2	
Trucks	7	3	2	8	0	2	22	
% Trucks	2	0.3	1.5	1.7	0	1.2	0.8	

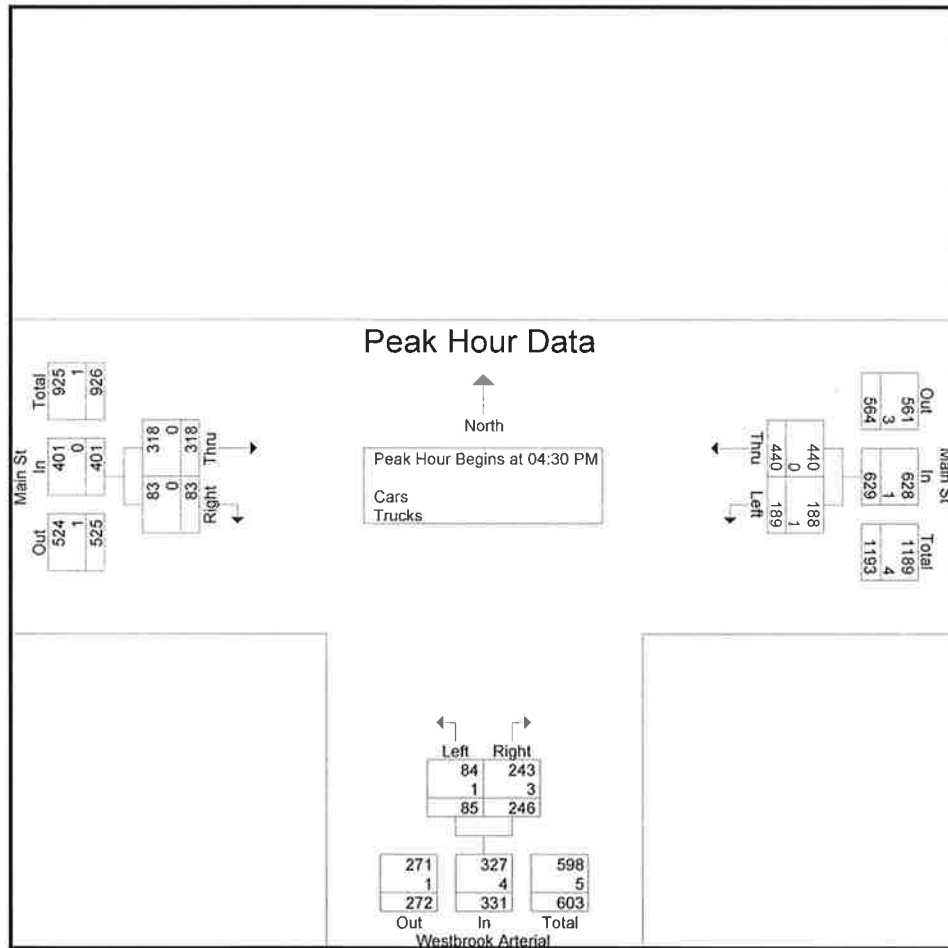
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 2

	Main St From East			Westbrook Arterial From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	48	113	161	18	62	80	96	9	105	346
04:45 PM	42	102	144	19	61	80	71	23	94	318
05:00 PM	51	104	155	21	52	73	72	31	103	331
05:15 PM	48	121	169	27	71	98	79	20	99	366
Total Volume	189	440	629	85	246	331	318	83	401	1361
% App. Total	30	70		25.7	74.3		79.3	20.7		
PHF	.926	.909	.930	.787	.866	.844	.828	.669	.955	.930
Cars	188	440	628	84	243	327	318	83	401	1356
% Cars	99.5	100	99.8	98.8	98.8	98.8	100	100	100	99.6
Trucks	1	0	1	1	3	4	0	0	0	5
% Trucks	0.5	0	0.2	1.2	1.2	1.2	0	0	0	0.4



Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	42	135	9	58	89	18	351	
04:15 PM	44	103	13	59	87	19	325	
04:30 PM	47	113	17	60	96	9	342	
04:45 PM	42	102	19	60	71	23	317	
Total	175	453	58	237	343	69	1335	
05:00 PM	51	104	21	52	72	31	331	
05:15 PM	48	121	27	71	79	20	366	
05:30 PM	27	117	16	61	78	25	324	
05:45 PM	35	89	13	47	73	15	272	
Total	161	431	77	231	302	91	1293	
Grand Total	336	884	135	468	645	160	2628	
Apprch %	27.5	72.5	22.4	77.6	80.1	19.9		
Total %	12.8	33.6	5.1	17.8	24.5	6.1		

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks								
Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
04:00 PM	2	1	0	2	0	0	5	
04:15 PM	2	1	0	1	0	1	5	
04:30 PM	1	0	1	2	0	0	4	
04:45 PM	0	0	0	1	0	0	1	
Total	5	2	1	6	0	1	15	
05:00 PM	0	0	0	0	0	0	0	
05:15 PM	0	0	0	0	0	0	0	
05:30 PM	1	0	1	2	0	1	5	
05:45 PM	1	1	0	0	0	0	2	
Total	2	1	1	2	0	1	7	
Grand Total	7	3	2	8	0	2	22	
Apprch %	70	30	20	80	0	100		
Total %	31.8	13.6	9.1	36.4	0	9.1		

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Main St From East			Westbrook Arterial From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	1	0	0	0	1	0	1
04:15 PM	0	0	0	0	0	1	1	0	0	1	1	2
04:30 PM	0	0	0	0	0	2	0	0	0	2	0	2
04:45 PM	0	0	0	0	0	3	0	0	0	3	0	3
Total	0	0	0	0	0	7	1	0	0	7	1	8
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	1
05:15 PM	0	0	0	0	0	0	0	0	2	2	0	2
05:30 PM	0	1	0	0	0	0	1	0	1	1	2	3
05:45 PM	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	1	0	0	0	0	1	0	5	5	2	7
Grand Total	0	1	0	0	0	7	2	0	5	12	3	15
Apprch %	0	100		0	0		100	0				
Total %	0	33.3		0	0		66.7	0		80	20	

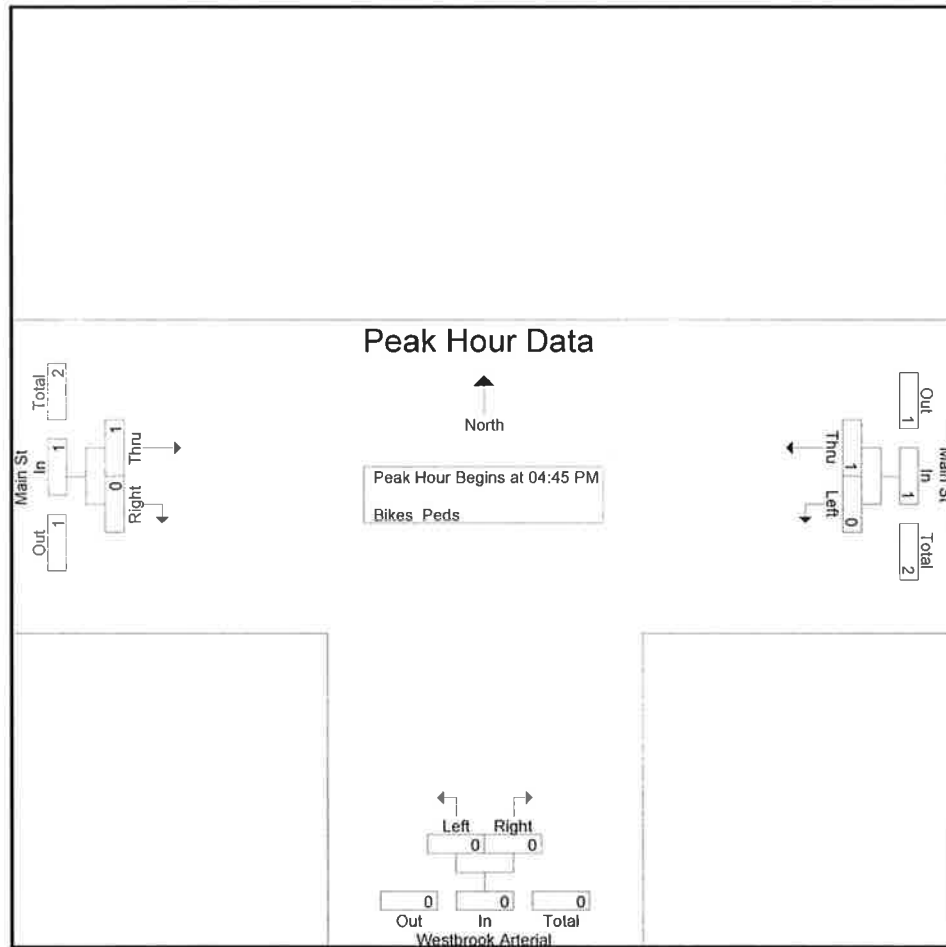
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW06
 Site Code : 68460W06
 Start Date : 9/30/2015
 Page No : 11

	Main St From East			Westbrook Arterial From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	1	1	0	0	0	1	0	1	2
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	William Clark Dr From East		Saco St From South		William Clark Dr From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	32	66	13	50	233	47	441
07:15 AM	32	71	10	50	267	60	490
07:30 AM	34	75	16	44	253	59	481
07:45 AM	37	93	15	41	240	66	492
Total	135	305	54	185	993	232	1904
08:00 AM	48	71	14	52	221	59	465
08:15 AM	44	78	20	31	191	44	408
08:30 AM	40	63	12	41	187	37	380
08:45 AM	40	63	16	50	171	47	387
Total	172	275	62	174	770	187	1640
Grand Total	307	580	116	359	1763	419	3544
Apprch %	34.6	65.4	24.4	75.6	80.8	19.2	
Total %	8.7	16.4	3.3	10.1	49.7	11.8	
Cars	296	528	104	339	1711	408	3386
% Cars	96.4	91	89.7	94.4	97.1	97.4	95.5
Trucks	11	52	12	20	52	11	158
% Trucks	3.6	9	10.3	5.6	2.9	2.6	4.5

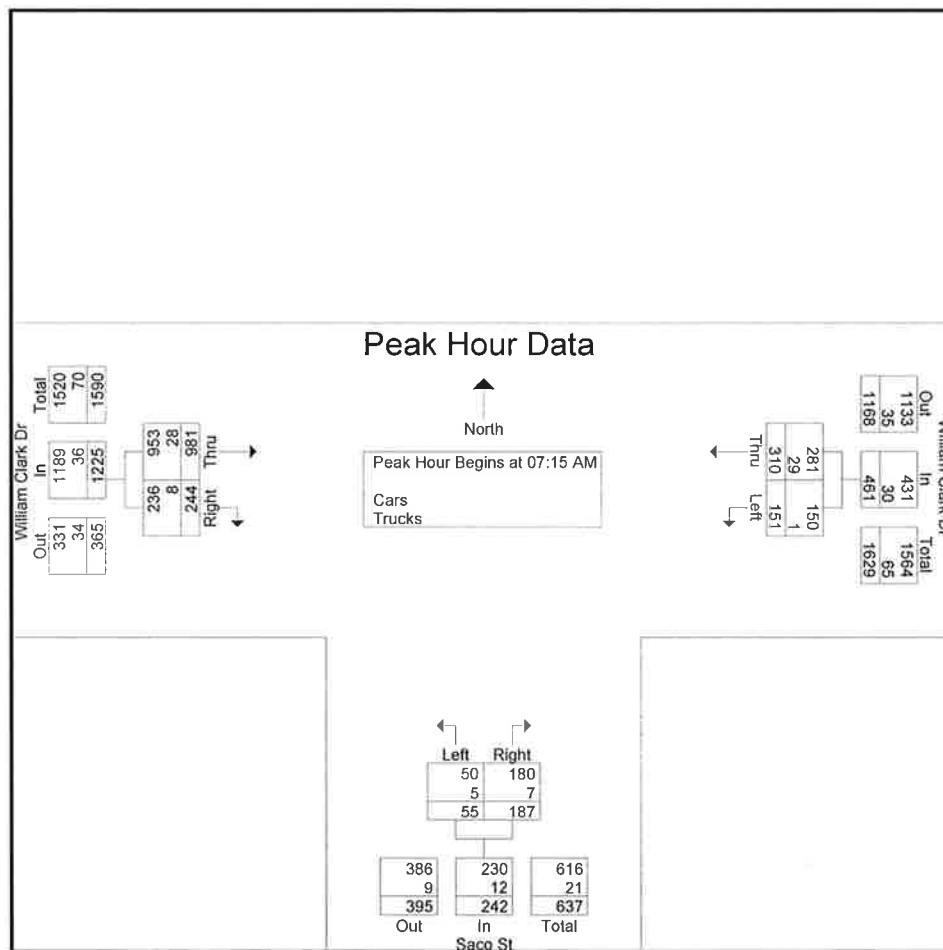
Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 2

	William Clark Dr From East			Saco St From South			William Clark Dr From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	32	71	103	10	50	60	267	60	327	490
07:30 AM	34	75	109	16	44	60	253	59	312	481
07:45 AM	37	93	130	15	41	56	240	66	306	492
08:00 AM	48	71	119	14	52	66	221	59	280	465
Total Volume	151	310	461	55	187	242	981	244	1225	1928
% App. Total	32.8	67.2		22.7	77.3		80.1	19.9		
PHF	.786	.833	.887	.859	.899	.917	.919	.924	.937	.980
Cars	150	281	431	50	180	230	953	236	1189	1850
% Cars	99.3	90.6	93.5	90.9	96.3	95.0	97.1	96.7	97.1	96.0
Trucks	1	29	30	5	7	12	28	8	36	78
% Trucks	0.7	9.4	6.5	9.1	3.7	5.0	2.9	3.3	2.9	4.0



Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	William Clark Dr From East		Saco St From South		William Clark Dr From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	30	60	10	44	230	47	421
07:15 AM	32	62	9	47	259	59	468
07:30 AM	33	70	15	44	240	57	459
07:45 AM	37	88	15	41	234	62	477
Total	132	280	49	176	963	225	1825
08:00 AM	48	61	11	48	220	58	446
08:15 AM	44	73	18	30	180	42	387
08:30 AM	34	56	12	40	182	36	360
08:45 AM	38	58	14	45	166	47	368
Total	164	248	55	163	748	183	1561
Grand Total	296	528	104	339	1711	408	3386
Apprch %	35.9	64.1	23.5	76.5	80.7	19.3	
Total %	8.7	15.6	3.1	10	50.5	12	

Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	William Clark Dr From East		Saco St From South		William Clark Dr From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	2	6	3	6	3	0	20
07:15 AM	0	9	1	3	8	1	22
07:30 AM	1	5	1	0	13	2	22
07:45 AM	0	5	0	0	6	4	15
Total	3	25	5	9	30	7	79
08:00 AM	0	10	3	4	1	1	19
08:15 AM	0	5	2	1	11	2	21
08:30 AM	6	7	0	1	5	1	20
08:45 AM	2	5	2	5	5	0	19
Total	8	27	7	11	22	4	79
Grand Total	11	52	12	20	52	11	158
Apprch %	17.5	82.5	37.5	62.5	82.5	17.5	
Total %	7	32.9	7.6	12.7	32.9	7	

Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	William Clark Dr From East			Saco St From South			William Clark Dr From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	2	0	0	0	2	0	2
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	0	0	3	0	3
08:00 AM	0	0	0	0	0	0	1	0	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	2	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	1	0	0	2	1	3
Grand Total	0	0	0	0	0	5	1	0	0	5	1	6
Apprch %	0	0		0	0		100	0				
Total %	0	0		0	0		100	0		83.3	16.7	

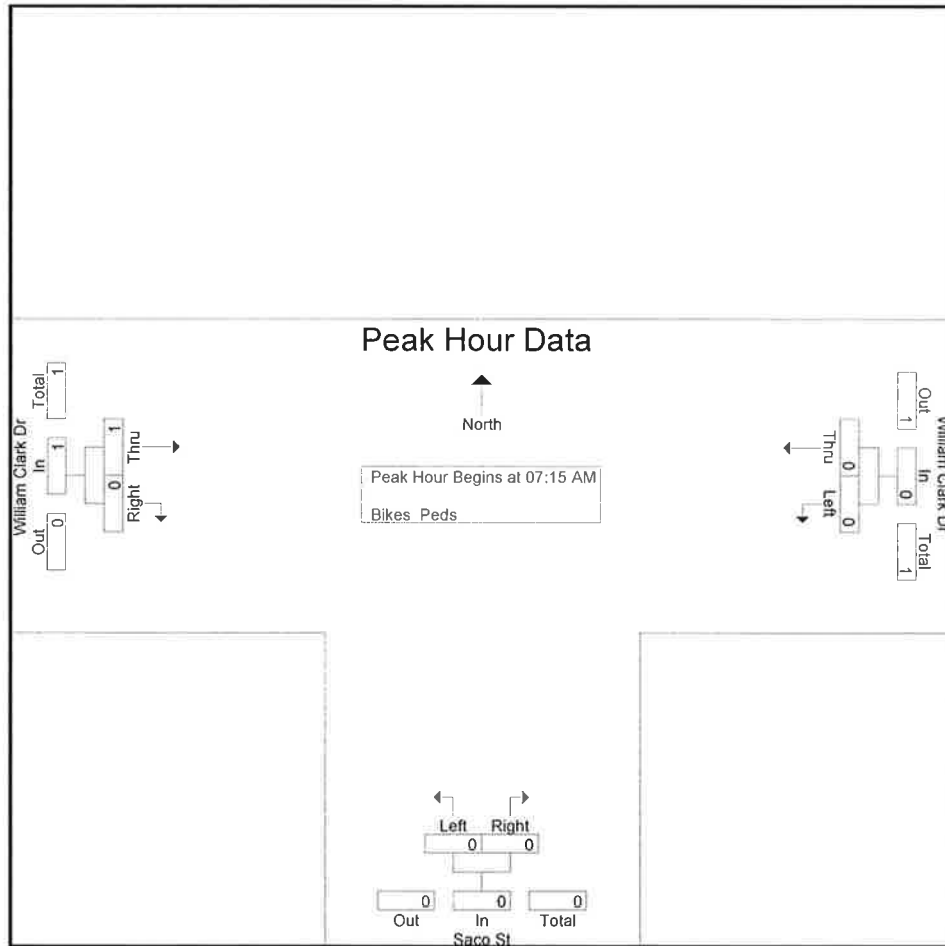
Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 11

	William Clark Dr From East			Saco St From South			William Clark Dr From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0		0	0		100	0	

Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks							
	William Clark Dr From East		Saco St From South		William Clark Dr From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
04:00 PM	49	165	56	52	131	20	473
04:15 PM	41	155	51	33	112	19	411
04:30 PM	57	153	48	52	113	21	444
04:45 PM	67	165	66	40	89	17	444
Total	214	638	221	177	445	77	1772
05:00 PM	55	168	63	54	112	15	467
05:15 PM	47	162	71	42	111	20	453
05:30 PM	45	162	41	38	105	9	400
05:45 PM	42	127	39	37	95	14	354
Total	189	619	214	171	423	58	1674
Grand Total	403	1257	435	348	868	135	3446
Apprch %	24.3	75.7	55.6	44.4	86.5	13.5	
Total %	11.7	36.5	12.6	10.1	25.2	3.9	
Cars	401	1238	433	341	842	132	3387
% Cars	99.5	98.5	99.5	98	97	97.8	98.3
Trucks	2	19	2	7	26	3	59
% Trucks	0.5	1.5	0.5	2	3	2.2	1.7

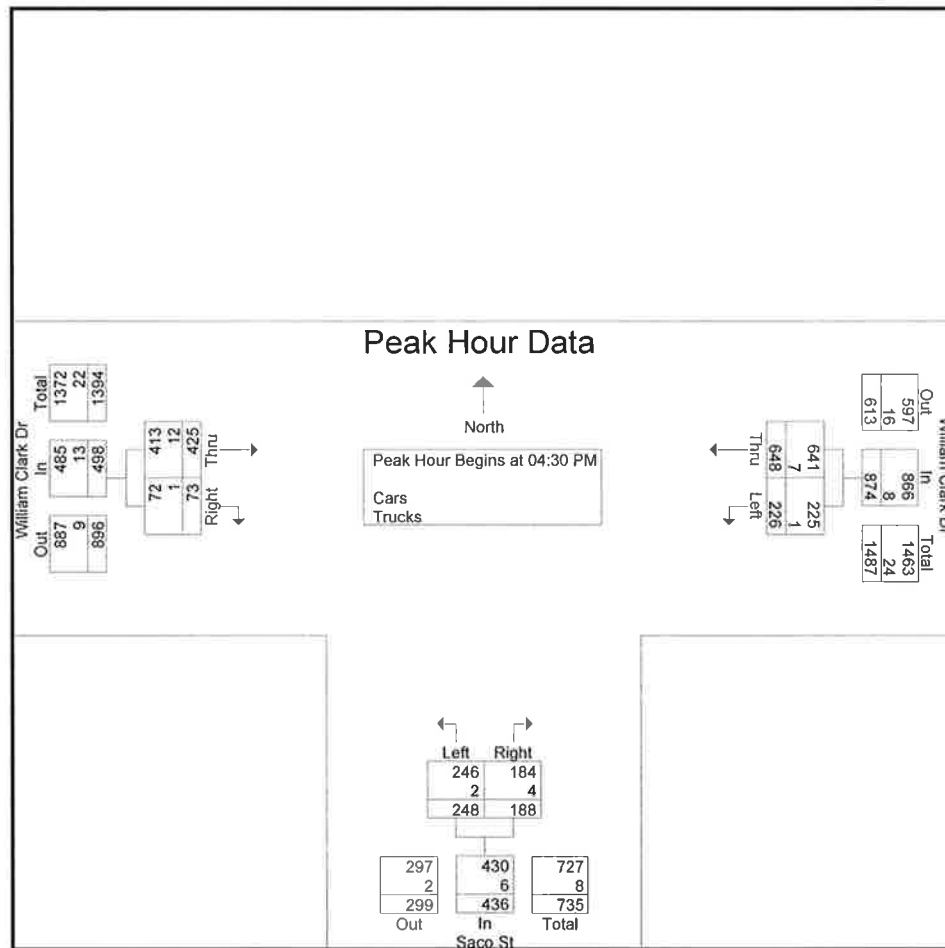
Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 2

	William Clark Dr From East			Saco St From South			William Clark Dr From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	57	153	210	48	52	100	113	21	134	444
04:45 PM	67	165	232	66	40	106	89	17	106	444
05:00 PM	55	168	223	63	54	117	112	15	127	467
05:15 PM	47	162	209	71	42	113	111	20	131	453
Total Volume	226	648	874	248	188	436	425	73	498	1808
% App. Total	25.9	74.1		56.9	43.1		85.3	14.7		
PHF	.843	.964	.942	.873	.870	.932	.940	.869	.929	.968
Cars	225	641	866	246	184	430	413	72	485	1781
% Cars	99.6	98.9	99.1	99.2	97.9	98.6	97.2	98.6	97.4	98.5
Trucks	1	7	8	2	4	6	12	1	13	27
% Trucks	0.4	1.1	0.9	0.8	2.1	1.4	2.8	1.4	2.6	1.5



Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars							
Start Time	William Clark Dr From East		Saco St From South		William Clark Dr From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	49	162	56	51	124	19	461
04:15 PM	41	150	51	32	109	19	402
04:30 PM	57	152	48	51	109	21	438
04:45 PM	67	163	65	39	87	17	438
Total	214	627	220	173	429	76	1739
05:00 PM	54	166	63	54	110	15	462
05:15 PM	47	160	70	40	107	19	443
05:30 PM	45	161	41	37	102	9	395
05:45 PM	41	124	39	37	94	13	348
Total	187	611	213	168	413	56	1648
Grand Total	401	1238	433	341	842	132	3387
Apprch %	24.5	75.5	55.9	44.1	86.4	13.6	
Total %	11.8	36.6	12.8	10.1	24.9	3.9	

Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	William Clark Dr From East		Saco St From South		William Clark Dr From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	0	3	0	1	7	1	12
04:15 PM	0	5	0	1	3	0	9
04:30 PM	0	1	0	1	4	0	6
04:45 PM	0	2	1	1	2	0	6
Total	0	11	1	4	16	1	33
05:00 PM	1	2	0	0	2	0	5
05:15 PM	0	2	1	2	4	1	10
05:30 PM	0	1	0	1	3	0	5
05:45 PM	1	3	0	0	1	1	6
Total	2	8	1	3	10	2	26
Grand Total	2	19	2	7	26	3	59
Apprch %	9.5	90.5	22.2	77.8	89.7	10.3	
Total %	3.4	32.2	3.4	11.9	44.1	5.1	

Accurate Counts

978-664-2565

N/S Street : Saco Street
E/W Street : William Clark Dr (Rte 25)
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW07
Site Code : 68460W07
Start Date : 9/30/2015
Page No : 10

Groups Printed- Bikes Peds												
Start Time	William Clark Dr From East			Saco St From South			William Clark Dr From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	1	0	0	0	1	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	1	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	1
Grand Total	0	0	0	0	1	2	0	0	0	2	1	3
Apprch %	0	0		0	100		0	0				
Total %	0	0		0	100		0	0		66.7	33.3	

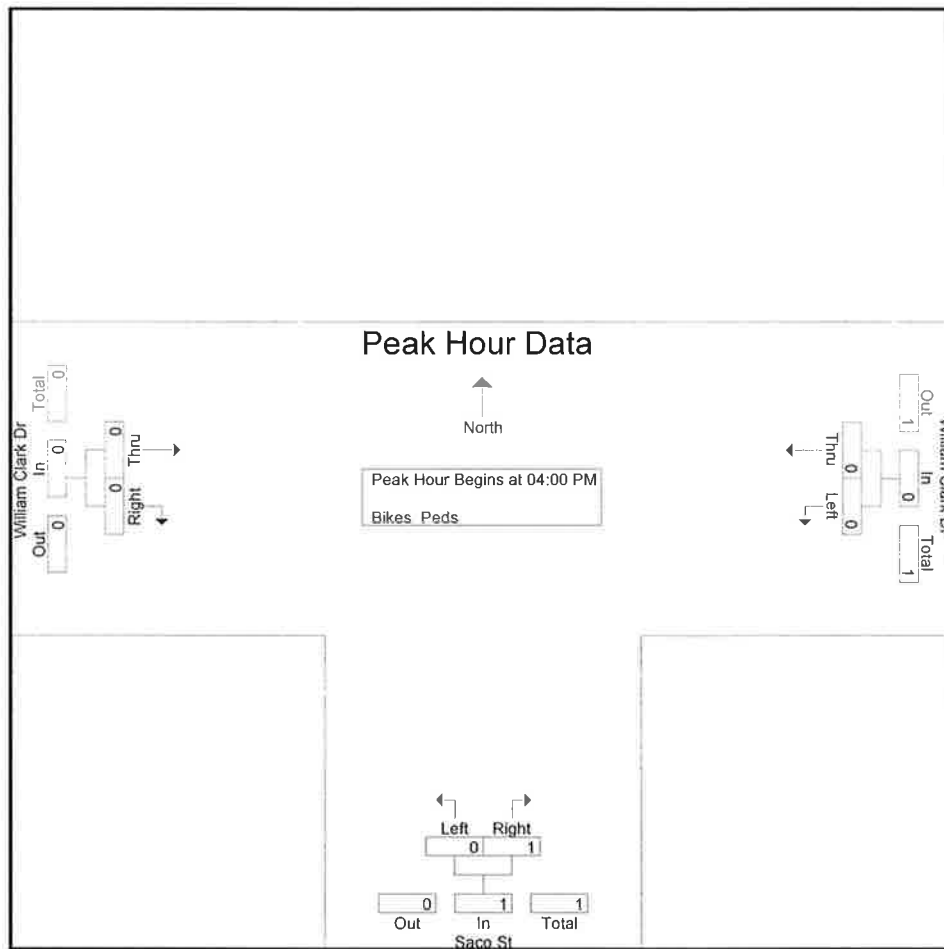
Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW07
 Site Code : 68460W07
 Start Date : 9/30/2015
 Page No : 11

	William Clark Dr From East			Saco St From South			William Clark Dr From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0		0	100		0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	7	54	1	34	73	14	12	17	15	2	257	24	510
07:15 AM	19	65	0	28	101	9	8	32	28	5	247	36	578
07:30 AM	17	63	2	44	123	19	11	23	31	6	201	29	569
07:45 AM	11	73	2	48	115	17	25	40	18	2	258	32	641
Total	54	255	5	154	412	59	56	112	92	15	963	121	2298
08:00 AM	8	63	2	52	113	5	6	21	18	6	296	32	622
08:15 AM	7	68	1	48	98	17	13	31	16	8	201	32	540
08:30 AM	4	56	4	34	97	9	14	29	26	4	198	37	512
08:45 AM	7	45	1	23	106	10	16	30	26	6	189	23	482
Total	26	232	8	157	414	41	49	111	86	24	884	124	2156
Grand Total	80	487	13	311	826	100	105	223	178	39	1847	245	4454
Apprch %	13.8	84	2.2	25.1	66.8	8.1	20.8	44.1	35.2	1.8	86.7	11.5	
Total %	1.8	10.9	0.3	7	18.5	2.2	2.4	5	4	0.9	41.5	5.5	
Cars	79	483	12	305	785	97	90	220	170	38	1796	228	4303
% Cars	98.8	99.2	92.3	98.1	95	97	85.7	98.7	95.5	97.4	97.2	93.1	96.6
Trucks	1	4	1	6	41	3	15	3	8	1	51	17	151
% Trucks	1.2	0.8	7.7	1.9	5	3	14.3	1.3	4.5	2.6	2.8	6.9	3.4

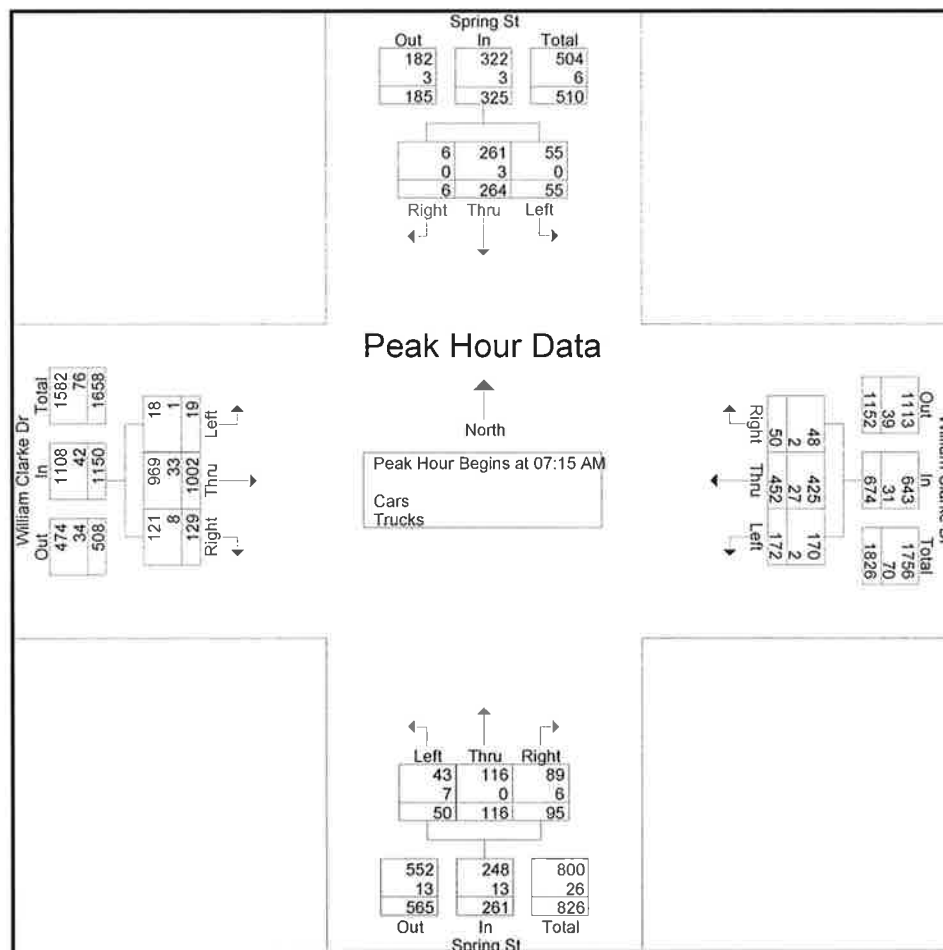
Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 2

	Spring St From North				William Clarke Dr From East				Spring St From South				William Clarke Dr From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	19	65	0	84	28	101	9	138	8	32	28	68	5	247	36	288	578
07:30 AM	17	63	2	82	44	123	19	186	11	23	31	65	6	201	29	236	569
07:45 AM	11	73	2	86	48	115	17	180	25	40	18	83	2	258	32	292	641
08:00 AM	8	63	2	73	52	113	5	170	6	21	18	45	6	296	32	334	622
Total Volume	55	264	6	325	172	452	50	674	50	116	95	261	19	1002	129	1150	2410
% App. Total	16.9	81.2	1.8		25.5	67.1	7.4		19.2	44.4	36.4		1.7	87.1	11.2		
PHF	.724	.904	.750	.945	.827	.919	.658	.906	.500	.725	.766	.786	.792	.846	.896	.861	.940
Cars	55	261	6	322	170	425	48	643	43	116	89	248	18	969	121	1108	2321
% Cars	100	98.9	100	99.1	98.8	94.0	96.0	95.4	86.0	100	93.7	95.0	94.7	96.7	93.8	96.3	96.3
Trucks	0	3	0	3	2	27	2	31	7	0	6	13	1	33	8	42	89
% Trucks	0	1.1	0	0.9	1.2	6.0	4.0	4.6	14.0	0	6.3	5.0	5.3	3.3	6.2	3.7	3.7



Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	6	54	1	33	71	13	9	16	15	2	254	23	497
07:15 AM	19	65	0	28	93	9	7	32	26	5	238	33	555
07:30 AM	17	63	2	44	118	17	11	23	29	6	191	26	547
07:45 AM	11	72	2	48	111	17	20	40	17	2	249	31	620
Total	53	254	5	153	393	56	47	111	87	15	932	113	2219
08:00 AM	8	61	2	50	103	5	5	21	17	5	291	31	599
08:15 AM	7	68	1	47	95	17	12	31	15	8	193	30	524
08:30 AM	4	55	3	34	94	9	11	28	26	4	195	33	496
08:45 AM	7	45	1	21	100	10	15	29	25	6	185	21	465
Total	26	229	7	152	392	41	43	109	83	23	864	115	2084
Grand Total	79	483	12	305	785	97	90	220	170	38	1796	228	4303
Apprch %	13.8	84.1	2.1	25.7	66.1	8.2	18.8	45.8	35.4	1.8	87.1	11.1	
Total %	1.8	11.2	0.3	7.1	18.2	2.3	2.1	5.1	4	0.9	41.7	5.3	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	1	0	0	1	2	1	3	1	0	0	3	1	13
07:15 AM	0	0	0	0	8	0	1	0	2	0	9	3	23
07:30 AM	0	0	0	0	5	2	0	0	2	0	10	3	22
07:45 AM	0	1	0	0	4	0	5	0	1	0	9	1	21
Total	1	1	0	1	19	3	9	1	5	0	31	8	79
08:00 AM	0	2	0	2	10	0	1	0	1	1	5	1	23
08:15 AM	0	0	0	1	3	0	1	0	1	0	8	2	16
08:30 AM	0	1	1	0	3	0	3	1	0	0	3	4	16
08:45 AM	0	0	0	2	6	0	1	1	1	0	4	2	17
Total	0	3	1	5	22	0	6	2	3	1	20	9	72
Grand Total	1	4	1	6	41	3	15	3	8	1	51	17	151
Apprch %	16.7	66.7	16.7	12	82	6	57.7	11.5	30.8	1.4	73.9	24.6	
Total %	0.7	2.6	0.7	4	27.2	2	9.9	2	5.3	0.7	33.8	11.3	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Spring St From North				William Clarke Dr From East				Spring St From South				William Clarke Dr From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	2	1	3
Total	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	1	4	1	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2
Grand Total	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	1	6	1	7
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0				
Total %	0	0	0		0	0	0		0	100	0		0	0	0		85.7	14.3	

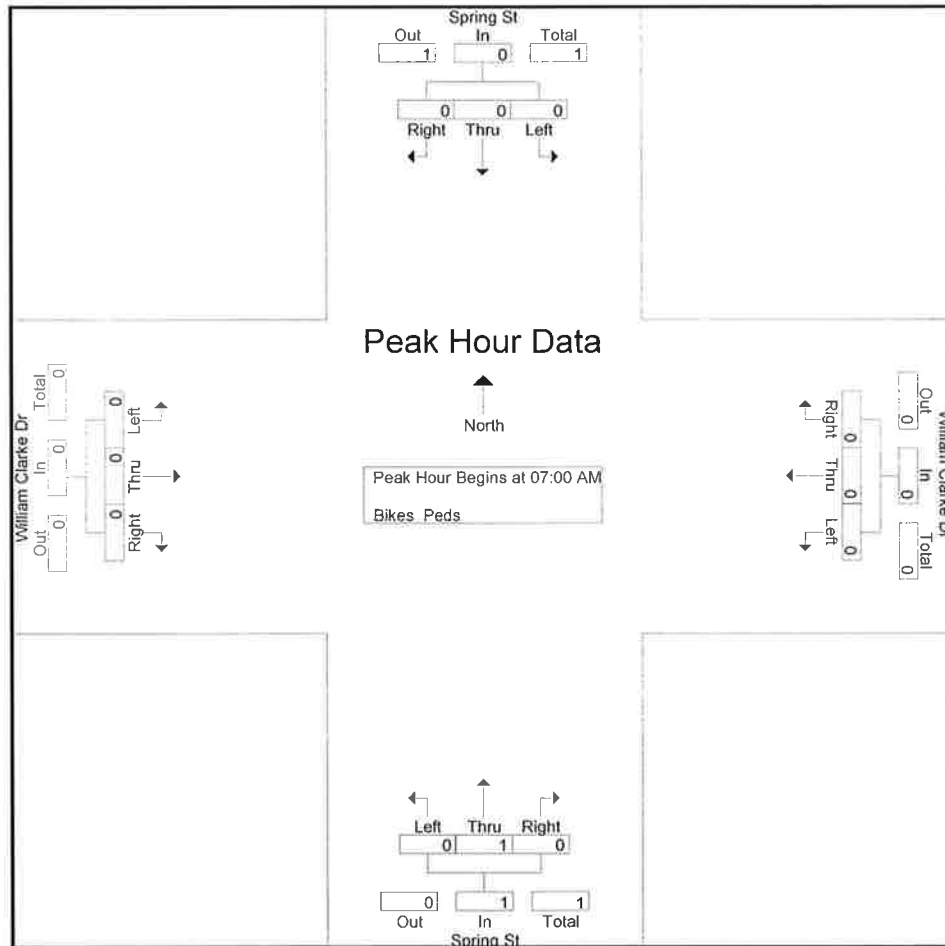
Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 11

	Spring St From North				William Clarke Dr From East					Spring St From South				William Clarke Dr From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0		0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0		0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0			0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000		.000	.250	.000	.250	.000	.000	.000	.000	.250



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	9	42	2	34	190	19	32	64	53	5	149	28	627
04:15 PM	5	41	3	24	220	14	34	82	41	5	129	21	619
04:30 PM	13	39	5	30	228	16	40	77	55	6	145	26	680
04:45 PM	14	35	10	21	228	24	28	57	42	5	128	17	609
Total	41	157	20	109	866	73	134	280	191	21	551	92	2535
05:00 PM	12	45	3	31	214	22	40	78	37	10	135	14	641
05:15 PM	11	27	12	34	231	17	53	67	49	9	157	29	696
05:30 PM	7	40	2	22	206	16	18	67	37	1	123	13	552
05:45 PM	9	39	2	32	138	16	27	56	33	8	130	14	504
Total	39	151	19	119	789	71	138	268	156	28	545	70	2393
Grand Total	80	308	39	228	1655	144	272	548	347	49	1096	162	4928
Apprch %	18.7	72.1	9.1	11.2	81.6	7.1	23.3	47	29.7	3.7	83.9	12.4	
Total %	1.6	6.2	0.8	4.6	33.6	2.9	5.5	11.1	7	1	22.2	3.3	
Cars	80	308	39	225	1640	144	268	547	346	49	1072	157	4875
% Cars	100	100	100	98.7	99.1	100	98.5	99.8	99.7	100	97.8	96.9	98.9
Trucks	0	0	0	3	15	0	4	1	1	0	24	5	53
% Trucks	0	0	0	1.3	0.9	0	1.5	0.2	0.3	0	2.2	3.1	1.1

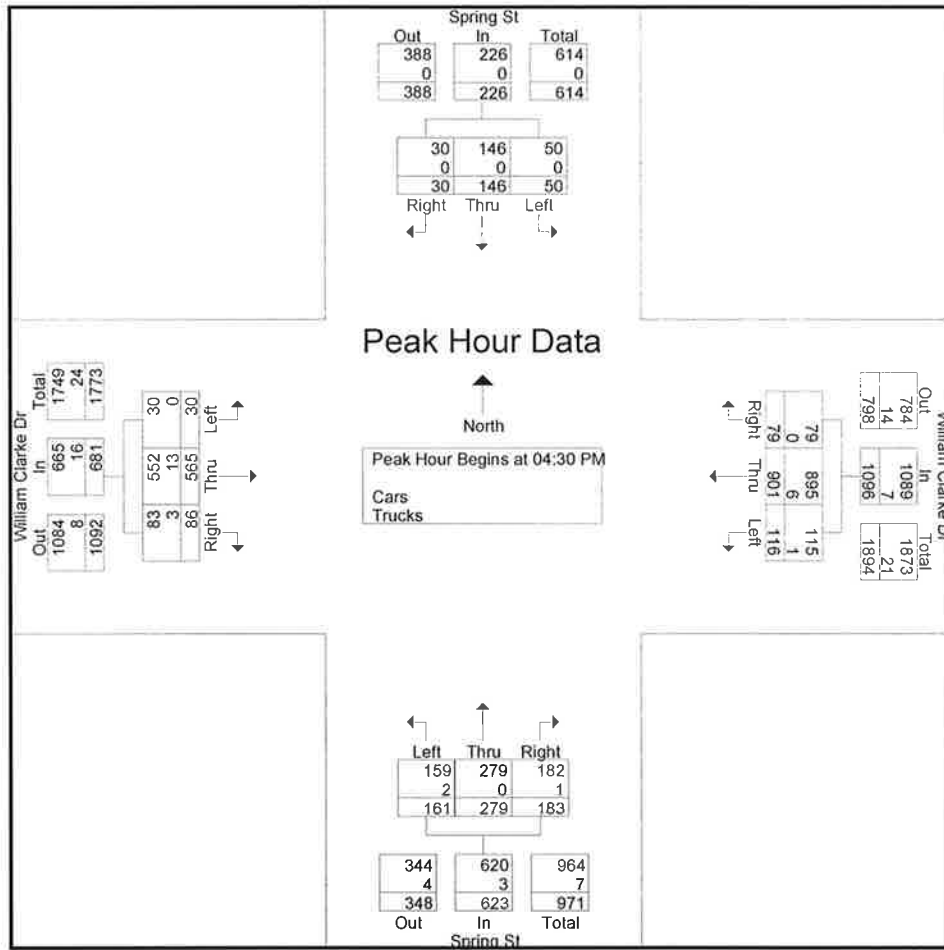
Accurate Counts

978-664-2565

N/S Street : Spring Street
E/W Street : William Clarke Drive
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW08
Site Code : 68460W08
Start Date : 9/30/2015
Page No : 2

	Spring St From North				William Clarke Dr From East				Spring St From South				William Clarke Dr From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	13	39	5	57	30	228	16	274	40	77	55	172	6	145	26	177	680
04:45 PM	14	35	10	59	21	228	24	273	28	57	42	127	5	128	17	150	609
05:00 PM	12	45	3	60	31	214	22	267	40	78	37	155	10	135	14	159	641
05:15 PM	11	27	12	50	34	231	17	282	53	67	49	169	9	157	29	195	696
Total Volume	50	146	30	226	116	901	79	1096	161	279	183	623	30	565	86	681	2626
% App. Total	22.1	64.6	13.3		10.6	82.2	7.2		25.8	44.8	29.4		4.4	83	12.6		
PHF	.893	.811	.625	.942	.853	.975	.823	.972	.759	.894	.832	.906	.750	.900	.741	.873	.943
Cars	50	146	30	226	115	895	79	1089	159	279	182	620	30	552	83	665	2600
% Cars	100	100	100	100	99.1	99.3	100	99.4	98.8	100	99.5	99.5	100	97.7	96.5	97.7	99.0
Trucks	0	0	0	0	1	6	0	7	2	0	1	3	0	13	3	16	26
% Trucks	0	0	0	0	0.9	0.7	0	0.6	1.2	0	0.5	0.5	0	2.3	3.5	2.3	1.0



Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	9	42	2	33	187	19	32	64	53	5	143	27	616
04:15 PM	5	41	3	23	216	14	33	81	41	5	126	21	609
04:30 PM	13	39	5	30	227	16	39	77	54	6	142	24	672
04:45 PM	14	35	10	21	225	24	28	57	42	5	125	17	603
Total	41	157	20	107	855	73	132	279	190	21	536	89	2500
05:00 PM	12	45	3	30	213	22	40	78	37	10	134	13	637
05:15 PM	11	27	12	34	230	17	52	67	49	9	151	29	688
05:30 PM	7	40	2	22	205	16	18	67	37	1	122	12	549
05:45 PM	9	39	2	32	137	16	26	56	33	8	129	14	501
Total	39	151	19	118	785	71	136	268	156	28	536	68	2375
Grand Total	80	308	39	225	1640	144	268	547	346	49	1072	157	4875
Apprch %	18.7	72.1	9.1	11.2	81.6	7.2	23.1	47.1	29.8	3.8	83.9	12.3	
Total %	1.6	6.3	0.8	4.6	33.6	3	5.5	11.2	7.1	1	22	3.2	

Accurate Counts

978-664-2565

N/S Street : Spring Street
E/W Street : William Clarke Drive
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW08
Site Code : 68460W08
Start Date : 9/30/2015
Page No : 7

Groups Printed- Trucks

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	0	0	1	3	0	0	0	0	0	6	1	11
04:15 PM	0	0	0	1	4	0	1	1	0	0	3	0	10
04:30 PM	0	0	0	0	1	0	1	0	1	0	3	2	8
04:45 PM	0	0	0	0	3	0	0	0	0	0	3	0	6
Total	0	0	0	2	11	0	2	1	1	0	15	3	35
05:00 PM	0	0	0	1	1	0	0	0	0	0	1	1	4
05:15 PM	0	0	0	0	1	0	1	0	0	0	6	0	8
05:30 PM	0	0	0	0	1	0	0	0	0	0	1	1	3
05:45 PM	0	0	0	0	1	0	1	0	0	0	1	0	3
Total	0	0	0	1	4	0	2	0	0	0	9	2	18
Grand Total	0	0	0	3	15	0	4	1	1	0	24	5	53
Apprch %	0	0	0	16.7	83.3	0	66.7	16.7	16.7	0	82.8	17.2	
Total %	0	0	0	5.7	28.3	0	7.5	1.9	1.9	0	45.3	9.4	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds																				
Start Time	Spring St From North				William Clarke Dr From East				Spring St From South				William Clarke Dr From West				Exclu. Total	Inclu. Total	Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	7	
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
Total	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	7	10	0	10	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	
Total	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	1	2	3	
Grand Total	0	0	0	3	0	1	0	0	0	0	0	1	1	0	0	7	11	2	13	
Apprch %	0	0	0		0	100	0		0	0	0		100	0	0					
Total %	0	0	0		0	50	0		0	0	0		50	0	0		84.6	15.4		

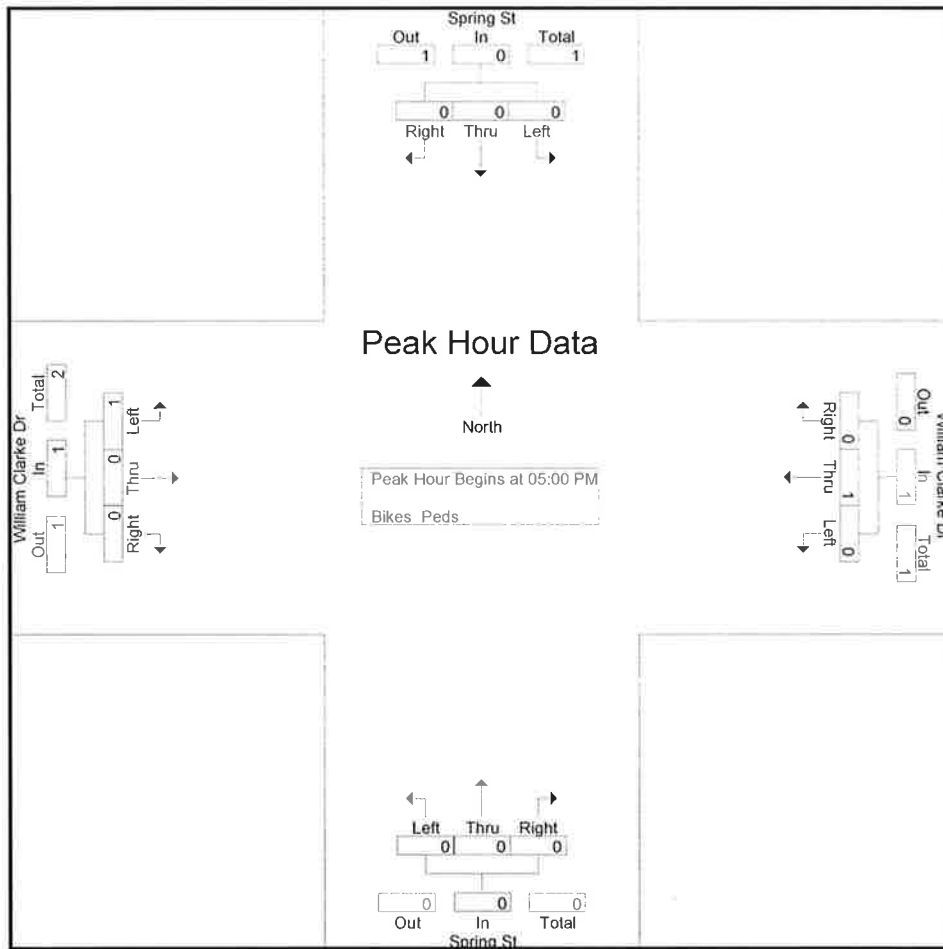
Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW08
 Site Code : 68460W08
 Start Date : 9/30/2015
 Page No : 11

	Spring St From North				William Clarke Dr From East				Spring St From South				William Clarke Dr From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	2
% App. Total	0	0	0		0	100	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250	.000	.000	.250	.500



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1
% App. Total	0	0	0		0	100	0		0	0	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	14	54	9	9	75	2	36	18	4	3	187	92	503
07:15 AM	15	68	3	25	92	4	35	21	11	2	194	85	555
07:30 AM	14	65	3	29	102	6	55	29	9	1	171	75	559
07:45 AM	19	49	11	17	119	3	46	23	11	4	188	88	578
Total	62	236	26	80	388	15	172	91	35	10	740	340	2195
08:00 AM	8	36	8	12	128	6	25	14	8	6	219	99	569
08:15 AM	14	39	12	2	125	5	26	22	10	4	167	51	477
08:30 AM	8	34	15	9	99	8	25	15	8	3	169	61	454
08:45 AM	11	29	10	7	120	4	23	13	9	6	168	47	447
Total	41	138	45	30	472	23	99	64	35	19	723	258	1947
Grand Total	103	374	71	110	860	38	271	155	70	29	1463	598	4142
Apprch %	18.8	68.2	13	10.9	85.3	3.8	54.6	31.2	14.1	1.4	70	28.6	
Total %	2.5	9	1.7	2.7	20.8	0.9	6.5	3.7	1.7	0.7	35.3	14.4	
Cars	101	368	69	104	814	36	255	151	67	29	1412	590	3996
% Cars	98.1	98.4	97.2	94.5	94.7	94.7	94.1	97.4	95.7	100	96.5	98.7	96.5
Trucks	2	6	2	6	46	2	16	4	3	0	51	8	146
% Trucks	1.9	1.6	2.8	5.5	5.3	5.3	5.9	2.6	4.3	0	3.5	1.3	3.5

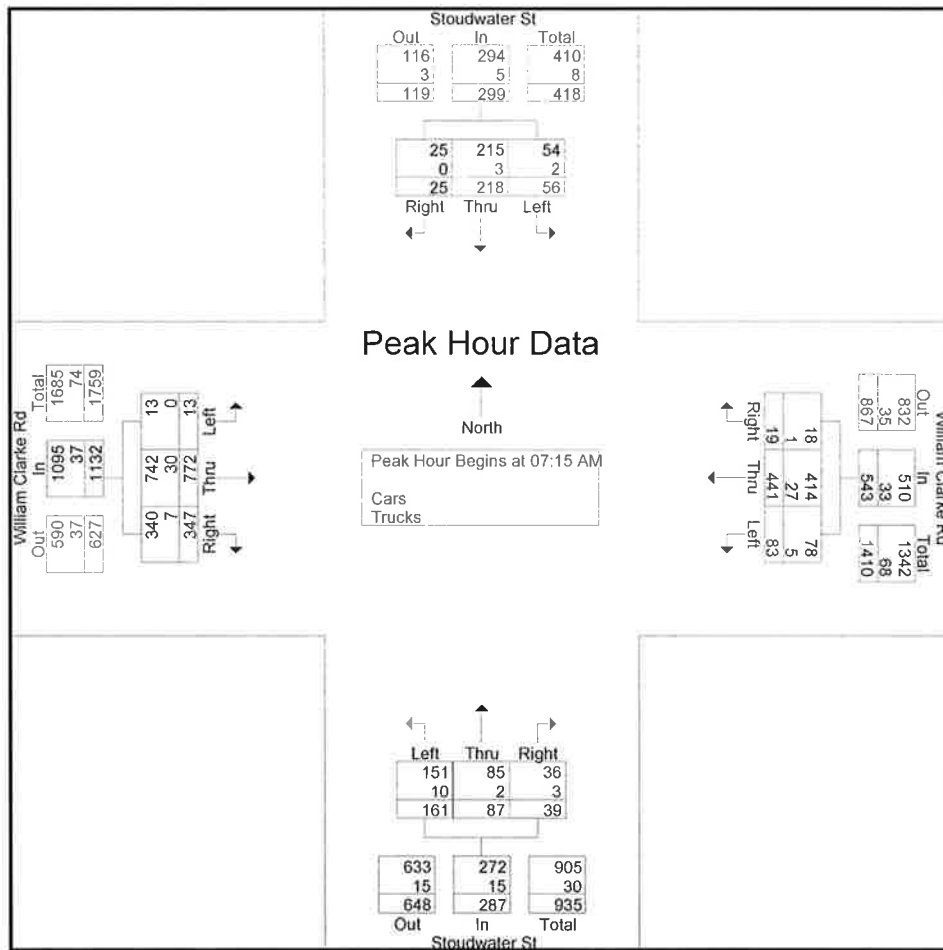
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 2

	Stoudwater St From North				William Clarke Rd From East				Stoudwater St From South				William Clarke Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	15	68	3	86	25	92	4	121	35	21	11	67	2	194	85	281	555
07:30 AM	14	65	3	82	29	102	6	137	55	29	9	93	1	171	75	247	559
07:45 AM	19	49	11	79	17	119	3	139	46	23	11	80	4	188	88	280	578
08:00 AM	8	36	8	52	12	128	6	146	25	14	8	47	6	219	99	324	569
Total Volume	56	218	25	299	83	441	19	543	161	87	39	287	13	772	347	1132	2261
% App. Total	18.7	72.9	8.4		15.3	81.2	3.5		56.1	30.3	13.6		1.1	68.2	30.7		
PHF	.737	.801	.568	.869	.716	.861	.792	.930	.732	.750	.886	.772	.542	.881	.876	.873	.978
Cars	54	215	25	294	78	414	18	510	151	85	36	272	13	742	340	1095	2171
% Cars	96.4	98.6	100	98.3	94.0	93.9	94.7	93.9	93.8	97.7	92.3	94.8	100	96.1	98.0	96.7	96.0
Trucks	2	3	0	5	5	27	1	33	10	2	3	15	0	30	7	37	90
% Trucks	3.6	1.4	0	1.7	6.0	6.1	5.3	6.1	6.2	2.3	7.7	5.2	0	3.9	2.0	3.3	4.0



Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	14	54	9	9	71	2	34	18	4	3	184	92	494
07:15 AM	15	66	3	22	84	4	32	21	11	2	189	82	531
07:30 AM	14	65	3	28	96	6	52	28	8	1	160	74	535
07:45 AM	18	48	11	16	117	3	43	22	9	4	178	85	554
Total	61	233	26	75	368	15	161	89	32	10	711	333	2114
08:00 AM	7	36	8	12	117	5	24	14	8	6	215	99	551
08:15 AM	14	38	12	2	121	5	24	21	10	4	157	51	459
08:30 AM	8	32	15	9	94	8	23	15	8	3	165	61	441
08:45 AM	11	29	8	6	114	3	23	12	9	6	164	46	431
Total	40	135	43	29	446	21	94	62	35	19	701	257	1882
Grand Total	101	368	69	104	814	36	255	151	67	29	1412	590	3996
Apprch %	18.8	68.4	12.8	10.9	85.3	3.8	53.9	31.9	14.2	1.4	69.5	29	
Total %	2.5	9.2	1.7	2.6	20.4	0.9	6.4	3.8	1.7	0.7	35.3	14.8	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	4	0	2	0	0	0	3	0	9
07:15 AM	0	2	0	3	8	0	3	0	0	0	5	3	24
07:30 AM	0	0	0	1	6	0	3	1	1	0	11	1	24
07:45 AM	1	1	0	1	2	0	3	1	2	0	10	3	24
Total	1	3	0	5	20	0	11	2	3	0	29	7	81
08:00 AM	1	0	0	0	11	1	1	0	0	0	4	0	18
08:15 AM	0	1	0	0	4	0	2	1	0	0	10	0	18
08:30 AM	0	2	0	0	5	0	2	0	0	0	4	0	13
08:45 AM	0	0	2	1	6	1	0	1	0	0	4	1	16
Total	1	3	2	1	26	2	5	2	0	0	22	1	65
Grand Total	2	6	2	6	46	2	16	4	3	0	51	8	146
Apprch %	20	60	20	11.1	85.2	3.7	69.6	17.4	13	0	86.4	13.6	
Total %	1.4	4.1	1.4	4.1	31.5	1.4	11	2.7	2.1	0	34.9	5.5	

Accurate Counts
978-664-2565

N/S Street : Stoudwater Street
E/W Street : William Clarke Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW09
Site Code : 68460W09
Start Date : 9/30/2015
Page No : 10

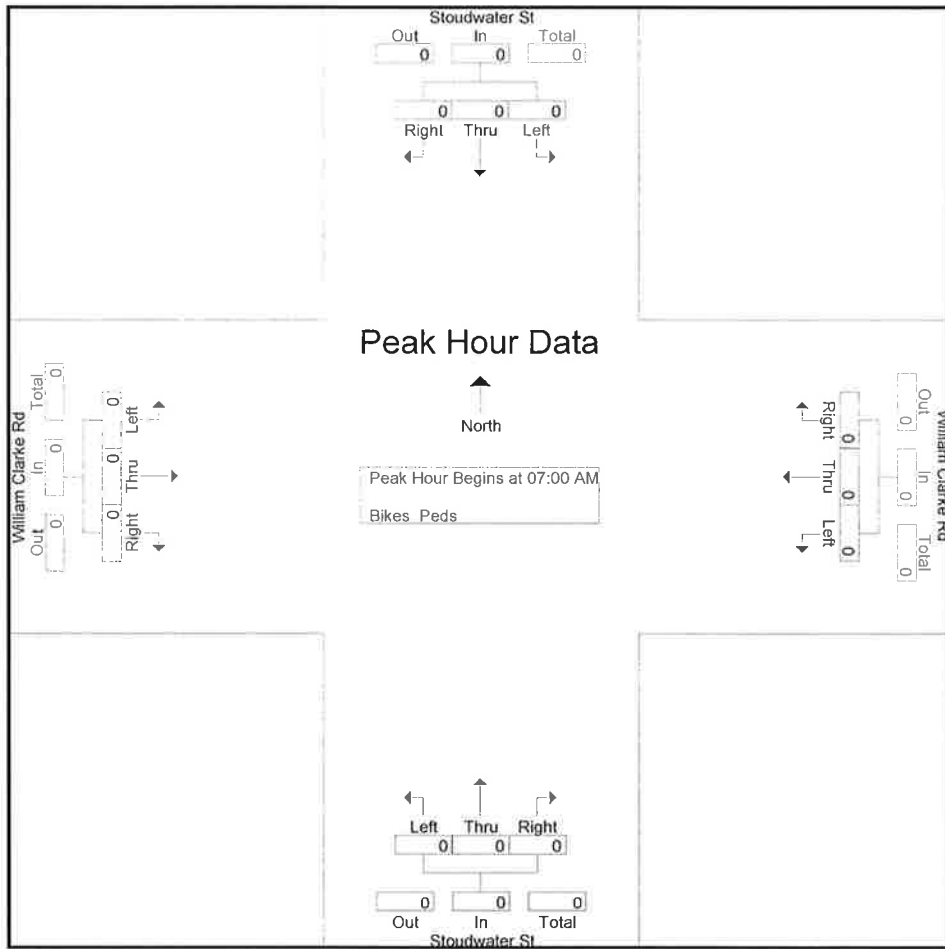
Groups Printed- Bikes Peds

[illegible]

978-664-2565

N/S Street : Stoudwater Street
E/W Street : William Clarke Road
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW09
Site Code : 68460W09
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	15	12	5	11	188	9	54	28	24	7	163	21	537
04:15 PM	12	15	2	19	183	14	62	30	15	10	158	30	550
04:30 PM	12	17	3	17	177	12	82	30	25	4	167	28	574
04:45 PM	10	12	7	11	193	13	67	20	18	8	161	22	542
Total	49	56	17	58	741	48	265	108	82	29	649	101	2203
05:00 PM	8	26	5	11	194	11	51	27	7	7	157	21	525
05:15 PM	8	13	6	9	201	16	80	18	15	1	166	30	563
05:30 PM	10	13	7	9	171	12	57	24	18	4	139	34	498
05:45 PM	7	24	5	11	132	6	56	15	13	3	147	24	443
Total	33	76	23	40	698	45	244	84	53	15	609	109	2029
Grand Total	82	132	40	98	1439	93	509	192	135	44	1258	210	4232
Apprch %	32.3	52	15.7	6	88.3	5.7	60.9	23	16.1	2.9	83.2	13.9	
Total %	1.9	3.1	0.9	2.3	34	2.2	12	4.5	3.2	1	29.7	5	
Cars	82	132	40	98	1416	93	507	191	134	44	1235	207	4179
% Cars	100	100	100	100	98.4	100	99.6	99.5	99.3	100	98.2	98.6	98.7
Trucks	0	0	0	0	23	0	2	1	1	0	23	3	53
% Trucks	0	0	0	0	1.6	0	0.4	0.5	0.7	0	1.8	1.4	1.3

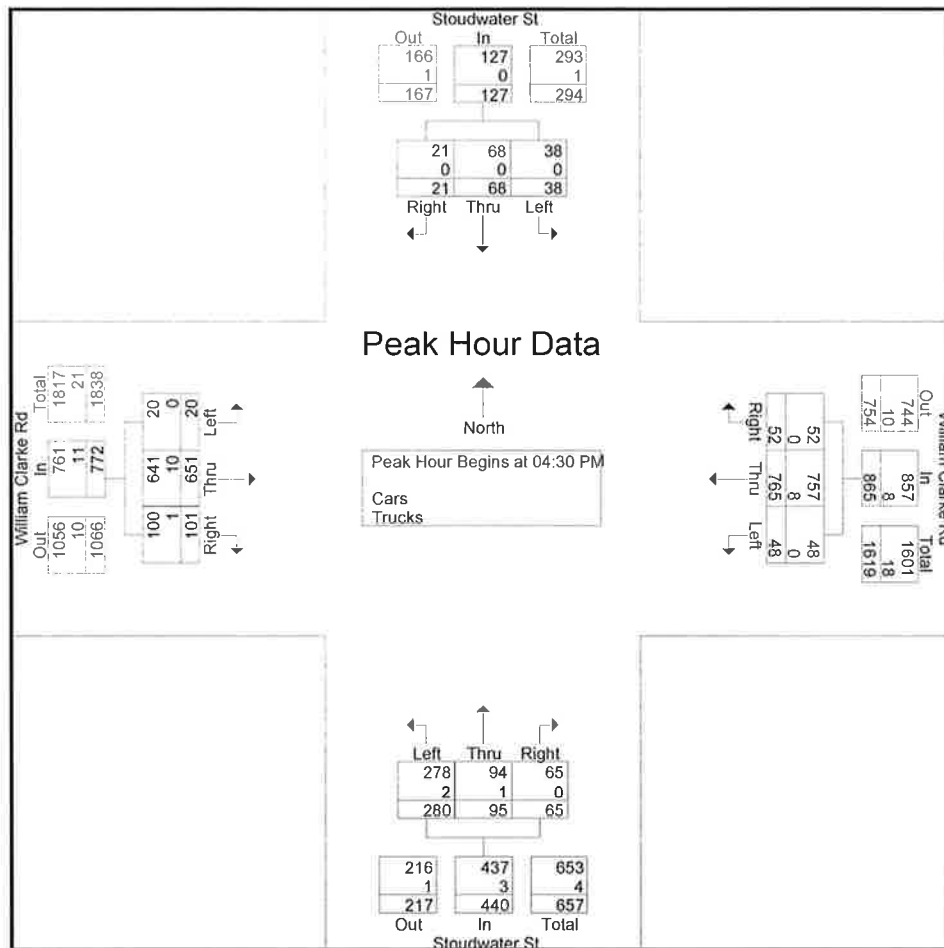
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 2

	Stoudwater St From North				William Clarke Rd From East				Stoudwater St From South				William Clarke Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	12	17	3	32	17	177	12	206	82	30	25	137	4	167	28	199	574
04:45 PM	10	12	7	29	11	193	13	217	67	20	18	105	8	161	22	191	542
05:00 PM	8	26	5	39	11	194	11	216	51	27	7	85	7	157	21	185	525
05:15 PM	8	13	6	27	9	201	16	226	80	18	15	113	1	166	30	197	563
Total Volume	38	68	21	127	48	765	52	865	280	95	65	440	20	651	101	772	2204
% App. Total	29.9	53.5	16.5		5.5	88.4	6		63.6	21.6	14.8		2.6	84.3	13.1		
PHF	.792	.654	.750	.814	.706	.951	.813	.957	.854	.792	.650	.803	.625	.975	.842	.970	.960
Cars	38	68	21	127	48	757	52	857	278	94	65	437	20	641	100	761	2182
% Cars	100	100	100	100	100	99.0	100	99.1	99.3	98.9	100	99.3	100	98.5	99.0	98.6	99.0
Trucks	0	0	0	0	0	8	0	8	2	1	0	3	0	10	1	11	22
% Trucks	0	0	0	0	0	1.0	0	0.9	0.7	1.1	0	0.7	0	1.5	1.0	1.4	1.0



Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	15	12	5	11	183	9	54	28	24	7	158	21	527
04:15 PM	12	15	2	19	178	14	62	30	15	10	154	29	540
04:30 PM	12	17	3	17	177	12	81	30	25	4	165	28	571
04:45 PM	10	12	7	11	189	13	66	20	18	8	156	22	532
Total	49	56	17	58	727	48	263	108	82	29	633	100	2170
05:00 PM	8	26	5	11	191	11	51	26	7	7	157	21	521
05:15 PM	8	13	6	9	200	16	80	18	15	1	163	29	558
05:30 PM	10	13	7	9	168	12	57	24	17	4	136	33	490
05:45 PM	7	24	5	11	130	6	56	15	13	3	146	24	440
Total	33	76	23	40	689	45	244	83	52	15	602	107	2009
Grand Total	82	132	40	98	1416	93	507	191	134	44	1235	207	4179
Apprch %	32.3	52	15.7	6.1	88.1	5.8	60.9	23	16.1	3	83.1	13.9	
Total %	2	3.2	1	2.3	33.9	2.2	12.1	4.6	3.2	1.1	29.6	5	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	0	0	0	5	0	0	0	0	0	5	0	10
04:15 PM	0	0	0	0	5	0	0	0	0	0	4	1	10
04:30 PM	0	0	0	0	0	0	1	0	0	0	2	0	3
04:45 PM	0	0	0	0	4	0	1	0	0	0	5	0	10
Total	0	0	0	0	14	0	2	0	0	0	16	1	33
05:00 PM	0	0	0	0	3	0	0	1	0	0	0	0	4
05:15 PM	0	0	0	0	1	0	0	0	0	0	3	1	5
05:30 PM	0	0	0	0	3	0	0	0	1	0	3	1	8
05:45 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
Total	0	0	0	0	9	0	0	1	1	0	7	2	20
Grand Total	0	0	0	0	23	0	2	1	1	0	23	3	53
Apprch %	0	0	0	0	100	0	50	25	25	0	88.5	11.5	
Total %	0	0	0	0	43.4	0	3.8	1.9	1.9	0	43.4	5.7	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW09
 Site Code : 68460W09
 Start Date : 9/30/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Stoudwater St From North				William Clarke Rd From East				Stoudwater St From South				William Clarke Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	11	11	1	12
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
04:45 PM	0	0	0	1	0	0	0	3	0	0	0	2	0	0	0	1	7	0	7
Total	0	0	0	2	0	0	1	3	0	0	0	2	0	0	0	16	23	1	24
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0	3
05:30 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4	0	4
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	2	1	3
Total	0	0	0	2	0	1	0	5	0	0	0	1	0	0	0	1	9	1	10
Grand Total	0	0	0	4	0	1	1	8	0	0	0	3	0	0	0	17	32	2	34
Apprch %	0	0	0		0	50	50		0	0	0		0	0	0				
Total %	0	0	0		0	50	50		0	0	0		0	0	0		94.1	5.9	

978-664-2565

File Name : 6846WW09
Site Code : 68460W09
Start Date : 9/30/2015
Page No : 11

Peak Hour for Entire Intersection Begins at 04:00 PM



Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW22
Site Code : 68460W22
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Westbrook Crossing Ent From North		Main Street From East		Main Street From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	11	15	61	6	16	113	222
07:15 AM	14	22	67	8	16	125	252
07:30 AM	11	16	67	8	9	125	236
07:45 AM	15	19	113	5	18	147	317
Total	51	72	308	27	59	510	1027
08:00 AM	17	12	98	4	17	115	263
08:15 AM	17	20	71	5	19	128	260
08:30 AM	21	20	92	16	13	118	280
08:45 AM	11	25	125	15	16	81	273
Total	66	77	386	40	65	442	1076
09:00 AM	11	26	77	8	18	83	223
09:15 AM	9	18	95	10	15	92	239
09:30 AM	13	20	108	17	22	85	265
09:45 AM	13	22	91	17	24	107	274
Total	46	86	371	52	79	367	1001
10:00 AM	12	23	97	16	21	75	244
10:15 AM	6	32	105	11	8	106	268
10:30 AM	4	23	94	17	30	90	258
10:45 AM	11	35	90	13	25	91	265
Total	33	113	386	57	84	362	1035
11:00 AM	14	33	105	12	35	95	294
11:15 AM	7	35	113	22	32	104	313
11:30 AM	9	33	115	26	35	108	326
11:45 AM	10	30	113	30	44	105	332
Total	40	131	446	90	146	412	1265
12:00 PM	28	47	125	33	46	128	407
12:15 PM	19	45	134	21	30	100	349
12:30 PM	18	48	132	21	42	119	380
12:45 PM	12	56	105	18	37	96	324
Total	77	196	496	93	155	443	1460
01:00 PM	19	44	116	16	38	106	339
01:15 PM	20	52	117	20	27	88	324
01:30 PM	13	45	109	17	24	111	319

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 2

Groups Printed- Cars - Trucks							
	Westbrook Crossing Ent From North		Main Street From East		Main Street From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
01:45 PM	11	38	123	20	32	83	307
Total	63	179	465	73	121	388	1289
02:00 PM	17	25	97	19	27	105	290
02:15 PM	17	36	117	16	22	95	303
02:30 PM	11	25	112	16	34	122	320
02:45 PM	11	40	150	22	26	94	343
Total	56	126	476	73	109	416	1256
03:00 PM	18	41	170	22	27	90	368
03:15 PM	12	37	161	23	20	94	347
03:30 PM	9	35	153	26	25	122	370
03:45 PM	12	39	138	23	17	98	327
Total	51	152	622	94	89	404	1412
04:00 PM	11	41	163	25	27	117	384
04:15 PM	12	42	170	26	26	90	366
04:30 PM	10	47	194	16	38	117	422
04:45 PM	15	36	158	17	28	101	355
Total	48	166	685	84	119	425	1527
05:00 PM	11	54	176	24	29	113	407
05:15 PM	14	41	158	17	33	103	366
05:30 PM	12	48	146	31	53	109	399
05:45 PM	13	45	131	22	27	80	318
Total	50	188	611	94	142	405	1490
06:00 PM	11	39	127	18	21	101	317
06:15 PM	8	44	137	21	18	85	313
06:30 PM	12	42	118	14	19	68	273
06:45 PM	7	33	110	14	22	72	258
Total	38	158	492	67	80	326	1161
Grand Total	619	1644	5744	844	1248	4900	14999
Apprch %	27.4	72.6	87.2	12.8	20.3	79.7	
Total %	4.1	11	38.3	5.6	8.3	32.7	
Cars	617	1637	5628	840	1239	4808	14769
% Cars	99.7	99.6	98	99.5	99.3	98.1	98.5
Trucks	2	7	116	4	9	92	230
% Trucks	0.3	0.4	2	0.5	0.7	1.9	1.5

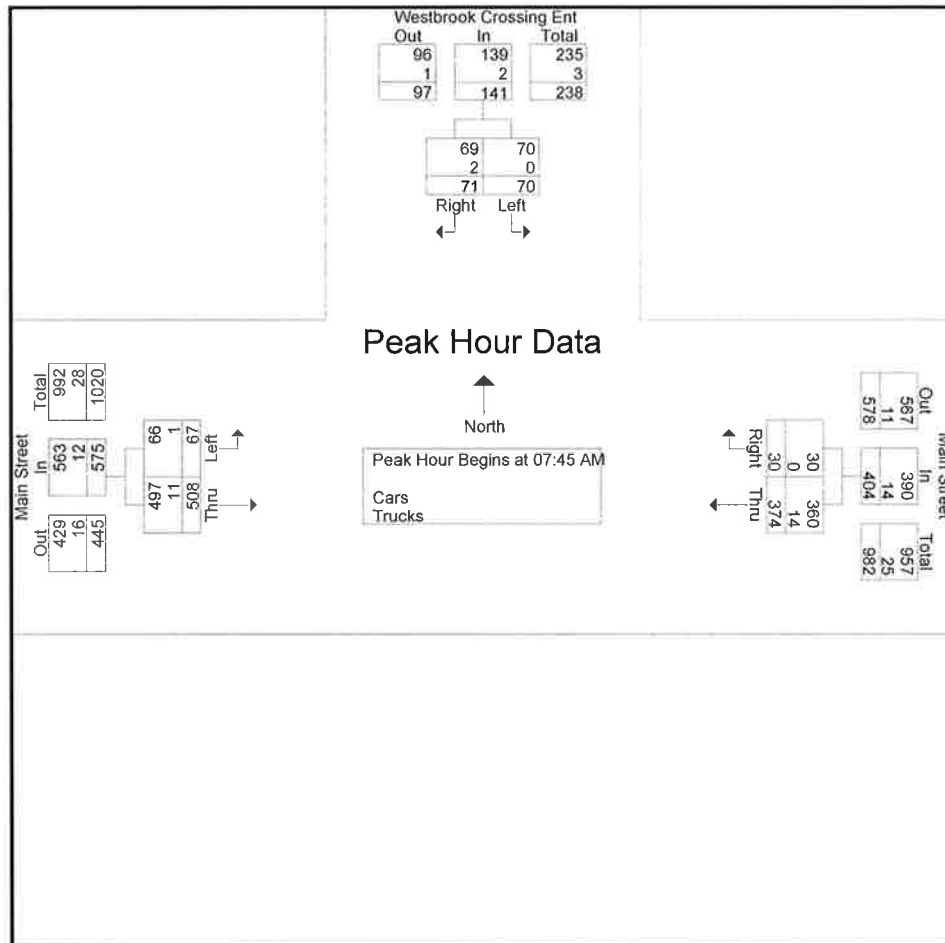
Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 3

	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	15	19	34	113	5	118	18	147	165	317
08:00 AM	17	12	29	98	4	102	17	115	132	263
08:15 AM	17	20	37	71	5	76	19	128	147	260
08:30 AM	21	20	41	92	16	108	13	118	131	280
Total Volume	70	71	141	374	30	404	67	508	575	1120
% App. Total	49.6	50.4		92.6	7.4		11.7	88.3		
PHF	.833	.888	.860	.827	.469	.856	.882	.864	.871	.883
Cars	70	69	139	360	30	390	66	497	563	1092
% Cars	100	97.2	98.6	96.3	100	96.5	98.5	97.8	97.9	97.5
Trucks	0	2	2	14	0	14	1	11	12	28
% Trucks	0	2.8	1.4	3.7	0	3.5	1.5	2.2	2.1	2.5



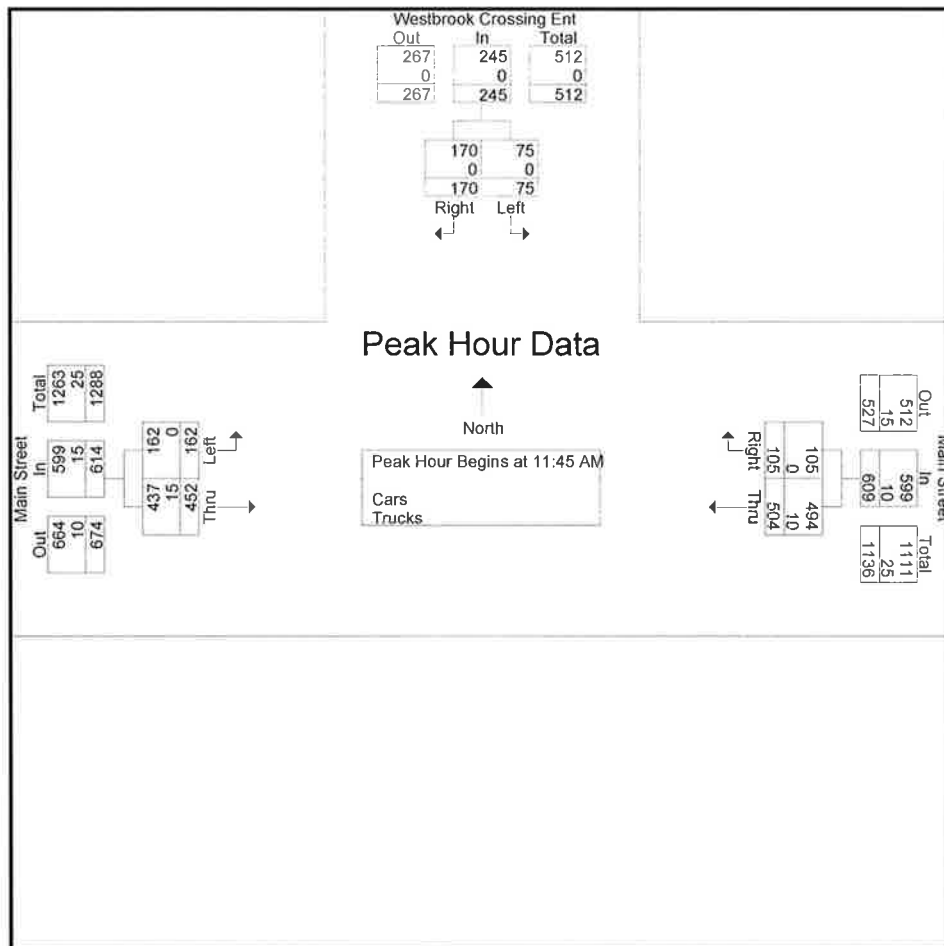
Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 5

	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	10	30	40	113	30	143	44	105	149	332
12:00 PM	28	47	75	125	33	158	46	128	174	407
12:15 PM	19	45	64	134	21	155	30	100	130	349
12:30 PM	18	48	66	132	21	153	42	119	161	380
Total Volume	75	170	245	504	105	609	162	452	614	1468
% App. Total	30.6	69.4		82.8	17.2		26.4	73.6		
PHF	.670	.885	.817	.940	.795	.964	.880	.883	.882	.902
Cars	75	170	245	494	105	599	162	437	599	1443
% Cars	100	100	100	98.0	100	98.4	100	96.7	97.6	98.3
Trucks	0	0	0	10	0	10	0	15	15	25
% Trucks	0	0	0	2.0	0	1.6	0	3.3	2.4	1.7



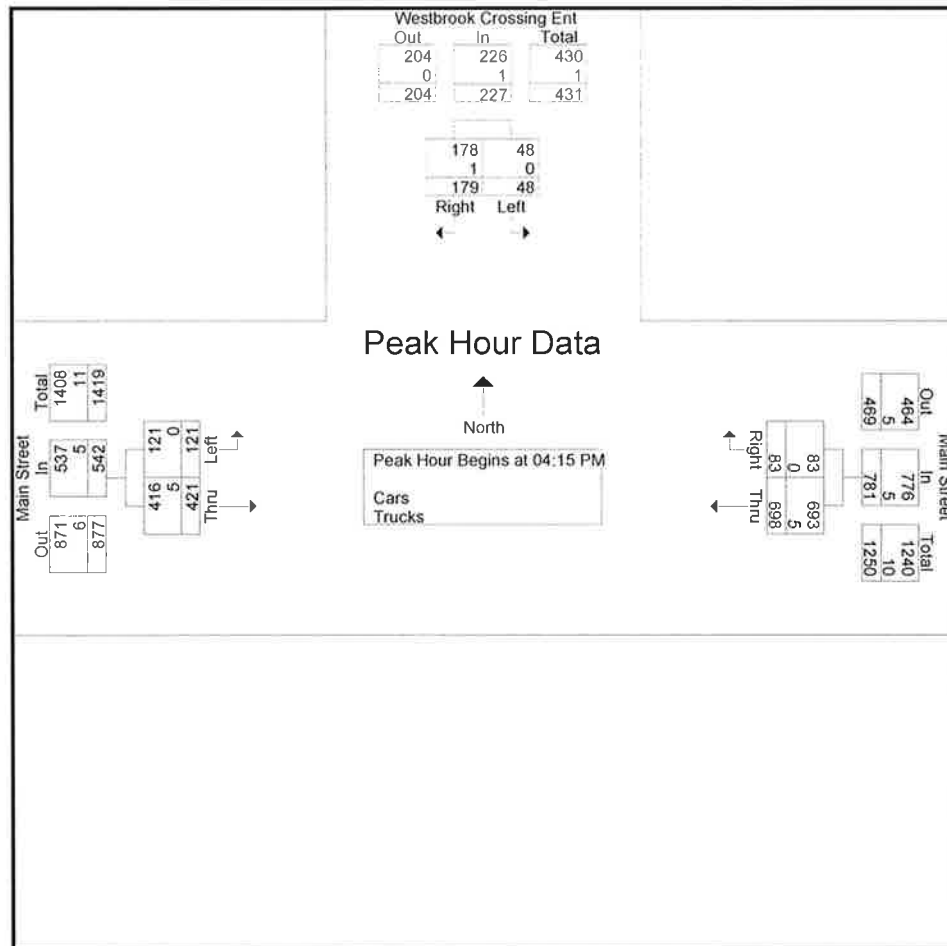
Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 7

	Westbrook Crossing Ent From North				Main Street From East			Main Street From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total		Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:15 PM											
04:15 PM	12	42	54	170	26	196		26	90	116	366
04:30 PM	10	47	57	194	16	210		38	117	155	422
04:45 PM	15	36	51	158	17	175		28	101	129	355
05:00 PM	11	54	65	176	24	200		29	113	142	407
Total Volume	48	179	227	698	83	781		121	421	542	1550
% App. Total	21.1	78.9		89.4	10.6			22.3	77.7		
PHF	.800	.829	.873	.899	.798	.930		.796	.900	.874	.918
Cars	48	178	226	693	83	776		121	416	537	1539
% Cars	100	99.4	99.6	99.3	100	99.4		100	98.8	99.1	99.3
Trucks	0	1	1	5	0	5		0	5	5	11
% Trucks	0	0.6	0.4	0.7	0	0.6		0	1.2	0.9	0.7



Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 9

Groups Printed- Cars							
Start Time	Westbrook Crossing Ent From North		Main Street From East		Main Street From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	11	15	58	5	16	112	217
07:15 AM	14	22	64	8	15	124	247
07:30 AM	10	16	63	8	9	122	228
07:45 AM	15	18	110	5	18	140	306
Total	50	71	295	26	58	498	998
08:00 AM	17	11	92	4	16	112	252
08:15 AM	17	20	70	5	19	128	259
08:30 AM	21	20	88	16	13	117	275
08:45 AM	11	25	122	15	16	81	270
Total	66	76	372	40	64	438	1056
09:00 AM	11	26	75	8	18	79	217
09:15 AM	9	18	94	10	14	92	237
09:30 AM	13	19	103	16	22	82	255
09:45 AM	13	22	88	17	24	105	269
Total	46	85	360	51	78	358	978
10:00 AM	12	23	95	16	21	73	240
10:15 AM	6	31	101	11	8	103	260
10:30 AM	4	23	91	17	29	88	252
10:45 AM	11	35	88	13	25	91	263
Total	33	112	375	57	83	355	1015
11:00 AM	14	33	101	12	35	93	288
11:15 AM	7	35	111	22	32	103	310
11:30 AM	9	33	113	26	35	107	323
11:45 AM	10	30	110	30	44	102	326
Total	40	131	435	90	146	405	1247
12:00 PM	28	47	124	33	46	126	404
12:15 PM	19	45	133	21	30	94	342
12:30 PM	18	48	127	21	42	115	371
12:45 PM	12	56	104	18	37	96	323
Total	77	196	488	93	155	431	1440
01:00 PM	19	44	114	16	38	104	335
01:15 PM	20	51	113	20	27	86	317
01:30 PM	13	45	107	17	24	109	315
01:45 PM	11	38	120	20	32	80	301
Total	63	178	454	73	121	379	1268

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Cars								
Start Time	Westbrook Crossing Ent From North		Main Street From East		Main Street From West		Int. Total	Total
	Left	Right	Thru	Right	Left	Thru		
02:00 PM	17	25	94	19	27	103		285
02:15 PM	17	36	116	16	21	88		294
02:30 PM	11	25	109	16	34	119		314
02:45 PM	10	40	146	22	25	93		336
Total	55	126	465	73	107	403		1229
03:00 PM	18	41	164	22	27	89		361
03:15 PM	12	37	157	23	20	92		341
03:30 PM	9	34	150	24	24	121		362
03:45 PM	12	39	138	23	16	95		323
Total	51	151	609	92	87	397		1387
04:00 PM	11	41	161	25	27	115		380
04:15 PM	12	42	170	26	26	90		366
04:30 PM	10	46	192	16	38	113		415
04:45 PM	15	36	158	17	28	101		355
Total	48	165	681	84	119	419		1516
05:00 PM	11	54	173	24	29	112		403
05:15 PM	14	41	158	17	32	102		364
05:30 PM	12	48	144	31	53	109		397
05:45 PM	13	45	130	22	27	79		316
Total	50	188	605	94	141	402		1480
06:00 PM	11	39	127	18	21	101		317
06:15 PM	8	44	136	21	18	84		311
06:30 PM	12	42	117	14	19	67		271
06:45 PM	7	33	109	14	22	71		256
Total	38	158	489	67	80	323		1155
Grand Total	617	1637	5628	840	1239	4808		14769
Apprch %	27.4	72.6	87	13	20.5	79.5		
Total %	4.2	11.1	38.1	5.7	8.4	32.6		

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW22
Site Code : 68460W22
Start Date : 9/29/2015
Page No : 17

Groups Printed- Trucks

Start Time	Westbrook Crossing Ent From North		Main Street From East		Main Street From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	0	0	3	1	0	1	5
07:15 AM	0	0	3	0	1	1	5
07:30 AM	1	0	4	0	0	3	8
07:45 AM	0	1	3	0	0	7	11
Total	1	1	13	1	1	12	29
08:00 AM	0	1	6	0	1	3	11
08:15 AM	0	0	1	0	0	0	1
08:30 AM	0	0	4	0	0	1	5
08:45 AM	0	0	3	0	0	0	3
Total	0	1	14	0	1	4	20
09:00 AM	0	0	2	0	0	4	6
09:15 AM	0	0	1	0	1	0	2
09:30 AM	0	1	5	1	0	3	10
09:45 AM	0	0	3	0	0	2	5
Total	0	1	11	1	1	9	23
10:00 AM	0	0	2	0	0	2	4
10:15 AM	0	1	4	0	0	3	8
10:30 AM	0	0	3	0	1	2	6
10:45 AM	0	0	2	0	0	0	2
Total	0	1	11	0	1	7	20
11:00 AM	0	0	4	0	0	2	6
11:15 AM	0	0	2	0	0	1	3
11:30 AM	0	0	2	0	0	1	3
11:45 AM	0	0	3	0	0	3	6
Total	0	0	11	0	0	7	18
12:00 PM	0	0	1	0	0	2	3
12:15 PM	0	0	1	0	0	6	7
12:30 PM	0	0	5	0	0	4	9
12:45 PM	0	0	1	0	0	0	1
Total	0	0	8	0	0	12	20
01:00 PM	0	0	2	0	0	2	4
01:15 PM	0	1	4	0	0	2	7
01:30 PM	0	0	2	0	0	2	4
01:45 PM	0	0	3	0	0	3	6
Total	0	1	11	0	0	9	21

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW22
Site Code : 68460W22
Start Date : 9/29/2015
Page No : 18

Groups Printed- Trucks							
Start Time	Westbrook Crossing Ent From North		Main Street From East		Main Street From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
02:00 PM	0	0	3	0	0	2	5
02:15 PM	0	0	1	0	1	7	9
02:30 PM	0	0	3	0	0	3	6
02:45 PM	1	0	4	0	1	1	7
Total	1	0	11	0	2	13	27
03:00 PM	0	0	6	0	0	1	7
03:15 PM	0	0	4	0	0	2	6
03:30 PM	0	1	3	2	1	1	8
03:45 PM	0	0	0	0	1	3	4
Total	0	1	13	2	2	7	25
04:00 PM	0	0	2	0	0	2	4
04:15 PM	0	0	0	0	0	0	0
04:30 PM	0	1	2	0	0	4	7
04:45 PM	0	0	0	0	0	0	0
Total	0	1	4	0	0	6	11
05:00 PM	0	0	3	0	0	1	4
05:15 PM	0	0	0	0	1	1	2
05:30 PM	0	0	2	0	0	0	2
05:45 PM	0	0	1	0	0	1	2
Total	0	0	6	0	1	3	10
06:00 PM	0	0	0	0	0	0	0
06:15 PM	0	0	1	0	0	1	2
06:30 PM	0	0	1	0	0	1	2
06:45 PM	0	0	1	0	0	1	2
Total	0	0	3	0	0	3	6
Grand Total	2	7	116	4	9	92	230
Apprch %	22.2	77.8	96.7	3.3	8.9	91.1	
Total %	0.9	3	50.4	1.7	3.9	40	

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 25

Groups Printed- Bikes Peds

Start Time	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	2	1	0	0	0	1	0	2	2	4
07:30 AM	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	0	2	1	0	0	0	2	1	3	3	6
08:00 AM	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	1	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	2	0	0	0	1	0	0	3	3
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	1	0	0	0	1	1
09:30 AM	0	0	1	0	0	0	0	1	0	1	1	2
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	1	1	0	1	2	3
10:00 AM	0	0	1	1	0	0	0	0	0	1	1	2
10:15 AM	0	0	1	0	0	0	0	1	0	1	1	2
10:30 AM	0	0	1	0	0	0	0	0	0	1	0	1
10:45 AM	0	0	2	0	0	0	0	0	0	2	0	2
Total	0	0	5	1	0	0	0	1	0	5	2	7
11:00 AM	0	0	0	1	0	0	0	0	0	0	1	1
11:15 AM	0	0	2	0	0	0	0	0	0	2	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	2	0	0	0	0	1	0	2	1	3
Total	0	0	4	1	0	0	0	1	0	4	2	6
12:00 PM	0	0	3	0	0	0	0	0	0	3	0	3
12:15 PM	0	0	0	1	0	0	0	0	0	0	1	1
12:30 PM	0	0	0	1	0	0	0	0	0	0	1	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	3	2	0	0	0	0	0	3	2	5
01:00 PM	0	0	0	0	0	0	0	1	0	0	1	1
01:15 PM	1	0	1	0	0	0	0	0	1	2	1	3
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	1	0	0	1	1
Total	1	0	1	0	0	0	0	2	1	2	3	5

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 26

Groups Printed- Bikes Peds												
Start Time	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
02:00 PM	0	0	1	0	1	0	0	1	0	1	2	3
02:15 PM	1	0	1	0	1	0	0	0	0	1	2	3
02:30 PM	0	0	0	0	0	1	0	1	0	1	1	2
02:45 PM	0	0	1	0	0	0	0	2	0	1	2	3
Total	1	0	3	0	2	1	0	4	0	4	7	11
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	1	0	0	0	0	1	1	2	1	3
03:45 PM	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	1	0	0	0	0	3	1	2	3	5
04:00 PM	0	0	0	0	1	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	1	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	2	0	0	2	2
04:45 PM	0	0	0	1	0	0	0	2	0	0	3	3
Total	0	0	0	1	1	0	0	5	0	0	7	7
05:00 PM	0	0	1	2	0	0	0	0	0	1	2	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	2	1	0	0	1	0	0	4	4
05:45 PM	1	0	0	0	0	0	1	0	0	0	2	2
Total	1	0	1	4	1	0	1	1	0	1	8	9
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	3	0	21	12	4	1	2	21	3	25	42	67
Apprch %	100	0		75	25		8.7	91.3				
Total %	7.1	0		28.6	9.5		4.8	50		37.3	62.7	

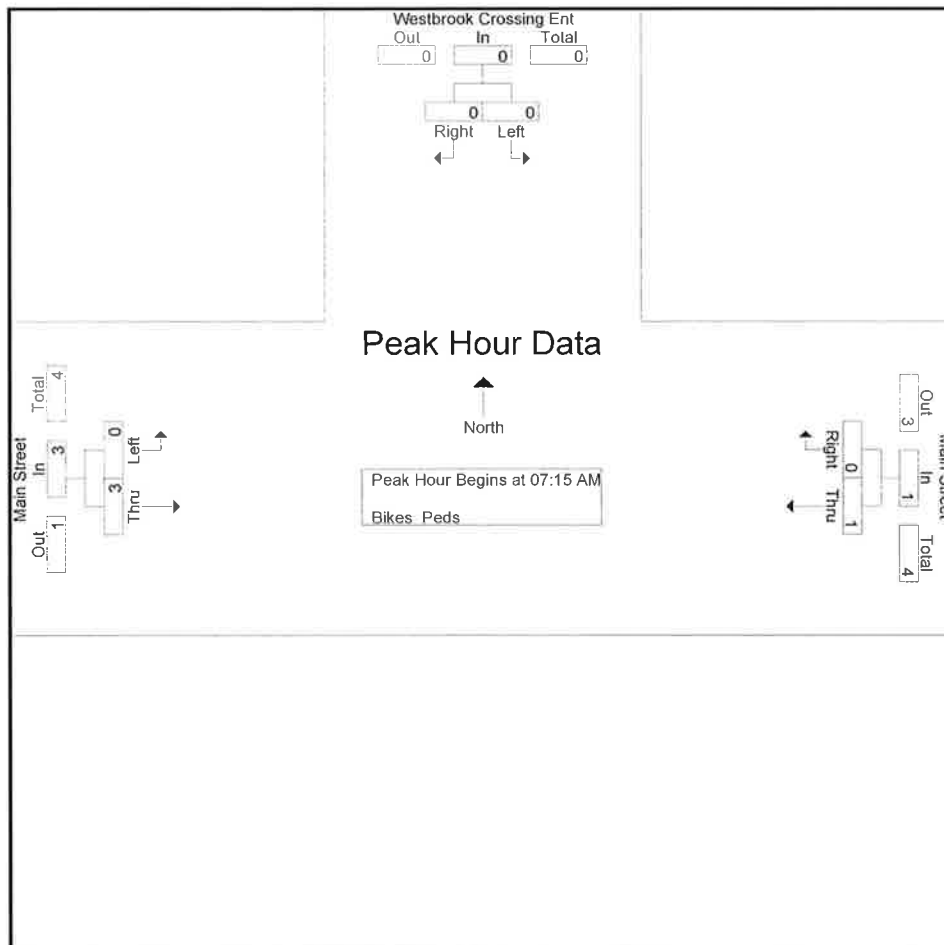
Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846WW22
 Site Code : 68460W22
 Start Date : 9/29/2015
 Page No : 27

	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			Int. Total
	Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	1	0	1	0	1	1	2
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	1	0	1	0	3	3	4
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.750	.750	.500



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			07:15 AM		
+0 mins.	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	1	0	1	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	1	0	1	0	1	1
Total Volume	0	0	0	2	0	2	0	3	3
% App. Total	0	0		100	0		0	100	

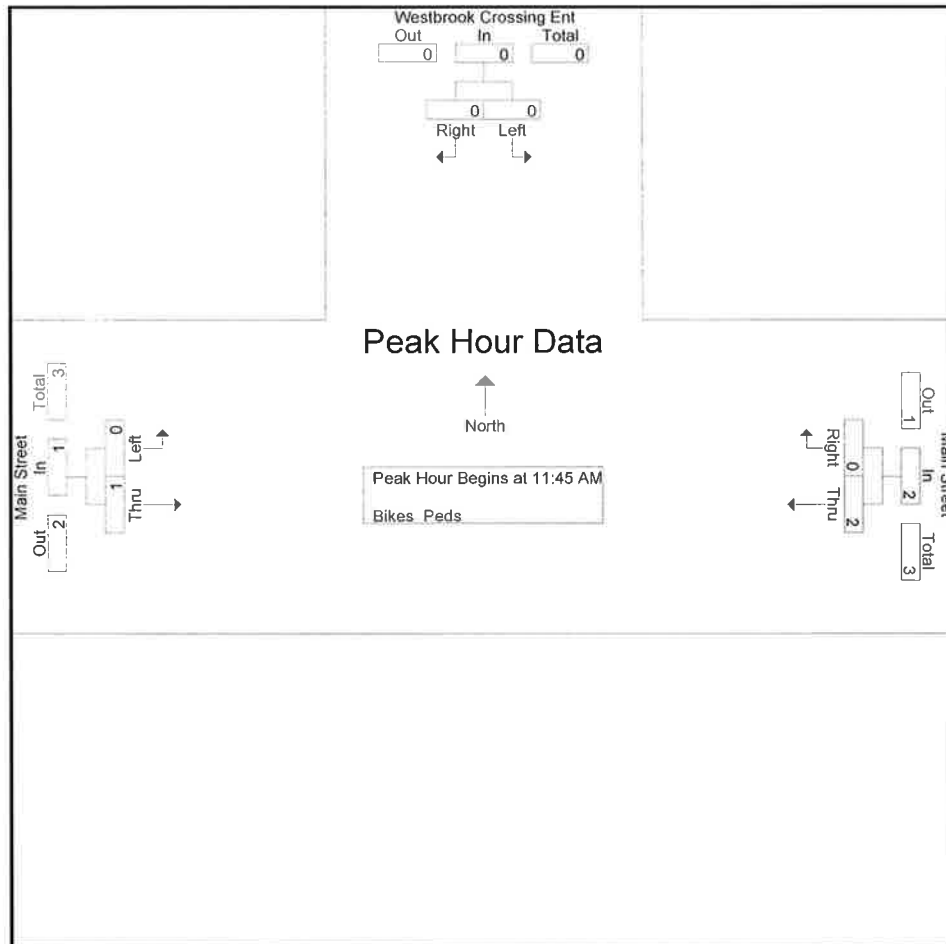
Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW22
Site Code : 68460W22
Start Date : 9/29/2015
Page No : 29

	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	0	0	0	0	0	0	0	1	1	1
12:00 PM	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	1	0	1	0	0	0	1
12:30 PM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	0	0	2	0	2	0	1	1	3
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250	.750



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:30 PM			11:45 AM			01:00 PM		
+0 mins.	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	1	0	1	1	0	1	0	1	1
Total Volume	1	0	1	2	0	2	0	2	2
% App. Total	100	0		100	0		0	100	
PHF	.250	.000	.250	.500	.000	.500	.000	.500	.500

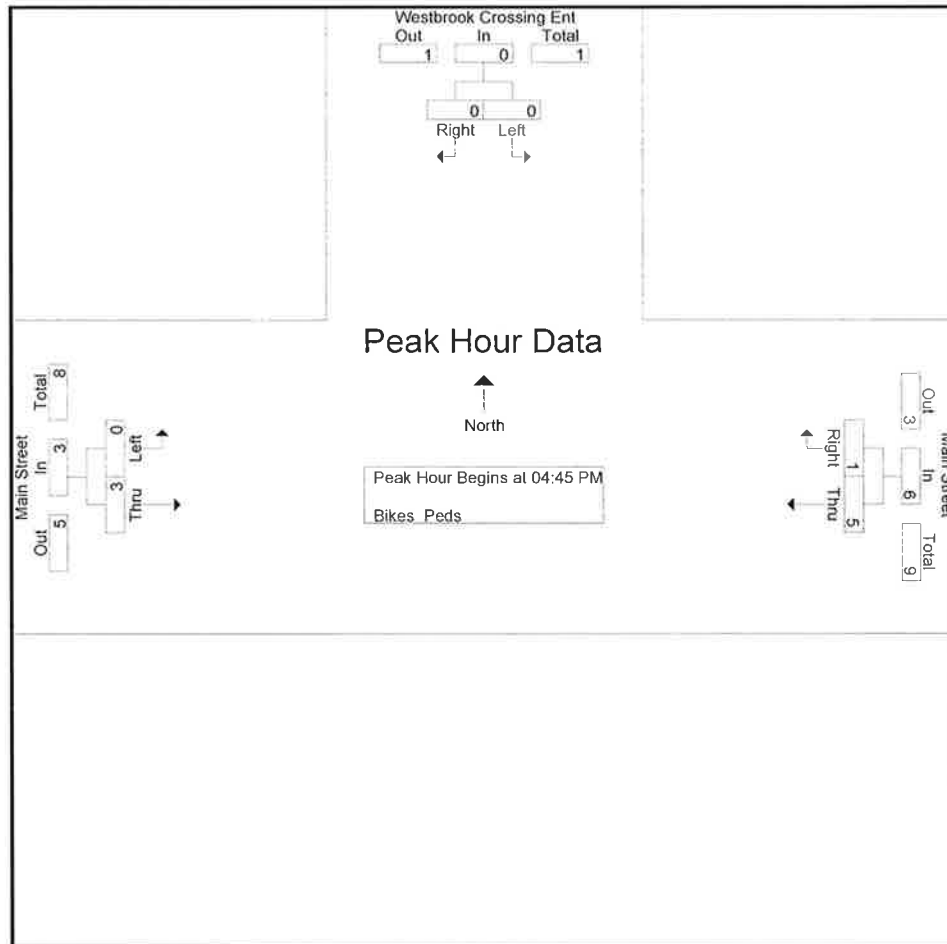
Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846WW22
Site Code : 68460W22
Start Date : 9/29/2015
Page No : 31

	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	1	0	1	0	2	2	3
05:00 PM	0	0	0	2	0	2	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	2	1	3	0	1	1	4
Total Volume	0	0	0	5	1	6	0	3	3	9
% App. Total	0	0		83.3	16.7		0	100		
PHF	.000	.000	.000	.625	.250	.500	.000	.375	.375	.563



Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			04:45 PM			03:45 PM		
+0 mins.	0	0	0	1	0	1	0	2	2
+15 mins.	1	0	1	2	0	2	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	2	1	3	0	2	2
Total Volume	1	0	1	5	1	6	0	5	5
% App. Total	100	0		83.3	16.7		0	100	
PHF	.250	.000	.250	.625	.250	.500	.000	.625	.625

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Terminal Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW23
Site Code : 68460W23
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Larrabee Rd From North			Terminal St From East			Larrabee Rd From South			Terminal St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	69	6	2	0	0	15	54	3	2	0	6	157
07:15 AM	1	87	12	0	0	3	14	84	1	4	0	12	218
07:30 AM	0	62	13	0	0	0	9	55	0	7	0	6	152
07:45 AM	2	53	11	0	0	3	15	71	2	6	0	4	167
Total	3	271	42	2	0	6	53	264	6	19	0	28	694
08:00 AM	0	59	20	1	0	2	13	68	0	7	0	10	180
08:15 AM	3	54	7	1	0	3	12	80	1	9	0	8	178
08:30 AM	1	59	7	1	0	4	20	61	2	5	0	9	169
08:45 AM	1	67	9	3	0	1	32	72	0	2	0	11	198
Total	5	239	43	6	0	10	77	281	3	23	0	38	725
09:00 AM	0	46	5	0	0	2	16	58	0	5	0	9	141
09:15 AM	4	48	10	0	0	2	13	53	1	3	0	3	137
09:30 AM	2	50	4	0	0	1	13	74	0	5	0	9	158
09:45 AM	2	52	4	2	0	2	5	74	3	8	0	4	156
Total	8	196	23	2	0	7	47	259	4	21	0	25	592
10:00 AM	2	66	2	1	0	3	4	67	0	4	0	5	154
10:15 AM	0	50	7	0	0	1	16	48	0	5	0	5	132
10:30 AM	3	70	8	1	0	1	6	56	2	13	0	11	171
10:45 AM	1	64	4	1	0	2	7	62	2	12	0	9	164
Total	6	250	21	3	0	7	33	233	4	34	0	30	621
11:00 AM	2	50	5	0	0	3	8	61	1	5	0	8	143
11:15 AM	1	83	8	4	0	1	5	75	1	5	0	9	192
11:30 AM	1	80	5	0	0	1	10	79	2	20	0	13	211
11:45 AM	1	67	3	2	0	3	8	72	0	9	0	8	173
Total	5	280	21	6	0	8	31	287	4	39	0	38	719
12:00 PM	2	93	4	0	0	0	4	80	2	8	0	11	204
12:15 PM	1	113	5	3	0	1	2	86	0	7	0	8	226
12:30 PM	1	77	7	1	0	0	13	89	4	11	0	6	209
12:45 PM	1	94	11	2	0	1	9	74	1	8	0	23	224
Total	5	377	27	6	0	2	28	329	7	34	0	48	863
01:00 PM	1	77	3	1	0	1	12	87	2	11	0	17	212
01:15 PM	2	81	6	2	0	2	9	58	1	4	0	10	175
01:30 PM	4	88	14	1	0	0	4	64	1	6	0	11	193

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Terminal Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW23
Site Code : 68460W23
Start Date : 9/29/2015
Page No : 2

Groups Printed- Cars - Trucks

Start Time	Larrabee Rd From North			Terminal St From East			Larrabee Rd From South			Terminal St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
01:45 PM	0	68	8	3	0	1	5	81	5	9	0	5	185
Total	7	314	31	7	0	4	30	290	9	30	0	43	765
02:00 PM	2	56	5	4	0	1	5	63	2	13	0	16	167
02:15 PM	2	79	3	1	1	0	5	67	2	5	2	10	177
02:30 PM	0	87	9	2	1	3	2	110	2	8	0	12	236
02:45 PM	1	82	8	1	0	1	4	77	1	3	0	4	182
Total	5	304	25	8	2	5	16	317	7	29	2	42	762
03:00 PM	0	93	6	2	0	0	6	58	1	6	0	5	177
03:15 PM	1	81	14	3	0	0	13	67	0	16	0	23	218
03:30 PM	1	93	6	1	0	0	6	64	1	7	0	11	190
03:45 PM	0	97	9	0	0	1	15	75	5	13	0	17	232
Total	2	364	35	6	0	1	40	264	7	42	0	56	817
04:00 PM	0	94	13	0	0	0	8	61	0	6	0	11	193
04:15 PM	0	137	27	2	0	0	14	89	0	18	0	19	306
04:30 PM	0	123	8	1	0	1	14	105	0	15	0	18	285
04:45 PM	0	116	9	2	0	0	6	75	0	12	0	20	240
Total	0	470	57	5	0	1	42	330	0	51	0	68	1024
05:00 PM	1	175	9	1	0	0	10	86	1	18	0	17	318
05:15 PM	1	160	8	1	0	1	9	78	0	18	0	26	302
05:30 PM	0	106	6	1	0	0	7	82	1	9	0	15	227
05:45 PM	0	94	10	0	0	2	12	62	1	17	0	18	216
Total	2	535	33	3	0	3	38	308	3	62	0	76	1063
06:00 PM	0	69	3	0	0	0	1	49	0	14	0	7	143
06:15 PM	0	54	1	0	0	0	1	34	0	2	0	8	100
06:30 PM	0	38	0	0	0	0	0	49	0	5	0	5	97
06:45 PM	0	50	1	0	0	0	3	36	0	5	0	3	98
Total	0	211	5	0	0	0	5	168	0	26	0	23	438
Grand Total	48	3811	363	54	2	54	440	3330	54	410	2	515	9083
Apprch %	1.1	90.3	8.6	49.1	1.8	49.1	11.5	87.1	1.4	44.2	0.2	55.6	
Total %	0.5	42	4	0.6	0	0.6	4.8	36.7	0.6	4.5	0	5.7	
Cars	11	3728	327	5	0	9	404	3241	4	371	0	478	8578
% Cars	22.9	97.8	90.1	9.3	0	16.7	91.8	97.3	7.4	90.5	0	92.8	94.4
Trucks	37	83	36	49	2	45	36	89	50	39	2	37	505
% Trucks	77.1	2.2	9.9	90.7	100	83.3	8.2	2.7	92.6	9.5	100	7.2	5.6

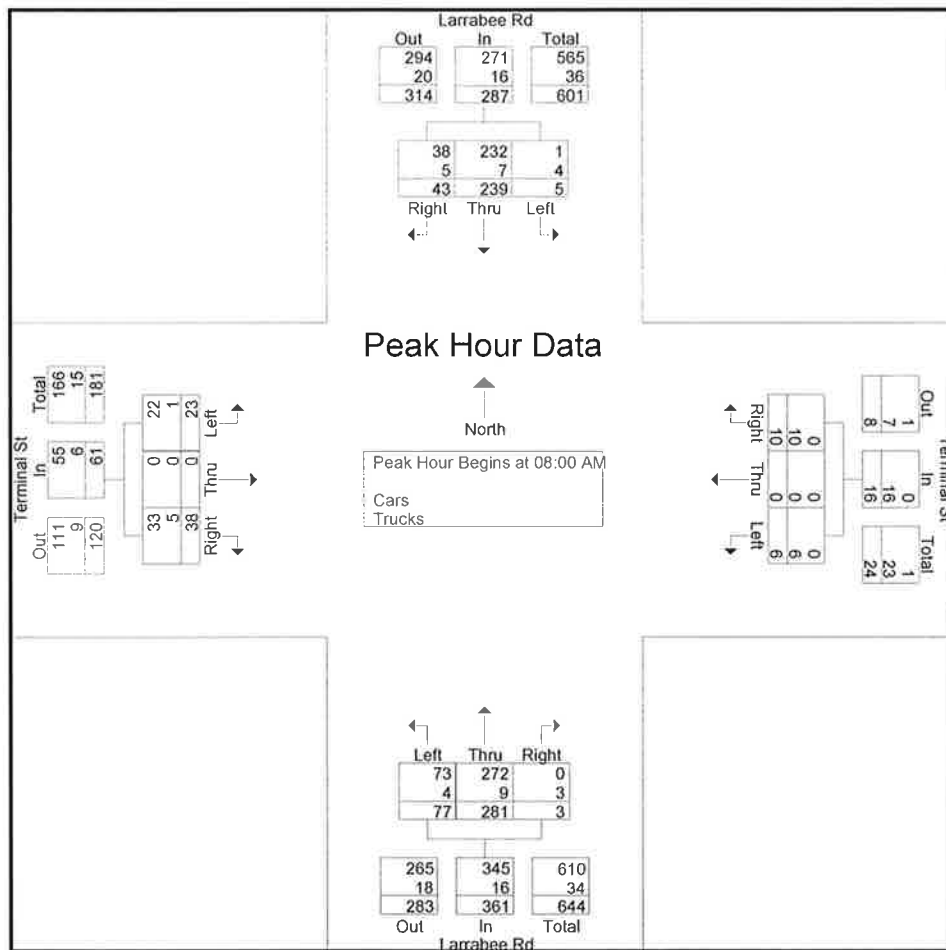
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW23
 Site Code : 68460W23
 Start Date : 9/29/2015
 Page No : 3

	Larrabee Rd From North				Terminal St From East				Larrabee Rd From South				Terminal St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	59	20	79	1	0	2	3	13	68	0	81	7	0	10	17	180
08:15 AM	3	54	7	64	1	0	3	4	12	80	1	93	9	0	8	17	178
08:30 AM	1	59	7	67	1	0	4	5	20	61	2	83	5	0	9	14	169
08:45 AM	1	67	9	77	3	0	1	4	32	72	0	104	2	0	11	13	198
Total Volume	5	239	43	287	6	0	10	16	77	281	3	361	23	0	38	61	725
% App. Total	1.7	83.3	15		37.5	0	62.5		21.3	77.8	0.8		37.7	0	62.3		
PHF	.417	.892	.538	.908	.500	.000	.625	.800	.602	.878	.375	.868	.639	.000	.864	.897	.915
Cars	1	232	38	271	0	0	0	0	73	272	0	345	22	0	33	55	671
% Cars	20.0	97.1	88.4	94.4	0	0	0	0	94.8	96.8	0	95.6	95.7	0	86.8	90.2	92.6
Trucks	4	7	5	16	6	0	10	16	4	9	3	16	1	0	5	6	54
% Trucks	80.0	2.9	11.6	5.6	100	0	100	100	5.2	3.2	100	4.4	4.3	0	13.2	9.8	7.4



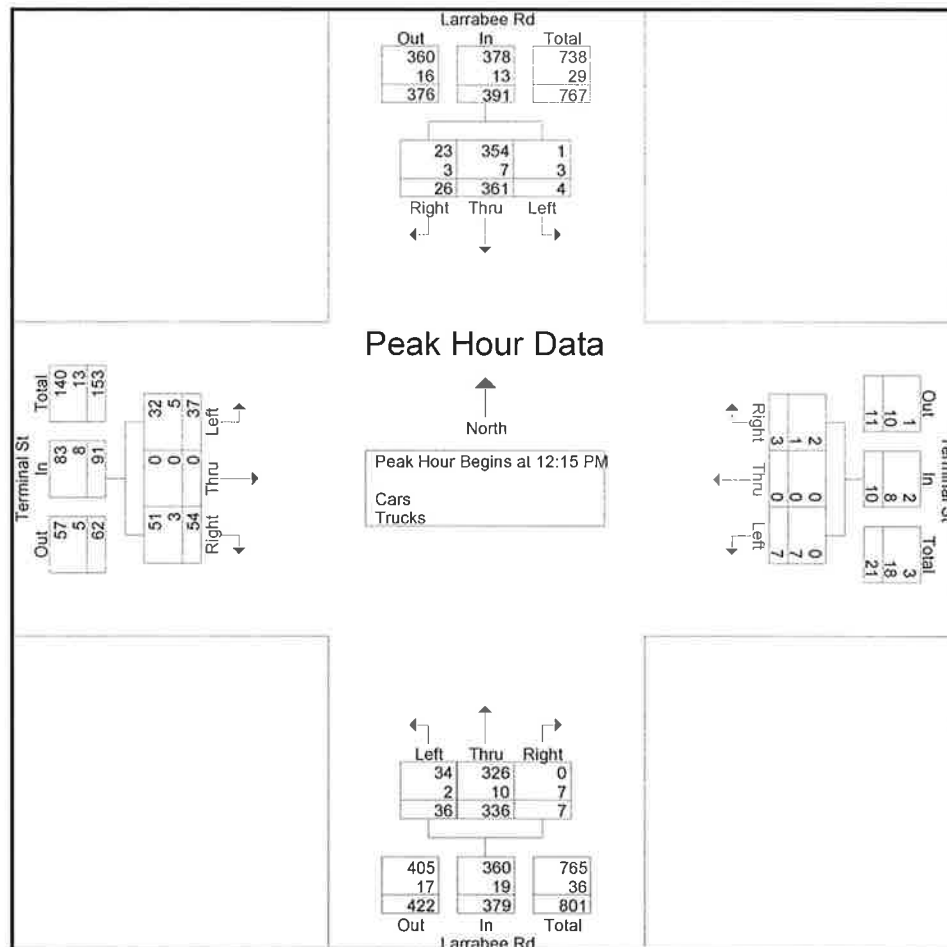
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Terminal Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW23
Site Code : 68460W23
Start Date : 9/29/2015
Page No : 5

	Larrabee Rd From North				Terminal St From East				Larrabee Rd From South				Terminal St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	1	113	5	119	3	0	1	4	2	86	0	88	7	0	8	15	226
12:30 PM	1	77	7	85	1	0	0	1	13	89	4	106	11	0	6	17	209
12:45 PM	1	94	11	106	2	0	1	3	9	74	1	84	8	0	23	31	224
01:00 PM	1	77	3	81	1	0	1	2	12	87	2	101	11	0	17	28	212
Total Volume	4	361	26	391	7	0	3	10	36	336	7	379	37	0	54	91	871
% App. Total	1	92.3	6.6		70	0	30		9.5	88.7	1.8		40.7	0	59.3		
PHF	1.00	.799	.591	.821	.583	.000	.750	.625	.692	.944	.438	.894	.841	.000	.587	.734	.963
Cars	1	354	23	378	0	0	2	2	34	326	0	360	32	0	51	83	823
% Cars	25.0	98.1	88.5	96.7	0	0	66.7	20.0	94.4	97.0	0	95.0	86.5	0	94.4	91.2	94.5
Trucks	3	7	3	13	7	0	1	8	2	10	7	19	5	0	3	8	48
% Trucks	75.0	1.9	11.5	3.3	100	0	33.3	80.0	5.6	3.0	100	5.0	13.5	0	5.6	8.8	5.5



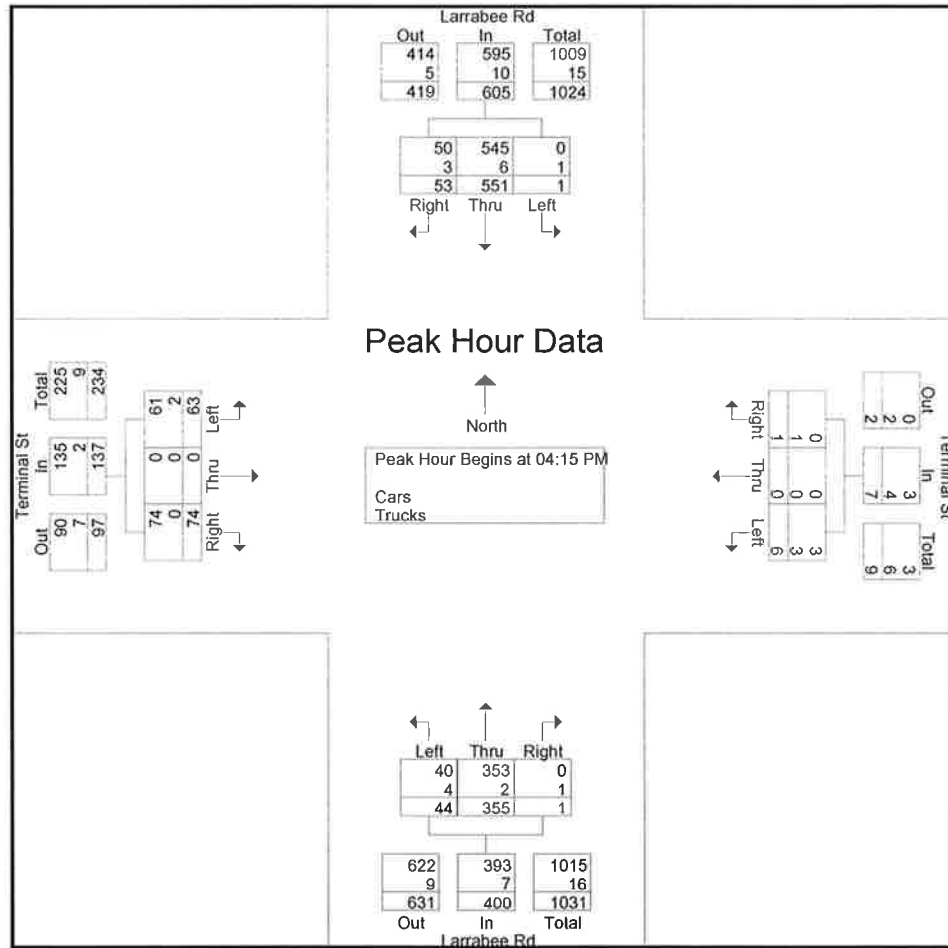
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW23
 Site Code : 68460W23
 Start Date : 9/29/2015
 Page No : 7

	Larrabee Rd From North				Terminal St From East				Larrabee Rd From South				Terminal St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	137	27	164	2	0	0	2	14	89	0	103	18	0	19	37	306
04:30 PM	0	123	8	131	1	0	1	2	14	105	0	119	15	0	18	33	285
04:45 PM	0	116	9	125	2	0	0	2	6	75	0	81	12	0	20	32	240
05:00 PM	1	175	9	185	1	0	0	1	10	86	1	97	18	0	17	35	318
Total Volume	1	551	53	605	6	0	1	7	44	355	1	400	63	0	74	137	1149
% App. Total	0.2	91.1	8.8		85.7	0	14.3		11	88.8	0.2		46	0	54		
PHF	.250	.787	.491	.818	.750	.000	.250	.875	.786	.845	.250	.840	.875	.000	.925	.926	.903
Cars	0	545	50	595	3	0	0	3	40	353	0	393	61	0	74	135	1126
% Cars	0	98.9	94.3	98.3	50.0	0	0	42.9	90.9	99.4	0	98.3	96.8	0	100	98.5	98.0
Trucks	1	6	3	10	3	0	1	4	4	2	1	7	2	0	0	2	23
% Trucks	100	1.1	5.7	1.7	50.0	0	100	57.1	9.1	0.6	100	1.8	3.2	0	0	1.5	2.0



Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Terminal Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW23
Site Code : 68460W23
Start Date : 9/29/2015
Page No : 9

Groups Printed- Cars

Start Time	Larrabee Rd From North			Terminal St From East			Larrabee Rd From South			Terminal St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	66	5	0	0	0	13	51	0	2	0	5	142
07:15 AM	0	85	11	0	0	0	14	84	0	2	0	10	206
07:30 AM	0	60	12	0	0	0	8	55	0	5	0	5	145
07:45 AM	1	51	10	0	0	1	14	64	1	4	0	3	149
Total	1	262	38	0	0	1	49	254	1	13	0	23	642
08:00 AM	0	58	15	0	0	0	11	65	0	6	0	8	163
08:15 AM	1	54	7	0	0	0	12	75	0	9	0	7	165
08:30 AM	0	55	7	0	0	0	19	60	0	5	0	8	154
08:45 AM	0	65	9	0	0	0	31	72	0	2	0	10	189
Total	1	232	38	0	0	0	73	272	0	22	0	33	671
09:00 AM	0	43	5	0	0	0	14	58	0	5	0	8	133
09:15 AM	1	46	10	0	0	1	12	52	1	1	0	0	124
09:30 AM	0	49	3	0	0	0	11	69	0	4	0	9	145
09:45 AM	1	51	4	0	0	0	3	69	0	7	0	3	138
Total	2	189	22	0	0	1	40	248	1	17	0	20	540
10:00 AM	0	62	1	0	0	0	4	64	0	4	0	5	140
10:15 AM	0	48	7	0	0	0	15	45	0	3	0	5	123
10:30 AM	0	67	8	0	0	0	6	51	0	11	0	10	153
10:45 AM	0	62	2	0	0	0	7	62	2	11	0	8	154
Total	0	239	18	0	0	0	32	222	2	29	0	28	570
11:00 AM	0	48	4	0	0	1	3	60	0	4	0	6	126
11:15 AM	0	83	5	0	0	0	5	70	0	3	0	8	174
11:30 AM	1	80	4	0	0	0	8	77	0	17	0	12	199
11:45 AM	1	62	2	0	0	1	8	69	0	7	0	8	158
Total	2	273	15	0	0	2	24	276	0	31	0	34	657
12:00 PM	0	92	4	0	0	0	4	79	0	8	0	11	198
12:15 PM	0	112	3	0	0	0	2	82	0	5	0	8	212
12:30 PM	0	76	6	0	0	0	11	87	0	11	0	6	197
12:45 PM	1	91	11	0	0	1	9	72	0	6	0	22	213
Total	1	371	24	0	0	1	26	320	0	30	0	47	820
01:00 PM	0	75	3	0	0	1	12	85	0	10	0	15	201
01:15 PM	0	77	6	0	0	0	7	57	0	4	0	7	158
01:30 PM	2	85	13	0	0	0	4	64	0	6	0	10	184
01:45 PM	0	67	4	0	0	0	5	76	0	9	0	5	166
Total	2	304	26	0	0	1	28	282	0	29	0	37	709

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW23
 Site Code : 68460W23
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Cars

Start Time	Larrabee Rd From North			Terminal St From East			Larrabee Rd From South			Terminal St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	1	54	5	0	0	0	5	61	0	13	0	15	154
02:15 PM	0	77	2	1	0	0	4	66	0	3	0	10	163
02:30 PM	0	87	9	0	0	0	2	109	0	7	0	11	225
02:45 PM	1	78	7	0	0	1	4	76	0	3	0	3	173
Total	2	296	23	1	0	1	15	312	0	26	0	39	715
03:00 PM	0	91	6	0	0	0	4	57	0	6	0	5	169
03:15 PM	0	80	13	1	0	0	11	63	0	14	0	22	204
03:30 PM	0	92	6	0	0	0	6	62	0	6	0	10	182
03:45 PM	0	97	6	0	0	0	15	73	0	12	0	17	220
Total	0	360	31	1	0	0	36	255	0	38	0	54	775
04:00 PM	0	92	13	0	0	0	8	60	0	6	0	9	188
04:15 PM	0	136	27	0	0	0	13	88	0	18	0	19	301
04:30 PM	0	121	6	1	0	0	12	104	0	14	0	18	276
04:45 PM	0	113	8	2	0	0	6	75	0	12	0	20	236
Total	0	462	54	3	0	0	39	327	0	50	0	66	1001
05:00 PM	0	175	9	0	0	0	9	86	0	17	0	17	313
05:15 PM	0	160	8	0	0	0	9	77	0	18	0	25	297
05:30 PM	0	103	6	0	0	0	7	81	0	9	0	14	220
05:45 PM	0	93	10	0	0	2	12	62	0	16	0	18	213
Total	0	531	33	0	0	2	37	306	0	60	0	74	1043
06:00 PM	0	68	3	0	0	0	1	49	0	14	0	7	142
06:15 PM	0	54	1	0	0	0	1	34	0	2	0	8	100
06:30 PM	0	38	0	0	0	0	0	49	0	5	0	5	97
06:45 PM	0	49	1	0	0	0	3	35	0	5	0	3	96
Total	0	209	5	0	0	0	5	167	0	26	0	23	435
Grand Total	11	3728	327	5	0	9	404	3241	4	371	0	478	8578
Apprch %	0.3	91.7	8	35.7	0	64.3	11.1	88.8	0.1	43.7	0	56.3	
Total %	0.1	43.5	3.8	0.1	0	0.1	4.7	37.8	0	4.3	0	5.6	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW23
 Site Code : 68460W23
 Start Date : 9/29/2015
 Page No : 17

Groups Printed- Trucks

Start Time	Larrabee Rd From North			Terminal St From East			Larrabee Rd From South			Terminal St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	3	1	2	0	0	2	3	3	0	0	1	15
07:15 AM	1	2	1	0	0	3	0	0	1	2	0	2	12
07:30 AM	0	2	1	0	0	0	1	0	0	2	0	1	7
07:45 AM	1	2	1	0	0	2	1	7	1	2	0	1	18
Total	2	9	4	2	0	5	4	10	5	6	0	5	52
08:00 AM	0	1	5	1	0	2	2	3	0	1	0	2	17
08:15 AM	2	0	0	1	0	3	0	5	1	0	0	1	13
08:30 AM	1	4	0	1	0	4	1	1	2	0	0	1	15
08:45 AM	1	2	0	3	0	1	1	0	0	0	0	1	9
Total	4	7	5	6	0	10	4	9	3	1	0	5	54
09:00 AM	0	3	0	0	0	2	2	0	0	0	0	1	8
09:15 AM	3	2	0	0	0	1	1	1	0	2	0	3	13
09:30 AM	2	1	1	0	0	1	2	5	0	1	0	0	13
09:45 AM	1	1	0	2	0	2	2	5	3	1	0	1	18
Total	6	7	1	2	0	6	7	11	3	4	0	5	52
10:00 AM	2	4	1	1	0	3	0	3	0	0	0	0	14
10:15 AM	0	2	0	0	0	1	1	3	0	2	0	0	9
10:30 AM	3	3	0	1	0	1	0	5	2	2	0	1	18
10:45 AM	1	2	2	1	0	2	0	0	0	1	0	1	10
Total	6	11	3	3	0	7	1	11	2	5	0	2	51
11:00 AM	2	2	1	0	0	2	5	1	1	1	0	2	17
11:15 AM	1	0	3	4	0	1	0	5	1	2	0	1	18
11:30 AM	0	0	1	0	0	1	2	2	2	3	0	1	12
11:45 AM	0	5	1	2	0	2	0	3	0	2	0	0	15
Total	3	7	6	6	0	6	7	11	4	8	0	4	62
12:00 PM	2	1	0	0	0	0	0	1	2	0	0	0	6
12:15 PM	1	1	2	3	0	1	0	4	0	2	0	0	14
12:30 PM	1	1	1	1	0	0	2	2	4	0	0	0	12
12:45 PM	0	3	0	2	0	0	0	2	1	2	0	1	11
Total	4	6	3	6	0	1	2	9	7	4	0	1	43
01:00 PM	1	2	0	1	0	0	0	2	2	1	0	2	11
01:15 PM	2	4	0	2	0	2	2	1	1	0	0	3	17
01:30 PM	2	3	1	1	0	0	0	0	1	0	0	1	9
01:45 PM	0	1	4	3	0	1	0	5	5	0	0	0	19
Total	5	10	5	7	0	3	2	8	9	1	0	6	56

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW23
 Site Code : 68460W23
 Start Date : 9/29/2015
 Page No : 18

Groups Printed- Trucks

Start Time	Larrabee Rd From North			Terminal St From East			Larrabee Rd From South			Terminal St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	1	2	0	4	0	1	0	2	2	0	0	1	13
02:15 PM	2	2	1	0	1	0	1	1	2	2	2	0	14
02:30 PM	0	0	0	2	1	3	0	1	2	1	0	1	11
02:45 PM	0	4	1	1	0	0	0	1	1	0	0	1	9
Total	3	8	2	7	2	4	1	5	7	3	2	3	47
03:00 PM	0	2	0	2	0	0	2	1	1	0	0	0	8
03:15 PM	1	1	1	2	0	0	2	4	0	2	0	1	14
03:30 PM	1	1	0	1	0	0	0	2	1	1	0	1	8
03:45 PM	0	0	3	0	0	1	0	2	5	1	0	0	12
Total	2	4	4	5	0	1	4	9	7	4	0	2	42
04:00 PM	0	2	0	0	0	0	0	1	0	0	0	2	5
04:15 PM	0	1	0	2	0	0	1	1	0	0	0	0	5
04:30 PM	0	2	2	0	0	1	2	1	0	1	0	0	9
04:45 PM	0	3	1	0	0	0	0	0	0	0	0	0	4
Total	0	8	3	2	0	1	3	3	0	1	0	2	23
05:00 PM	1	0	0	1	0	0	1	0	1	1	0	0	5
05:15 PM	1	0	0	1	0	1	0	1	0	0	0	1	5
05:30 PM	0	3	0	1	0	0	0	1	1	0	0	1	7
05:45 PM	0	1	0	0	0	0	0	0	1	1	0	0	3
Total	2	4	0	3	0	1	1	2	3	2	0	2	20
06:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	0	2	0	0	0	0	0	1	0	0	0	0	3
Grand Total	37	83	36	49	2	45	36	89	50	39	2	37	505
Apprch %	23.7	53.2	23.1	51	2.1	46.9	20.6	50.9	28.6	50	2.6	47.4	
Total %	7.3	16.4	7.1	9.7	0.4	8.9	7.1	17.6	9.9	7.7	0.4	7.3	

978-664-2565

File Name : 6846WW23
Site Code : 68460W23
Start Date : 9/29/2015
Page No : 25

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846WW23
 Site Code : 68460W23
 Start Date : 9/29/2015
 Page No : 26

Groups Printed- Bikes Peds

Start Time	Larrabee Rd From North				Terminal St From East				Larrabee Rd From South				Terminal St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	2	0	0	0	0	0	1	0	0	0	0	0	7	9	2	11
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0				
Total %	0	50	0		0	0	0		0	50	0		0	0	0		81.8	18.2	

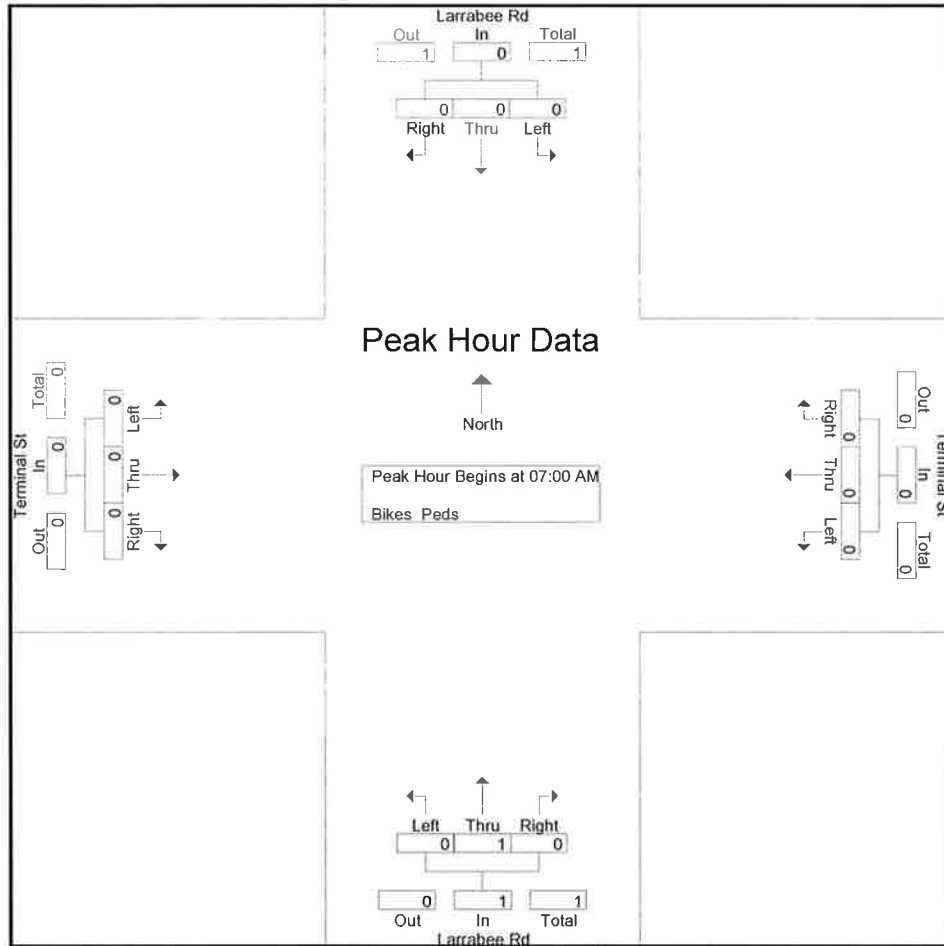
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Terminal Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846WW23
Site Code : 68460W23
Start Date : 9/29/2015
Page No : 27

	Larrabee Rd From North				Terminal St From East				Larrabee Rd From South				Terminal St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

978-664-2565

File Name : 6846WW23
Site Code : 68460W23
Start Date : 9/29/2015
Page No : 29

Peak Hour for Entire Intersection Begins at 10:00 AM

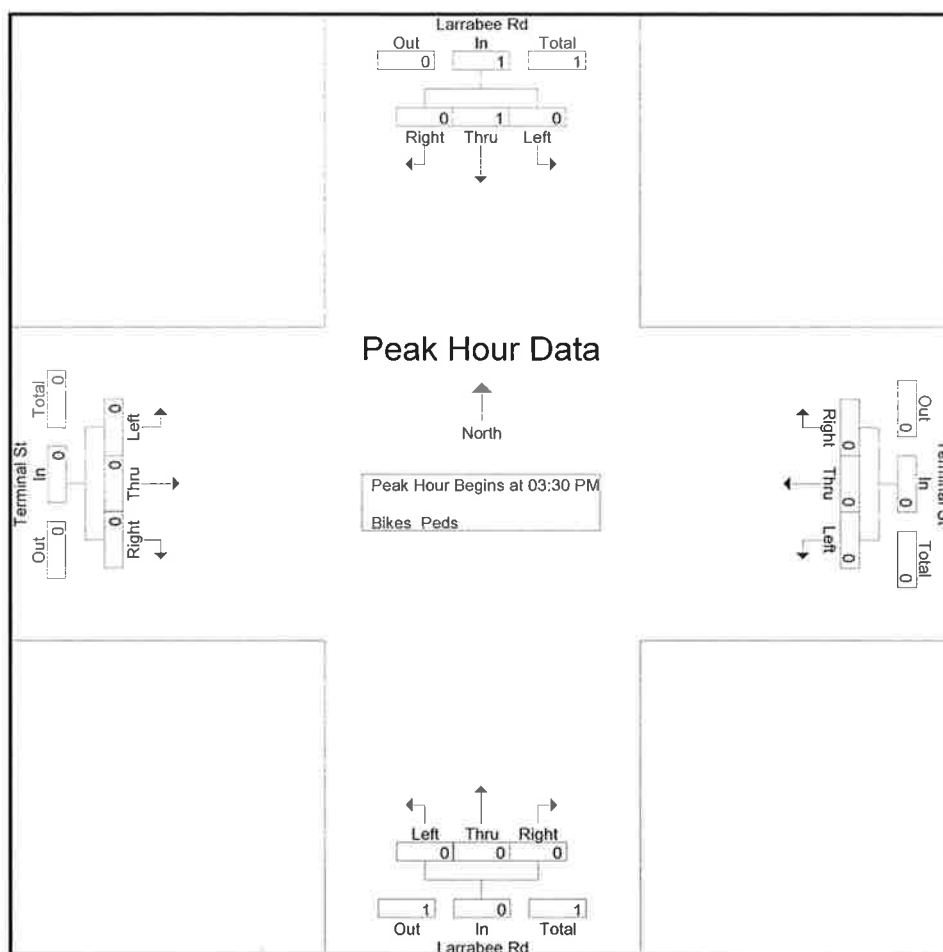


Peak Hour for Each Approach Begins at:

[illegible]

978-664-2565

File Name : 6846WW23
Site Code : 68460W23
Start Date : 9/29/2015
Page No : 31

[illegible]

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW01
 Site Code : 68460W02
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks							
Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	15	36	1	24	80	1	157
11:15 AM	24	35	0	25	65	1	150
11:30 AM	25	32	0	31	72	0	160
11:45 AM	18	42	1	23	56	1	141
Total	82	145	2	103	273	3	608
12:00 PM	29	21	0	21	54	0	125
12:15 PM	32	49	0	27	55	0	163
12:30 PM	22	43	1	28	75	0	169
12:45 PM	24	39	1	23	49	1	137
Total	107	152	2	99	233	1	594
01:00 PM	21	47	0	24	45	0	137
01:15 PM	17	38	0	12	50	0	117
01:30 PM	17	36	0	24	68	0	145
01:45 PM	23	28	0	17	48	1	117
Total	78	149	0	77	211	1	516
Grand Total	267	446	4	279	717	5	1718
Apprch %	37.4	62.6	1.4	98.6	99.3	0.7	
Total %	15.5	26	0.2	16.2	41.7	0.3	
Cars	266	446	4	278	717	5	1716
% Cars	99.6	100	100	99.6	100	100	99.9
Trucks	1	0	0	1	0	0	2
% Trucks	0.4	0	0	0.4	0	0	0.1

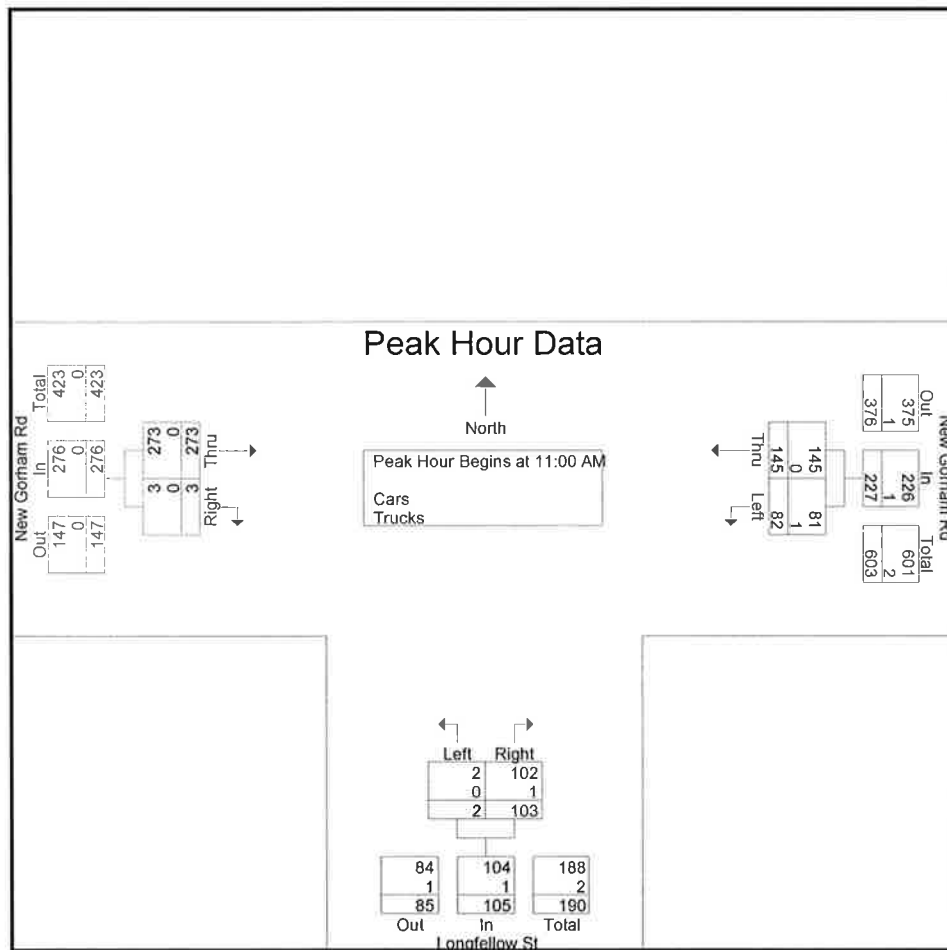
Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW01
 Site Code : 68460W02
 Start Date : 10/3/2015
 Page No : 2

New Gorham Rd From East				Longfellow St From South			New Gorham Rd From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	15	36	51	1	24	25	80	1	81	157
11:15 AM	24	35	59	0	25	25	65	1	66	150
11:30 AM	25	32	57	0	31	31	72	0	72	160
11:45 AM	18	42	60	1	23	24	56	1	57	141
Total Volume	82	145	227	2	103	105	273	3	276	608
% App. Total	36.1	63.9		1.9	98.1		98.9	1.1		
PHF	.820	.863	.946	.500	.831	.847	.853	.750	.852	.950
Cars	81	145	226	2	102	104	273	3	276	606
% Cars	98.8	100	99.6	100	99.0	99.0	100	100	100	99.7
Trucks	1	0	1	0	1	1	0	0	0	2
% Trucks	1.2	0	0.4	0	1.0	1.0	0	0	0	0.3



Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW01
 Site Code : 68460W02
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars

Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	14	36	1	24	80	1	156
11:15 AM	24	35	0	25	65	1	150
11:30 AM	25	32	0	30	72	0	159
11:45 AM	18	42	1	23	56	1	141
Total	81	145	2	102	273	3	606
12:00 PM	29	21	0	21	54	0	125
12:15 PM	32	49	0	27	55	0	163
12:30 PM	22	43	1	28	75	0	169
12:45 PM	24	39	1	23	49	1	137
Total	107	152	2	99	233	1	594
01:00 PM	21	47	0	24	45	0	137
01:15 PM	17	38	0	12	50	0	117
01:30 PM	17	36	0	24	68	0	145
01:45 PM	23	28	0	17	48	1	117
Total	78	149	0	77	211	1	516
Grand Total	266	446	4	278	717	5	1716
Apprch %	37.4	62.6	1.4	98.6	99.3	0.7	
Total %	15.5	26	0.2	16.2	41.8	0.3	

Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW01
 Site Code : 68460W02
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	New Gorham Rd From East		Longfellow St From South		New Gorham Rd From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	1	0	0	0	0	0	1
11:15 AM	0	0	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	1
11:45 AM	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	2
12:00 PM	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	2
Apprch %	100	0	0	100	0	0	
Total %	50	0	0	50	0	0	

Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW01
 Site Code : 68460W02
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	New Gorham Rd From East			Longfellow St From South			New Gorham Rd From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	2	0	0	1	3	0	3
12:15 PM	0	0	0	0	0	0	1	0	0	0	1	1
12:30 PM	0	3	0	0	0	2	0	0	0	2	3	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	0	4	1	0	1	5	4	9
01:00 PM	0	0	1	0	0	3	3	0	1	5	3	8
01:15 PM	0	0	0	0	0	2	0	0	1	3	0	3
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	5	3	0	2	8	3	11
Grand Total	0	3	1	0	0	9	4	0	3	13	7	20
Apprch %	0	100		0	0		100	0				
Total %	0	42.9		0	0		57.1	0		65	35	

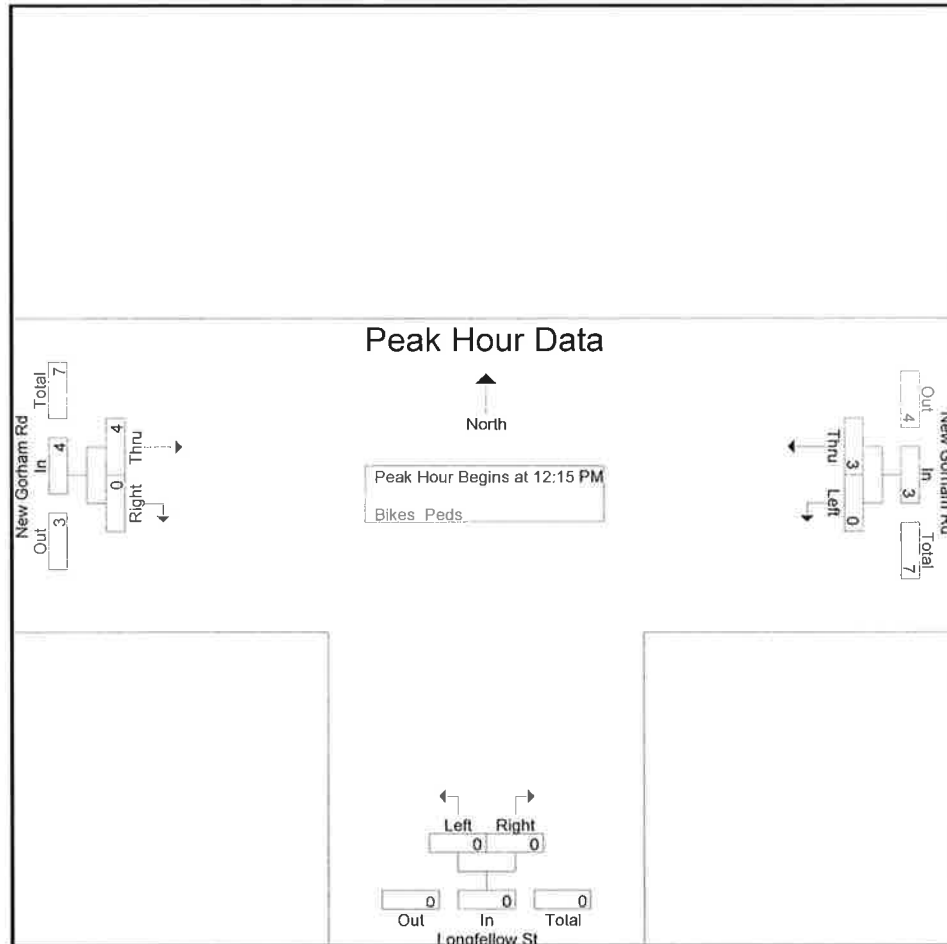
Accurate Counts

978-664-2565

N/S Street : Longfellow Street
 E/W Street : New Gorham Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW01
 Site Code : 68460W02
 Start Date : 10/3/2015
 Page No : 11

	New Gorham Rd From East			Longfellow St From South			New Gorham Rd From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:15 PM										
12:15 PM	0	0	0	0	0	0	1	0	1	1
12:30 PM	0	3	3	0	0	0	0	0	0	3
12:45 PM	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	3	0	3	3
Total Volume	0	3	3	0	0	0	4	0	4	7
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.333	.000	.333	.583



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	11:45 AM			11:00 AM			12:15 PM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	3	3	0	0	0	3	0	3
Total Volume	0	3	3	0	0	0	4	0	4
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.333	.000	.333

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW10
 Site Code : 68460W10
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM	14	44	94	8	49	122	331
11:15 AM	25	44	88	8	46	128	339
11:30 AM	25	51	95	12	53	141	377
11:45 AM	18	46	120	16	58	132	390
Total	82	185	397	44	206	523	1437
12:00 PM	17	38	111	13	53	142	374
12:15 PM	15	40	107	8	53	111	334
12:30 PM	25	39	122	22	53	135	396
12:45 PM	11	43	94	15	57	110	330
Total	68	160	434	58	216	498	1434
01:00 PM	21	30	92	15	44	135	337
01:15 PM	28	40	94	8	56	137	363
01:30 PM	18	30	96	13	50	132	339
01:45 PM	27	43	110	15	53	132	380
Total	94	143	392	51	203	536	1419
Grand Total	244	488	1223	153	625	1557	4290
Apprch %	33.3	66.7	88.9	11.1	28.6	71.4	
Total %	5.7	11.4	28.5	3.6	14.6	36.3	
Cars	244	477	1190	153	616	1528	4208
% Cars	100	97.7	97.3	100	98.6	98.1	98.1
Trucks	0	11	33	0	9	29	82
% Trucks	0	2.3	2.7	0	1.4	1.9	1.9

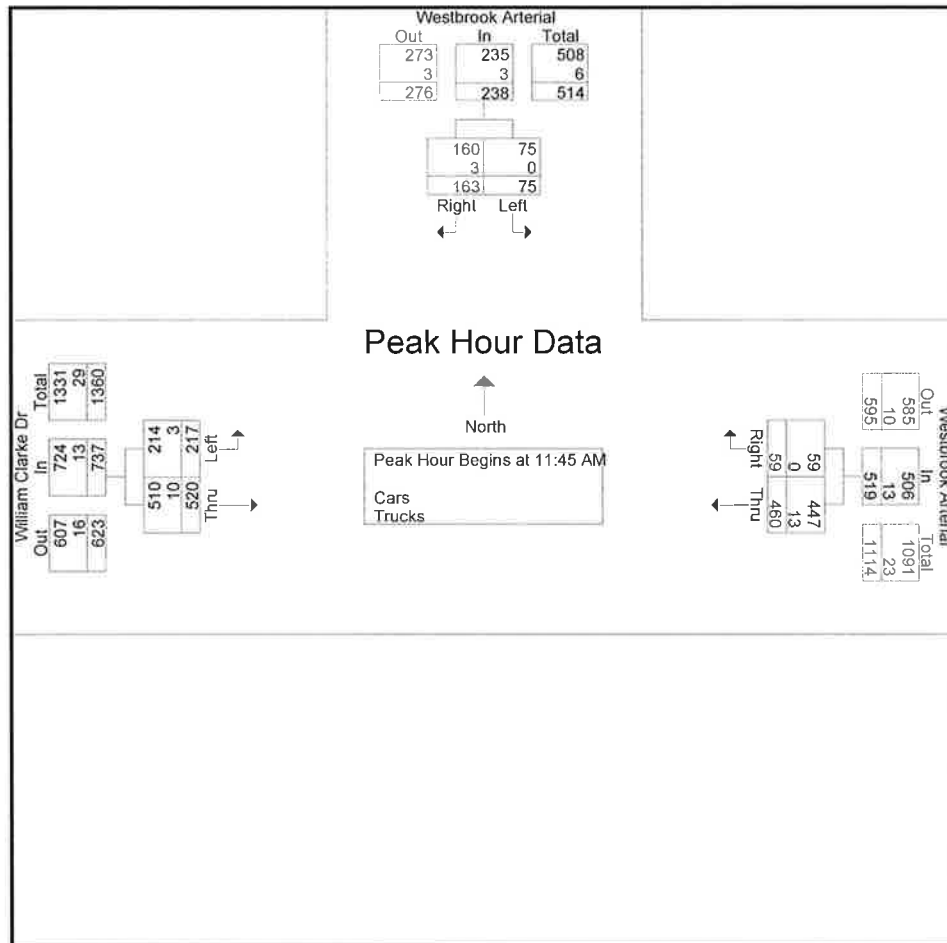
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW10
 Site Code : 68460W10
 Start Date : 10/3/2015
 Page No : 2

	Westbrook Arterial From North			Westbrook Arterial From East			William Clarke Dr From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	18	46	64	120	16	136	58	132	190	390
12:00 PM	17	38	55	111	13	124	53	142	195	374
12:15 PM	15	40	55	107	8	115	53	111	164	334
12:30 PM	25	39	64	122	22	144	53	135	188	396
Total Volume	75	163	238	460	59	519	217	520	737	1494
% App. Total	31.5	68.5		88.6	11.4		29.4	70.6		
PHF	.750	.886	.930	.943	.670	.901	.935	.915	.945	.943
Cars	75	160	235	447	59	506	214	510	724	1465
% Cars	100	98.2	98.7	97.2	100	97.5	98.6	98.1	98.2	98.1
Trucks	0	3	3	13	0	13	3	10	13	29
% Trucks	0	1.8	1.3	2.8	0	2.5	1.4	1.9	1.8	1.9



Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW10
 Site Code : 68460W10
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West		Int. Total	
	Left	Right	Thru	Right	Left	Thru		
11:00 AM	14	42	92	8	47	119	322	
11:15 AM	25	44	84	8	45	128	334	
11:30 AM	25	51	93	12	53	137	371	
11:45 AM	18	44	116	16	57	131	382	
Total	82	181	385	44	202	515	1409	
12:00 PM	17	38	104	13	52	138	362	
12:15 PM	15	40	106	8	52	109	330	
12:30 PM	25	38	121	22	53	132	391	
12:45 PM	11	43	90	15	57	105	321	
Total	68	159	421	58	214	484	1404	
01:00 PM	21	27	89	15	43	132	327	
01:15 PM	28	40	92	8	54	135	357	
01:30 PM	18	30	94	13	50	131	336	
01:45 PM	27	40	109	15	53	131	375	
Total	94	137	384	51	200	529	1395	
Grand Total	244	477	1190	153	616	1528	4208	
Apprch %	33.8	66.2	88.6	11.4	28.7	71.3		
Total %	5.8	11.3	28.3	3.6	14.6	36.3		

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
E/W Street : Clarke Dr/ Arterial
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW10
Site Code : 68460W10
Start Date : 10/3/2015
Page No : 7

Groups Printed- Trucks

Start Time	Westbrook Arterial From North		Westbrook Arterial From East		William Clarke Dr From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	0	2	2	0	2	3	9
11:15 AM	0	0	4	0	1	0	5
11:30 AM	0	0	2	0	0	4	6
11:45 AM	0	2	4	0	1	1	8
Total	0	4	12	0	4	8	28
12:00 PM	0	0	7	0	1	4	12
12:15 PM	0	0	1	0	1	2	4
12:30 PM	0	1	1	0	0	3	5
12:45 PM	0	0	4	0	0	5	9
Total	0	1	13	0	2	14	30
01:00 PM	0	3	3	0	1	3	10
01:15 PM	0	0	2	0	2	2	6
01:30 PM	0	0	2	0	0	1	3
01:45 PM	0	3	1	0	0	1	5
Total	0	6	8	0	3	7	24
Grand Total	0	11	33	0	9	29	82
Apprch %	0	100	100	0	23.7	76.3	
Total %	0	13.4	40.2	0	11	35.4	

Accurate Counts
978-664-2565

N/S Street : Westbrook Arterial
E/W Street : Clarke Dr/ Arterial
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW10
Site Code : 68460W10
Start Date : 10/3/2015
Page No : 10

Groups Printed- Bikes Peds

[illegible]

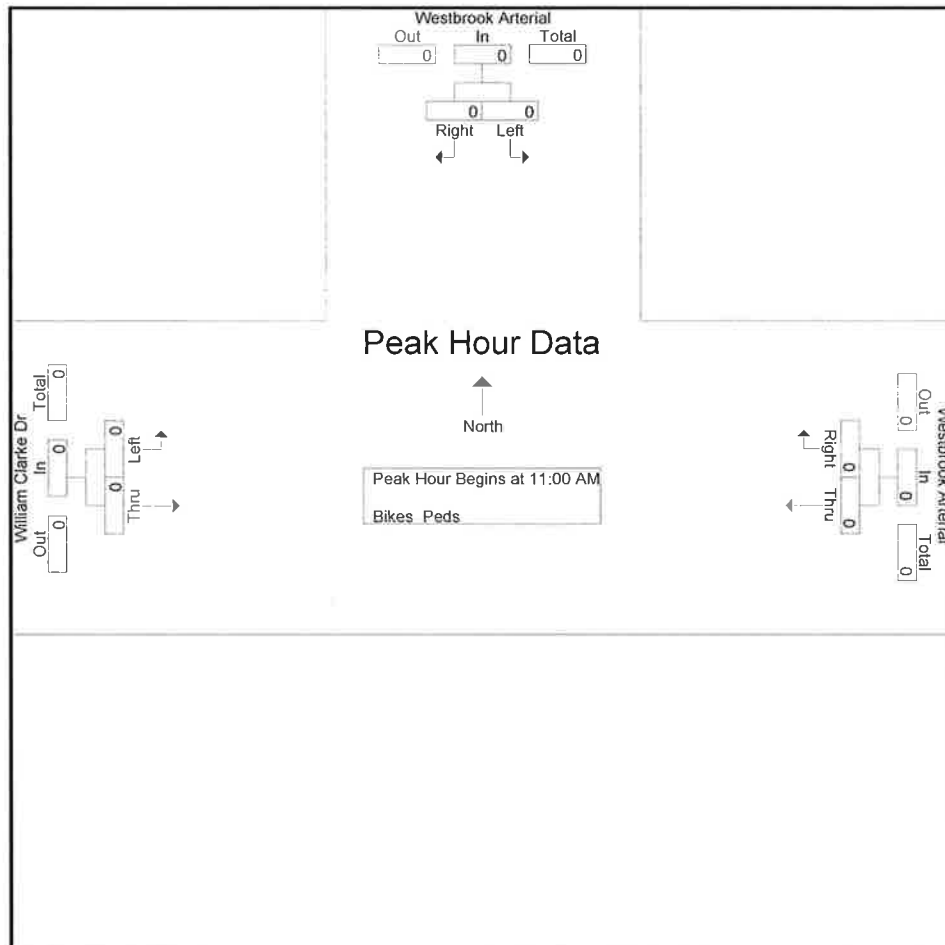
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Clarke Dr/ Arterial
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW10
 Site Code : 68460W10
 Start Date : 10/3/2015
 Page No : 11

	Westbrook Arterial From North			Westbrook Arterial From East			William Clarke Dr From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
E/W Street : East Bridge Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW11
Site Code : 68460W11
Start Date : 9/26/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	4	29	18	3	22	24	100
11:15 AM	6	22	35	1	21	29	114
11:30 AM	2	31	23	7	27	21	111
11:45 AM	2	28	25	2	22	25	104
Total	14	110	101	13	92	99	429
12:00 PM	1	14	30	0	34	20	99
12:15 PM	0	25	29	3	24	27	108
12:30 PM	1	20	38	1	27	20	107
12:45 PM	1	15	21	2	17	19	75
Total	3	74	118	6	102	86	389
01:00 PM	3	18	27	1	31	32	112
01:15 PM	2	18	24	2	28	24	98
01:30 PM	1	28	17	0	23	29	98
01:45 PM	0	24	23	3	19	20	89
Total	6	88	91	6	101	105	397
Grand Total	23	272	310	25	295	290	1215
Apprch %	7.8	92.2	92.5	7.5	50.4	49.6	
Total %	1.9	22.4	25.5	2.1	24.3	23.9	
Cars	23	272	308	25	289	284	1201
% Cars	100	100	99.4	100	98	97.9	98.8
Trucks	0	0	2	0	6	6	14
% Trucks	0	0	0.6	0	2	2.1	1.2

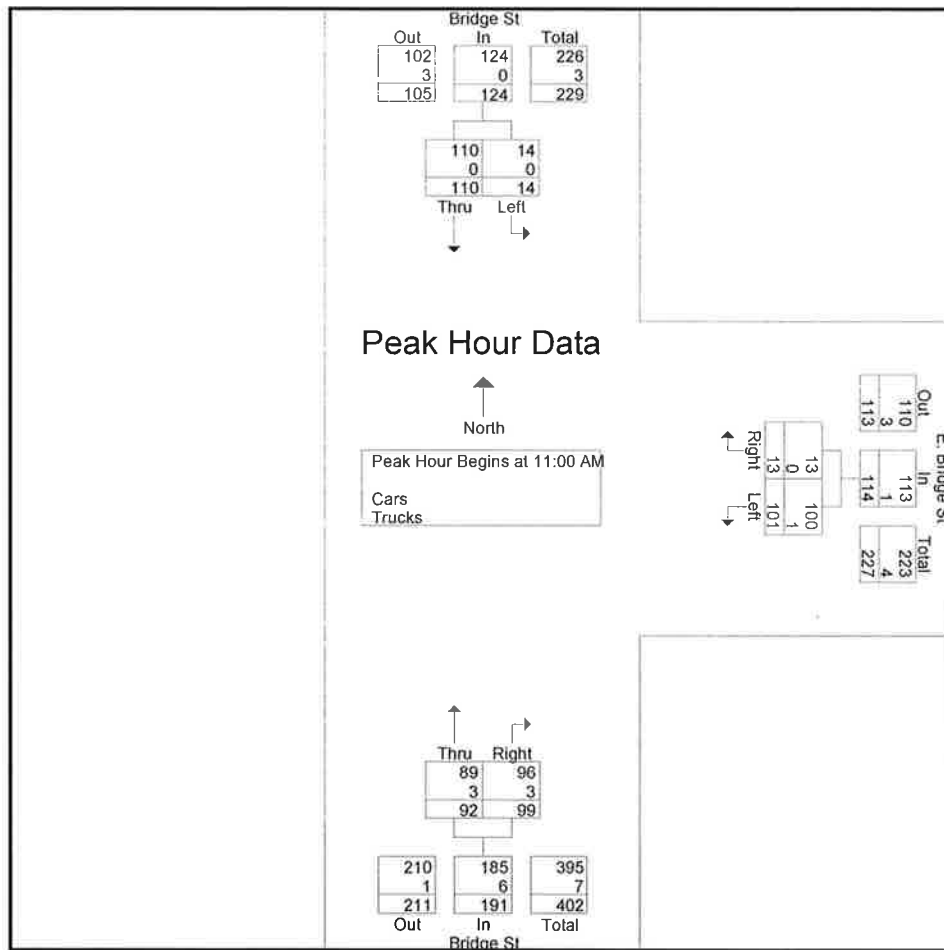
Accurate Counts

978-664-2565

N/S Street : Bridge Street
E/W Street : East Bridge Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW11
Site Code : 68460W11
Start Date : 9/26/2015
Page No : 2

	Bridge St From North			E. Bridge St From East			Bridge St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	4	29	33	18	3	21	22	24	46	100
11:15 AM	6	22	28	35	1	36	21	29	50	114
11:30 AM	2	31	33	23	7	30	27	21	48	111
11:45 AM	2	28	30	25	2	27	22	25	47	104
Total Volume	14	110	124	101	13	114	92	99	191	429
% App. Total	11.3	88.7		88.6	11.4		48.2	51.8		
PHF	.583	.887	.939	.721	.464	.792	.852	.853	.955	.941
Cars	14	110	124	100	13	113	89	96	185	422
% Cars	100	100	100	99.0	100	99.1	96.7	97.0	96.9	98.4
Trucks	0	0	0	1	0	1	3	3	6	7
% Trucks	0	0	0	1.0	0	0.9	3.3	3.0	3.1	1.6



Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW11
 Site Code : 68460W11
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	4	29	18	3	21	23	98
11:15 AM	6	22	34	1	20	28	111
11:30 AM	2	31	23	7	27	21	111
11:45 AM	2	28	25	2	21	24	102
Total	14	110	100	13	89	96	422
12:00 PM	1	14	30	0	34	20	99
12:15 PM	0	25	29	3	23	27	107
12:30 PM	1	20	37	1	27	19	105
12:45 PM	1	15	21	2	17	19	75
Total	3	74	117	6	101	85	386
01:00 PM	3	18	27	1	31	32	112
01:15 PM	2	18	24	2	26	24	96
01:30 PM	1	28	17	0	23	29	98
01:45 PM	0	24	23	3	19	18	87
Total	6	88	91	6	99	103	393
Grand Total	23	272	308	25	289	284	1201
Apprch %	7.8	92.2	92.5	7.5	50.4	49.6	
Total %	1.9	22.6	25.6	2.1	24.1	23.6	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
E/W Street : East Bridge Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW11
Site Code : 68460W11
Start Date : 9/26/2015
Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North		E. Bridge St From East		Bridge St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	0	0	0	0	1	1	2
11:15 AM	0	0	1	0	1	1	3
11:30 AM	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	1	1	2
Total	0	0	1	0	3	3	7
12:00 PM	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	1	0	1
12:30 PM	0	0	1	0	0	1	2
12:45 PM	0	0	0	0	0	0	0
Total	0	0	1	0	1	1	3
01:00 PM	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	2	0	2
01:30 PM	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	2	2
Total	0	0	0	0	2	2	4
Grand Total	0	0	2	0	6	6	14
Apprch %	0	0	100	0	50	50	
Total %	0	0	14.3	0	42.9	42.9	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
E/W Street : East Bridge Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW11
Site Code : 68460W11
Start Date : 9/26/2015
Page No : 10

Groups Printed- Bikes Peds												
Start Time	Bridge St From North			E. Bridge St From East			Bridge St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	2	0	0	0	0	0	0	2	2
Total	0	0	0	2	0	0	0	0	0	0	2	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	2	0	0	0	0	0	0	2	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	0	0	0	0	0	2	2
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	1	0	0	0	0	0	0	1	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	2	0	0	0	0	0	0	2	2
Total	0	0	0	3	0	0	0	0	0	0	3	3
Grand Total	0	0	0	7	0	0	0	0	0	0	7	7
Apprch %	0	0		100	0		0	0				
Total %	0	0		100	0		0	0		0	100	

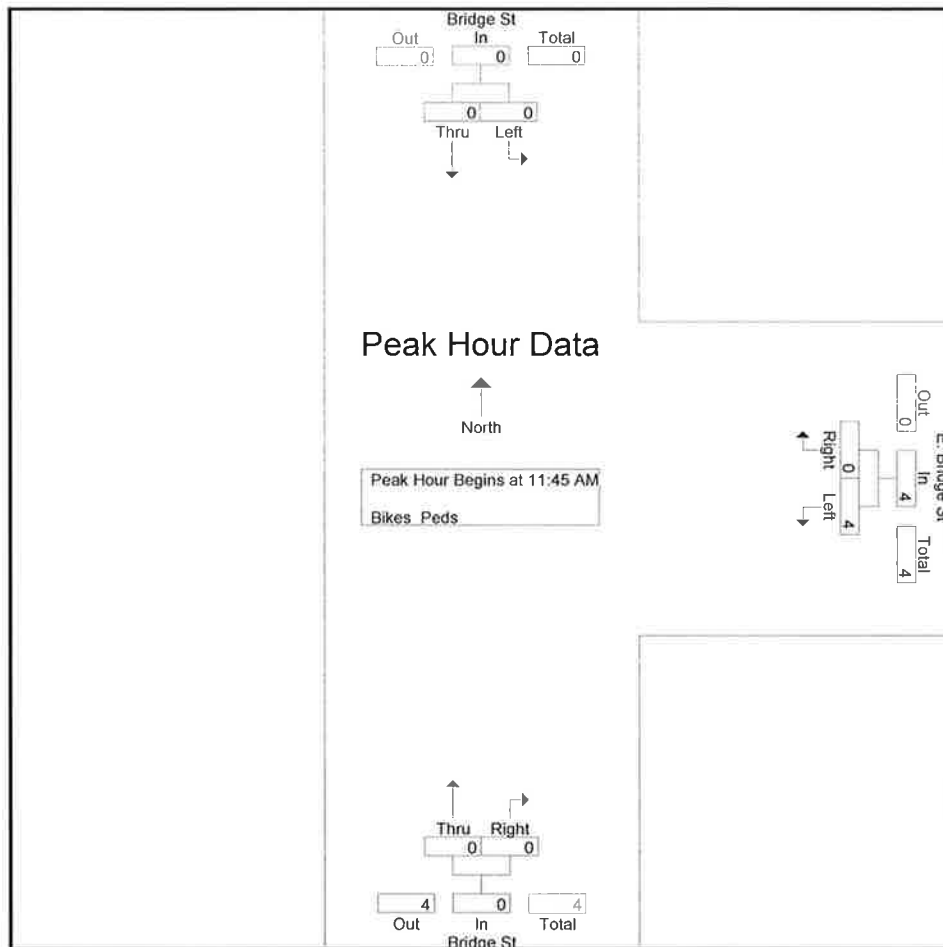
Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : East Bridge Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW11
 Site Code : 68460W11
 Start Date : 9/26/2015
 Page No : 11

	Bridge St From North			E. Bridge St From East			Bridge St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	0	0	0	2	0	2	0	0	0	2
12:00 PM	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	2	0	2	0	0	0	2
Total Volume	0	0	0	4	0	4	0	0	0	4
% App. Total	0	0		100	0		0	0		
PHF	.000	.000	.000	.500	.000	.500	.000	.000	.000	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			11:45 AM			11:00 AM		
+0 mins.	0	0	0	2	0	2	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	2	0	2	0	0	0
Total Volume	0	0	0	4	0	4	0	0	0
% App. Total	0	0		100	0		0	0	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW12
 Site Code : 68460W12
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	22	31	10	9	82	10	10	38	16	6	70	9	313
11:15 AM	15	42	7	9	82	9	7	29	10	6	71	15	302
11:30 AM	16	40	5	21	82	17	8	34	13	6	87	16	345
11:45 AM	24	41	8	13	83	17	11	38	16	7	78	9	345
Total	77	154	30	52	329	53	36	139	55	25	306	49	1305
12:00 PM	12	41	2	18	81	18	14	34	8	7	65	7	307
12:15 PM	16	38	8	6	77	14	13	42	9	4	81	13	321
12:30 PM	13	41	15	9	70	10	12	29	21	6	84	14	324
12:45 PM	20	23	7	6	85	11	3	30	18	6	55	5	269
Total	61	143	32	39	313	53	42	135	56	23	285	39	1221
01:00 PM	15	38	11	11	104	23	14	41	8	4	61	14	344
01:15 PM	13	31	8	8	58	15	11	42	11	5	59	6	267
01:30 PM	16	26	9	16	77	16	14	34	10	7	77	9	311
01:45 PM	8	32	4	11	60	12	15	38	11	5	70	11	277
Total	52	127	32	46	299	66	54	155	40	21	267	40	1199
Grand Total	190	424	94	137	941	172	132	429	151	69	858	128	3725
Apprch %	26.8	59.9	13.3	11	75.3	13.8	18.5	60.3	21.2	6.5	81.3	12.1	
Total %	5.1	11.4	2.5	3.7	25.3	4.6	3.5	11.5	4.1	1.9	23	3.4	
Cars	190	424	92	133	883	172	132	428	148	68	806	128	3604
% Cars	100	100	97.9	97.1	93.8	100	100	99.8	98	98.6	93.9	100	96.8
Trucks	0	0	2	4	58	0	0	1	3	1	52	0	121
% Trucks	0	0	2.1	2.9	6.2	0	0	0.2	2	1.4	6.1	0	3.2

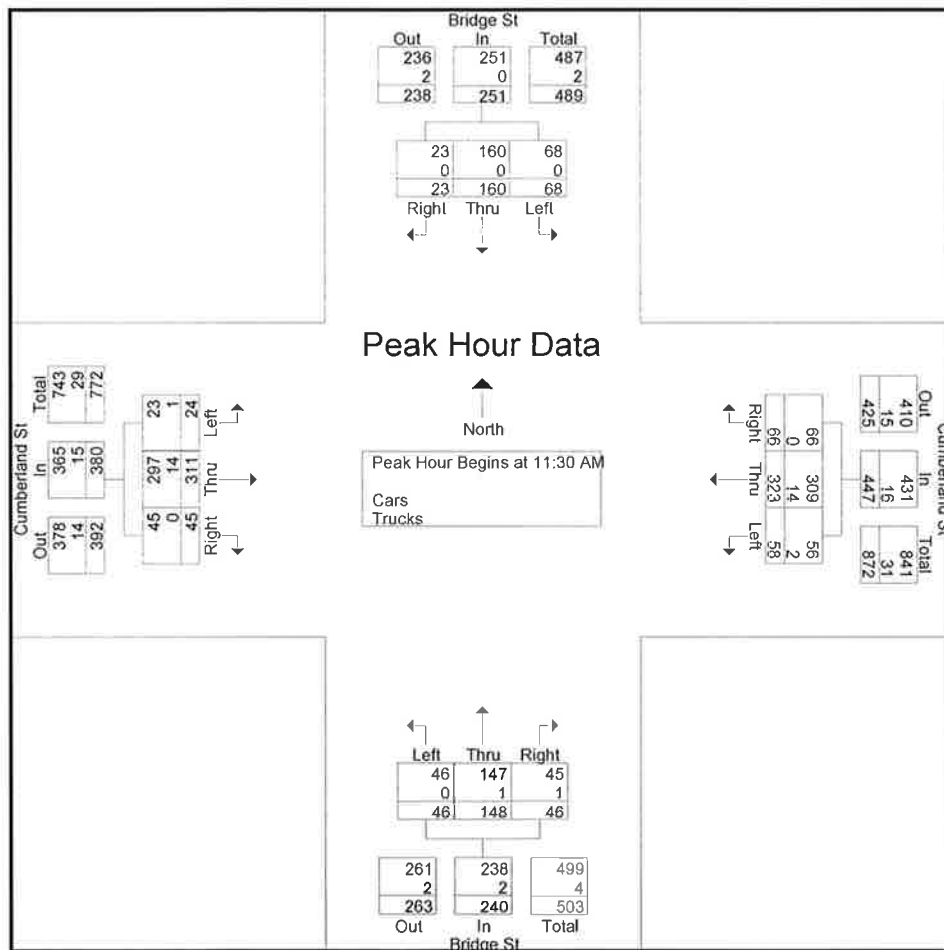
Accurate Counts

978-664-2565

N/S Street : Bridge Street
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW12
Site Code : 68460W12
Start Date : 9/26/2015
Page No : 2

	Bridge St From North				Cumberland St From East				Bridge St From South				Cumberland St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	16	40	5	61	21	82	17	120	8	34	13	55	6	87	16	109	345
11:45 AM	24	41	8	73	13	83	17	113	11	38	16	65	7	78	9	94	345
12:00 PM	12	41	2	55	18	81	18	117	14	34	8	56	7	65	7	79	307
12:15 PM	16	38	8	62	6	77	14	97	13	42	9	64	4	81	13	98	321
Total Volume	68	160	23	251	58	323	66	447	46	148	46	240	24	311	45	380	1318
% App. Total	27.1	63.7	9.2		13	72.3	14.8		19.2	61.7	19.2		6.3	81.8	11.8		
PHF	.708	.976	.719	.860	.690	.973	.917	.931	.821	.881	.719	.923	.857	.894	.703	.872	.955
Cars	68	160	23	251	56	309	66	431	46	147	45	238	23	297	45	365	1285
% Cars	100	100	100	100	96.6	95.7	100	96.4	100	99.3	97.8	99.2	95.8	95.5	100	96.1	97.5
Trucks	0	0	0	0	2	14	0	16	0	1	1	2	1	14	0	15	33
% Trucks	0	0	0	0	3.4	4.3	0	3.6	0	0.7	2.2	0.8	4.2	4.5	0	3.9	2.5



Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW12
 Site Code : 68460W12
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	22	31	10	9	76	10	10	38	16	6	65	9	302
11:15 AM	15	42	6	9	77	9	7	29	10	6	66	15	291
11:30 AM	16	40	5	20	77	17	8	34	13	6	83	16	335
11:45 AM	24	41	8	13	80	17	11	38	15	6	73	9	335
Total	77	154	29	51	310	53	36	139	54	24	287	49	1263
12:00 PM	12	41	2	17	78	18	14	34	8	7	62	7	300
12:15 PM	16	38	8	6	74	14	13	41	9	4	79	13	315
12:30 PM	13	41	14	8	65	10	12	29	19	6	81	14	312
12:45 PM	20	23	7	6	77	11	3	30	18	6	50	5	256
Total	61	143	31	37	294	53	42	134	54	23	272	39	1183
01:00 PM	15	38	11	11	97	23	14	41	8	4	55	14	331
01:15 PM	13	31	8	8	53	15	11	42	11	5	55	6	258
01:30 PM	16	26	9	15	73	16	14	34	10	7	71	9	300
01:45 PM	8	32	4	11	56	12	15	38	11	5	66	11	269
Total	52	127	32	45	279	66	54	155	40	21	247	40	1158
Grand Total	190	424	92	133	883	172	132	428	148	68	806	128	3604
Apprch %	26.9	60.1	13	11.2	74.3	14.5	18.6	60.5	20.9	6.8	80.4	12.8	
Total %	5.3	11.8	2.6	3.7	24.5	4.8	3.7	11.9	4.1	1.9	22.4	3.6	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW12
 Site Code : 68460W12
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North			Cumberland St From East			Bridge St From South			Cumberland St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	6	0	0	0	0	0	5	0	11
11:15 AM	0	0	1	0	5	0	0	0	0	0	5	0	11
11:30 AM	0	0	0	1	5	0	0	0	0	0	4	0	10
11:45 AM	0	0	0	0	3	0	0	0	1	1	5	0	10
Total	0	0	1	1	19	0	0	0	1	1	19	0	42
12:00 PM	0	0	0	1	3	0	0	0	0	0	3	0	7
12:15 PM	0	0	0	0	3	0	0	1	0	0	2	0	6
12:30 PM	0	0	1	1	5	0	0	0	2	0	3	0	12
12:45 PM	0	0	0	0	8	0	0	0	0	0	5	0	13
Total	0	0	1	2	19	0	0	1	2	0	13	0	38
01:00 PM	0	0	0	0	7	0	0	0	0	0	6	0	13
01:15 PM	0	0	0	0	5	0	0	0	0	0	4	0	9
01:30 PM	0	0	0	1	4	0	0	0	0	0	6	0	11
01:45 PM	0	0	0	0	4	0	0	0	0	0	4	0	8
Total	0	0	0	1	20	0	0	0	0	0	20	0	41
Grand Total	0	0	2	4	58	0	0	1	3	1	52	0	121
Apprch %	0	0	100	6.5	93.5	0	0	25	75	1.9	98.1	0	
Total %	0	0	1.7	3.3	47.9	0	0	0.8	2.5	0.8	43	0	

Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW12
 Site Code : 68460W12
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Bridge St From North				Cumberland St From East				Bridge St From South				Cumberland St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
11:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
Total	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	3	3	3	6
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
12:15 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	2	3
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	3
Total	0	0	0	3	0	0	0	0	0	0	0	3	2	0	0	2	8	2	10
01:00 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	4	0	4
01:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	2	0	0	2	2	4
Total	0	0	1	2	0	0	0	1	0	0	0	1	0	2	0	2	6	3	9
Grand Total	0	1	1	5	1	1	0	1	0	0	0	4	2	2	0	7	17	8	25
Apprch %	0	50	50		50	50	0		0	0	0		50	50	0				
Total %	0	12.5	12.5		12.5	12.5	0		0	0	0		25	25	0		68	32	

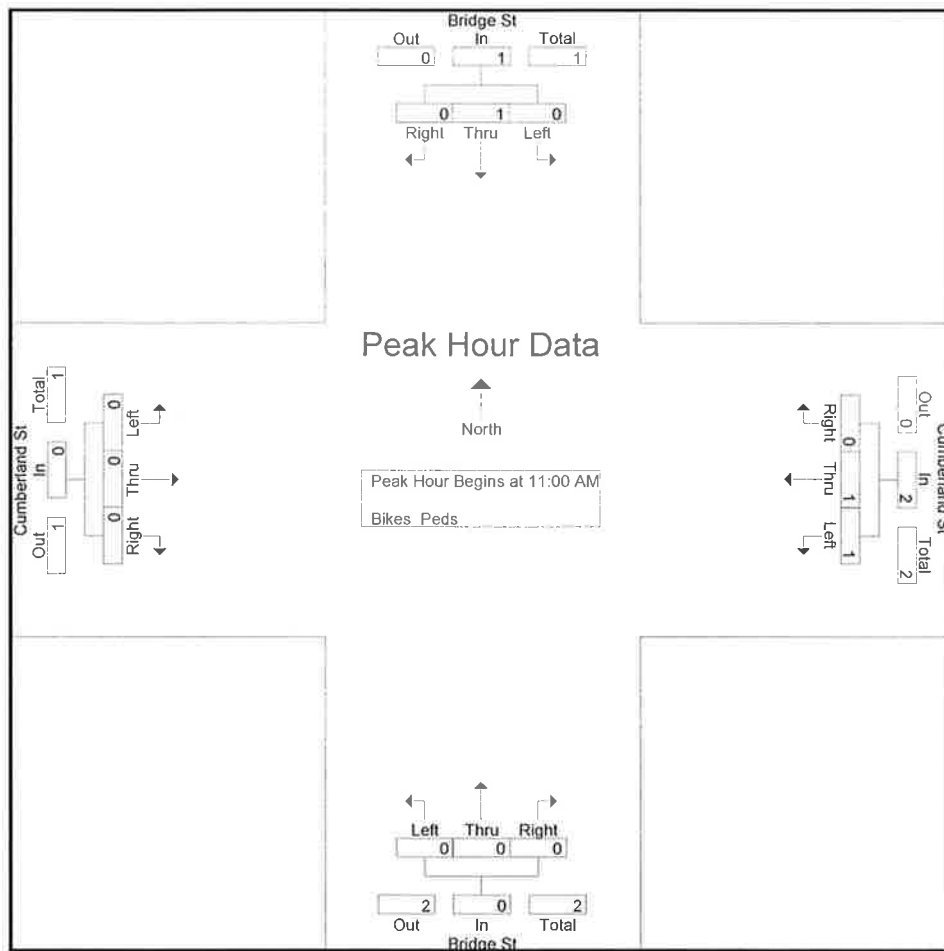
Accurate Counts

978-664-2565

N/S Street : Bridge Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW12
 Site Code : 68460W12
 Start Date : 9/26/2015
 Page No : 11

	Bridge St From North				Cumberland St From East				Bridge St From South				Cumberland St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
11:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	1	1	0	2	0	0	0	0	0	0	0	0	3
% App. Total	0	100	0		50	50	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.250	.250	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.750



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				11:00 AM				11:45 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	2
Total Volume	0	1	0	1	1	1	0	2	0	0	0	0	2	0	0	2
% App. Total	0	100	0		50	50	0		0	0	0		100	0	0	
PHF	.000	.250	.000	.250	.250	.250	.000	.500	.000	.000	.000	.000	.250	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Park Road
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW13
Site Code : 68460W13
Start Date : 10/3/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Park Rd From North		Cumberland St From East		Cumberland St From West		Int	Total
	Left	Right	Thru	Right	Left	Thru		
11:00 AM	33	8	89	41	3	98		272
11:15 AM	26	2	89	28	3	86		234
11:30 AM	36	4	114	34	3	109		300
11:45 AM	41	1	104	37	3	106		292
Total	136	15	396	140	12	399		1098
12:00 PM	31	3	103	38	2	84		261
12:15 PM	29	2	100	35	3	95		264
12:30 PM	34	2	99	45	5	108		293
12:45 PM	45	2	97	33	7	76		260
Total	139	9	399	151	17	363		1078
01:00 PM	34	2	104	39	4	63		246
01:15 PM	28	3	78	34	2	87		232
01:30 PM	34	2	86	23	5	91		241
01:45 PM	33	2	102	35	3	89		264
Total	129	9	370	131	14	330		983
Grand Total	404	33	1165	422	43	1092		3159
Apprch %	92.4	7.6	73.4	26.6	3.8	96.2		
Total %	12.8	1	36.9	13.4	1.4	34.6		
Cars	404	33	1156	422	43	1087		3145
% Cars	100	100	99.2	100	100	99.5		99.6
Trucks	0	0	9	0	0	5		14
% Trucks	0	0	0.8	0	0	0.5		0.4

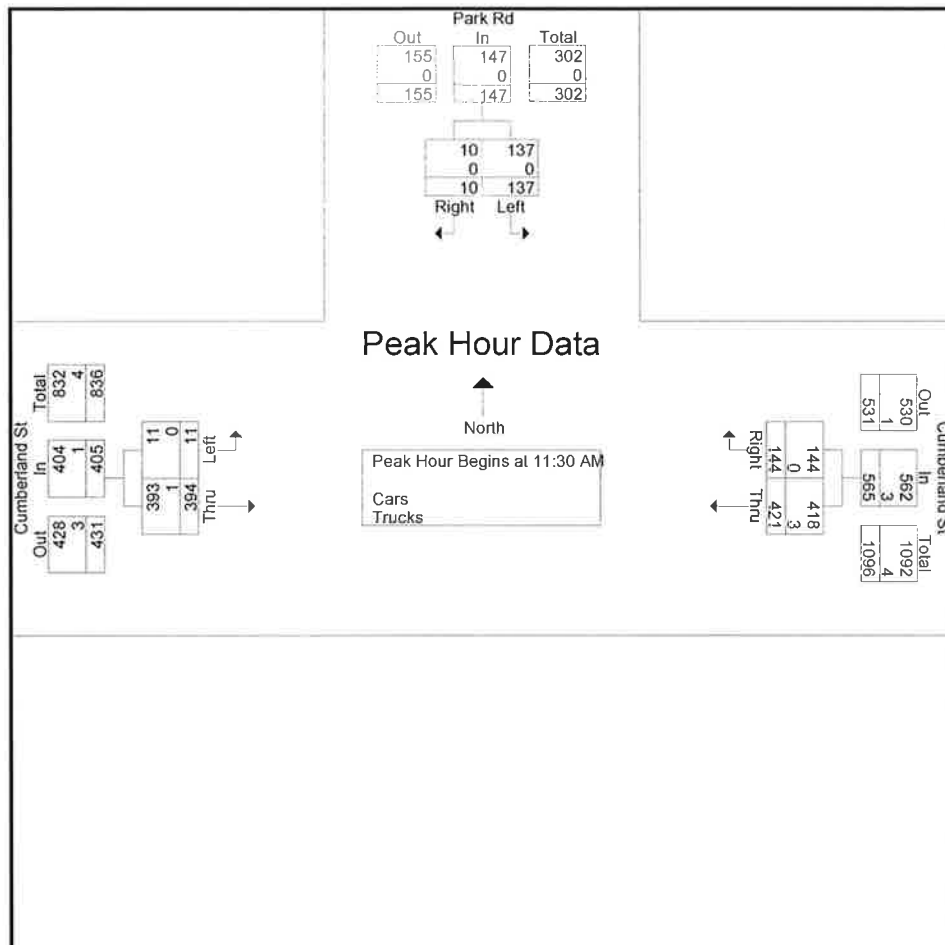
Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW13
 Site Code : 68460W13
 Start Date : 10/3/2015
 Page No : 2

	Park Rd From North			Cumberland St From East			Cumberland St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:30 AM										
11:30 AM	36	4	40	114	34	148	3	109	112	300
11:45 AM	41	1	42	104	37	141	3	106	109	292
12:00 PM	31	3	34	103	38	141	2	84	86	261
12:15 PM	29	2	31	100	35	135	3	95	98	264
Total Volume	137	10	147	421	144	565	11	394	405	1117
% App. Total	93.2	6.8		74.5	25.5		2.7	97.3		
PHF	835	625	875	923	947	954	917	904	904	931
Cars	137	10	147	418	144	562	11	393	404	1113
% Cars	100	100	100	99.3	100	99.5	100	99.7	99.8	99.6
Trucks	0	0	0	3	0	3	0	1	1	4
% Trucks	0	0	0	0.7	0	0.5	0	0.3	0.2	0.4



Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW13
 Site Code : 68460W13
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars							
Start Time	Park Rd From North		Cumberland St From East		Cumberland St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	33	8	87	41	3	98	270
11:15 AM	26	2	89	28	3	84	232
11:30 AM	36	4	112	34	3	108	297
11:45 AM	41	1	104	37	3	106	292
Total	136	15	392	140	12	396	1091
12:00 PM	31	3	103	38	2	84	261
12:15 PM	29	2	99	35	3	95	263
12:30 PM	34	2	98	45	5	107	291
12:45 PM	45	2	97	33	7	75	259
Total	139	9	397	151	17	361	1074
01:00 PM	34	2	103	39	4	63	245
01:15 PM	28	3	78	34	2	87	232
01:30 PM	34	2	84	23	5	91	239
01:45 PM	33	2	102	35	3	89	264
Total	129	9	367	131	14	330	980
Grand Total	404	33	1156	422	43	1087	3145
Apprch %	92.4	7.6	73.3	26.7	3.8	96.2	
Total %	12.8	1	36.8	13.4	1.4	34.6	

Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW13
 Site Code : 68460W13
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Park Rd From North		Cumberland St From East		Cumberland St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	0	0	2	0	0	0	2
11:15 AM	0	0	0	0	0	2	2
11:30 AM	0	0	2	0	0	1	3
11:45 AM	0	0	0	0	0	0	0
Total	0	0	4	0	0	3	7
12:00 PM	0	0	0	0	0	0	0
12:15 PM	0	0	1	0	0	0	1
12:30 PM	0	0	1	0	0	1	2
12:45 PM	0	0	0	0	0	1	1
Total	0	0	2	0	0	2	4
01:00 PM	0	0	1	0	0	0	1
01:15 PM	0	0	0	0	0	0	0
01:30 PM	0	0	2	0	0	0	2
01:45 PM	0	0	0	0	0	0	0
Total	0	0	3	0	0	0	3
Grand Total	0	0	9	0	0	5	14
Apprch %	0	0	100	0	0	100	
Total %	0	0	64.3	0	0	35.7	

Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW13
 Site Code : 68460W13
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Park Rd From North			Cumberland St From East			Cumberland St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	4	0	0	0	0	0	0	0	0	0	4	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	0	0	0	0	0	0	0	0	0	4	4
12:00 PM	0	0	0	0	0	0	0	0	2	2	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	1	0	0	0	0	0	0	0	0	0	1	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	0	0	2	2	1	3
01:00 PM	0	0	1	1	0	0	0	0	0	1	1	2
01:15 PM	0	0	0	0	0	0	0	0	1	1	0	1
01:30 PM	1	0	0	0	0	0	0	0	0	0	1	1
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	1	0	0	0	0	1	2	2	4
Grand Total	6	0	1	1	0	0	0	0	3	4	7	11
Apprch %	100	0		100	0		0	0				
Total %	85.7	0		14.3	0		0	0		36.4	63.6	

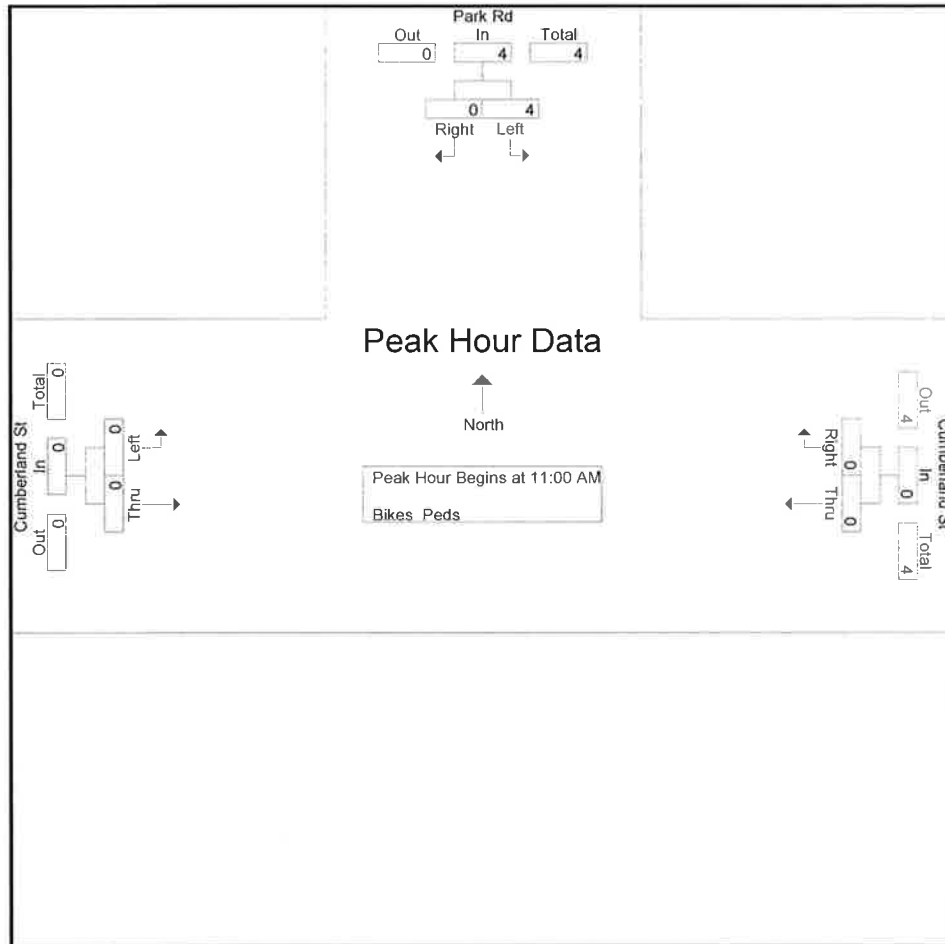
Accurate Counts

978-664-2565

N/S Street : Park Road
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW13
 Site Code : 68460W13
 Start Date : 10/3/2015
 Page No : 11

	Park Rd From North			Cumberland St From East			Cumberland St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	0	0	0	0	0	0	0	0	0	0
11:15 AM	4	0	4	0	0	0	0	0	0	4
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	4	0	4	0	0	0	0	0	0	4
% App. Total	100	0		0	0		0	0		
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			12:15 PM			11:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	4	0	4	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	4	0	4	1	0	1	0	0	0
% App. Total	100	0		100	0		0	0	

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW14
 Site Code : 68460W14
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks								
Start Time	Cumberland St From East		Main St From South		Cumberland St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
11:00 AM	129	140	0	0	0	155	424	
11:15 AM	158	162	0	0	0	160	480	
11:30 AM	152	149	0	0	0	182	483	
11:45 AM	162	162	0	0	0	146	470	
Total	601	613	0	0	0	643	1857	
12:00 PM	148	164	0	0	0	147	459	
12:15 PM	158	152	0	0	0	153	463	
12:30 PM	131	142	0	0	1	167	441	
12:45 PM	111	136	0	0	0	155	402	
Total	548	594	0	0	1	622	1765	
01:00 PM	130	211	0	0	0	123	464	
01:15 PM	130	135	0	0	1	122	388	
01:30 PM	142	166	0	0	3	162	473	
01:45 PM	134	140	0	0	3	161	438	
Total	536	652	0	0	7	568	1763	
Grand Total	1685	1859	0	0	8	1833	5385	
Apprch %	47.5	52.5	0	0	0.4	99.6		
Total %	31.3	34.5	0	0	0.1	34		
Cars	1670	1793	0	0	8	1774	5245	
% Cars	99.1	96.4	0	0	100	96.8	97.4	
Trucks	15	66	0	0	0	59	140	
% Trucks	0.9	3.6	0	0	0	3.2	2.6	

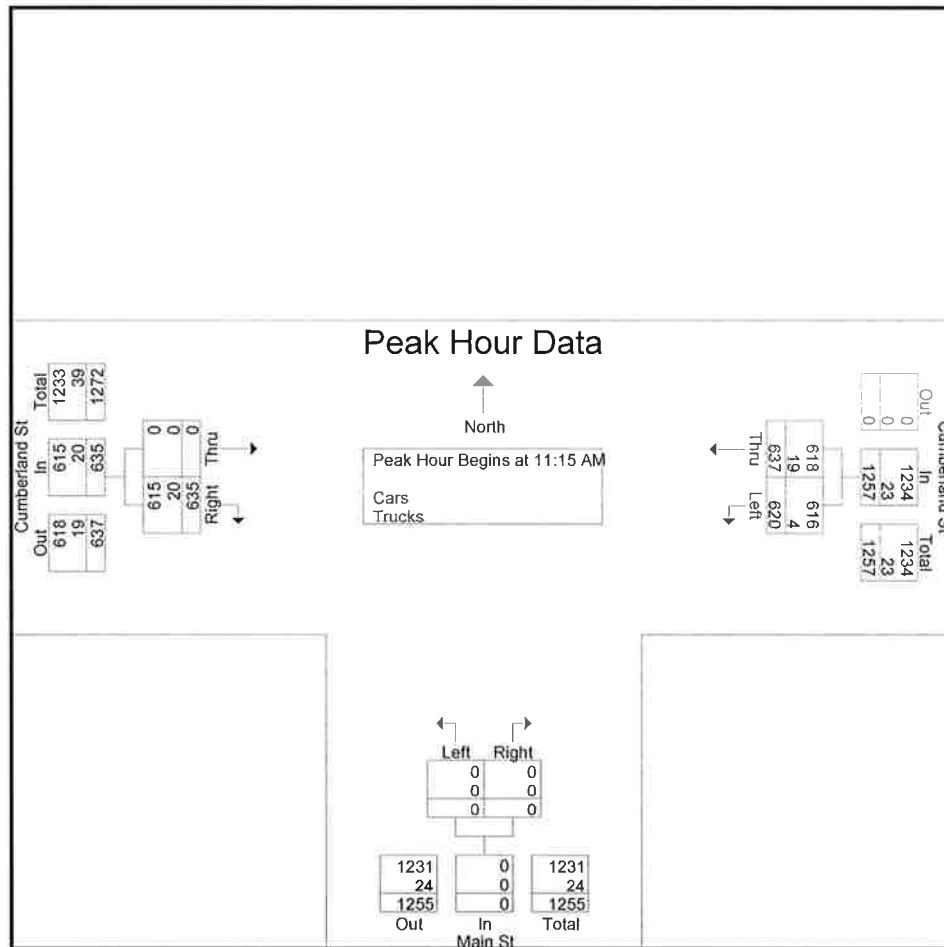
Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW14
 Site Code : 68460W14
 Start Date : 9/26/2015
 Page No : 2

	Cumberland St From East			Main St From South			Cumberland St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:15 AM										
11:15 AM	158	162	320	0	0	0	0	160	160	480
11:30 AM	152	149	301	0	0	0	0	182	182	483
11:45 AM	162	162	324	0	0	0	0	146	146	470
12:00 PM	148	164	312	0	0	0	0	147	147	459
Total Volume	620	637	1257	0	0	0	0	635	635	1892
% App. Total	49.3	50.7		0	0		0	100		
PHF	.957	.971	.970	.000	.000	.000	.000	.872	.872	.979
Cars	616	618	1234	0	0	0	0	615	615	1849
% Cars	99.4	97.0	98.2	0	0	0	0	96.9	96.9	97.7
Trucks	4	19	23	0	0	0	0	20	20	43
% Trucks	0.6	3.0	1.8	0	0	0	0	3.1	3.1	2.3



Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW14
 Site Code : 68460W14
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Cumberland St From East		Main St From South		Cumberland St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
11:00 AM	126	134	0	0	0	151	411	
11:15 AM	157	157	0	0	0	155	469	
11:30 AM	151	143	0	0	0	178	472	
11:45 AM	161	157	0	0	0	141	459	
Total	595	591	0	0	0	625	1811	
12:00 PM	147	161	0	0	0	141	449	
12:15 PM	157	148	0	0	0	150	455	
12:30 PM	130	136	0	0	1	163	430	
12:45 PM	111	127	0	0	0	150	388	
Total	545	572	0	0	1	604	1722	
01:00 PM	128	204	0	0	0	117	449	
01:15 PM	129	130	0	0	1	117	377	
01:30 PM	140	160	0	0	3	155	458	
01:45 PM	133	136	0	0	3	156	428	
Total	530	630	0	0	7	545	1712	
Grand Total	1670	1793	0	0	8	1774	5245	
Apprch %	48.2	51.8	0	0	0.4	99.6		
Total %	31.8	34.2	0	0	0.2	33.8		

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW14
 Site Code : 68460W14
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Cumberland St From East		Main St From South		Cumberland St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	3	6	0	0	0	4	13
11:15 AM	1	5	0	0	0	5	11
11:30 AM	1	6	0	0	0	4	11
11:45 AM	1	5	0	0	0	5	11
Total	6	22	0	0	0	18	46
12:00 PM	1	3	0	0	0	6	10
12:15 PM	1	4	0	0	0	3	8
12:30 PM	1	6	0	0	0	4	11
12:45 PM	0	9	0	0	0	5	14
Total	3	22	0	0	0	18	43
01:00 PM	2	7	0	0	0	6	15
01:15 PM	1	5	0	0	0	5	11
01:30 PM	2	6	0	0	0	7	15
01:45 PM	1	4	0	0	0	5	10
Total	6	22	0	0	0	23	51
Grand Total	15	66	0	0	0	59	140
Apprch %	18.5	81.5	0	0	0	100	
Total %	10.7	47.1	0	0	0	42.1	

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Cumberland Street
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW14
 Site Code : 68460W14
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Cumberland St From East			Main St From South			Cumberland St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	1	0	0	0	1	0	0	0	1	1	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	1	0	0	0	1	1	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	1	0	0	0	0	0	0	0	0	1	1
01:15 PM	0	1	0	1	0	0	0	2	0	0	4	4
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	2	3	3	2	5
Total	0	2	0	1	0	0	0	4	3	3	7	10
Grand Total	0	3	0	1	0	1	0	4	3	4	8	12
Apprch %	0	100		100	0		0	100				
Total %	0	37.5		12.5	0		0	50		33.3	66.7	

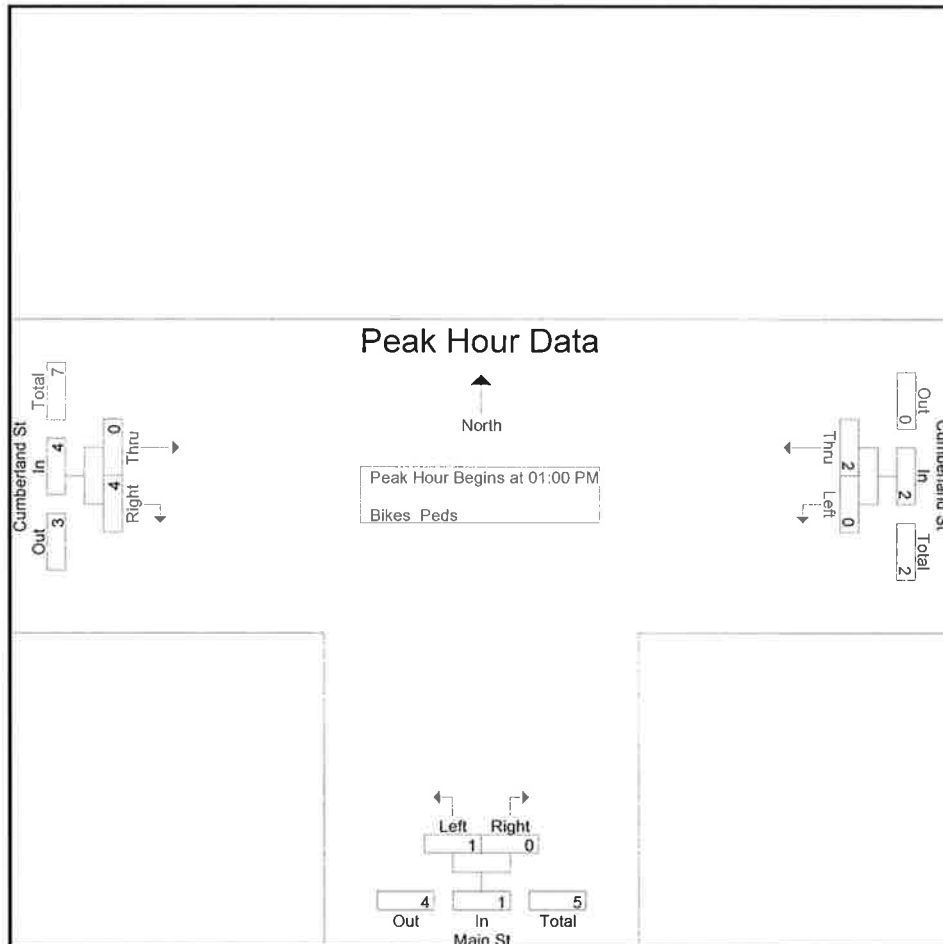
Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Cumberland Street
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846SW14
Site Code : 68460W14
Start Date : 9/26/2015
Page No : 11

	Cumberland St From East			Main St From South			Cumberland St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	0	1	1	0	0	0	0	0	0	1
01:15 PM	0	1	1	1	0	1	0	2	2	4
01:30 PM	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	2	2	2
Total Volume	0	2	2	1	0	1	0	4	4	7
% App. Total	0	100		100	0		0	100		
PHF	.000	.500	.500	.250	.000	.250	.000	.500	.500	.438



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:30 PM			12:30 PM			01:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	2	2
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	1	1	1	0	1	0	2	2
Total Volume	0	2	2	1	0	1	0	4	4
% App. Total	0	100		100	0		0	100	
PHF	.000	.500	.500	.250	.000	.250	.000	.500	.500

Accurate Counts

978-664-2565

N/S Street : Main Street Connector
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW15
Site Code : 68460W15
Start Date : 9/26/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Main St From East		Connector From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	0	170	92	147	0	0	409
11:15 AM	0	198	119	145	0	0	462
11:30 AM	0	173	114	155	0	0	442
11:45 AM	0	193	106	164	0	0	463
Total	0	734	431	611	0	0	1776
12:00 PM	0	159	106	148	0	0	413
12:15 PM	0	179	102	141	0	0	422
12:30 PM	0	183	112	152	0	0	447
12:45 PM	0	129	107	126	0	0	362
Total	0	650	427	567	0	0	1644
01:00 PM	0	227	120	133	0	0	480
01:15 PM	0	166	77	149	0	0	392
01:30 PM	0	174	110	126	0	0	410
01:45 PM	0	113	115	119	0	0	347
Total	0	680	422	527	0	0	1629
Grand Total	0	2064	1280	1705	0	0	5049
Apprch %	0	100	42.9	57.1	0	0	
Total %	0	40.9	25.4	33.8	0	0	
Cars	0	2022	1257	1667	0	0	4946
% Cars	0	98	98.2	97.8	0	0	98
Trucks	0	42	23	38	0	0	103
% Trucks	0	2	1.8	2.2	0	0	2

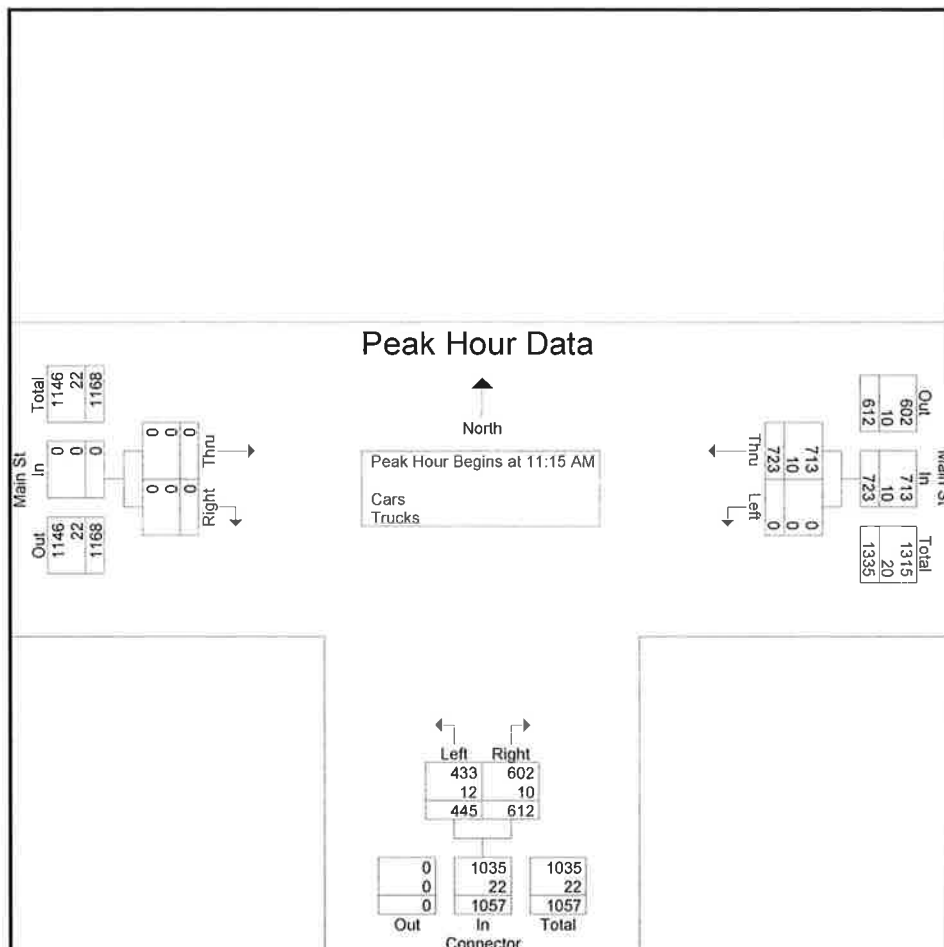
Accurate Counts

978-664-2565

N/S Street : Main Street Connector
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW15
 Site Code : 68460W15
 Start Date : 9/26/2015
 Page No : 2

	Main St From East			Connector From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:15 AM										
11:15 AM	0	198	198	119	145	264	0	0	0	462
11:30 AM	0	173	173	114	155	269	0	0	0	442
11:45 AM	0	193	193	106	164	270	0	0	0	463
12:00 PM	0	159	159	106	148	254	0	0	0	413
Total Volume	0	723	723	445	612	1057	0	0	0	1780
% App. Total	0	100		42.1	57.9		0	0		
PHF	.000	.913	.913	.935	.933	.979	.000	.000	.000	.961
Cars	0	713	713	433	602	1035	0	0	0	1748
% Cars	0	98.6	98.6	97.3	98.4	97.9	0	0	0	98.2
Trucks	0	10	10	12	10	22	0	0	0	32
% Trucks	0	1.4	1.4	2.7	1.6	2.1	0	0	0	1.8



Accurate Counts

978-664-2565

N/S Street : Main Street Connector
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW15
 Site Code : 68460W15
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars								
Start Time	Main St From East		Connector From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
11:00 AM	0	164	89	142	0	0	395	
11:15 AM	0	194	116	143	0	0	453	
11:30 AM	0	170	109	152	0	0	431	
11:45 AM	0	192	104	161	0	0	457	
Total	0	720	418	598	0	0	1736	
12:00 PM	0	157	104	146	0	0	407	
12:15 PM	0	175	101	139	0	0	415	
12:30 PM	0	179	111	148	0	0	438	
12:45 PM	0	124	106	123	0	0	353	
Total	0	635	422	556	0	0	1613	
01:00 PM	0	221	118	129	0	0	468	
01:15 PM	0	163	76	147	0	0	386	
01:30 PM	0	172	109	121	0	0	402	
01:45 PM	0	111	114	116	0	0	341	
Total	0	667	417	513	0	0	1597	
Grand Total	0	2022	1257	1667	0	0	4946	
Apprch %	0	100	43	57	0	0		
Total %	0	40.9	25.4	33.7	0	0		

Accurate Counts

978-664-2565

N/S Street : Main Street Connector
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW15
 Site Code : 68460W15
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks							
Start Time	Main St From East		Connector From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	0	6	3	5	0	0	14
11:15 AM	0	4	3	2	0	0	9
11:30 AM	0	3	5	3	0	0	11
11:45 AM	0	1	2	3	0	0	6
Total	0	14	13	13	0	0	40
12:00 PM	0	2	2	2	0	0	6
12:15 PM	0	4	1	2	0	0	7
12:30 PM	0	4	1	4	0	0	9
12:45 PM	0	5	1	3	0	0	9
Total	0	15	5	11	0	0	31
01:00 PM	0	6	2	4	0	0	12
01:15 PM	0	3	1	2	0	0	6
01:30 PM	0	2	1	5	0	0	8
01:45 PM	0	2	1	3	0	0	6
Total	0	13	5	14	0	0	32
Grand Total	0	42	23	38	0	0	103
Apprch %	0	100	37.7	62.3	0	0	
Total %	0	40.8	22.3	36.9	0	0	

Accurate Counts

978-664-2565

N/S Street : Main Street Connector
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW15
 Site Code : 68460W15
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Main St From East			Connector From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	1	0	0	2	1	0	0	0	1	3	4
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	1	0	0	0	1	1	2
11:45 AM	0	0	0	0	1	2	0	0	0	2	1	3
Total	0	2	0	0	3	4	0	0	0	4	5	9
12:00 PM	0	0	0	1	1	5	0	0	0	5	2	7
12:15 PM	0	0	0	0	0	4	0	0	0	4	0	4
12:30 PM	0	1	0	0	1	6	0	0	0	6	2	8
12:45 PM	0	0	0	1	0	3	0	0	0	3	1	4
Total	0	1	0	2	2	18	0	0	0	18	5	23
01:00 PM	0	0	0	0	2	7	0	0	0	7	2	9
01:15 PM	0	1	0	1	1	2	0	0	0	2	3	5
01:30 PM	0	0	0	1	0	2	0	0	0	2	1	3
01:45 PM	0	0	0	0	1	2	0	0	0	2	1	3
Total	0	1	0	2	4	13	0	0	0	13	7	20
Grand Total	0	4	0	4	9	35	0	0	0	35	17	52
Apprch %	0	100		30.8	69.2		0	0				
Total %	0	23.5		23.5	52.9		0	0		67.3	32.7	

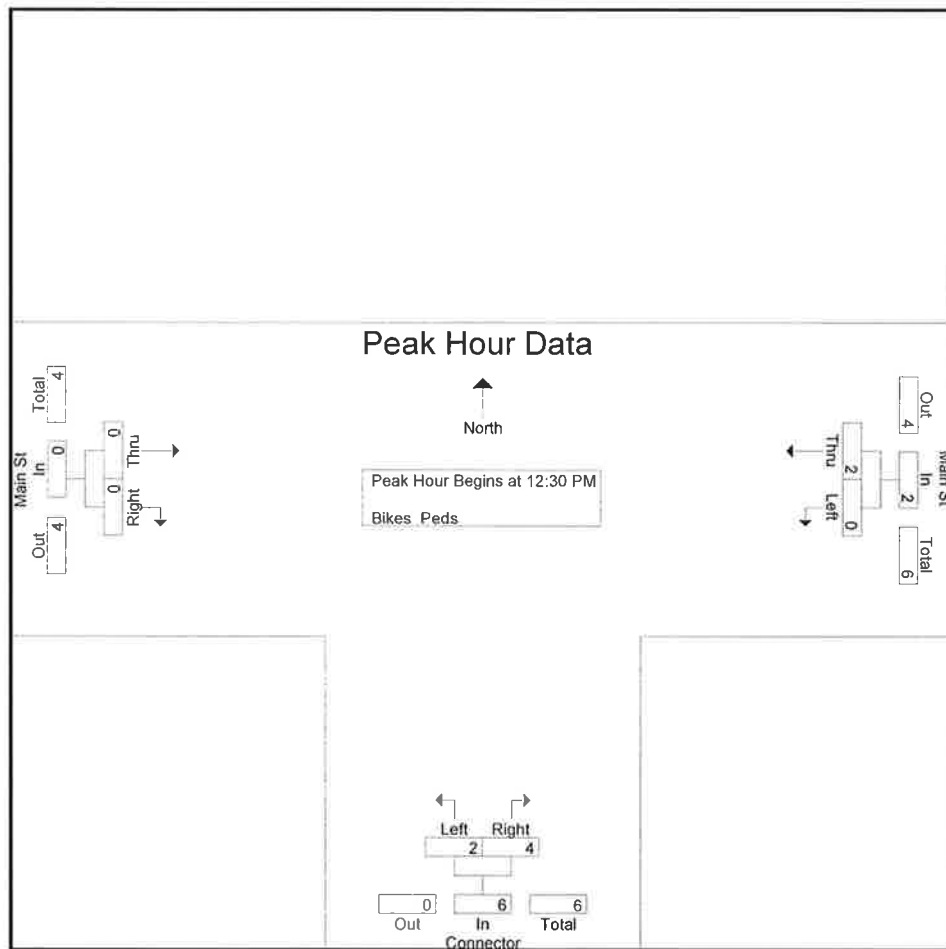
Accurate Counts

978-664-2565

N/S Street : Main Street Connector
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW15
Site Code : 68460W15
Start Date : 9/26/2015
Page No : 11

	Main St From East			Connector From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:30 PM										
12:30 PM	0	1	1	0	1	1	0	0	0	2
12:45 PM	0	0	0	1	0	1	0	0	0	1
01:00 PM	0	0	0	0	2	2	0	0	0	2
01:15 PM	0	1	1	1	1	2	0	0	0	3
Total Volume	0	2	2	2	4	6	0	0	0	8
% App. Total	0	100		33.3	66.7		0	0		
PHF	.000	.500	.500	.500	.500	.750	.000	.000	.000	.667



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			12:30 PM			11:00 AM		
+0 mins.	0	1	1	0	1	1	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	1	1	0	2	2	0	0	0
+45 mins.	0	0	0	1	1	2	0	0	0
Total Volume	0	2	2	2	4	6	0	0	0
% App. Total	0	100		33.3	66.7		0	0	

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846SW16
Site Code : 68460W16
Start Date : 9/26/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Main St From North		Connector From East		Main St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	98	177	3	0	0	113	391
11:15 AM	99	210	1	0	0	150	460
11:30 AM	123	199	1	0	0	143	466
11:45 AM	109	189	1	0	0	147	446
Total	429	775	6	0	0	553	1763
12:00 PM	96	196	1	0	0	165	458
12:15 PM	100	206	1	0	0	144	451
12:30 PM	110	176	1	0	0	135	422
12:45 PM	91	169	0	0	0	147	407
Total	397	747	3	0	0	591	1738
01:00 PM	84	159	2	0	0	157	402
01:15 PM	85	160	1	0	0	128	374
01:30 PM	104	185	2	0	0	147	438
01:45 PM	110	179	1	0	1	130	421
Total	383	683	6	0	1	562	1635
Grand Total	1209	2205	15	0	1	1706	5136
Apprch %	35.4	64.6	100	0	0.1	99.9	
Total %	23.5	42.9	0.3	0	0	33.2	
Cars	1182	2158	0	0	1	1663	5004
% Cars	97.8	97.9	0	0	100	97.5	97.4
Trucks	27	47	15	0	0	43	132
% Trucks	2.2	2.1	100	0	0	2.5	2.6

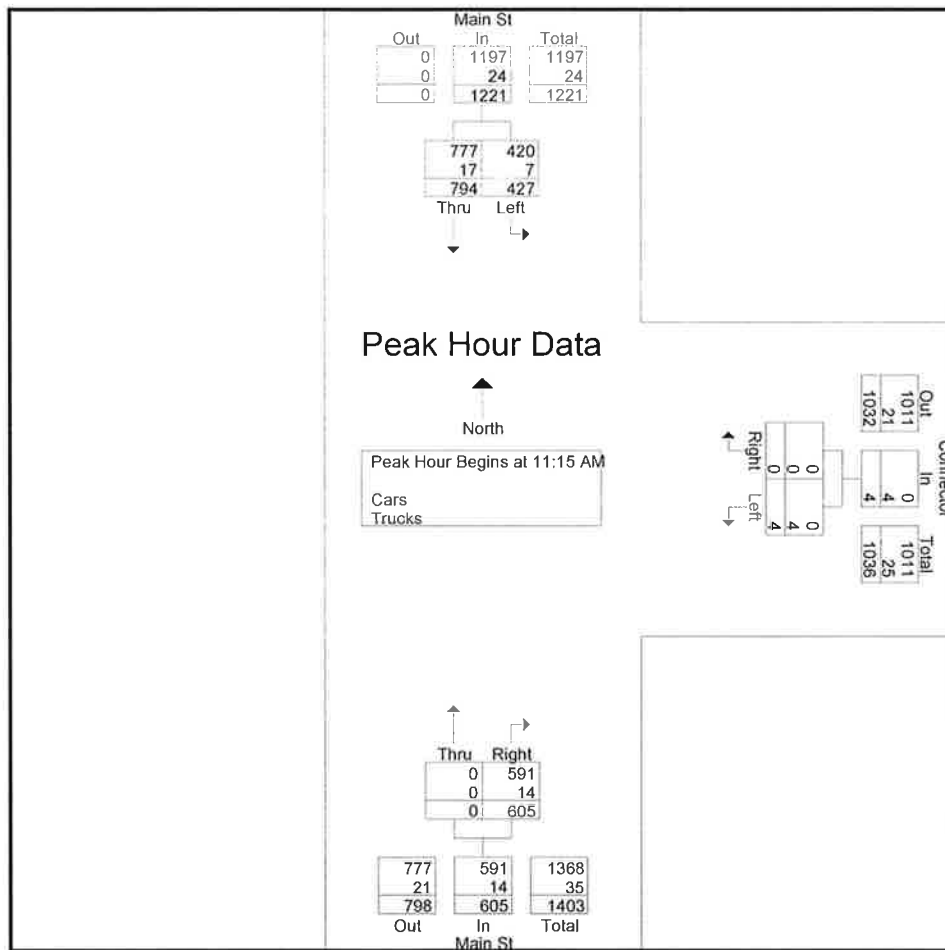
Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Main Street Connector
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW16
 Site Code : 68460W16
 Start Date : 9/26/2015
 Page No : 2

	Main St From North				Connector From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 11:15 AM											
11:15 AM	99	210	309	1	0	1	0	150	150	460	
11:30 AM	123	199	322	1	0	1	0	143	143	466	
11:45 AM	109	189	298	1	0	1	0	147	147	446	
12:00 PM	96	196	292	1	0	1	0	165	165	458	
Total Volume	427	794	1221	4	0	4	0	605	605	1830	
% App. Total	35	65		100	0		0	100			
PHF	.868	.945	.948	1.00	.000	1.00	.000	.917	.917	.982	
Cars	420	777	1197	0	0	0	0	591	591	1788	
% Cars	98.4	97.9	98.0	0	0	0	0	97.7	97.7	97.7	
Trucks	7	17	24	4	0	4	0	14	14	42	
% Trucks	1.6	2.1	2.0	100	0	100	0	2.3	2.3	2.3	



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846SW16
Site Code : 68460W16
Start Date : 9/26/2015
Page No : 4

Groups Printed- Cars

Start Time	Main St From North		Connector From East		Main St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	96	172	0	0	0	108	376
11:15 AM	97	206	0	0	0	147	450
11:30 AM	121	196	0	0	0	137	454
11:45 AM	107	185	0	0	0	144	436
Total	421	759	0	0	0	536	1716
12:00 PM	95	190	0	0	0	163	448
12:15 PM	98	204	0	0	0	142	444
12:30 PM	107	174	0	0	0	132	413
12:45 PM	89	166	0	0	0	141	396
Total	389	734	0	0	0	578	1701
01:00 PM	82	153	0	0	0	154	389
01:15 PM	83	156	0	0	0	125	364
01:30 PM	100	180	0	0	0	143	423
01:45 PM	107	176	0	0	1	127	411
Total	372	665	0	0	1	549	1587
Grand Total	1182	2158	0	0	1	1663	5004
Apprch %	35.4	64.6	0	0	0.1	99.9	
Total %	23.6	43.1	0	0	0	33.2	

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Main Street Connector
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846SW16
Site Code : 68460W16
Start Date : 9/26/2015
Page No : 7

Groups Printed- Trucks								
Start Time	Main St From North		Connector From East		Main St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
11:00 AM	2	5	3	0	0	5	15	
11:15 AM	2	4	1	0	0	3	10	
11:30 AM	2	3	1	0	0	6	12	
11:45 AM	2	4	1	0	0	3	10	
Total	8	16	6	0	0	17	47	
12:00 PM	1	6	1	0	0	2	10	
12:15 PM	2	2	1	0	0	2	7	
12:30 PM	3	2	1	0	0	3	9	
12:45 PM	2	3	0	0	0	6	11	
Total	8	13	3	0	0	13	37	
01:00 PM	2	6	2	0	0	3	13	
01:15 PM	2	4	1	0	0	3	10	
01:30 PM	4	5	2	0	0	4	15	
01:45 PM	3	3	1	0	0	3	10	
Total	11	18	6	0	0	13	48	
Grand Total	27	47	15	0	0	43	132	
Apprch %	36.5	63.5	100	0	0	100		
Total %	20.5	35.6	11.4	0	0	32.6		

Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Main Street Connector
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW16
 Site Code : 68460W16
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Main St From North			Connector From East			Main St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	1	1	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	1	1	1	1	2
12:00 PM	0	0	0	0	0	0	0	2	0	0	2	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	2	0	0	2	2
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	1	0	0	0	1	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	2	0	0	0	0	0	0	1	0	0	3	3
Total	2	0	0	0	0	0	1	1	0	0	4	4
Grand Total	2	0	0	0	0	0	1	4	1	1	7	8
Apprch %	100	0		0	0		20	80				
Total %	28.6	0		0	0		14.3	57.1		12.5	87.5	

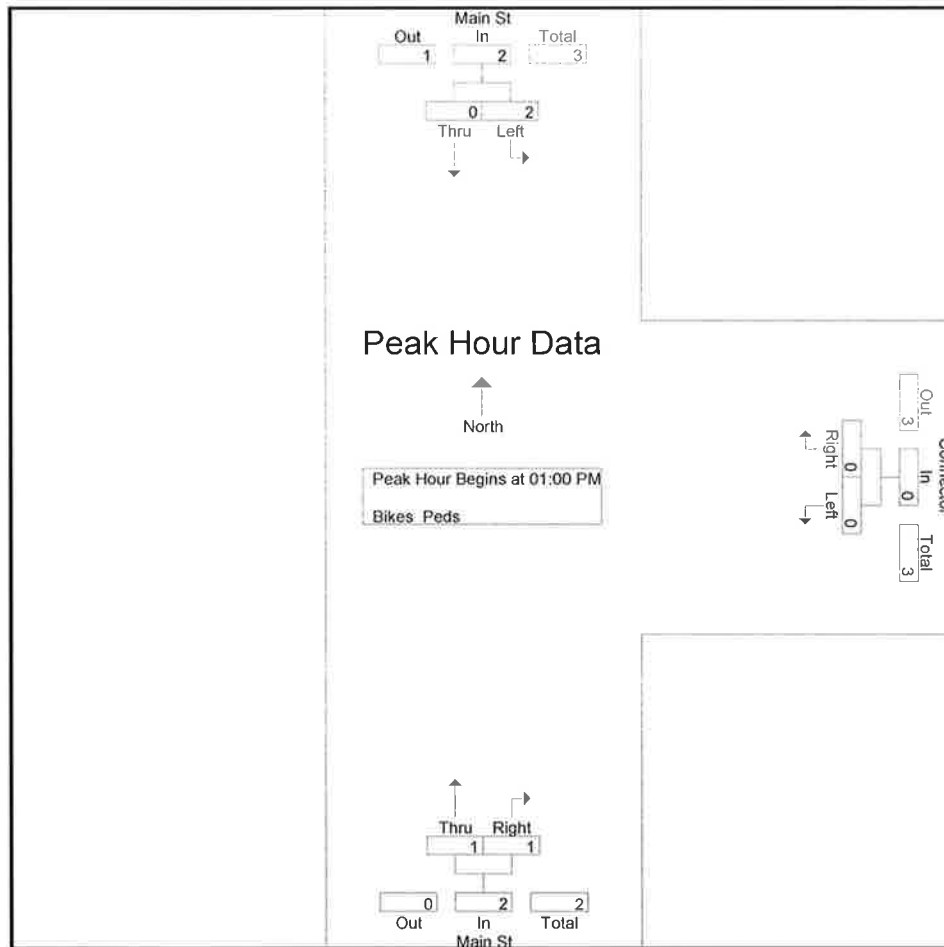
Accurate Counts

978-664-2565

N/S Street : Main Street
 E/W Street : Main Street Connector
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW16
 Site Code : 68460W16
 Start Date : 9/26/2015
 Page No : 11

	Main St From North			Connector From East			Main St From South			Int. Total
	Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	1	0	1
01:30 PM	0	0	0	0	0	0	0	0	0	0
01:45 PM	2	0	2	0	0	0	0	0	1	1
Total Volume	2	0	2	0	0	0	0	1	1	2
% App. Total	100	0		0	0			50	50	
PHF	.250	.000	.250	.000	.000	.000	.000	.250	.250	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	01:00 PM			11:00 AM			11:15 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	2	0	2	0	0	0	0	2	2
Total Volume	2	0	2	0	0	0	0	3	3
% App. Total	100	0		0	0		0	100	
PHF	.250	.000	.250	.000	.000	.000	.000	.375	.375

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW17
 Site Code : 68460W17
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	6	45	53	37	103	8	14	36	30	51	95	20	498
11:15 AM	7	36	50	46	100	6	15	51	22	55	91	14	493
11:30 AM	5	46	45	44	92	6	17	44	29	46	90	13	477
11:45 AM	3	51	57	34	114	9	14	32	30	50	98	22	514
Total	21	178	205	161	409	29	60	163	111	202	374	69	1982
12:00 PM	6	40	57	28	116	4	19	29	33	50	99	27	508
12:15 PM	6	32	64	33	98	9	19	23	31	44	99	23	481
12:30 PM	5	31	50	43	107	8	17	27	41	48	106	20	503
12:45 PM	9	34	51	46	81	7	14	33	32	47	97	26	477
Total	26	137	222	150	402	28	69	112	137	189	401	96	1969
01:00 PM	5	25	46	31	123	4	23	43	37	28	90	17	472
01:15 PM	7	20	37	28	93	10	28	28	37	41	79	26	434
01:30 PM	7	30	42	36	106	3	11	30	31	50	110	24	480
01:45 PM	8	46	75	51	132	12	32	34	44	68	139	27	668
Total	27	121	200	146	454	29	94	135	149	187	418	94	2054
Grand Total	74	436	627	457	1265	86	223	410	397	578	1193	259	6005
Apprch %	6.5	38.3	55.1	25.3	70	4.8	21.7	39.8	38.5	28.5	58.8	12.8	
Total %	1.2	7.3	10.4	7.6	21.1	1.4	3.7	6.8	6.6	9.6	19.9	4.3	
Cars	74	432	623	452	1255	86	184	408	397	576	1185	233	5905
% Cars	100	99.1	99.4	98.9	99.2	100	82.5	99.5	100	99.7	99.3	90	98.3
Trucks	0	4	4	5	10	0	39	2	0	2	8	26	100
% Trucks	0	0.9	0.6	1.1	0.8	0	17.5	0.5	0	0.3	0.7	10	1.7

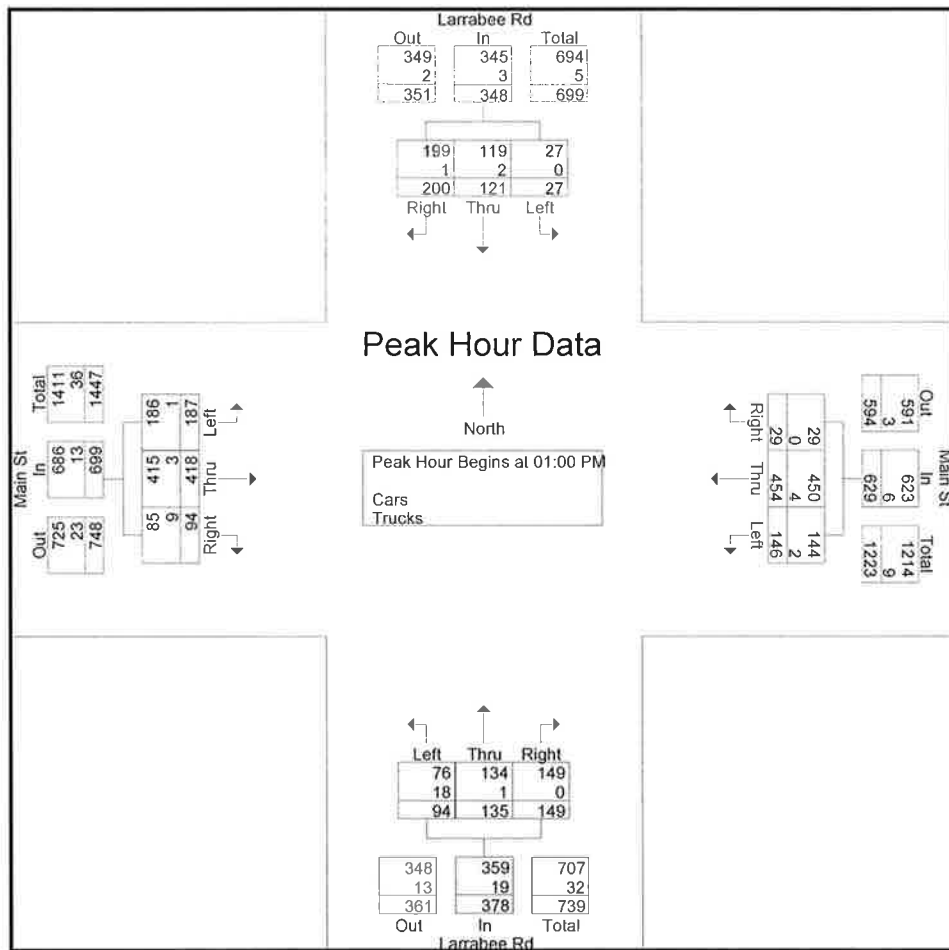
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW17
 Site Code : 68460W17
 Start Date : 9/26/2015
 Page No : 2

	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	5	25	46	76	31	123	4	158	23	43	37	103	28	90	17	135	472
01:15 PM	7	20	37	64	28	93	10	131	28	28	37	93	41	79	26	146	434
01:30 PM	7	30	42	79	36	106	3	145	11	30	31	72	50	110	24	184	480
01:45 PM	8	46	75	129	51	132	12	195	32	34	44	110	68	139	27	234	668
Total Volume	27	121	200	348	146	454	29	629	94	135	149	378	187	418	94	699	2054
% App. Total	7.8	34.8	57.5		23.2	72.2	4.6		24.9	35.7	39.4		26.8	59.8	13.4		
PHF	.844	.658	.667	.674	.716	.860	.604	.806	.734	.785	.847	.859	.688	.752	.870	.747	.769
Cars	27	119	199	345	144	450	29	623	76	134	149	359	186	415	85	686	2013
% Cars	100	98.3	99.5	99.1	98.6	99.1	100	99.0	80.9	99.3	100	95.0	99.5	99.3	90.4	98.1	98.0
Trucks	0	2	1	3	2	4	0	6	18	1	0	19	1	3	9	13	41
% Trucks	0	1.7	0.5	0.9	1.4	0.9	0	1.0	19.1	0.7	0	5.0	0.5	0.7	9.6	1.9	2.0



Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW17
 Site Code : 68460W17
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	6	45	52	37	101	8	12	36	30	51	94	19	491
11:15 AM	7	35	50	46	99	6	13	51	22	55	91	12	487
11:30 AM	5	46	45	44	91	6	16	44	29	46	89	12	473
11:45 AM	3	51	57	34	114	9	12	32	30	50	98	21	511
Total	21	177	204	161	405	29	53	163	111	202	372	64	1962
12:00 PM	6	40	57	27	115	4	18	29	33	50	98	25	502
12:15 PM	6	31	63	33	98	9	14	23	31	43	99	20	470
12:30 PM	5	31	50	42	106	8	13	26	41	48	105	18	493
12:45 PM	9	34	50	45	81	7	10	33	32	47	96	21	465
Total	26	136	220	147	400	28	55	111	137	188	398	84	1930
01:00 PM	5	25	46	31	122	4	17	42	37	28	89	14	460
01:15 PM	7	19	37	28	93	10	26	28	37	41	79	23	428
01:30 PM	7	30	42	35	103	3	9	30	31	50	108	24	472
01:45 PM	8	45	74	50	132	12	24	34	44	67	139	24	653
Total	27	119	199	144	450	29	76	134	149	186	415	85	2013
Grand Total	74	432	623	452	1255	86	184	408	397	576	1185	233	5905
Apprch %	6.6	38.3	55.2	25.2	70	4.8	18.6	41.3	40.1	28.9	59.4	11.7	
Total %	1.3	7.3	10.6	7.7	21.3	1.5	3.1	6.9	6.7	9.8	20.1	3.9	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW17
Site Code : 68460W17
Start Date : 9/26/2015
Page No : 7

Groups Printed- Trucks

Start Time	Larrabee Rd From North			Main St From East			Larrabee Rd From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	1	0	2	0	2	0	0	0	1	1	7
11:15 AM	0	1	0	0	1	0	2	0	0	0	0	2	6
11:30 AM	0	0	0	0	1	0	1	0	0	0	1	1	4
11:45 AM	0	0	0	0	0	0	2	0	0	0	0	1	3
Total	0	1	1	0	4	0	7	0	0	0	2	5	20
12:00 PM	0	0	0	1	1	0	1	0	0	0	1	2	6
12:15 PM	0	1	1	0	0	0	5	0	0	1	0	3	11
12:30 PM	0	0	0	1	1	0	4	1	0	0	1	2	10
12:45 PM	0	0	1	1	0	0	4	0	0	0	1	5	12
Total	0	1	2	3	2	0	14	1	0	1	3	12	39
01:00 PM	0	0	0	0	1	0	6	1	0	0	1	3	12
01:15 PM	0	1	0	0	0	0	2	0	0	0	0	3	6
01:30 PM	0	0	0	1	3	0	2	0	0	0	2	0	8
01:45 PM	0	1	1	1	0	0	8	0	0	1	0	3	15
Total	0	2	1	2	4	0	18	1	0	1	3	9	41
Grand Total	0	4	4	5	10	0	39	2	0	2	8	26	100
Apprch %	0	50	50	33.3	66.7	0	95.1	4.9	0	5.6	22.2	72.2	
Total %	0	4	4	5	10	0	39	2	0	2	8	26	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW17
 Site Code : 68460W17
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
11:45 AM	0	0	0	1	0	0	0	2	0	0	0	2	0	0	0	0	5	0	5
Total	0	0	1	3	0	0	0	2	0	0	0	2	0	0	0	0	7	1	8
12:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	2	3
12:15 PM	0	0	1	2	0	0	0	0	0	0	1	0	0	0	1	0	2	3	5
12:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	4	0	0	0	0	0	0	1	0	0	1	2	0	4	6	10
01:00 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
01:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
01:45 PM	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	3	1	4
Total	0	1	0	7	0	0	0	0	0	0	1	0	0	1	0	0	7	3	10
Grand Total	0	1	3	14	0	0	0	2	0	0	2	2	0	2	2	0	18	10	28
Apprch %	0	25	75		0	0	0		0	0	100		0	50	50				
Total %	0	10	30		0	0	0		0	0	20		0	20	20		64.3	35.7	

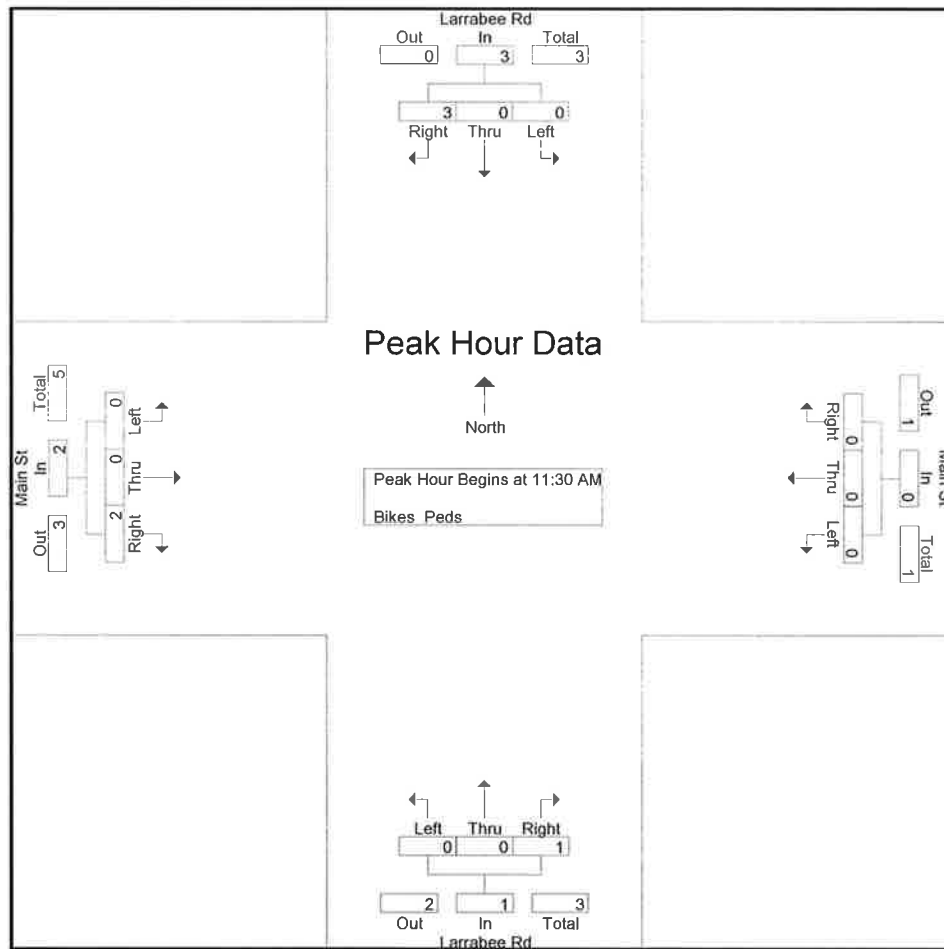
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW17
Site Code : 68460W17
Start Date : 9/26/2015
Page No : 11

	Larrabee Rd From North				Main St From East				Larrabee Rd From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
12:15 PM	0	0	1	1	0	0	0	0	0	0	1	1	0	0	1	1	3
Total Volume	0	0	3	3	0	0	0	0	0	0	1	1	0	0	2	2	6
% App. Total	0	0	100		0	0	0		0	0	100		0	0	100		
PHF	.000	.000	.750	.750	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.500	.500	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM				11:00 AM				11:30 AM				11:45 AM			
+0 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	1	1	0	0	0	0	0	0	1	1	0	1	0	1
Total Volume	0	0	3	3	0	0	0	0	0	0	1	1	0	1	2	3
% App. Total	0	0	100		0	0	0		0	0	100		0	33.3	66.7	
PHF	.000	.000	.750	.750	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.500	.750

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Westbrook Arterial
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW18
Site Code : 68460W18
Start Date : 9/26/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	14	60	70	28	61	90	323
11:15 AM	10	84	85	25	61	82	347
11:30 AM	14	71	99	26	62	95	367
11:45 AM	19	85	73	14	66	111	368
Total	57	300	327	93	250	378	1405
12:00 PM	15	66	74	21	71	105	352
12:15 PM	22	73	92	13	64	108	372
12:30 PM	31	68	79	16	56	98	348
12:45 PM	12	56	63	13	54	120	318
Total	80	263	308	63	245	431	1390
01:00 PM	33	64	69	17	62	107	352
01:15 PM	23	58	63	16	51	102	313
01:30 PM	21	62	77	13	46	76	295
01:45 PM	31	60	78	16	73	88	346
Total	108	244	287	62	232	373	1306
Grand Total	245	807	922	218	727	1182	4101
Apprch %	23.3	76.7	80.9	19.1	38.1	61.9	
Total %	6	19.7	22.5	5.3	17.7	28.8	
Cars	244	800	912	216	723	1170	4065
% Cars	99.6	99.1	98.9	99.1	99.4	99	99.1
Trucks	1	7	10	2	4	12	36
% Trucks	0.4	0.9	1.1	0.9	0.6	1	0.9

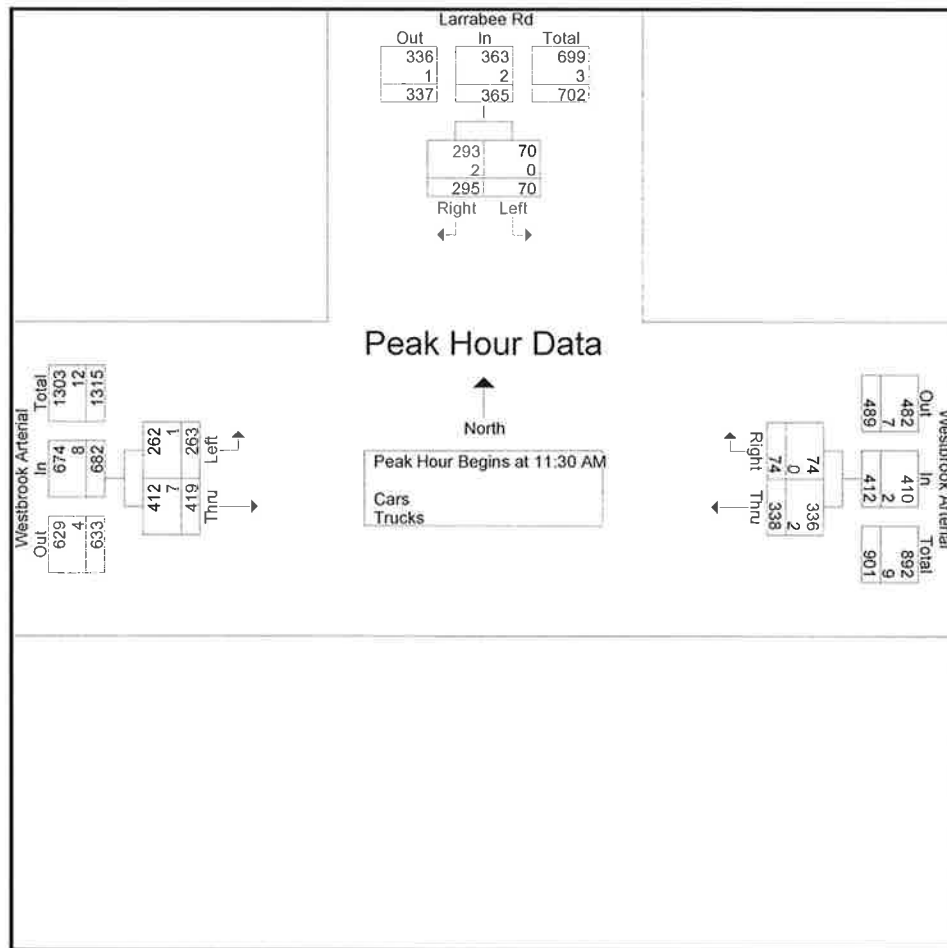
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Westbrook Arterial
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW18
Site Code : 68460W18
Start Date : 9/26/2015
Page No : 2

	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:30 AM										
11:30 AM	14	71	85	99	26	125	62	95	157	367
11:45 AM	19	85	104	73	14	87	66	111	177	368
12:00 PM	15	66	81	74	21	95	71	105	176	352
12:15 PM	22	73	95	92	13	105	64	108	172	372
Total Volume	70	295	365	338	74	412	263	419	682	1459
% App. Total	19.2	80.8		82	18		38.6	61.4		
PHF	.795	.868	.877	.854	.712	.824	.926	.944	.963	.981
Cars	70	293	363	336	74	410	262	412	674	1447
% Cars	100	99.3	99.5	99.4	100	99.5	99.6	98.3	98.8	99.2
Trucks	0	2	2	2	0	2	1	7	8	12
% Trucks	0	0.7	0.5	0.6	0	0.5	0.4	1.7	1.2	0.8



Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW18
 Site Code : 68460W18
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars							
	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM	13	60	68	27	61	89	318
11:15 AM	10	83	83	24	61	82	343
11:30 AM	14	71	97	26	62	93	363
11:45 AM	19	85	73	14	66	110	367
Total	56	299	321	91	250	374	1391
12:00 PM	15	65	74	21	71	103	349
12:15 PM	22	72	92	13	63	106	368
12:30 PM	31	67	78	16	55	98	345
12:45 PM	12	54	63	13	53	120	315
Total	80	258	307	63	242	427	1377
01:00 PM	33	64	68	17	62	106	350
01:15 PM	23	57	62	16	51	101	310
01:30 PM	21	62	76	13	46	75	293
01:45 PM	31	60	78	16	72	87	344
Total	108	243	284	62	231	369	1297
Grand Total	244	800	912	216	723	1170	4065
Apprch %	23.4	76.6	80.9	19.1	38.2	61.8	
Total %	6	19.7	22.4	5.3	17.8	28.8	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW18
 Site Code : 68460W18
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Larrabee Rd From North		Westbrook Arterial From East		Westbrook Arterial From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	1	0	2	1	0	1	5
11:15 AM	0	1	2	1	0	0	4
11:30 AM	0	0	2	0	0	2	4
11:45 AM	0	0	0	0	0	1	1
Total	1	1	6	2	0	4	14
12:00 PM	0	1	0	0	0	2	3
12:15 PM	0	1	0	0	1	2	4
12:30 PM	0	1	1	0	1	0	3
12:45 PM	0	2	0	0	1	0	3
Total	0	5	1	0	3	4	13
01:00 PM	0	0	1	0	0	1	2
01:15 PM	0	1	1	0	0	1	3
01:30 PM	0	0	1	0	0	1	2
01:45 PM	0	0	0	0	1	1	2
Total	0	1	3	0	1	4	9
Grand Total	1	7	10	2	4	12	36
Apprch %	12.5	87.5	83.3	16.7	25	75	
Total %	2.8	19.4	27.8	5.6	11.1	33.3	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Westbrook Arterial
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW18
 Site Code : 68460W18
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	1	0	0	1	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	2	0	0	0	0	0	0	2	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	0	0	0	0	0	2	0	2
Grand Total	0	0	2	0	0	0	0	1	0	2	1	3
Apprch %	0	0		0	0		0	100				
Total %	0	0		0	0		0	100		66.7	33.3	

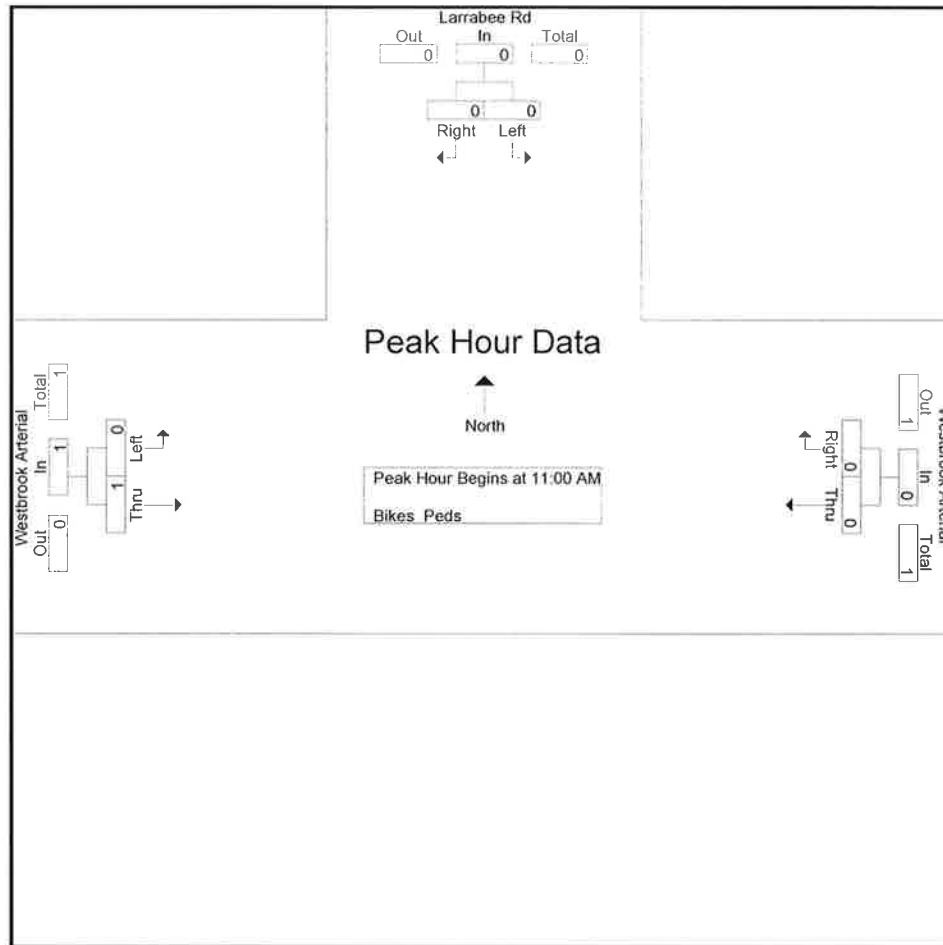
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Westbrook Arterial
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW18
Site Code : 68460W18
Start Date : 9/26/2015
Page No : 11

	Larrabee Rd From North			Westbrook Arterial From East			Westbrook Arterial From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	1	1	1
% App. Total	0	0		0	0		0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	1	1
% App. Total	0	0		0	0		0	100	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW19
 Site Code : 68460W19
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	24	1	21	2	6	1	24	0	0	0	4	83
11:15 AM	0	24	1	17	2	5	3	14	0	0	0	4	70
11:30 AM	0	18	0	11	1	4	2	20	0	1	0	0	57
11:45 AM	0	27	1	12	0	6	2	19	0	1	0	3	71
Total	0	93	3	61	5	21	8	77	0	2	0	11	281
12:00 PM	0	28	1	18	1	6	3	26	0	1	0	6	90
12:15 PM	0	26	1	19	2	8	5	30	0	0	0	2	93
12:30 PM	0	29	1	19	4	7	4	29	0	1	0	3	97
12:45 PM	0	35	1	20	1	6	0	21	0	1	0	3	88
Total	0	118	4	76	8	27	12	106	0	3	0	14	368
01:00 PM	0	18	0	10	0	4	2	21	0	0	0	0	55
01:15 PM	0	22	0	14	1	12	3	20	0	0	0	5	77
01:30 PM	0	17	1	13	0	8	1	18	0	0	0	1	59
01:45 PM	0	24	1	17	1	6	1	24	0	1	0	1	76
Total	0	81	2	54	2	30	7	83	0	1	0	7	267
Grand Total	0	292	9	191	15	78	27	266	0	6	0	32	916
Apprch %	0	97	3	67.3	5.3	27.5	9.2	90.8	0	15.8	0	84.2	
Total %	0	31.9	1	20.9	1.6	8.5	2.9	29	0	0.7	0	3.5	
Cars	0	292	9	187	15	78	26	266	0	6	0	32	911
% Cars	0	100	100	97.9	100	100	96.3	100	0	100	0	100	99.5
Trucks	0	0	0	4	0	0	1	0	0	0	0	0	5
% Trucks	0	0	0	2.1	0	0	3.7	0	0	0	0	0	0.5

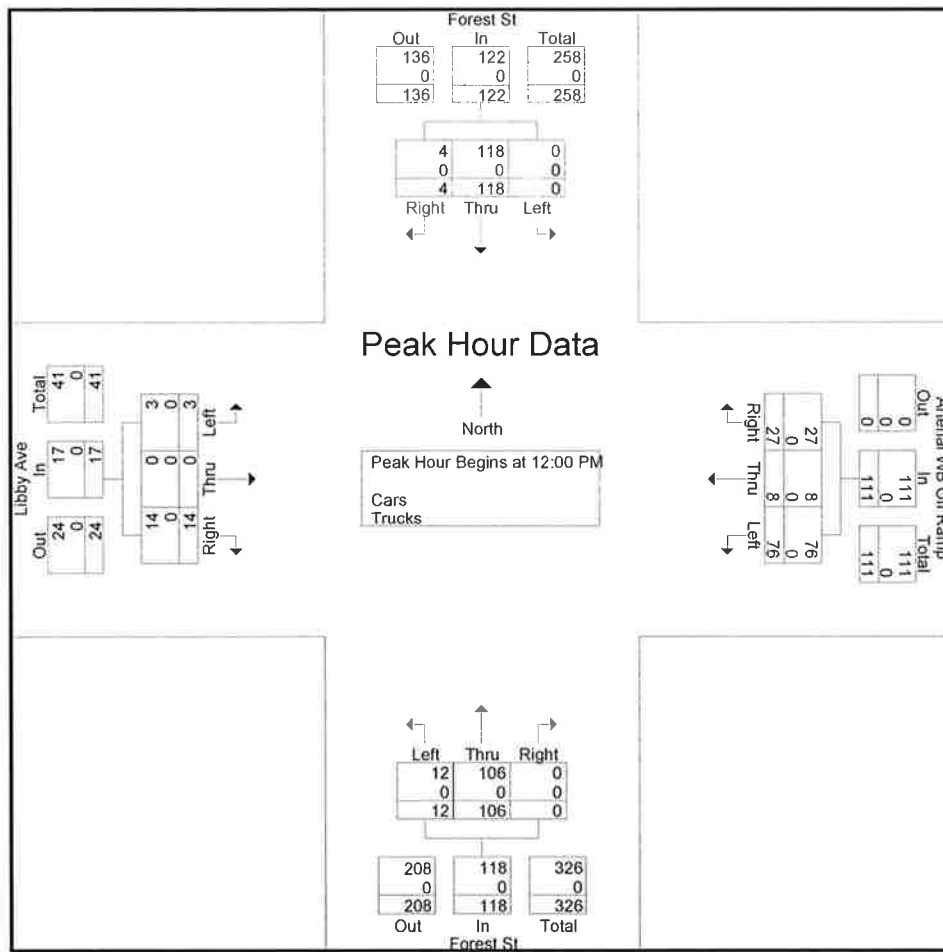
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW19
 Site Code : 68460W19
 Start Date : 10/3/2015
 Page No : 2

	Forest St From North				Arterial WB Off Ramp From East				Forest St From South				Libby Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	0	28	1	29	18	1	6	25	3	26	0	29	1	0	6	7	90
12:15 PM	0	26	1	27	19	2	8	29	5	30	0	35	0	0	2	2	93
12:30 PM	0	29	1	30	19	4	7	30	4	29	0	33	1	0	3	4	97
12:45 PM	0	35	1	36	20	1	6	27	0	21	0	21	1	0	3	4	88
Total Volume	0	118	4	122	76	8	27	111	12	106	0	118	3	0	14	17	368
% App. Total	0	96.7	3.3		68.5	7.2	24.3		10.2	89.8	0		17.6	0	82.4		
PHF	.000	.843	1.00	.847	.950	.500	.844	.925	.600	.883	.000	.843	.750	.000	.583	.607	.948
Cars	0	118	4	122	76	8	27	111	12	106	0	118	3	0	14	17	368
% Cars	0	100	100	100	100	100	100	100	100	100	0	100	100	0	100	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Westbrook Arterial Off Ramp
City/State : Westbrook, ME
Weather : Cloudy

File Name : 6846SW19
Site Code : 68460W19
Start Date : 10/3/2015
Page No : 4

Groups Printed- Cars

Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	24	1	21	2	6	1	24	0	0	0	4	83
11:15 AM	0	24	1	17	2	5	2	14	0	0	0	4	69
11:30 AM	0	18	0	11	1	4	2	20	0	1	0	0	57
11:45 AM	0	27	1	12	0	6	2	19	0	1	0	3	71
Total	0	93	3	61	5	21	7	77	0	2	0	11	280
12:00 PM	0	28	1	18	1	6	3	26	0	1	0	6	90
12:15 PM	0	26	1	19	2	8	5	30	0	0	0	2	93
12:30 PM	0	29	1	19	4	7	4	29	0	1	0	3	97
12:45 PM	0	35	1	20	1	6	0	21	0	1	0	3	88
Total	0	118	4	76	8	27	12	106	0	3	0	14	368
01:00 PM	0	18	0	10	0	4	2	21	0	0	0	0	55
01:15 PM	0	22	0	13	1	12	3	20	0	0	0	5	76
01:30 PM	0	17	1	12	0	8	1	18	0	0	0	1	58
01:45 PM	0	24	1	15	1	6	1	24	0	1	0	1	74
Total	0	81	2	50	2	30	7	83	0	1	0	7	263
Grand Total	0	292	9	187	15	78	26	266	0	6	0	32	911
Apprch %	0	97	3	66.8	5.4	27.9	8.9	91.1	0	15.8	0	84.2	
Total %	0	32.1	1	20.5	1.6	8.6	2.9	29.2	0	0.7	0	3.5	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW19
 Site Code : 68460W19
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North			Arterial WB Off Ramp From East			Forest St From South			Libby Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
01:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
01:45 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
Total	0	0	0	4	0	0	0	0	0	0	0	0	4
Grand Total	0	0	0	4	0	0	1	0	0	0	0	0	5
Apprch %	0	0	0	100	0	0	100	0	0	0	0	0	
Total %	0	0	0	80	0	0	20	0	0	0	0	0	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW19
 Site Code : 68460W19
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Forest St From North				Arterial WB Off Ramp From East				Forest St From South				Libby Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	2
11:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	4
Total	0	0	0	0	0	0	0	0	0	4	0	0	1	0	0	0	0	5	5
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	1	0	0	0	0	0	0	5	0	0	1	0	0	0	0	8	8
Apprch %	0	50	50		0	0	0		0	100	0		100	0	0				
Total %	0	12.5	12.5		0	0	0		0	62.5	0		12.5	0	0		0	100	

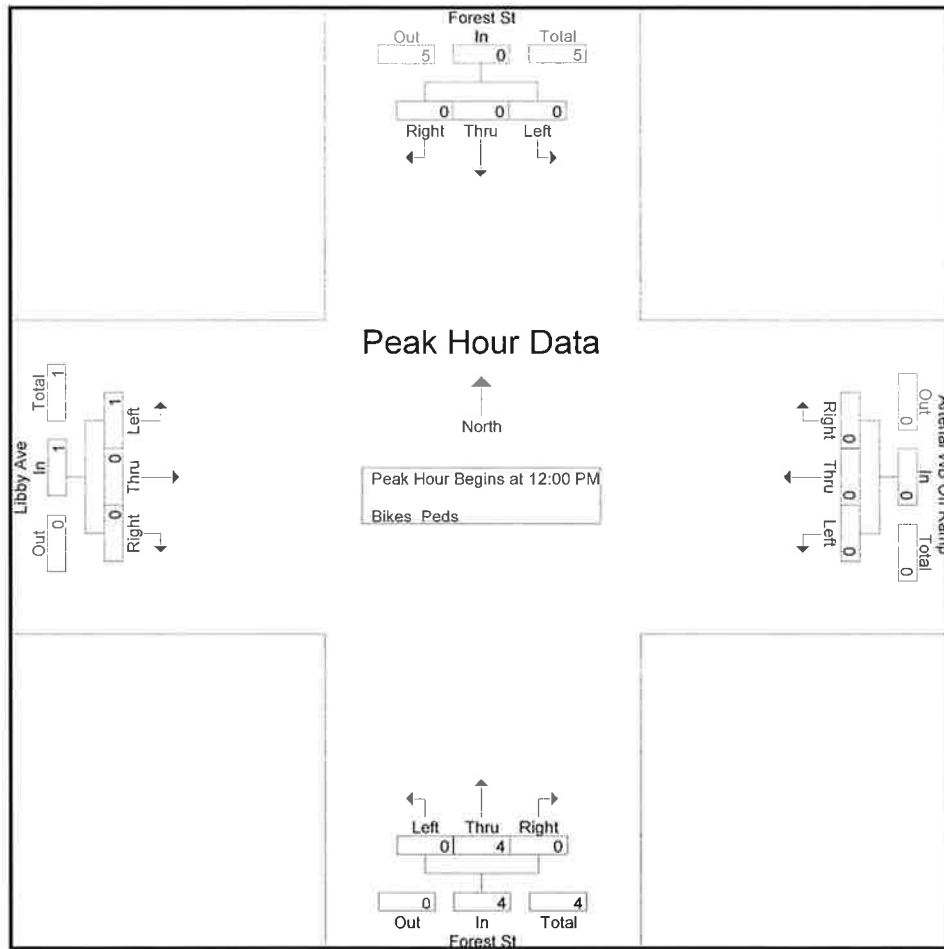
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial Off Ramp
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW19
 Site Code : 68460W19
 Start Date : 10/3/2015
 Page No : 11

	Forest St From North				Arterial WB Off Ramp From East				Forest St From South				Libby Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4
Total Volume	0	0	0	0	0	0	0	0	0	4	0	4	1	0	0	1	5
% App. Total	0	0	0		0	0	0		0	100	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.250	.313



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				12:00 PM				11:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	4	0	4	1	0	0	1
Total Volume	0	1	1	2	0	0	0	0	0	4	0	4	1	0	0	1
% App. Total	0	50	50		0	0	0		0	100	0		100	0	0	
PHF	.000	.250	.250	.500	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : William Clark Road
 E/W Street : Main St / New Gorham Rd
 City/State : Westbrook
 Weather : Cloudy

File Name : 6846SW02
 Site Code : 68460WB2
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	29	110	4	4	27	63	19	85	4	1	41	64	451
11:15 AM	37	131	2	5	38	60	21	90	2	0	47	42	475
11:30 AM	23	104	2	4	34	52	21	99	5	2	48	51	445
11:45 AM	30	122	1	1	42	54	18	110	4	0	42	36	460
Total	119	467	9	14	141	229	79	384	15	3	178	193	1831
12:00 PM	37	118	2	2	32	70	16	108	1	2	30	43	461
12:15 PM	45	103	1	3	54	74	28	112	1	2	38	44	505
12:30 PM	36	123	3	2	40	53	22	122	3	2	51	52	509
12:45 PM	35	107	2	2	33	63	29	105	1	0	31	40	448
Total	153	451	8	9	159	260	95	447	6	6	150	179	1923
01:00 PM	31	115	3	2	42	54	23	98	1	2	23	45	439
01:15 PM	40	108	1	6	29	59	25	95	2	1	29	34	429
01:30 PM	33	97	3	3	34	48	18	86	1	1	39	53	416
01:45 PM	28	100	2	5	35	61	14	98	0	1	25	39	408
Total	132	420	9	16	140	222	80	377	4	5	116	171	1692
Grand Total	404	1338	26	39	440	711	254	1208	25	14	444	543	5446
Apprch %	22.9	75.7	1.5	3.3	37	59.7	17.1	81.2	1.7	1.4	44.4	54.2	
Total %	7.4	24.6	0.5	0.7	8.1	13.1	4.7	22.2	0.5	0.3	8.2	10	
Cars	401	1293	26	39	440	710	253	1163	25	14	444	542	5350
% Cars	99.3	96.6	100	100	100	99.9	99.6	96.3	100	100	100	99.8	98.2
Trucks	3	45	0	0	0	1	1	45	0	0	0	1	96
% Trucks	0.7	3.4	0	0	0	0.1	0.4	3.7	0	0	0	0.2	1.8

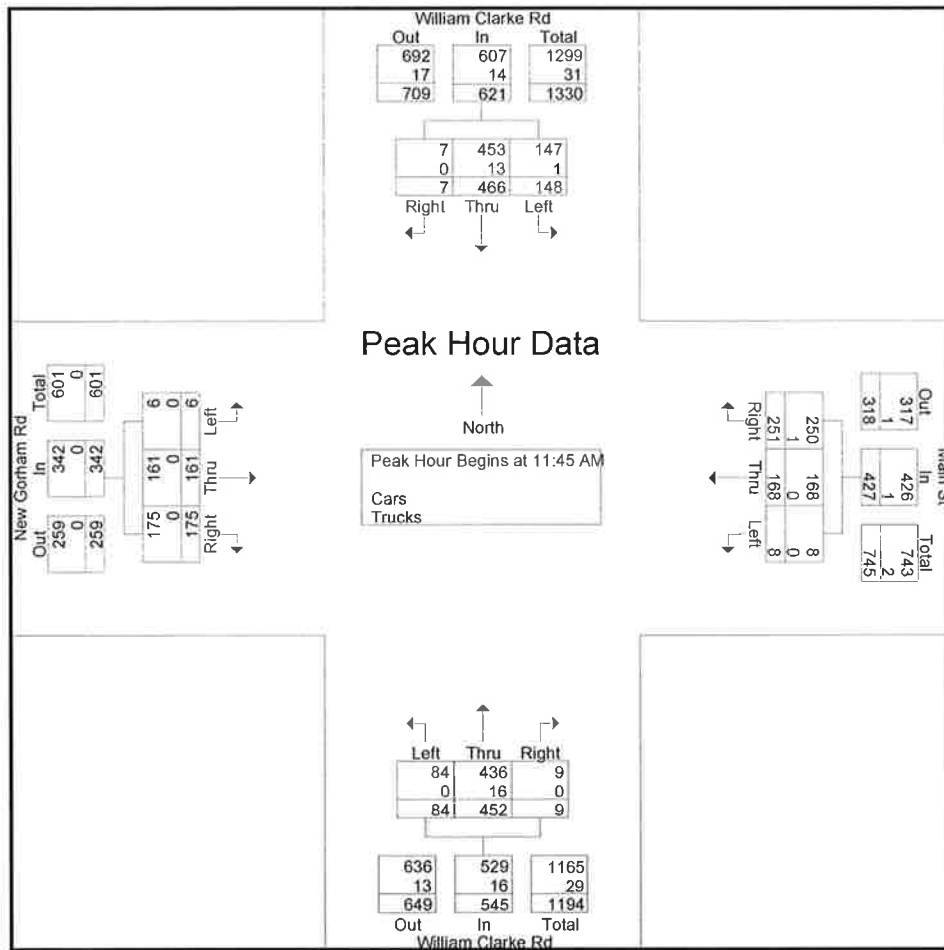
Accurate Counts

978-664-2565

N/S Street : William Clark Road
 E/W Street : Main St / New Gorham Rd
 City/State : Westbrook
 Weather : Cloudy

File Name : 6846SW02
 Site Code : 68460WB2
 Start Date : 10/3/2015
 Page No : 2

	William Clarke Rd From North				Main St From East				William Clarke Rd From South				New Gorham Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	30	122	1	153	1	42	54	97	18	110	4	132	0	42	36	78	460
12:00 PM	37	118	2	157	2	32	70	104	16	108	1	125	2	30	43	75	461
12:15 PM	45	103	1	149	3	54	74	131	28	112	1	141	2	38	44	84	505
12:30 PM	36	123	3	162	2	40	53	95	22	122	3	147	2	51	52	105	509
Total Volume	148	466	7	621	8	168	251	427	84	452	9	545	6	161	175	342	1935
% App. Total	23.8	75	1.1		1.9	39.3	58.8		15.4	82.9	1.7		1.8	47.1	51.2		
PHF	.822	.947	.583	.958	.667	.778	.848	.815	.750	.926	.563	.927	.750	.789	.841	.814	.950
Cars	147	453	7	607	8	168	250	426	84	436	9	529	6	161	175	342	1904
% Cars	99.3	97.2	100	97.7	100	100	99.6	99.8	100	96.5	100	97.1	100	100	100	100	98.4
Trucks	1	13	0	14	0	0	1	1	0	16	0	16	0	0	0	0	31
% Trucks	0.7	2.8	0	2.3	0	0	0.4	0.2	0	3.5	0	2.9	0	0	0	0	1.6



Accurate Counts

978-664-2565

N/S Street : William Clark Road
 E/W Street : Main St / New Gorham Rd
 City/State : Westbrook
 Weather : Cloudy

File Name : 6846SW02
 Site Code : 68460WB2
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars

	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	29	106	4	4	27	63	18	83	4	1	41	64	444
11:15 AM	37	128	2	5	38	60	21	86	2	0	47	42	468
11:30 AM	23	101	2	4	34	52	21	97	5	2	48	50	439
11:45 AM	30	118	1	1	42	53	18	106	4	0	42	36	451
Total	119	453	9	14	141	228	78	372	15	3	178	192	1802
12:00 PM	37	115	2	2	32	70	16	103	1	2	30	43	453
12:15 PM	45	101	1	3	54	74	28	109	1	2	38	44	500
12:30 PM	35	119	3	2	40	53	22	118	3	2	51	52	500
12:45 PM	35	98	2	2	33	63	29	100	1	0	31	40	434
Total	152	433	8	9	159	260	95	430	6	6	150	179	1887
01:00 PM	31	107	3	2	42	54	23	91	1	2	23	45	424
01:15 PM	38	105	1	6	29	59	25	92	2	1	29	34	421
01:30 PM	33	97	3	3	34	48	18	85	1	1	39	53	415
01:45 PM	28	98	2	5	35	61	14	93	0	1	25	39	401
Total	130	407	9	16	140	222	80	361	4	5	116	171	1661
Grand Total	401	1293	26	39	440	710	253	1163	25	14	444	542	5350
Apprch %	23.3	75.2	1.5	3.3	37	59.7	17.6	80.7	1.7	1.4	44.4	54.2	
Total %	7.5	24.2	0.5	0.7	8.2	13.3	4.7	21.7	0.5	0.3	8.3	10.1	

Accurate Counts

978-664-2565

N/S Street : William Clark Road
E/W Street : Main St / New Gorham Rd
City/State : Westbrook
Weather : Cloudy

File Name : 6846SW02
Site Code : 68460WB2
Start Date : 10/3/2015
Page No : 7

Groups Printed- Trucks

Start Time	William Clarke Rd From North			Main St From East			William Clarke Rd From South			New Gorham Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	4	0	0	0	0	1	2	0	0	0	0	7
11:15 AM	0	3	0	0	0	0	0	4	0	0	0	0	7
11:30 AM	0	3	0	0	0	0	0	2	0	0	0	1	6
11:45 AM	0	4	0	0	0	1	0	4	0	0	0	0	9
Total	0	14	0	0	0	1	1	12	0	0	0	1	29
12:00 PM	0	3	0	0	0	0	0	5	0	0	0	0	8
12:15 PM	0	2	0	0	0	0	0	3	0	0	0	0	5
12:30 PM	1	4	0	0	0	0	0	4	0	0	0	0	9
12:45 PM	0	9	0	0	0	0	0	5	0	0	0	0	14
Total	1	18	0	0	0	0	0	17	0	0	0	0	36
01:00 PM	0	8	0	0	0	0	0	7	0	0	0	0	15
01:15 PM	2	3	0	0	0	0	0	3	0	0	0	0	8
01:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
01:45 PM	0	2	0	0	0	0	0	5	0	0	0	0	7
Total	2	13	0	0	0	0	0	16	0	0	0	0	31
Grand Total	3	45	0	0	0	1	1	45	0	0	0	1	96
Apprch %	6.2	93.8	0	0	0	100	2.2	97.8	0	0	0	100	
Total %	3.1	46.9	0	0	0	1	1	46.9	0	0	0	1	

Accurate Counts

978-664-2565

N/S Street : William Clark Road
 E/W Street : Main St / New Gorham Rd
 City/State : Westbrook
 Weather : Cloudy

File Name : 6846SW02
 Site Code : 68460WB2
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	William Clarke Rd From North				Main St From East				William Clarke Rd From South				New Gorham Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:00 PM	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	3	1	4
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
12:30 PM	1	0	0	0	0	3	0	0	0	0	0	2	0	0	0	0	2	4	6
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	3	1	0	0	0	0	4	0	1	0	1	5	6	11
01:00 PM	0	0	0	0	0	0	1	1	0	0	0	3	0	3	0	1	5	4	9
01:15 PM	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	1	4
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	1	1	0	0	0	5	0	3	0	2	8	5	13
Grand Total	2	0	0	0	0	3	2	1	0	0	0	9	1	4	0	3	13	12	25
Apprch %	100	0	0		0	60	40		0	0	0		20	80	0				
Total %	16.7	0	0		0	25	16.7		0	0	0		8.3	33.3	0		52	48	

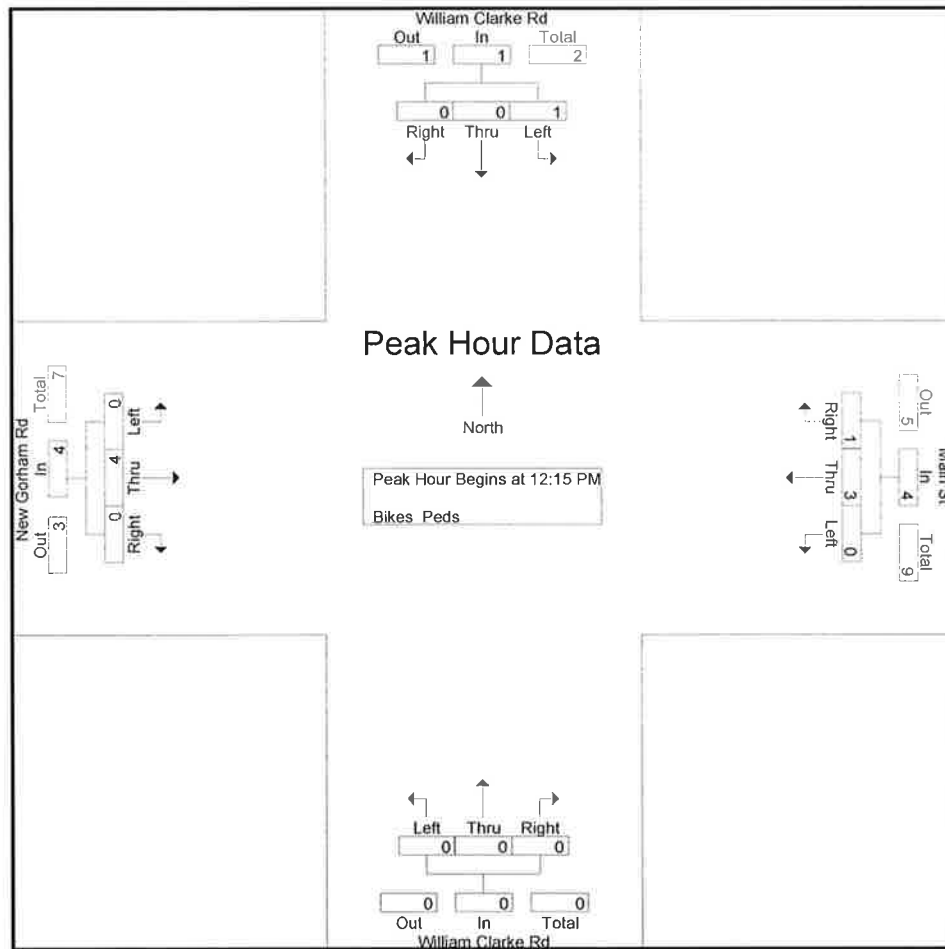
Accurate Counts

978-664-2565

N/S Street : William Clarke Road
 E/W Street : Main St / New Gorham Rd
 City/State : Westbrook
 Weather : Cloudy

File Name : 6846SW02
 Site Code : 68460WB2
 Start Date : 10/3/2015
 Page No : 11

	William Clarke Rd From North				Main St From East				William Clarke Rd From South				New Gorham Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
12:30 PM	1	0	0	1	0	3	0	3	0	0	0	0	0	0	0	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	3	0	3	4
Total Volume	1	0	0	1	0	3	1	4	0	0	0	0	0	4	0	4	9
% App. Total	100	0	0		0	75	25		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.250	.250	.333	.000	.000	.000	.000	.000	.333	.000	.333	.563



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	12:30 PM				11:45 AM				11:00 AM				12:15 PM			
+0 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	3	0	3	0	0	0	0	0	3	0	3
Total Volume	2	0	0	2	0	3	1	4	0	0	0	0	0	4	0	4
% App. Total	100	0	0		0	75	25		0	0	0		0	100	0	
PHF	.500	.000	.000	.500	.000	.250	.250	.333	.000	.000	.000	.000	.000	.333	.000	.333

Accurate Counts
978-664-2565

N/S Street : Forest Street
E/W Street : Westbrook Arterial On Ramp
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW20
Site Code : 68460W20
Start Date : 10/3/2015
Page No : 1

Groups Printed- Cars - Trucks								
Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
11:00 AM	8	45	0	0	26	20	99	
11:15 AM	7	36	0	0	18	16	77	
11:30 AM	3	28	0	0	24	12	67	
11:45 AM	5	36	0	0	20	15	76	
Total	23	145	0	0	88	63	319	
12:00 PM	6	46	0	0	33	18	103	
12:15 PM	6	43	0	0	36	24	109	
12:30 PM	7	35	0	0	28	27	97	
12:45 PM	7	56	0	0	28	13	104	
Total	26	180	0	0	125	82	413	
01:00 PM	6	27	0	0	23	16	72	
01:15 PM	12	34	0	0	22	23	91	
01:30 PM	3	22	0	0	18	13	56	
01:45 PM	7	31	0	0	24	19	81	
Total	28	114	0	0	87	71	300	
Grand Total	77	439	0	0	300	216	1032	
Apprch %	14.9	85.1	0	0	58.1	41.9		
Total %	7.5	42.5	0	0	29.1	20.9		
Cars	77	434	0	0	298	213	1022	
% Cars	100	98.9	0	0	99.3	98.6	99	
Trucks	0	5	0	0	2	3	10	
% Trucks	0	1.1	0	0	0.7	1.4	1	

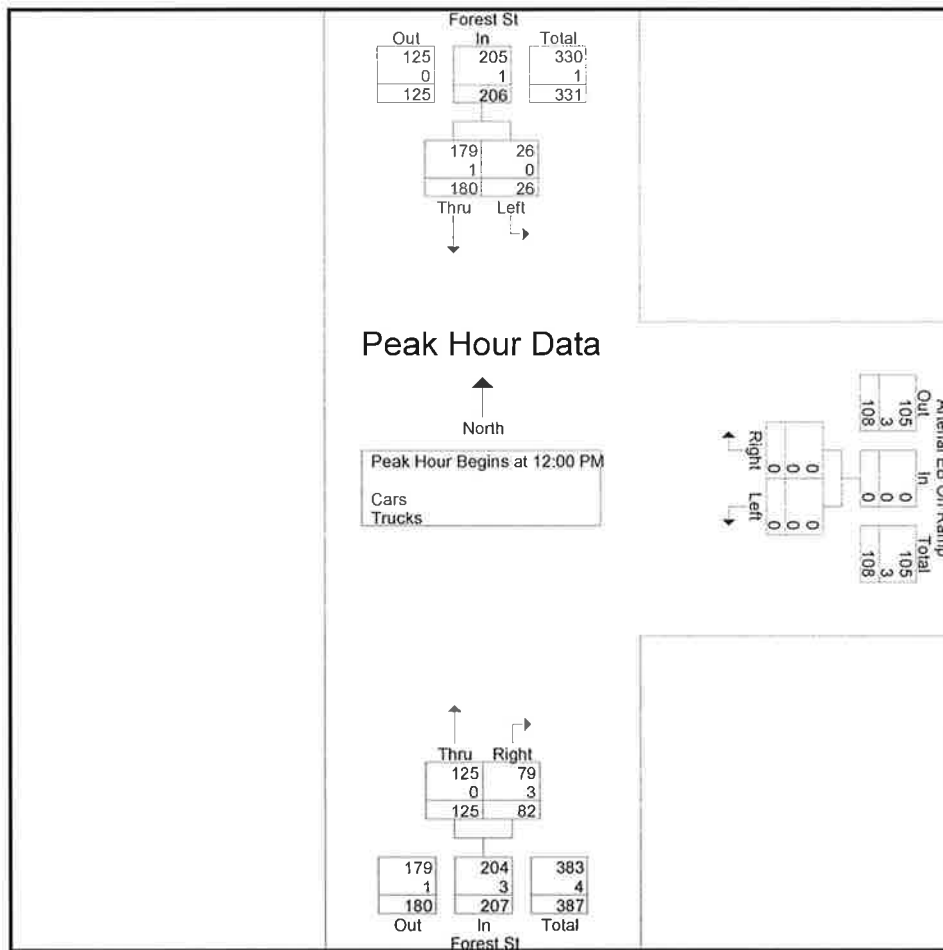
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW20
 Site Code : 68460W20
 Start Date : 10/3/2015
 Page No : 2

	Forest St From North			Arterial EB On Ramp From East			Forest St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	6	46	52	0	0	0	33	18	51	103
12:15 PM	6	43	49	0	0	0	36	24	60	109
12:30 PM	7	35	42	0	0	0	28	27	55	97
12:45 PM	7	56	63	0	0	0	28	13	41	104
Total Volume	26	180	206	0	0	0	125	82	207	413
% App. Total	12.6	87.4		0	0		60.4	39.6		
PHF	.929	.804	.817	.000	.000	.000	.868	.759	.863	.947
Cars	26	179	205	0	0	0	125	79	204	409
% Cars	100	99.4	99.5	0	0	0	100	96.3	98.6	99.0
Trucks	0	1	1	0	0	0	0	3	3	4
% Trucks	0	0.6	0.5	0	0	0	0	3.7	1.4	1.0



Accurate Counts

978-664-2565

N/S Street : Forest Street
E/W Street : Westbrook Arterial On Ramp
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW20
Site Code : 68460W20
Start Date : 10/3/2015
Page No : 4

Groups Printed- Cars								
Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
11:00 AM	8	45	0	0	26	20	99	
11:15 AM	7	36	0	0	16	16	75	
11:30 AM	3	28	0	0	24	12	67	
11:45 AM	5	36	0	0	20	15	76	
Total	23	145	0	0	86	63	317	
12:00 PM	6	45	0	0	33	17	101	
12:15 PM	6	43	0	0	36	22	107	
12:30 PM	7	35	0	0	28	27	97	
12:45 PM	7	56	0	0	28	13	104	
Total	26	179	0	0	125	79	409	
01:00 PM	6	27	0	0	23	16	72	
01:15 PM	12	33	0	0	22	23	90	
01:30 PM	3	21	0	0	18	13	55	
01:45 PM	7	29	0	0	24	19	79	
Total	28	110	0	0	87	71	296	
Grand Total	77	434	0	0	298	213	1022	
Apprch %	15.1	84.9	0	0	58.3	41.7		
Total %	7.5	42.5	0	0	29.2	20.8		

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW20
 Site Code : 68460W20
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North		Arterial EB On Ramp From East		Forest St From South		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	2	0	2
11:30 AM	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0
Total	0	0	0	0	2	0	2
12:00 PM	0	1	0	0	0	1	2
12:15 PM	0	0	0	0	0	2	2
12:30 PM	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0
Total	0	1	0	0	0	3	4
01:00 PM	0	0	0	0	0	0	0
01:15 PM	0	1	0	0	0	0	1
01:30 PM	0	1	0	0	0	0	1
01:45 PM	0	2	0	0	0	0	2
Total	0	4	0	0	0	0	4
Grand Total	0	5	0	0	2	3	10
Apprch %	0	100	0	0	40	60	
Total %	0	50	0	0	20	30	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW20
 Site Code : 68460W20
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Forest St From North			Arterial EB On Ramp From East			Forest St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	1	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	0	1	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	1	0	0	0	1	0	1
12:45 PM	0	1	0	0	0	0	2	0	0	0	3	3
Total	0	1	0	0	0	1	2	0	0	1	3	4
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	0	1	2	1	0	1	4	5
Apprch %	0	100		0	0		66.7	33.3				
Total %	0	25		0	0		50	25		20	80	

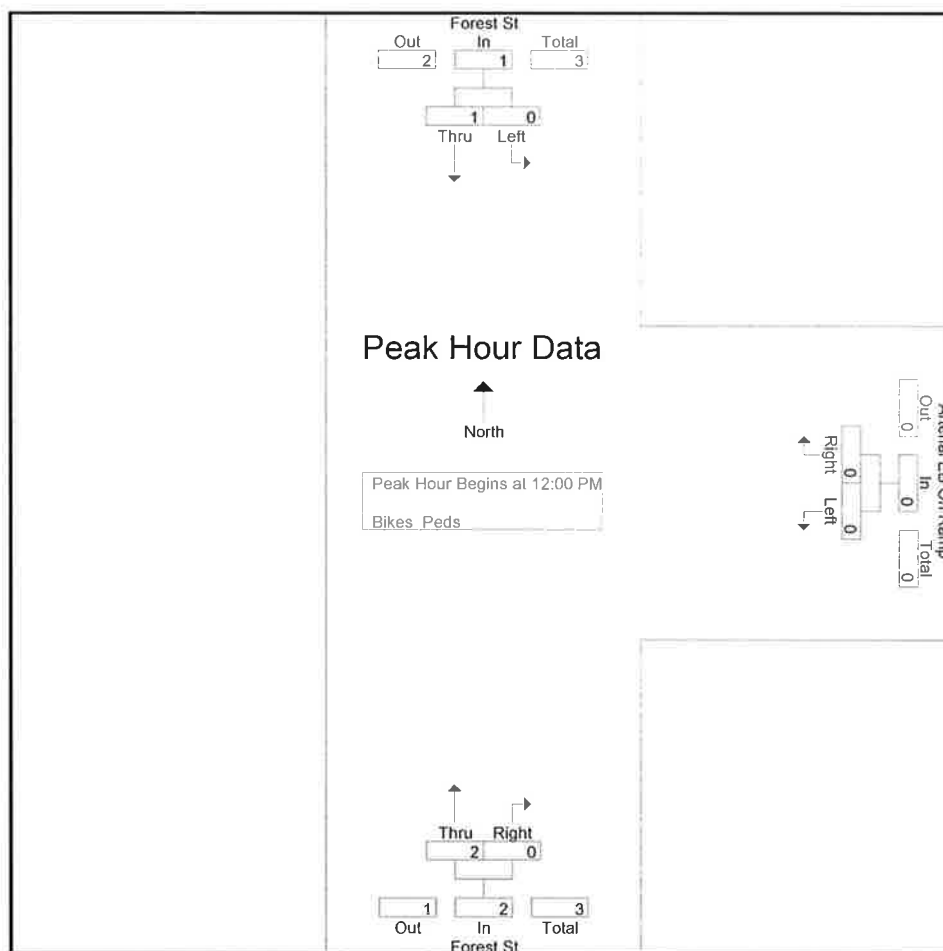
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Westbrook Arterial On Ramp
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW20
 Site Code : 68460W20
 Start Date : 10/3/2015
 Page No : 11

Forest St From North				Arterial EB On Ramp From East			Forest St From South			Int. Total	
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total		
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 12:00 PM											
12:00 PM	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	1	1	0	0	0	2	0	2	3	
Total Volume	0	1	1	0	0	0	2	0	2	3	
% App. Total	0	100		0	0		100	0			
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.250	



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:00 PM			11:00 AM			12:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	2	0	2
Total Volume	0	1	1	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW21
 Site Code : 68460W21
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest St From North		Stoudwater St From East		Stoudwater St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	20	24	41	25	22	43	175
11:15 AM	17	15	24	11	19	39	125
11:30 AM	14	18	34	18	17	38	139
11:45 AM	23	17	27	17	24	37	145
Total	74	74	126	71	82	157	584
12:00 PM	28	15	27	15	28	34	147
12:15 PM	23	18	63	34	27	50	215
12:30 PM	24	15	38	22	30	34	163
12:45 PM	24	25	29	21	14	31	144
Total	99	73	157	92	99	149	669
01:00 PM	17	11	39	25	19	46	157
01:15 PM	15	13	46	21	18	33	146
01:30 PM	12	13	29	23	13	25	115
01:45 PM	20	11	29	23	15	40	138
Total	64	48	143	92	65	144	556
Grand Total	237	195	426	255	246	450	1809
Apprch %	54.9	45.1	62.6	37.4	35.3	64.7	
Total %	13.1	10.8	23.5	14.1	13.6	24.9	
Cars	237	192	422	253	243	438	1785
% Cars	100	98.5	99.1	99.2	98.8	97.3	98.7
Trucks	0	3	4	2	3	12	24
% Trucks	0	1.5	0.9	0.8	1.2	2.7	1.3

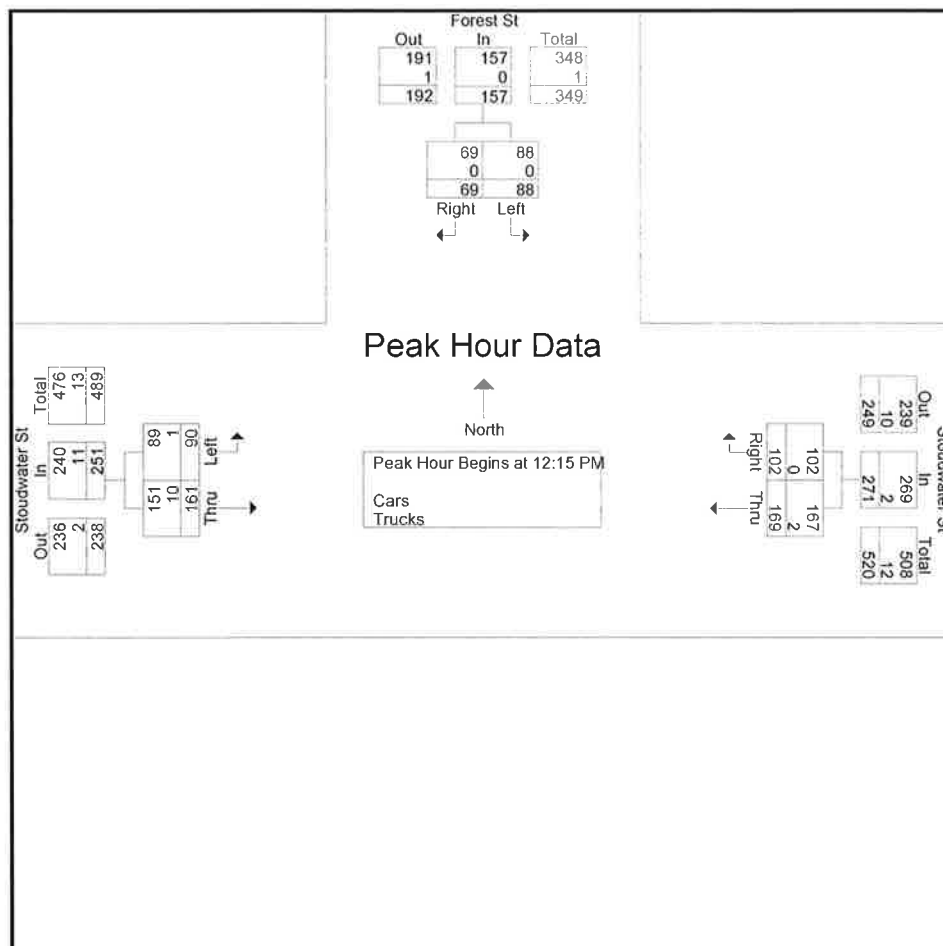
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW21
 Site Code : 68460W21
 Start Date : 10/3/2015
 Page No : 2

	Forest St From North			Stoudwater St From East			Stoudwater St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:15 PM										
12:15 PM	23	18	41	63	34	97	27	50	77	215
12:30 PM	24	15	39	38	22	60	30	34	64	163
12:45 PM	24	25	49	29	21	50	14	31	45	144
01:00 PM	17	11	28	39	25	64	19	46	65	157
Total Volume	88	69	157	169	102	271	90	161	251	679
% App. Total	56.1	43.9		62.4	37.6		35.9	64.1		
PHF	.917	.690	.801	.671	.750	.698	.750	.805	.815	.790
Cars	88	69	157	167	102	269	89	151	240	666
% Cars	100	100	100	98.8	100	99.3	98.9	93.8	95.6	98.1
Trucks	0	0	0	2	0	2	1	10	11	13
% Trucks	0	0	0	1.2	0	0.7	1.1	6.2	4.4	1.9



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW21
 Site Code : 68460W21
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars							
	Forest St From North		Stoudwater St From East		Stoudwater St From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM	20	24	41	25	22	43	175
11:15 AM	17	15	23	10	18	38	121
11:30 AM	14	18	34	18	17	38	139
11:45 AM	23	17	26	17	24	37	144
Total	74	74	124	70	81	156	579
12:00 PM	28	15	27	14	27	34	145
12:15 PM	23	18	62	34	26	50	213
12:30 PM	24	15	37	22	30	33	161
12:45 PM	24	25	29	21	14	29	142
Total	99	73	155	91	97	146	661
01:00 PM	17	11	39	25	19	39	150
01:15 PM	15	12	46	21	18	32	144
01:30 PM	12	12	29	23	13	25	114
01:45 PM	20	10	29	23	15	40	137
Total	64	45	143	92	65	136	545
Grand Total	237	192	422	253	243	438	1785
Apprch %	55.2	44.8	62.5	37.5	35.7	64.3	
Total %	13.3	10.8	23.6	14.2	13.6	24.5	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW21
 Site Code : 68460W21
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North		Stoudwater St From East		Stoudwater St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	0	0	0	0	0	0	0
11:15 AM	0	0	1	1	1	1	4
11:30 AM	0	0	0	0	0	0	0
11:45 AM	0	0	1	0	0	0	1
Total	0	0	2	1	1	1	5
12:00 PM	0	0	0	1	1	0	2
12:15 PM	0	0	1	0	1	0	2
12:30 PM	0	0	1	0	0	1	2
12:45 PM	0	0	0	0	0	2	2
Total	0	0	2	1	2	3	8
01:00 PM	0	0	0	0	0	7	7
01:15 PM	0	1	0	0	0	1	2
01:30 PM	0	1	0	0	0	0	1
01:45 PM	0	1	0	0	0	0	1
Total	0	3	0	0	0	8	11
Grand Total	0	3	4	2	3	12	24
Apprch %	0	100	66.7	33.3	20	80	
Total %	0	12.5	16.7	8.3	12.5	50	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW21
 Site Code : 68460W21
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Forest St From North			Stoudwater St From East			Stoudwater St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
11:00 AM	0	0	1	0	0	0	0	0	0	1	0	1
11:15 AM	0	0	0	0	0	0	0	0	1	1	0	1
11:30 AM	0	1	0	0	0	0	0	0	0	0	1	1
11:45 AM	0	0	1	0	0	0	0	0	0	1	0	1
Total	0	1	2	0	0	0	0	0	1	3	1	4
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	1	0	0	0	0	0	0	1	0	1
12:30 PM	0	0	0	2	0	0	0	0	0	0	2	2
12:45 PM	0	1	0	0	0	0	3	0	0	0	4	4
Total	0	1	1	2	0	0	3	0	0	1	6	7
01:00 PM	0	0	0	0	0	0	0	0	2	2	0	2
01:15 PM	0	0	0	0	0	0	0	2	0	0	2	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	0	0	0	0	2	4	4	2	6
Grand Total	0	2	3	2	0	0	3	2	5	8	9	17
Apprch %	0	100		100	0		60	40				
Total %	0	22.2		22.2	0		33.3	22.2		47.1	52.9	

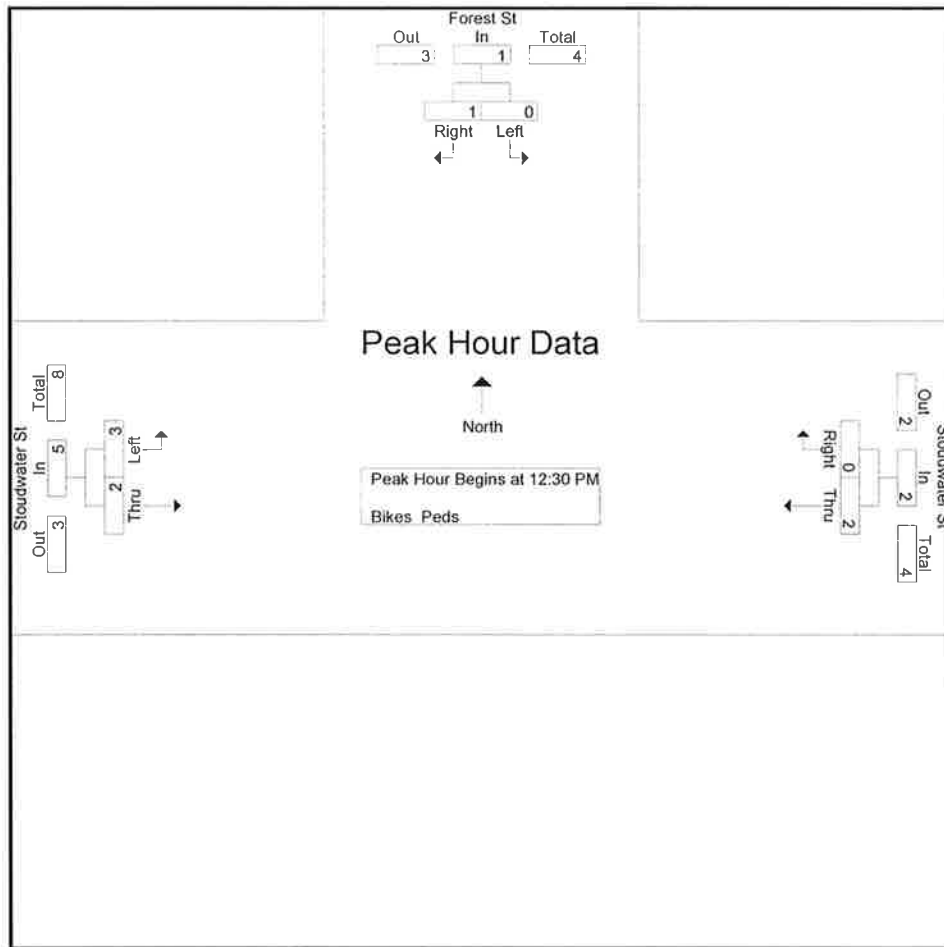
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Stoudwater Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW21
 Site Code : 68460W21
 Start Date : 10/3/2015
 Page No : 11

	Forest St From North			Stoudwater St From East			Stoudwater St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:30 PM										
12:30 PM	0	0	0	2	0	2	0	0	0	2
12:45 PM	0	1	1	0	0	0	3	0	3	4
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	2	2	2
Total Volume	0	1	1	2	0	2	3	2	5	8
% App. Total	0	100		100	0		60	40		
PHF	.000	.250	.250	.250	.000	.250	.250	.250	.417	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			11:45 AM			12:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	3	0	3
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	0	0	2	0	2	0	2	2
Total Volume	0	1	1	2	0	2	3	2	5
% App. Total	0	100		100	0		60	40	

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW22
 Site Code : 68460W22
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Westbrook Crossing Ent From North		Main Street From East		Main Street From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	16	33	114	20	37	87	307
11:15 AM	22	51	122	23	30	75	323
11:30 AM	20	49	112	24	41	96	342
11:45 AM	17	37	126	29	43	83	335
Total	75	170	474	96	151	341	1307
12:00 PM	17	45	110	17	43	98	330
12:15 PM	16	52	122	27	37	104	358
12:30 PM	15	41	113	22	46	100	337
12:45 PM	17	47	79	19	49	93	304
Total	65	185	424	85	175	395	1329
01:00 PM	20	51	115	26	34	93	339
01:15 PM	21	42	87	30	31	92	303
01:30 PM	18	43	99	25	29	106	320
01:45 PM	16	49	87	20	64	97	333
Total	75	185	388	101	158	388	1295
Grand Total	215	540	1286	282	484	1124	3931
Apprch %	28.5	71.5	82	18	30.1	69.9	
Total %	5.5	13.7	32.7	7.2	12.3	28.6	
Cars	215	540	1274	282	482	1116	3909
% Cars	100	100	99.1	100	99.6	99.3	99.4
Trucks	0	0	12	0	2	8	22
% Trucks	0	0	0.9	0	0.4	0.7	0.6

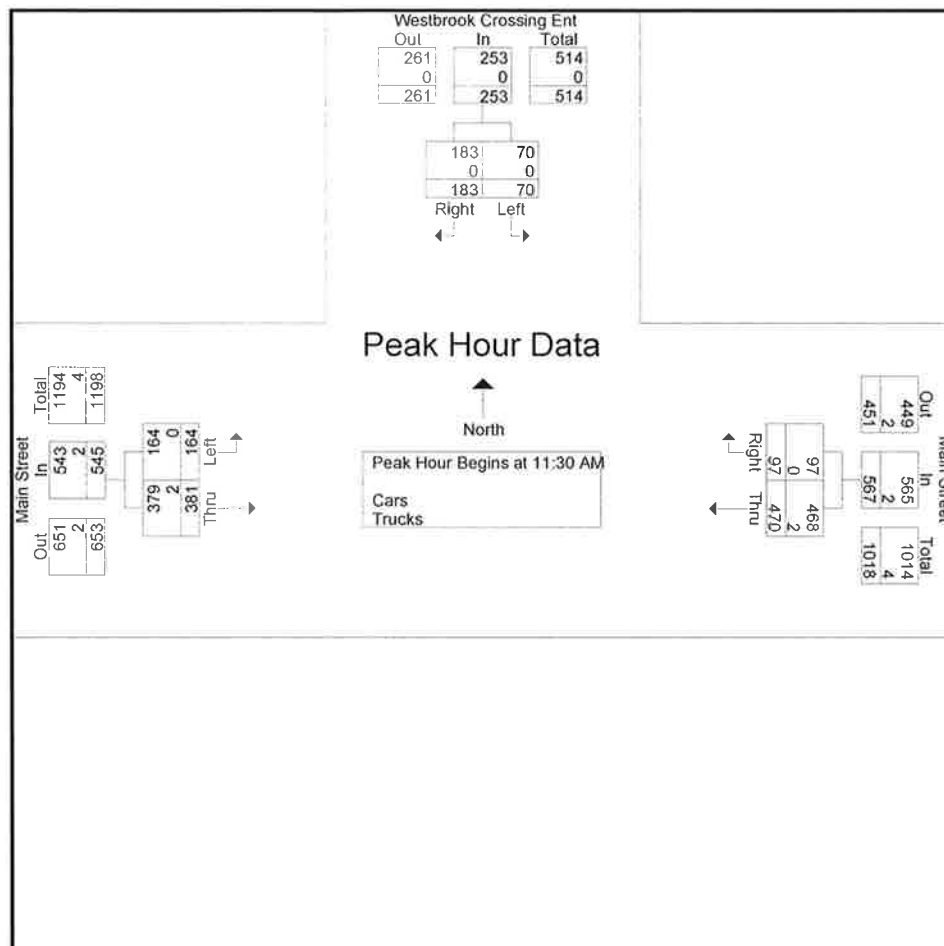
Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW22
 Site Code : 68460W22
 Start Date : 9/26/2015
 Page No : 2

	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:30 AM										
11:30 AM	20	49	69	112	24	136	41	96	137	342
11:45 AM	17	37	54	126	29	155	43	83	126	335
12:00 PM	17	45	62	110	17	127	43	98	141	330
12:15 PM	16	52	68	122	27	149	37	104	141	358
Total Volume	70	183	253	470	97	567	164	381	545	1365
% App. Total	27.7	72.3		82.9	17.1		30.1	69.9		
PHF	.875	.880	.917	.933	.836	.915	.953	.916	.966	.953
Cars	70	183	253	468	97	565	164	379	543	1361
% Cars	100	100	100	99.6	100	99.6	100	99.5	99.6	99.7
Trucks	0	0	0	2	0	2	0	2	2	4
% Trucks	0	0	0	0.4	0	0.4	0	0.5	0.4	0.3



Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW22
Site Code : 68460W22
Start Date : 9/26/2015
Page No : 4

Groups Printed- Cars

Start Time	Westbrook Crossing Ent		Main Street		Main Street		Int. Total
	From North	Right	From East	Right	From West	Thru	
11:00 AM	16	33	112	20	37	86	304
11:15 AM	22	51	121	23	30	75	322
11:30 AM	20	49	111	24	41	95	340
11:45 AM	17	37	126	29	43	83	335
Total	75	170	470	96	151	339	1301
12:00 PM	17	45	109	17	43	97	328
12:15 PM	16	52	122	27	37	104	358
12:30 PM	15	41	111	22	46	99	334
12:45 PM	17	47	78	19	49	92	302
Total	65	185	420	85	175	392	1322
01:00 PM	20	51	114	26	33	93	337
01:15 PM	21	42	87	30	31	92	303
01:30 PM	18	43	97	25	28	103	314
01:45 PM	16	49	86	20	64	97	332
Total	75	185	384	101	156	385	1286
Grand Total	215	540	1274	282	482	1116	3909
Apprch %	28.5	71.5	81.9	18.1	30.2	69.8	
Total %	5.5	13.8	32.6	7.2	12.3	28.5	

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW22
 Site Code : 68460W22
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Westbrook Crossing Ent From North		Main Street From East		Main Street From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
11:00 AM	0	0	2	0	0	1	3
11:15 AM	0	0	1	0	0	0	1
11:30 AM	0	0	1	0	0	1	2
11:45 AM	0	0	0	0	0	0	0
Total	0	0	4	0	0	2	6
12:00 PM	0	0	1	0	0	1	2
12:15 PM	0	0	0	0	0	0	0
12:30 PM	0	0	2	0	0	1	3
12:45 PM	0	0	1	0	0	1	2
Total	0	0	4	0	0	3	7
01:00 PM	0	0	1	0	1	0	2
01:15 PM	0	0	0	0	0	0	0
01:30 PM	0	0	2	0	1	3	6
01:45 PM	0	0	1	0	0	0	1
Total	0	0	4	0	2	3	9
Grand Total	0	0	12	0	2	8	22
Apprch %	0	0	100	0	20	80	
Total %	0	0	54.5	0	9.1	36.4	

Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW22
 Site Code : 68460W22
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
11:00 AM	0	0	0	1	0	2	0	0	0	2	1	3
11:15 AM	0	0	0	0	0	1	0	0	0	1	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	3	0	0	0	3	1	4
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	1	0	0	1	1
12:30 PM	0	0	0	1	0	0	0	1	0	0	2	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	2	0	0	3	3
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	2	0	0	2	2
01:30 PM	0	0	0	0	0	1	0	0	0	1	0	1
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	2	0	1	2	3
Grand Total	0	0	0	2	0	4	0	4	0	4	6	10
Apprch %	0	0		100	0		0	100				
Total %	0	0		33.3	0		0	66.7		40	60	

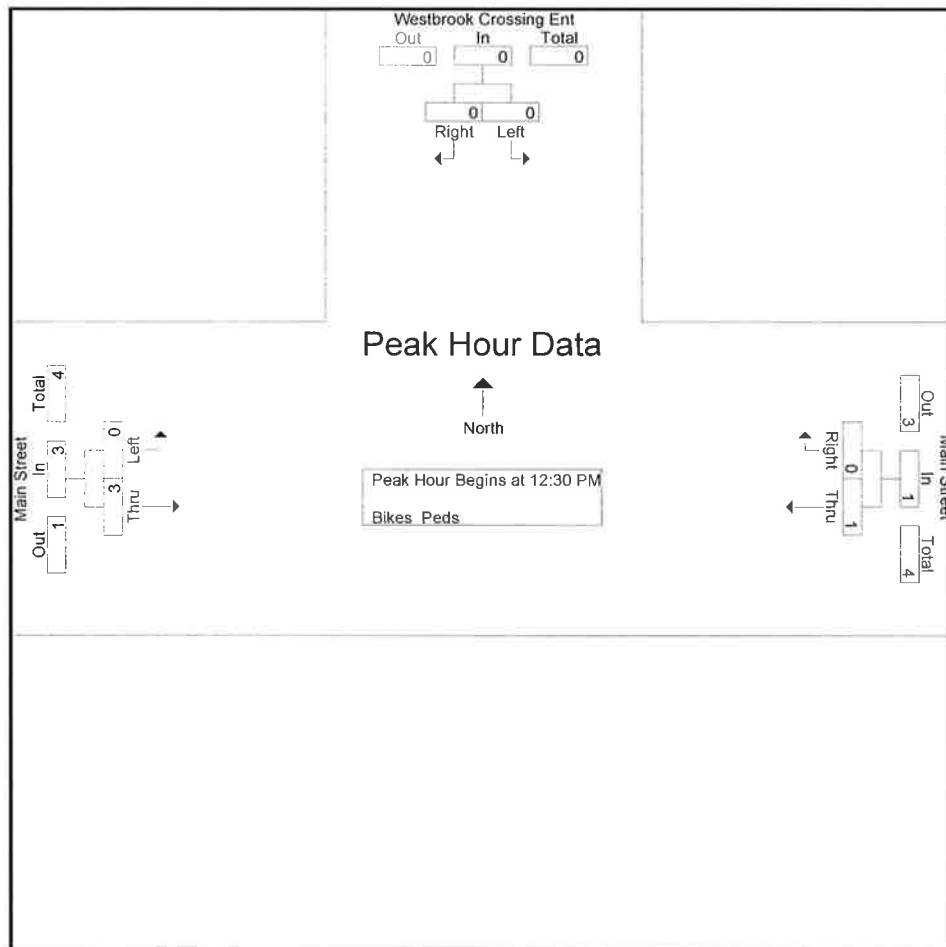
Accurate Counts

978-664-2565

N/S Street : Westbrook Crossing Ent
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW22
 Site Code : 68460W22
 Start Date : 9/26/2015
 Page No : 11

	Westbrook Crossing Ent From North			Main Street From East			Main Street From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:30 PM										
12:30 PM	0	0	0	1	0	1	0	1	1	2
12:45 PM	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	2	2	2
Total Volume	0	0	0	1	0	1	0	3	3	4
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.375	.375	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			12:30 PM		
+0 mins.	0	0	0	1	0	1	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	2	2
Total Volume	0	0	0	1	0	1	0	3	3
% App. Total	0	0		100	0		0	100	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Terminal Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW23
Site Code : 68460W23
Start Date : 9/26/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Larrabee Rd From North			Terminal From East			Larrabee Rd From South			Terminal From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	78	7	2	0	0	8	67	0	3	0	6	171
11:15 AM	0	79	7	0	0	0	6	75	0	7	0	5	179
11:30 AM	0	97	11	0	0	0	6	81	0	11	0	9	215
11:45 AM	0	93	11	1	0	0	5	75	0	4	0	9	198
Total	0	347	36	3	0	0	25	298	0	25	0	29	763
12:00 PM	0	89	6	1	0	0	1	82	0	4	0	7	190
12:15 PM	0	77	6	0	0	0	2	76	0	4	0	5	170
12:30 PM	0	94	4	0	0	0	5	76	0	7	0	7	193
12:45 PM	0	96	8	0	0	0	6	79	0	6	0	4	199
Total	0	356	24	1	0	0	14	313	0	21	0	23	752
01:00 PM	0	72	4	0	0	0	3	83	0	19	0	15	196
01:15 PM	0	63	3	0	0	0	5	85	0	8	0	3	167
01:30 PM	0	79	3	0	0	0	5	67	0	3	0	7	164
01:45 PM	0	71	8	0	0	0	6	94	0	2	0	2	183
Total	0	285	18	0	0	0	19	329	0	32	0	27	710
Grand Total	0	988	78	4	0	0	58	940	0	78	0	79	2225
Apprch %	0	92.7	7.3	100	0	0	5.8	94.2	0	49.7	0	50.3	
Total %	0	44.4	3.5	0.2	0	0	2.6	42.2	0	3.5	0	3.6	
Cars	0	955	78	4	0	0	56	904	0	77	0	78	2152
% Cars	0	96.7	100	100	0	0	96.6	96.2	0	98.7	0	98.7	96.7
Trucks	0	33	0	0	0	0	2	36	0	1	0	1	73
% Trucks	0	3.3	0	0	0	0	3.4	3.8	0	1.3	0	1.3	3.3

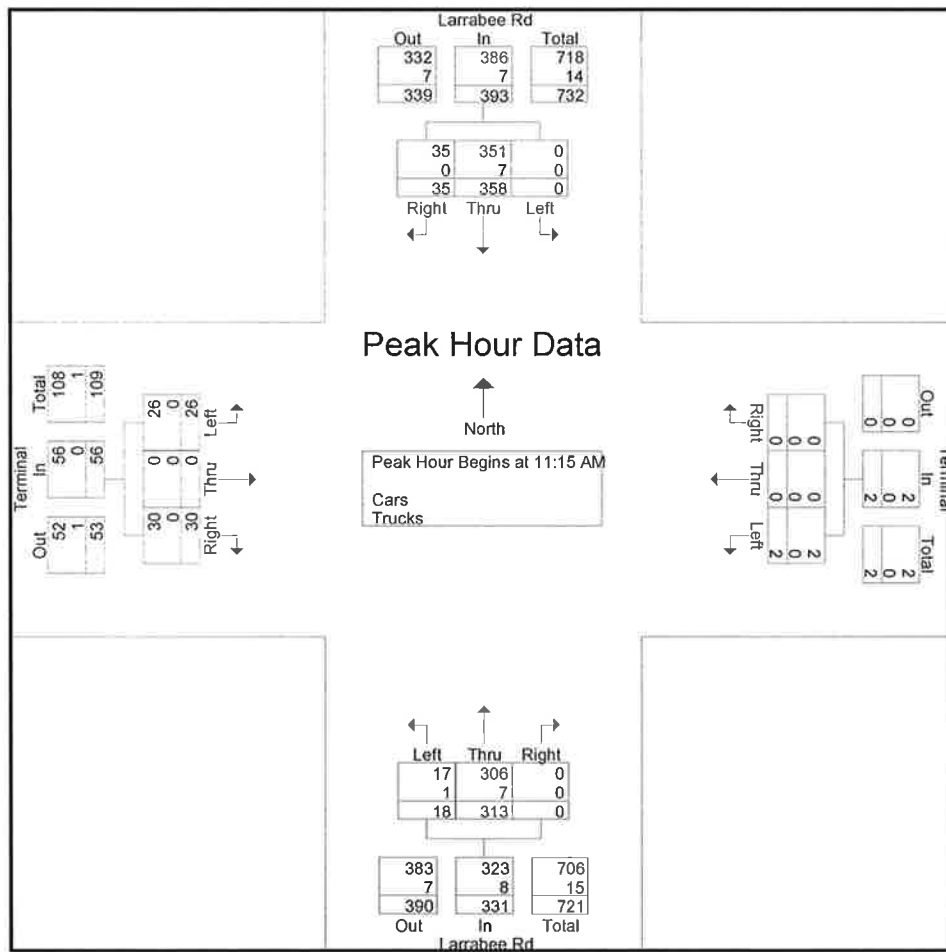
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW23
 Site Code : 68460W23
 Start Date : 9/26/2015
 Page No : 2

	Larrabee Rd From North				Terminal From East				Larrabee Rd From South				Terminal From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	0	79	7	86	0	0	0	0	6	75	0	81	7	0	5	12	179
11:30 AM	0	97	11	108	0	0	0	0	6	81	0	87	11	0	9	20	215
11:45 AM	0	93	11	104	1	0	0	1	5	75	0	80	4	0	9	13	198
12:00 PM	0	89	6	95	1	0	0	1	1	82	0	83	4	0	7	11	190
Total Volume	0	358	35	393	2	0	0	2	18	313	0	331	26	0	30	56	782
% App. Total	0	91.1	8.9		100	0	0		5.4	94.6	0		46.4	0	53.6		
PHF	.000	.923	.795	.910	.500	.000	.000	.500	.750	.954	.000	.951	.591	.000	.833	.700	.909
Cars	0	351	35	386	2	0	0	2	17	306	0	323	26	0	30	56	767
% Cars	0	98.0	100	98.2	100	0	0	100	94.4	97.8	0	97.6	100	0	100	100	98.1
Trucks	0	7	0	7	0	0	0	0	1	7	0	8	0	0	0	0	15
% Trucks	0	2.0	0	1.8	0	0	0	0	5.6	2.2	0	2.4	0	0	0	0	1.9



Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW23
 Site Code : 68460W23
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Larrabee Rd From North			Terminal From East			Larrabee Rd From South			Terminal From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	76	7	2	0	0	7	65	0	3	0	6	166
11:15 AM	0	77	7	0	0	0	5	73	0	7	0	5	174
11:30 AM	0	96	11	0	0	0	6	79	0	11	0	9	212
11:45 AM	0	92	11	1	0	0	5	73	0	4	0	9	195
Total	0	341	36	3	0	0	23	290	0	25	0	29	747
12:00 PM	0	86	6	1	0	0	1	81	0	4	0	7	186
12:15 PM	0	73	6	0	0	0	2	71	0	4	0	5	161
12:30 PM	0	91	4	0	0	0	5	71	0	6	0	6	183
12:45 PM	0	90	8	0	0	0	6	73	0	6	0	4	187
Total	0	340	24	1	0	0	14	296	0	20	0	22	717
01:00 PM	0	69	4	0	0	0	3	78	0	19	0	15	188
01:15 PM	0	59	3	0	0	0	5	83	0	8	0	3	161
01:30 PM	0	78	3	0	0	0	5	65	0	3	0	7	161
01:45 PM	0	68	8	0	0	0	6	92	0	2	0	2	178
Total	0	274	18	0	0	0	19	318	0	32	0	27	688
Grand Total	0	955	78	4	0	0	56	904	0	77	0	78	2152
Apprch %	0	92.4	7.6	100	0	0	5.8	94.2	0	49.7	0	50.3	
Total %	0	44.4	3.6	0.2	0	0	2.6	42	0	3.6	0	3.6	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
E/W Street : Terminal Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW23
Site Code : 68460W23
Start Date : 9/26/2015
Page No : 7

Groups Printed- Trucks

Start Time	Larrabee Rd From North			Terminal From East			Larrabee Rd From South			Terminal From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	2	0	0	0	0	1	2	0	0	0	0	5
11:15 AM	0	2	0	0	0	0	1	2	0	0	0	0	5
11:30 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
11:45 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
Total	0	6	0	0	0	0	2	8	0	0	0	0	16
12:00 PM	0	3	0	0	0	0	0	1	0	0	0	0	4
12:15 PM	0	4	0	0	0	0	0	5	0	0	0	0	9
12:30 PM	0	3	0	0	0	0	0	5	0	1	0	1	10
12:45 PM	0	6	0	0	0	0	0	6	0	0	0	0	12
Total	0	16	0	0	0	0	0	17	0	1	0	1	35
01:00 PM	0	3	0	0	0	0	0	5	0	0	0	0	8
01:15 PM	0	4	0	0	0	0	0	2	0	0	0	0	6
01:30 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
01:45 PM	0	3	0	0	0	0	0	2	0	0	0	0	5
Total	0	11	0	0	0	0	0	11	0	0	0	0	22
Grand Total	0	33	0	0	0	0	2	36	0	1	0	1	73
Apprch %	0	100	0	0	0	0	5.3	94.7	0	50	0	50	
Total %	0	45.2	0	0	0	0	2.7	49.3	0	1.4	0	1.4	

Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW23
 Site Code : 68460W23
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Larrabee Rd From North				Terminal From East				Larrabee Rd From South				Terminal From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	4	1	5
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0				
Total %	0	0	0		0	0	0		0	100	0		0	0	0		80	20	

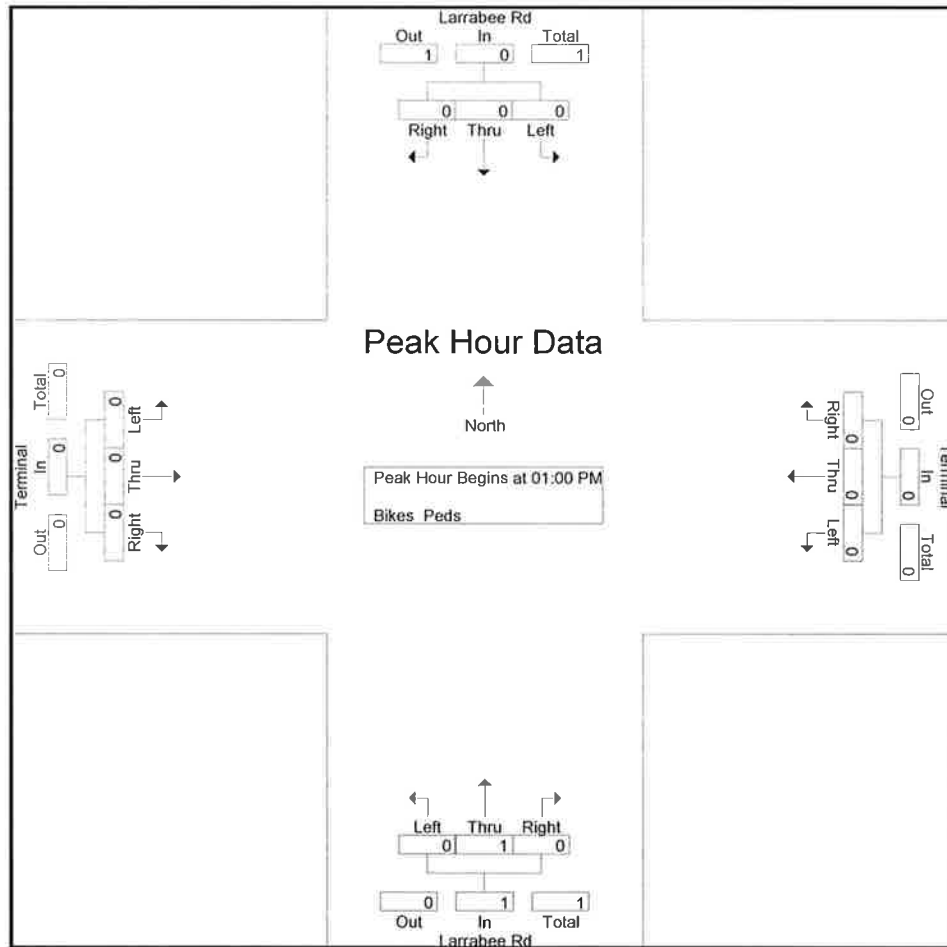
Accurate Counts

978-664-2565

N/S Street : Larrabee Road
 E/W Street : Terminal Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW23
 Site Code : 68460W23
 Start Date : 9/26/2015
 Page No : 11

	Larrabee Rd From North				Terminal From East				Larrabee Rd From South				Terminal From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				01:00 PM				11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW24
 Site Code : 68460W24
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest St From North			Main St From East			Forest St From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	1	2	2	7	151	0	11	1	15	1	143	9	343
11:15 AM	3	0	0	2	170	0	26	0	9	1	132	13	356
11:30 AM	3	1	2	4	152	7	18	0	11	3	137	15	353
11:45 AM	1	1	3	3	167	4	25	1	9	2	151	9	376
Total	8	4	7	16	640	11	80	2	44	7	563	46	1428
12:00 PM	1	0	0	10	154	1	19	0	7	1	144	2	339
12:15 PM	0	0	1	4	162	3	14	1	6	4	129	7	331
12:30 PM	2	0	3	6	146	0	17	2	8	2	127	17	330
12:45 PM	1	0	1	4	115	1	23	0	15	1	120	7	288
Total	4	0	5	24	577	5	73	3	36	8	520	33	1288
01:00 PM	0	0	3	3	198	1	31	0	9	3	117	11	376
01:15 PM	5	1	1	7	124	1	23	1	10	3	130	3	309
01:30 PM	2	0	3	1	158	2	13	0	13	3	133	8	336
01:45 PM	1	0	2	3	105	0	13	1	9	2	101	5	242
Total	8	1	9	14	585	4	80	2	41	11	481	27	1263
Grand Total	20	5	21	54	1802	20	233	7	121	26	1564	106	3979
Apprch %	43.5	10.9	45.7	2.9	96.1	1.1	64.5	1.9	33.5	1.5	92.2	6.2	
Total %	0.5	0.1	0.5	1.4	45.3	0.5	5.9	0.2	3	0.7	39.3	2.7	
Cars	20	5	20	54	1759	19	233	7	121	26	1527	106	3897
% Cars	100	100	95.2	100	97.6	95	100	100	100	100	97.6	100	97.9
Trucks	0	0	1	0	43	1	0	0	0	0	37	0	82
% Trucks	0	0	4.8	0	2.4	5	0	0	0	0	2.4	0	2.1

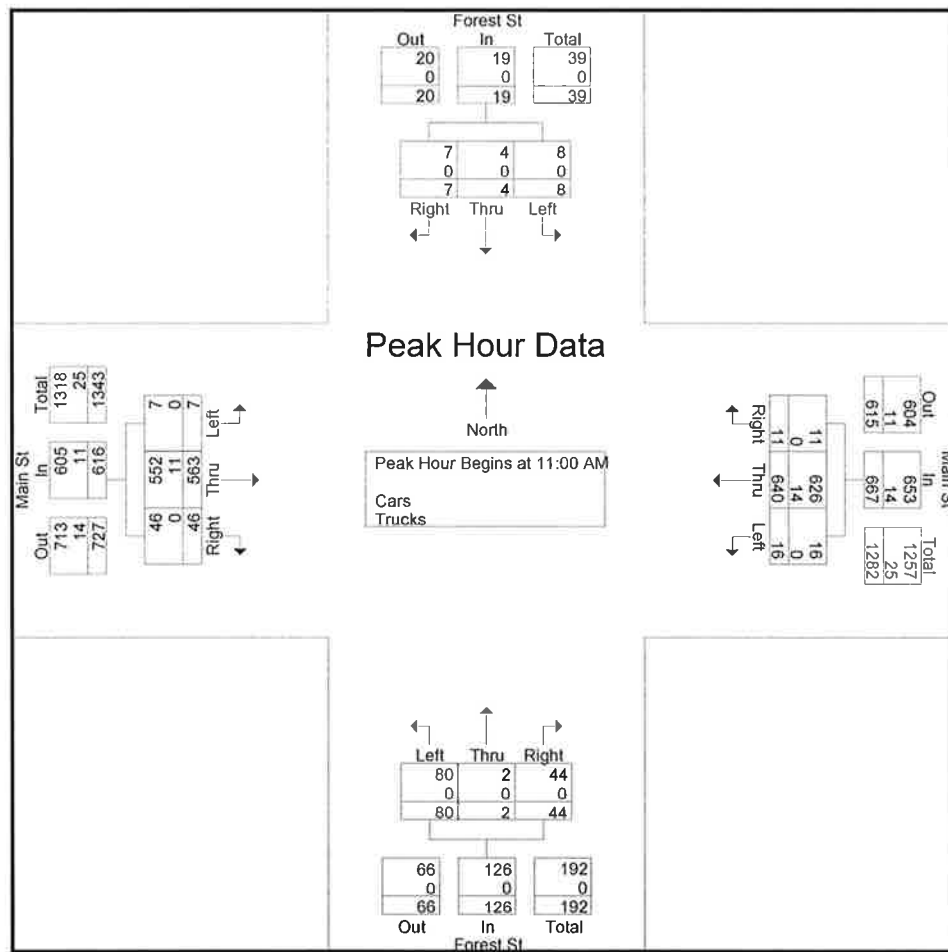
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW24
 Site Code : 68460W24
 Start Date : 9/26/2015
 Page No : 2

	Forest St From North				Main St From East				Forest St From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	1	2	2	5	7	151	0	158	11	1	15	27	1	143	9	153	343
11:15 AM	3	0	0	3	2	170	0	172	26	0	9	35	1	132	13	146	356
11:30 AM	3	1	2	6	4	152	7	163	18	0	11	29	3	137	15	155	353
11:45 AM	1	1	3	5	3	167	4	174	25	1	9	35	2	151	9	162	376
Total Volume	8	4	7	19	16	640	11	667	80	2	44	126	7	563	46	616	1428
% App. Total	42.1	21.1	36.8		2.4	96	1.6		63.5	1.6	34.9		1.1	91.4	7.5		
PHF	667	500	583	792	571	941	393	958	769	500	733	900	583	932	767	951	949
Cars	8	4	7	19	16	626	11	653	80	2	44	126	7	552	46	605	1403
% Cars	100	100	100	100	100	97.8	100	97.9	100	100	100	100	100	98.0	100	98.2	98.2
Trucks	0	0	0	0	0	14	0	14	0	0	0	0	0	11	0	11	25
% Trucks	0	0	0	0	0	2.2	0	2.1	0	0	0	0	0	2.0	0	1.8	1.8



Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW24
 Site Code : 68460W24
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Forest St From North			Main St From East			Forest St From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	1	2	2	7	144	0	11	1	15	1	140	9	333
11:15 AM	3	0	0	2	167	0	26	0	9	1	130	13	351
11:30 AM	3	1	2	4	149	7	18	0	11	3	134	15	347
11:45 AM	1	1	3	3	166	4	25	1	9	2	148	9	372
Total	8	4	7	16	626	11	80	2	44	7	552	46	1403
12:00 PM	1	0	0	10	152	1	19	0	7	1	141	2	334
12:15 PM	0	0	1	4	158	2	14	1	6	4	128	7	325
12:30 PM	2	0	3	6	142	0	17	2	8	2	122	17	321
12:45 PM	1	0	1	4	110	1	23	0	15	1	117	7	280
Total	4	0	5	24	562	4	73	3	36	8	508	33	1260
01:00 PM	0	0	3	3	190	1	31	0	9	3	114	11	365
01:15 PM	5	1	1	7	122	1	23	1	10	3	127	3	304
01:30 PM	2	0	2	1	156	2	13	0	13	3	128	8	328
01:45 PM	1	0	2	3	103	0	13	1	9	2	98	5	237
Total	8	1	8	14	571	4	80	2	41	11	467	27	1234
Grand Total	20	5	20	54	1759	19	233	7	121	26	1527	106	3897
Apprch %	44.4	11.1	44.4	2.9	96	1	64.5	1.9	33.5	1.6	92	6.4	
Total %	0.5	0.1	0.5	1.4	45.1	0.5	6	0.2	3.1	0.7	39.2	2.7	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW24
 Site Code : 68460W24
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Forest St From North			Main St From East			Forest St From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	7	0	0	0	0	0	3	0	10
11:15 AM	0	0	0	0	3	0	0	0	0	0	2	0	5
11:30 AM	0	0	0	0	3	0	0	0	0	0	3	0	6
11:45 AM	0	0	0	0	1	0	0	0	0	0	3	0	4
Total	0	0	0	0	14	0	0	0	0	0	11	0	25
12:00 PM	0	0	0	0	2	0	0	0	0	0	3	0	5
12:15 PM	0	0	0	0	4	1	0	0	0	0	1	0	6
12:30 PM	0	0	0	0	4	0	0	0	0	0	5	0	9
12:45 PM	0	0	0	0	5	0	0	0	0	0	3	0	8
Total	0	0	0	0	15	1	0	0	0	0	12	0	28
01:00 PM	0	0	0	0	8	0	0	0	0	0	3	0	11
01:15 PM	0	0	0	0	2	0	0	0	0	0	3	0	5
01:30 PM	0	0	1	0	2	0	0	0	0	0	5	0	8
01:45 PM	0	0	0	0	2	0	0	0	0	0	3	0	5
Total	0	0	1	0	14	0	0	0	0	0	14	0	29
Grand Total	0	0	1	0	43	1	0	0	0	0	37	0	82
Apprch %	0	0	100	0	97.7	2.3	0	0	0	0	100	0	
Total %	0	0	1.2	0	52.4	1.2	0	0	0	0	45.1	0	

Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW24
 Site Code : 68460W24
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds																			
Start Time	Forest St From North				Main St From East				Forest St From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	2
11:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2
11:30 AM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	2	1	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2
Total	0	0	0	2	0	2	0	0	0	0	0	1	0	2	0	2	5	4	9
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	1	3	4
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	2
12:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	1	2	3
Total	0	0	0	1	0	1	0	0	0	0	0	3	0	2	2	1	5	5	10
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	3	6
01:30 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	2
01:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	1	0	1	0	0	0	1	0	3	0	5	7	4	11
Grand Total	0	0	0	3	0	4	0	1	0	0	0	5	0	7	2	8	17	13	30
Apprch %	0	0	0		0	100	0		0	0	0		0	77.8	22.2				
Total %	0	0	0		0	30.8	0		0	0	0		0	53.8	15.4		56.7	43.3	

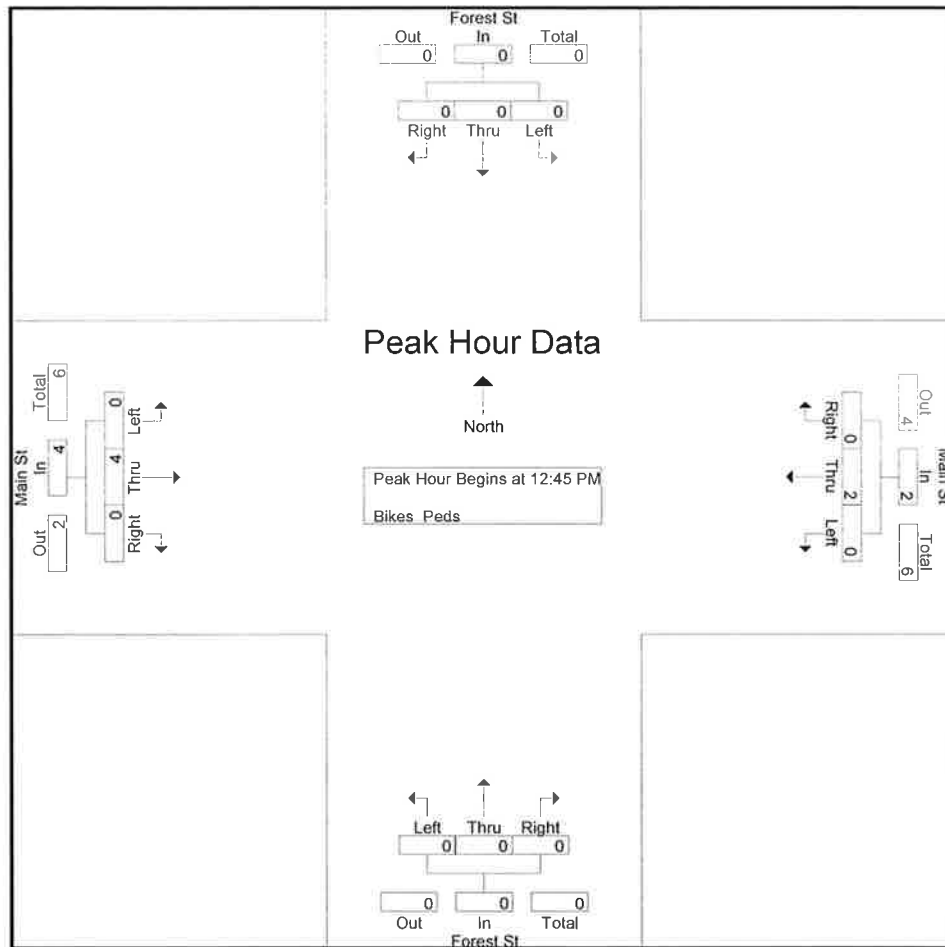
Accurate Counts

978-664-2565

N/S Street : Forest Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW24
 Site Code : 68460W24
 Start Date : 9/26/2015
 Page No : 11

	Forest St From North				Main St From East				Forest St From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:45 PM																	
12:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
01:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
% App. Total	0	0	0	0	0	100	0	50	0	0	0	0	0	100	0	50	50
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.333	.000	.333	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				11:00 AM				11:15 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	2	2	4
% App. Total	0	0	0	0	0	100	0	50	0	0	0	0	0	50	50	50
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.250	.333

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW03
 Site Code : 68460W03
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	65	15	34	0	89	43	0	7	9	31	65	0	358
11:15 AM	63	11	44	1	86	56	2	7	11	38	94	6	419
11:30 AM	56	5	22	2	75	52	0	9	7	35	62	2	327
11:45 AM	62	4	34	1	81	55	1	8	8	47	53	0	354
Total	246	35	134	4	331	206	3	31	35	151	274	8	1458
12:00 PM	53	4	36	1	97	60	3	11	11	38	74	2	390
12:15 PM	52	3	36	1	95	46	2	7	5	43	60	1	351
12:30 PM	43	2	30	0	70	52	1	8	9	48	66	3	332
12:45 PM	69	7	44	0	94	55	4	10	2	33	49	3	370
Total	217	16	146	2	356	213	10	36	27	162	249	9	1443
01:00 PM	58	5	35	0	73	46	3	6	5	37	58	0	326
01:15 PM	51	3	34	3	77	44	2	12	9	27	63	2	327
01:30 PM	50	5	42	0	67	57	2	4	5	47	45	2	326
01:45 PM	60	5	41	1	80	49	3	11	6	37	48	2	343
Total	219	18	152	4	297	196	10	33	25	148	214	6	1322
Grand Total	682	69	432	10	984	615	23	100	87	461	737	23	4223
Apprch %	57.7	5.8	36.5	0.6	61.2	38.2	11	47.6	41.4	37.8	60.4	1.9	
Total %	16.1	1.6	10.2	0.2	23.3	14.6	0.5	2.4	2.1	10.9	17.5	0.5	
Cars	682	68	430	10	977	613	23	100	87	459	729	23	4201
% Cars	100	98.6	99.5	100	99.3	99.7	100	100	100	99.6	98.9	100	99.5
Trucks	0	1	2	0	7	2	0	0	0	2	8	0	22
% Trucks	0	1.4	0.5	0	0.7	0.3	0	0	0	0.4	1.1	0	0.5

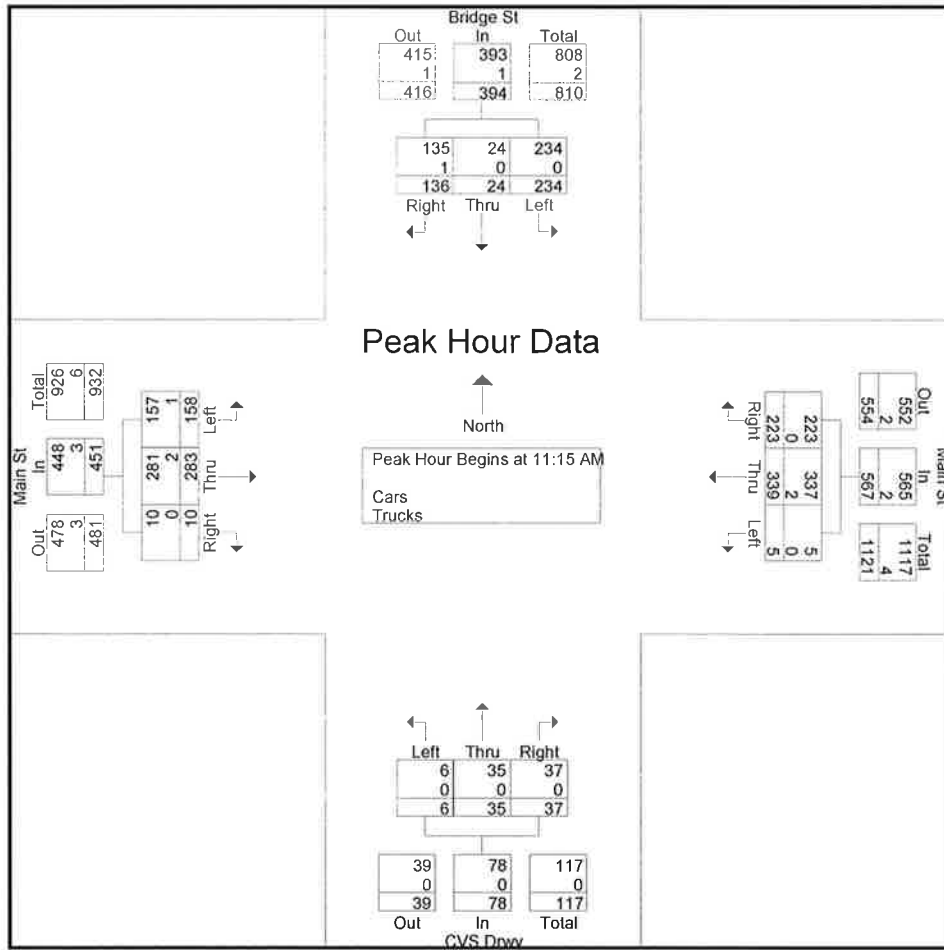
Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW03
 Site Code : 68460W03
 Start Date : 10/3/2015
 Page No : 2

	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	63	11	44	118	1	86	56	143	2	7	11	20	38	94	6	138	419
11:30 AM	56	5	22	83	2	75	52	129	0	9	7	16	35	62	2	99	327
11:45 AM	62	4	34	100	1	81	55	137	1	8	8	17	47	53	0	100	354
12:00 PM	53	4	36	93	1	97	60	158	3	11	11	25	38	74	2	114	390
Total Volume	234	24	136	394	5	339	223	567	6	35	37	78	158	283	10	451	1490
% App. Total	59.4	6.1	34.5		0.9	59.8	39.3		7.7	44.9	47.4		35	62.7	2.2		
PHF	.929	.545	.773	.835	.625	.874	.929	.897	.500	.795	.841	.780	.840	.753	.417	.817	.889
Cars	234	24	135	393	5	337	223	565	6	35	37	78	157	281	10	448	1484
% Cars	100	100	99.3	99.7	100	99.4	100	99.6	100	100	100	100	99.4	99.3	100	99.3	99.6
Trucks	0	0	1	1	0	2	0	2	0	0	0	0	1	2	0	3	6
% Trucks	0	0	0.7	0.3	0	0.6	0	0.4	0	0	0	0	0.6	0.7	0	0.7	0.4



Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW03
 Site Code : 68460W03
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars

Start Time	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	65	15	34	0	88	43	0	7	9	31	65	0	357
11:15 AM	63	11	44	1	85	56	2	7	11	37	93	6	416
11:30 AM	56	5	22	2	75	52	0	9	7	35	62	2	327
11:45 AM	62	4	33	1	80	55	1	8	8	47	52	0	351
Total	246	35	133	4	328	206	3	31	35	150	272	8	1451
12:00 PM	53	4	36	1	97	60	3	11	11	38	74	2	390
12:15 PM	52	3	36	1	94	46	2	7	5	42	60	1	349
12:30 PM	43	2	30	0	70	52	1	8	9	48	66	3	332
12:45 PM	69	6	44	0	94	54	4	10	2	33	48	3	367
Total	217	15	146	2	355	212	10	36	27	161	248	9	1438
01:00 PM	58	5	35	0	73	46	3	6	5	37	58	0	326
01:15 PM	51	3	34	3	75	44	2	12	9	27	60	2	322
01:30 PM	50	5	41	0	66	56	2	4	5	47	44	2	322
01:45 PM	60	5	41	1	80	49	3	11	6	37	47	2	342
Total	219	18	151	4	294	195	10	33	25	148	209	6	1312
Grand Total	682	68	430	10	977	613	23	100	87	459	729	23	4201
Apprch %	57.8	5.8	36.4	0.6	61.1	38.3	11	47.6	41.4	37.9	60.2	1.9	
Total %	16.2	1.6	10.2	0.2	23.3	14.6	0.5	2.4	2.1	10.9	17.4	0.5	

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW03
 Site Code : 68460W03
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Bridge St From North			Main St From East			CVS Drwy From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
11:15 AM	0	0	0	0	1	0	0	0	0	1	1	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	1	0	1	0	0	0	0	0	1	0	3
Total	0	0	1	0	3	0	0	0	0	1	2	0	7
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	1	0	0	0	0	1	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	1	0	0	0	0	1	0	3
Total	0	1	0	0	1	1	0	0	0	1	1	0	5
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	2	0	0	0	0	0	3	0	5
01:30 PM	0	0	1	0	1	1	0	0	0	0	1	0	4
01:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	1	0	3	1	0	0	0	0	5	0	10
Grand Total	0	1	2	0	7	2	0	0	0	2	8	0	22
Apprch %	0	33.3	66.7	0	77.8	22.2	0	0	0	20	80	0	
Total %	0	4.5	9.1	0	31.8	9.1	0	0	0	9.1	36.4	0	

Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW03
 Site Code : 68460W03
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	2	1	0	2	4	0	0	0	0	6	3	9
11:15 AM	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	2	6	4	10
11:30 AM	0	0	1	0	0	0	0	5	0	0	0	0	0	0	1	0	5	2	7
11:45 AM	0	0	0	0	0	0	0	2	0	1	3	0	0	0	0	0	2	4	6
Total	0	0	1	0	0	0	0	13	1	1	9	4	0	0	1	2	19	13	32
12:00 PM	0	2	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	2	6
12:15 PM	0	1	0	0	0	0	3	1	0	0	4	0	0	0	0	0	1	8	9
12:30 PM	0	0	0	0	0	0	1	10	0	0	0	3	0	0	0	2	15	1	16
12:45 PM	0	0	0	0	0	0	1	4	0	0	0	1	0	0	2	2	7	3	10
Total	0	3	0	0	0	0	5	19	0	0	4	4	0	0	2	4	27	14	41
01:00 PM	0	1	0	0	0	0	0	5	0	2	0	3	0	0	0	0	8	3	11
01:15 PM	0	0	0	0	0	0	0	4	0	0	0	1	0	0	1	2	7	1	8
01:30 PM	0	0	0	0	0	0	0	6	0	0	2	1	0	0	0	0	7	2	9
01:45 PM	0	0	0	0	0	0	3	6	0	0	0	0	0	0	0	0	6	3	9
Total	0	1	0	0	0	0	3	21	0	2	2	5	0	0	1	2	28	9	37
Grand Total	0	4	1	0	0	0	8	53	1	3	15	13	0	0	4	8	74	36	110
Apprch %	0	80	20		0	0	100		5.3	15.8	78.9		0	0	100				
Total %	0	11.1	2.8		0	0	22.2		2.8	8.3	41.7		0	0	11.1		67.3	32.7	

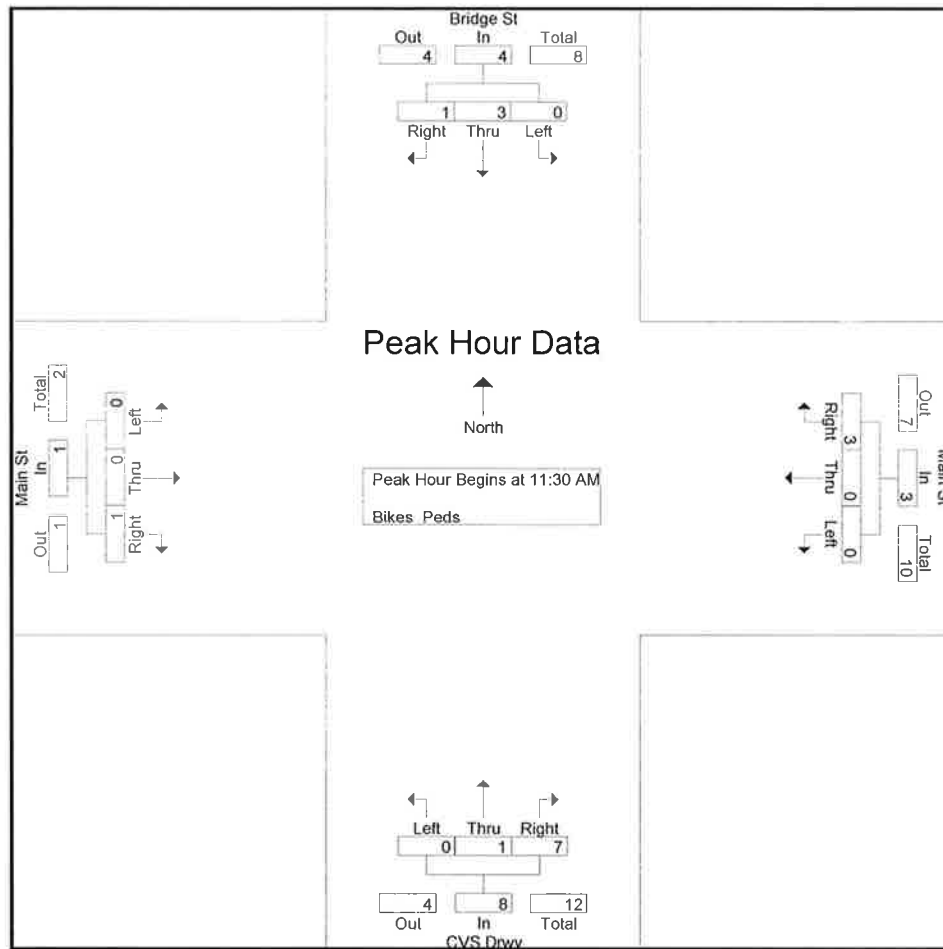
Accurate Counts

978-664-2565

N/S Street : Bridge St / CVS Drwy
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW03
 Site Code : 68460W03
 Start Date : 10/3/2015
 Page No : 11

	Bridge St From North				Main St From East				CVS Drwy From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
11:45 AM	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	4
12:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	1	0	1	0	0	3	3	0	0	4	4	0	0	0	0	8
Total Volume	0	3	1	4	0	0	3	3	0	1	7	8	0	0	1	1	16
% App. Total	0	75	25		0	0	100		0	12.5	87.5		0	0	100		
PHF	.000	.375	.250	.500	.000	.000	.250	.250	.000	.250	.438	.500	.000	.000	.250	.250	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM				12:00 PM				11:00 AM				12:30 PM			
+0 mins.	0	0	1	1	0	0	0	0	1	0	2	3	0	0	0	0
+15 mins.	0	0	0	0	0	0	3	3	0	0	4	4	0	0	2	2
+30 mins.	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	1	1	0	1	3	4	0	0	1	1
Total Volume	0	3	1	4	0	0	5	5	1	1	9	11	0	0	3	3
% App. Total	0	75	25		0	0	100		9.1	9.1	81.8		0	0	100	
PHF	.000	.375	.250	.500	.000	.000	.417	.417	.250	.250	.563	.688	.000	.000	.375	.375

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW04
 Site Code : 68460W04
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Main St From East		Spring St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	30	112	29	29	81	44	325
11:15 AM	24	122	34	25	98	36	339
11:30 AM	41	112	37	22	78	45	335
11:45 AM	29	134	33	20	96	40	352
Total	124	480	133	96	353	165	1351
12:00 PM	30	123	37	18	78	27	313
12:15 PM	30	139	29	25	88	34	345
12:30 PM	28	103	37	23	74	30	295
12:45 PM	24	133	45	25	92	32	351
Total	112	498	148	91	332	123	1304
01:00 PM	24	117	32	21	77	37	308
01:15 PM	32	114	30	26	74	28	304
01:30 PM	21	94	45	23	73	31	287
01:45 PM	31	91	33	23	73	40	291
Total	108	416	140	93	297	136	1190
Grand Total	344	1394	421	280	982	424	3845
Apprch %	19.8	80.2	60.1	39.9	69.8	30.2	
Total %	8.9	36.3	10.9	7.3	25.5	11	
Cars	343	1389	419	280	974	423	3828
% Cars	99.7	99.6	99.5	100	99.2	99.8	99.6
Trucks	1	5	2	0	8	1	17
% Trucks	0.3	0.4	0.5	0	0.8	0.2	0.4

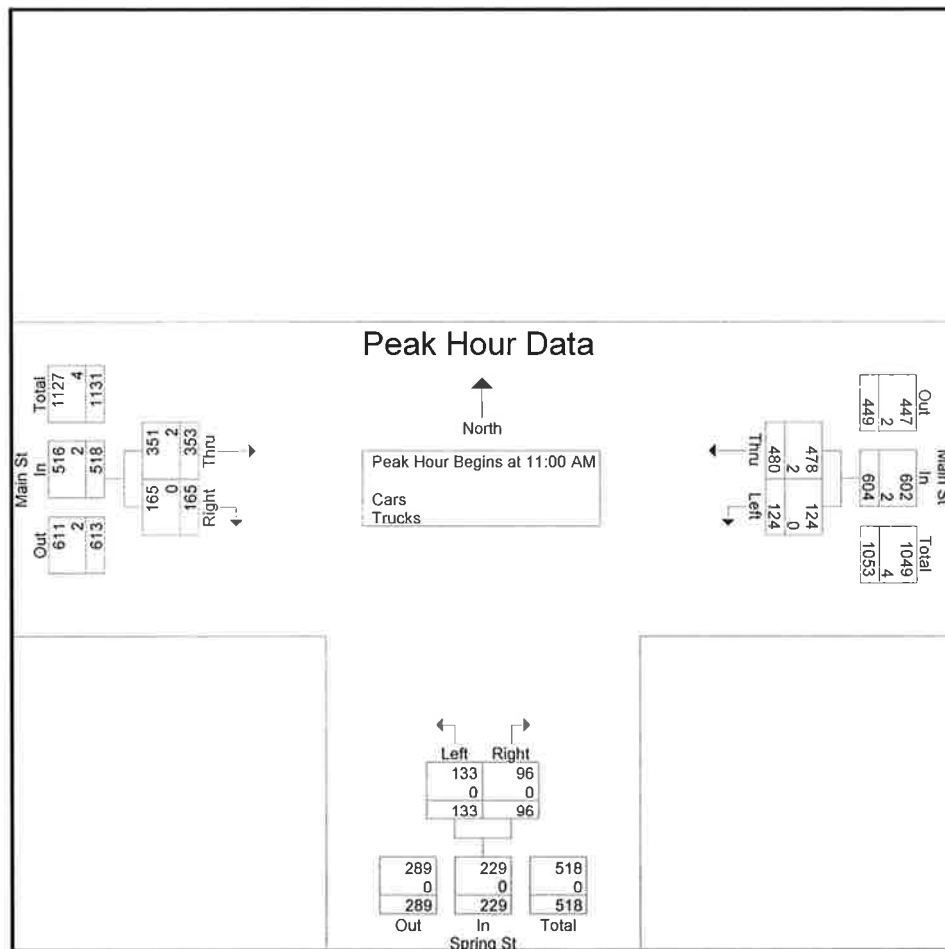
Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW04
 Site Code : 68460W04
 Start Date : 10/3/2015
 Page No : 2

	Main St From East			Spring St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	30	112	142	29	29	58	81	44	125	325
11:15 AM	24	122	146	34	25	59	98	36	134	339
11:30 AM	41	112	153	37	22	59	78	45	123	335
11:45 AM	29	134	163	33	20	53	96	40	136	352
Total Volume	124	480	604	133	96	229	353	165	518	1351
% App. Total	20.5	79.5		58.1	41.9		68.1	31.9		
PHF	.756	.896	.926	.899	.828	.970	.901	.917	.952	.960
Cars	124	478	602	133	96	229	351	165	516	1347
% Cars	100	99.6	99.7	100	100	100	99.4	100	99.6	99.7
Trucks	0	2	2	0	0	0	2	0	2	4
% Trucks	0	0.4	0.3	0	0	0	0.6	0	0.4	0.3



Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW04
 Site Code : 68460W04
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars							
Start Time	Main St From East		Spring St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	30	111	29	29	81	44	324
11:15 AM	24	121	34	25	97	36	337
11:30 AM	41	112	37	22	78	45	335
11:45 AM	29	134	33	20	95	40	351
Total	124	478	133	96	351	165	1347
12:00 PM	30	123	37	18	78	27	313
12:15 PM	30	138	28	25	88	34	343
12:30 PM	28	103	37	23	74	29	294
12:45 PM	24	133	44	25	91	32	349
Total	112	497	146	91	331	122	1299
01:00 PM	24	117	32	21	77	37	308
01:15 PM	31	112	30	26	71	28	298
01:30 PM	21	94	45	23	72	31	286
01:45 PM	31	91	33	23	72	40	290
Total	107	414	140	93	292	136	1182
Grand Total	343	1389	419	280	974	423	3828
Apprch %	19.8	80.2	59.9	40.1	69.7	30.3	
Total %	9	36.3	10.9	7.3	25.4	11.1	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW04
 Site Code : 68460W04
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Main St From East		Spring St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	0	1	0	0	0	0	1
11:15 AM	0	1	0	0	1	0	2
11:30 AM	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	1	0	1
Total	0	2	0	0	2	0	4
12:00 PM	0	0	0	0	0	0	0
12:15 PM	0	1	1	0	0	0	2
12:30 PM	0	0	0	0	0	1	1
12:45 PM	0	0	1	0	1	0	2
Total	0	1	2	0	1	1	5
01:00 PM	0	0	0	0	0	0	0
01:15 PM	1	2	0	0	3	0	6
01:30 PM	0	0	0	0	1	0	1
01:45 PM	0	0	0	0	1	0	1
Total	1	2	0	0	5	0	8
Grand Total	1	5	2	0	8	1	17
Apprch %	16.7	83.3	100	0	88.9	11.1	
Total %	5.9	29.4	11.8	0	47.1	5.9	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW04
 Site Code : 68460W04
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Main St From East			Spring St From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	1	1	0	3	4	1	5
11:15 AM	0	0	0	0	0	0	1	0	0	0	1	1
11:30 AM	0	0	0	0	0	2	0	0	3	5	0	5
11:45 AM	0	0	0	0	0	4	0	0	1	5	0	5
Total	0	0	0	0	0	7	2	0	7	14	2	16
12:00 PM	0	0	0	0	0	1	0	0	0	1	0	1
12:15 PM	0	0	0	0	0	3	0	0	0	3	0	3
12:30 PM	0	1	0	0	0	0	1	0	1	1	2	3
12:45 PM	0	0	0	0	0	5	1	0	3	8	1	9
Total	0	1	0	0	0	9	2	0	4	13	3	16
01:00 PM	0	0	0	0	0	5	4	0	0	5	4	9
01:15 PM	0	0	0	0	0	2	1	0	0	2	1	3
01:30 PM	0	0	0	0	0	3	1	0	0	3	1	4
01:45 PM	0	0	0	0	0	2	0	0	0	2	0	2
Total	0	0	0	0	0	12	6	0	0	12	6	18
Grand Total	0	1	0	0	0	28	10	0	11	39	11	50
Apprch %	0	100		0	0		100	0				
Total %	0	9.1		0	0		90.9	0		78	22	

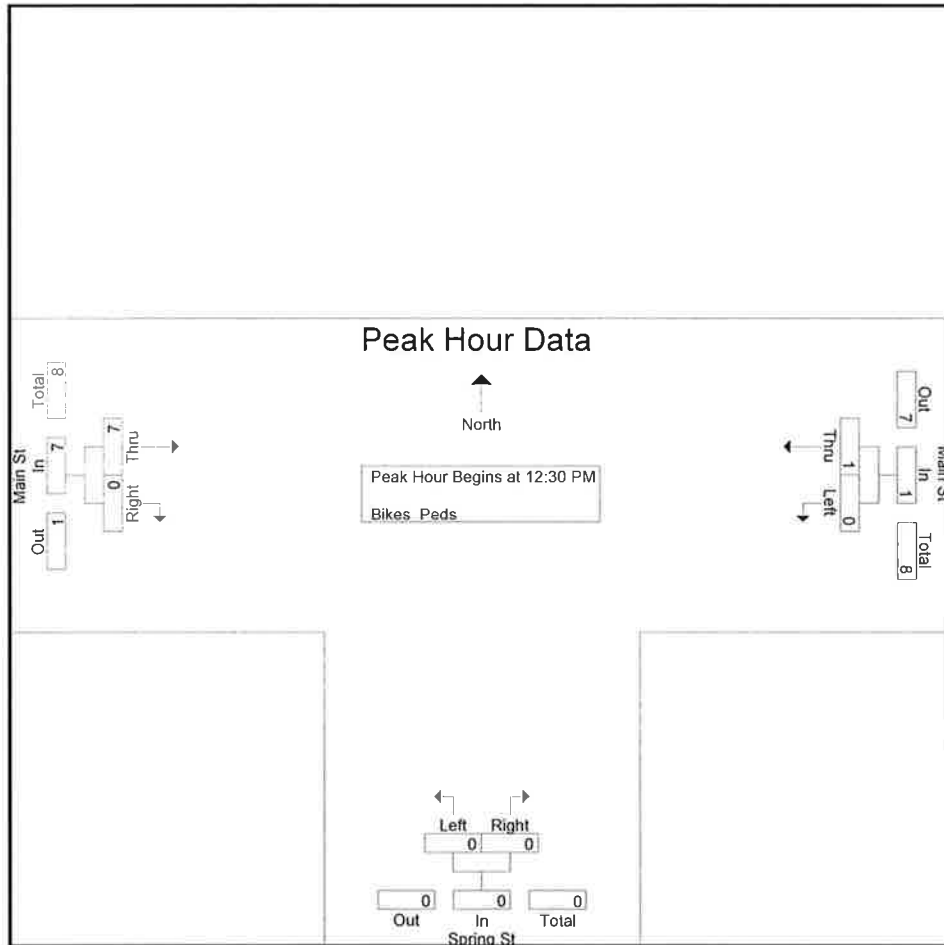
Accurate Counts

978-664-2565

N/S Street : Spring Street
E/W Street : Main Street
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW04
Site Code : 68460W04
Start Date : 10/3/2015
Page No : 11

	Main St From East			Spring St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:30 PM										
12:30 PM	0	1	1	0	0	0	1	0	1	2
12:45 PM	0	0	0	0	0	0	1	0	1	1
01:00 PM	0	0	0	0	0	0	4	0	4	4
01:15 PM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	1	1	0	0	0	7	0	7	8
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.438	.000	.438	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:45 AM			11:00 AM			12:30 PM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	4	0	4
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	1	1	0	0	0	7	0	7
% App. Total	0	100		0	0		100	0	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW05
 Site Code : 684600W5
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Main St From East		Stoudwater St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	23	137	19	27	93	27	326
11:15 AM	14	109	19	18	99	16	275
11:30 AM	13	134	23	18	74	13	275
11:45 AM	14	134	27	21	106	18	320
Total	64	514	88	84	372	74	1196
12:00 PM	4	149	12	13	77	17	272
12:15 PM	19	150	21	22	97	17	326
12:30 PM	19	130	14	20	79	19	281
12:45 PM	12	124	18	28	92	12	286
Total	54	553	65	83	345	65	1165
01:00 PM	19	117	18	13	94	15	276
01:15 PM	12	141	18	10	95	7	283
01:30 PM	9	103	16	22	82	11	243
01:45 PM	26	101	6	18	75	13	239
Total	66	462	58	63	346	46	1041
Grand Total	184	1529	211	230	1063	185	3402
Apprch %	10.7	89.3	47.8	52.2	85.2	14.8	
Total %	5.4	44.9	6.2	6.8	31.2	5.4	
Cars	184	1519	211	230	1055	185	3384
% Cars	100	99.3	100	100	99.2	100	99.5
Trucks	0	10	0	0	8	0	18
% Trucks	0	0.7	0	0	0.8	0	0.5

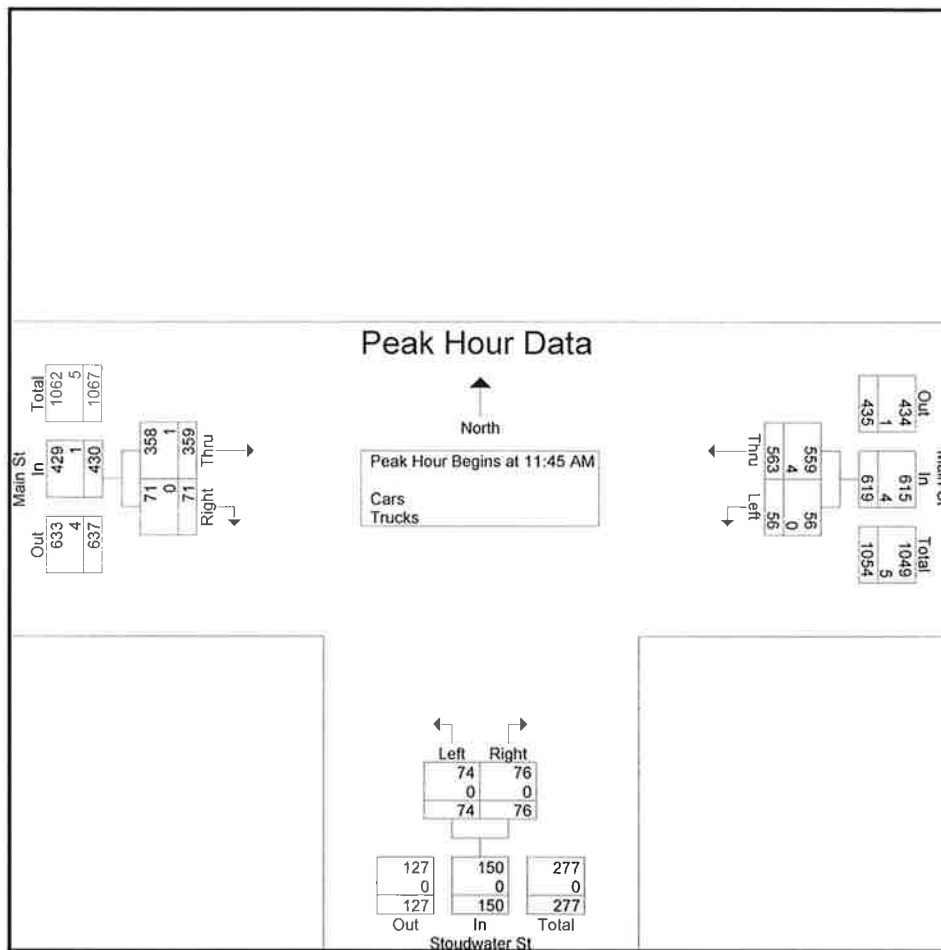
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW05
 Site Code : 684600W5
 Start Date : 10/3/2015
 Page No : 2

	Main St From East			Stoudwater St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	14	134	148	27	21	48	106	18	124	320
12:00 PM	4	149	153	12	13	25	77	17	94	272
12:15 PM	19	150	169	21	22	43	97	17	114	326
12:30 PM	19	130	149	14	20	34	79	19	98	281
Total Volume	56	563	619	74	76	150	359	71	430	1199
% App. Total	9	91		49.3	50.7		83.5	16.5		
PHF	.737	.938	.916	.685	.864	.781	.847	.934	.867	.919
Cars	56	559	615	74	76	150	358	71	429	1194
% Cars	100	99.3	99.4	100	100	100	99.7	100	99.8	99.6
Trucks	0	4	4	0	0	0	1	0	1	5
% Trucks	0	0.7	0.6	0	0	0	0.3	0	0.2	0.4



Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW05
 Site Code : 684600W5
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars

Start Time	Main St From East		Stoudwater St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	23	135	19	27	93	27	324
11:15 AM	14	109	19	18	98	16	274
11:30 AM	13	134	23	18	74	13	275
11:45 AM	14	133	27	21	105	18	318
Total	64	511	88	84	370	74	1191
12:00 PM	4	149	12	13	77	17	272
12:15 PM	19	148	21	22	97	17	324
12:30 PM	19	129	14	20	79	19	280
12:45 PM	12	124	18	28	92	12	286
Total	54	550	65	83	345	65	1162
01:00 PM	19	117	18	13	93	15	275
01:15 PM	12	138	18	10	92	7	277
01:30 PM	9	102	16	22	81	11	241
01:45 PM	26	101	6	18	74	13	238
Total	66	458	58	63	340	46	1031
Grand Total	184	1519	211	230	1055	185	3384
Apprch %	10.8	89.2	47.8	52.2	85.1	14.9	
Total %	5.4	44.9	6.2	6.8	31.2	5.5	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW05
 Site Code : 684600W5
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Main St From East		Stoudwater St From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	0	2	0	0	0	0	2
11:15 AM	0	0	0	0	1	0	1
11:30 AM	0	0	0	0	0	0	0
11:45 AM	0	1	0	0	1	0	2
Total	0	3	0	0	2	0	5
12:00 PM	0	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	2
12:30 PM	0	1	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0
Total	0	3	0	0	0	0	3
01:00 PM	0	0	0	0	1	0	1
01:15 PM	0	3	0	0	3	0	6
01:30 PM	0	1	0	0	1	0	2
01:45 PM	0	0	0	0	1	0	1
Total	0	4	0	0	6	0	10
Grand Total	0	10	0	0	8	0	18
Apprch %	0	100	0	0	100	0	
Total %	0	55.6	0	0	44.4	0	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW05
 Site Code : 684600W5
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Main St From East			Stoudwater St From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	3	0	0	3	6	0	6
11:15 AM	0	0	0	0	0	2	2	0	1	3	2	5
11:30 AM	0	1	0	0	0	1	0	0	3	4	1	5
11:45 AM	0	1	0	0	0	0	0	0	3	3	1	4
Total	0	2	0	0	0	6	2	0	10	16	4	20
12:00 PM	0	0	0	0	0	1	0	0	3	4	0	4
12:15 PM	0	0	0	0	0	0	0	0	2	2	0	2
12:30 PM	0	0	0	0	0	0	0	0	1	1	0	1
12:45 PM	0	2	0	0	0	5	2	0	3	8	4	12
Total	0	2	0	0	0	6	2	0	9	15	4	19
01:00 PM	0	0	0	0	0	5	0	0	0	5	0	5
01:15 PM	0	0	0	0	0	1	1	0	0	1	1	2
01:30 PM	0	0	0	0	0	1	1	0	0	1	1	2
01:45 PM	0	1	0	0	0	4	0	0	3	7	1	8
Total	0	1	0	0	0	11	2	0	3	14	3	17
Grand Total	0	5	0	0	0	23	6	0	22	45	11	56
Apprch %	0	100		0	0		100	0				
Total %	0	45.5		0	0		54.5	0		80.4	19.6	

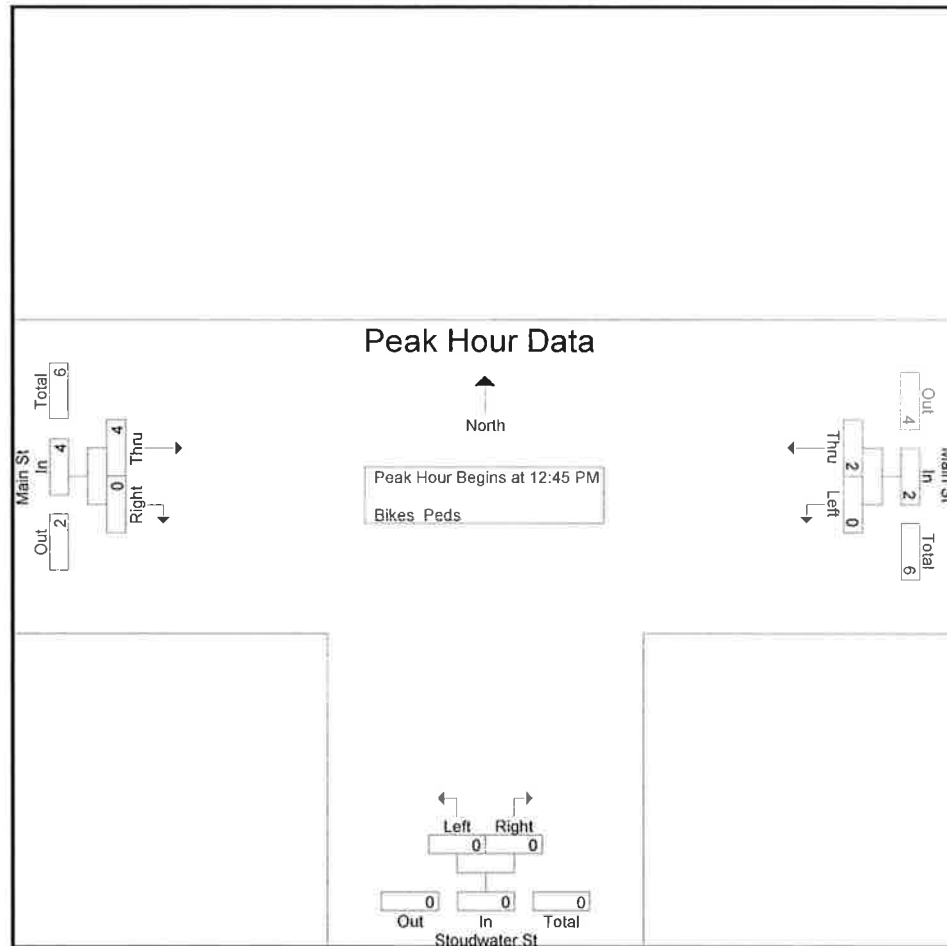
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW05
 Site Code : 684600W5
 Start Date : 10/3/2015
 Page No : 11

	Main St From East			Stoudwater St From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:45 PM										
12:45 PM	0	2	2	0	0	0	2	0	2	4
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	1	0	1	1
01:30 PM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	2	2	0	0	0	4	0	4	6
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.500	.000	.500	.375



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			12:45 PM		
+0 mins.	0	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	2	2	0	0	0	4	0	4
% App. Total	0	100		0	0		100	0	

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW06
 Site Code : 68460W06
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks								
Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
11:00 AM	49	136	10	49	107	15	366	
11:15 AM	41	134	4	48	96	22	345	
11:30 AM	58	145	10	48	100	20	381	
11:45 AM	46	138	11	65	97	15	372	
Total	194	553	35	210	400	72	1464	
12:00 PM	39	145	9	61	95	12	361	
12:15 PM	37	154	9	60	89	17	366	
12:30 PM	48	125	18	54	90	17	352	
12:45 PM	39	137	18	60	113	9	376	
Total	163	561	54	235	387	55	1455	
01:00 PM	35	103	11	46	89	17	301	
01:15 PM	54	154	8	65	83	18	382	
01:30 PM	22	84	14	37	91	9	257	
01:45 PM	44	116	13	60	69	27	329	
Total	155	457	46	208	332	71	1269	
Grand Total	512	1571	135	653	1119	198	4188	
Apprch %	24.6	75.4	17.1	82.9	85	15		
Total %	12.2	37.5	3.2	15.6	26.7	4.7		
Cars	502	1568	132	647	1113	195	4157	
% Cars	98	99.8	97.8	99.1	99.5	98.5	99.3	
Trucks	10	3	3	6	6	3	31	
% Trucks	2	0.2	2.2	0.9	0.5	1.5	0.7	

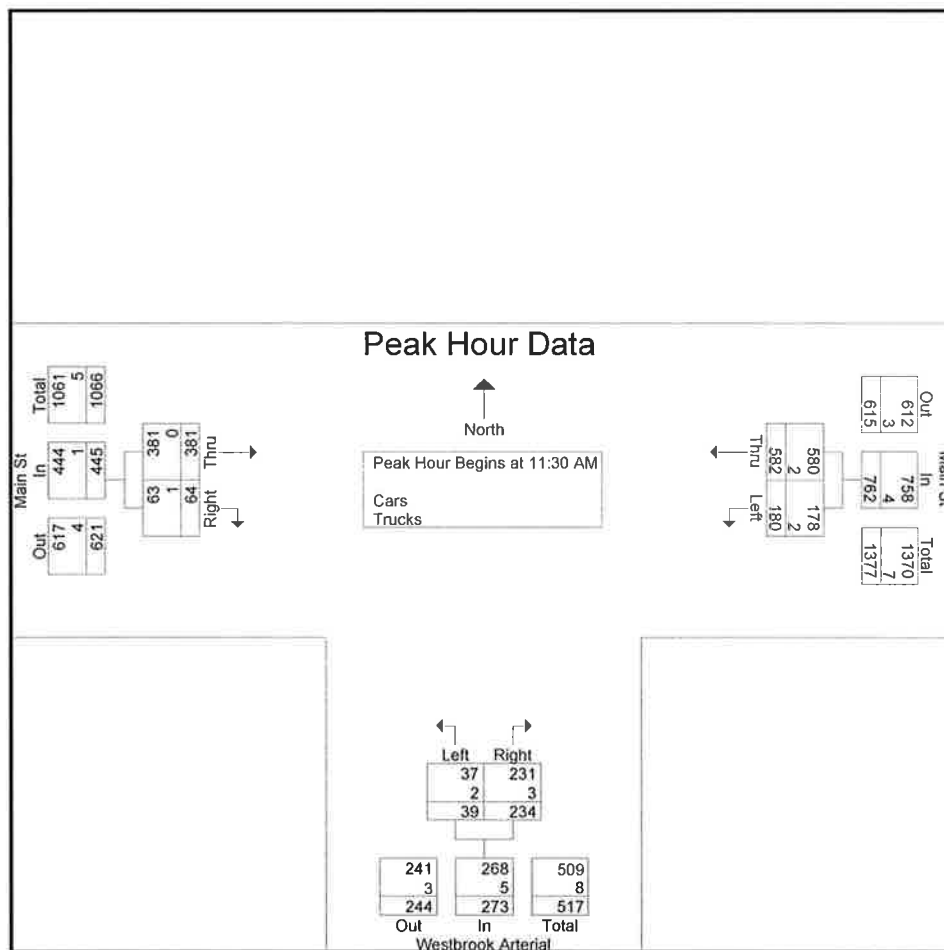
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW06
 Site Code : 68460W06
 Start Date : 10/3/2015
 Page No : 2

	Main St From East			Westbrook Arterial From South			Main St From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:30 AM										
11:30 AM	58	145	203	10	48	58	100	20	120	381
11:45 AM	46	138	184	11	65	76	97	15	112	372
12:00 PM	39	145	184	9	61	70	95	12	107	361
12:15 PM	37	154	191	9	60	69	89	17	106	366
Total Volume	180	582	762	39	234	273	381	64	445	1480
% App. Total	23.6	76.4		14.3	85.7		85.6	14.4		
PHF	.776	.945	.938	.886	.900	.898	.953	.800	.927	.971
Cars	178	580	758	37	231	268	381	63	444	1470
% Cars	98.9	99.7	99.5	94.9	98.7	98.2	100	98.4	99.8	99.3
Trucks	2	2	4	2	3	5	0	1	1	10
% Trucks	1.1	0.3	0.5	5.1	1.3	1.8	0	1.6	0.2	0.7



Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW06
 Site Code : 68460W06
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars

Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	47	136	10	48	107	15	363
11:15 AM	41	134	4	47	95	22	343
11:30 AM	58	145	10	48	100	20	381
11:45 AM	45	137	10	64	97	14	367
Total	191	552	34	207	399	71	1454
12:00 PM	38	145	9	59	95	12	358
12:15 PM	37	153	8	60	89	17	364
12:30 PM	47	125	18	54	89	17	350
12:45 PM	38	137	18	60	113	9	375
Total	160	560	53	233	386	55	1447
01:00 PM	33	103	11	45	89	16	297
01:15 PM	54	153	7	65	81	18	378
01:30 PM	22	84	14	37	89	9	255
01:45 PM	42	116	13	60	69	26	326
Total	151	456	45	207	328	69	1256
Grand Total	502	1568	132	647	1113	195	4157
Apprch %	24.3	75.7	16.9	83.1	85.1	14.9	
Total %	12.1	37.7	3.2	15.6	26.8	4.7	

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW06
 Site Code : 68460W06
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Main St From East		Westbrook Arterial From South		Main St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	2	0	0	1	0	0	3
11:15 AM	0	0	0	1	1	0	2
11:30 AM	0	0	0	0	0	0	0
11:45 AM	1	1	1	1	0	1	5
Total	3	1	1	3	1	1	10
12:00 PM	1	0	0	2	0	0	3
12:15 PM	0	1	1	0	0	0	2
12:30 PM	1	0	0	0	1	0	2
12:45 PM	1	0	0	0	0	0	1
Total	3	1	1	2	1	0	8
01:00 PM	2	0	0	1	0	1	4
01:15 PM	0	1	1	0	2	0	4
01:30 PM	0	0	0	0	2	0	2
01:45 PM	2	0	0	0	0	1	3
Total	4	1	1	1	4	2	13
Grand Total	10	3	3	6	6	3	31
Apprch %	76.9	23.1	33.3	66.7	66.7	33.3	
Total %	32.3	9.7	9.7	19.4	19.4	9.7	

Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW06
 Site Code : 68460W06
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Main St From East			Westbrook Arterial From South			Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	1	0	0	2	1	1	0	0	1	4	5
11:15 AM	0	0	0	0	0	1	2	0	0	1	2	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	3	0	0	0	2	0	0	0	2	3	5
Total	0	4	0	0	2	4	3	0	0	4	9	13
12:00 PM	0	0	1	0	0	2	0	0	0	3	0	3
12:15 PM	0	0	0	0	0	2	2	0	0	2	2	4
12:30 PM	0	0	0	0	0	1	0	0	0	1	0	1
12:45 PM	0	1	0	0	0	1	1	0	0	1	2	3
Total	0	1	1	0	0	6	3	0	0	7	4	11
01:00 PM	0	0	0	0	0	2	0	0	0	2	0	2
01:15 PM	0	0	1	0	2	4	2	0	0	5	4	9
01:30 PM	0	0	0	0	0	2	0	0	0	2	0	2
01:45 PM	0	1	0	0	0	5	1	0	0	5	2	7
Total	0	1	1	0	2	13	3	0	0	14	6	20
Grand Total	0	6	2	0	4	23	9	0	0	25	19	44
Apprch %	0	100		0	100		100	0				
Total %	0	31.6		0	21.1		47.4	0		56.8	43.2	

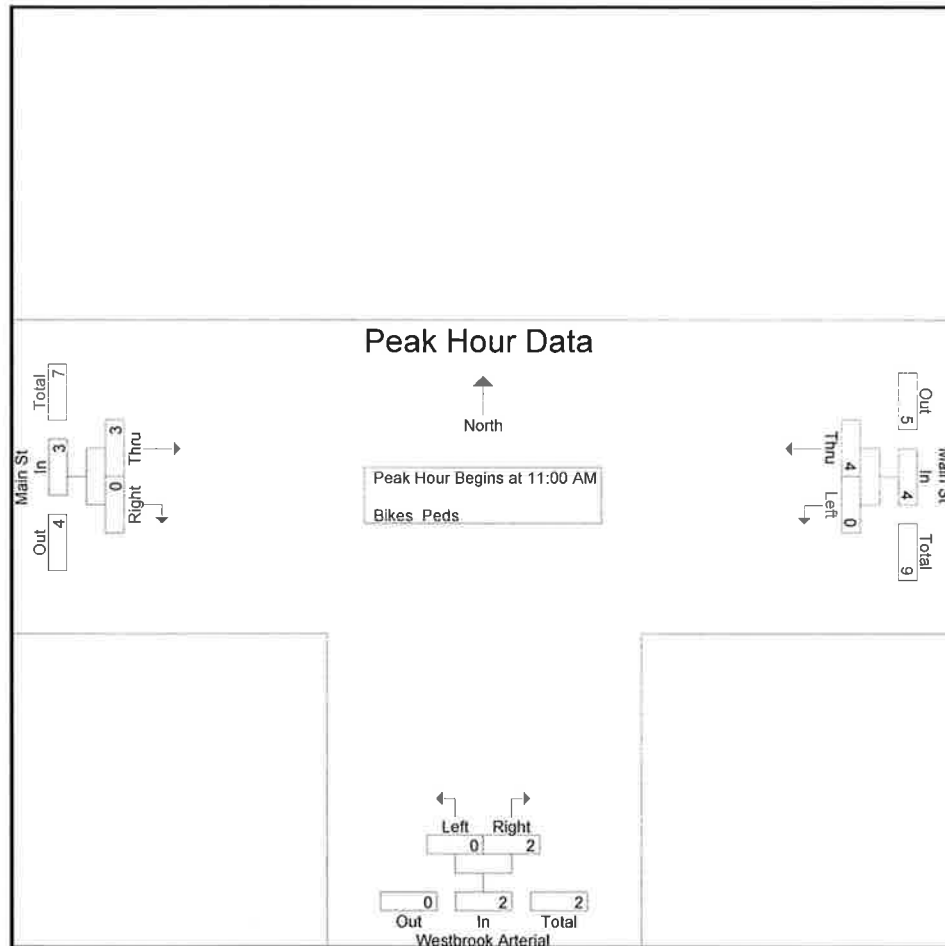
Accurate Counts

978-664-2565

N/S Street : Westbrook Arterial
 E/W Street : Main Street
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW06
 Site Code : 68460W06
 Start Date : 10/3/2015
 Page No : 11

	Main St From East			Westbrook Arterial From South			Main St From West			
Start Time :	Left	Thru	App. Total	Left :	Right	App. Total	Thru	Right	App. Total	Int. Total :
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	0	1	1	0	2	2	1	0	1	4
11:15 AM	0	0	0	0	0	0	2	0	2	2
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	3	3	0	0	0	0	0	0	3
Total Volume	0	4	4	0	2	2	3	0	3	9
% App. Total	0	100		0	100		100	0		
PHF	.000	.333	.333	.000	.250	.250	.375	.000	.375	.563



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:00 AM		
+0 mins.	0	1	1	0	2	2	1	0	1
+15 mins.	0	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	3	3	0	0	0	0	0	0
Total Volume	0	4	4	0	2	2	3	0	3
% App. Total	0	100		0	100		100	0	

Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW07
 Site Code : 68460W07
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	William Clark Dr From East		Saco St From South		William Clark Dr From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	28	93	23	37	155	21	357
11:15 AM	36	88	22	39	146	35	366
11:30 AM	31	102	20	45	141	25	364
11:45 AM	40	113	14	46	122	24	359
Total	135	396	79	167	564	105	1446
12:00 PM	25	106	19	37	140	24	351
12:15 PM	29	122	17	35	132	18	353
12:30 PM	44	131	19	34	146	25	399
12:45 PM	50	116	14	45	124	23	372
Total	148	475	69	151	542	90	1475
01:00 PM	36	111	18	38	143	15	361
01:15 PM	21	101	18	33	130	15	318
01:30 PM	42	88	18	39	125	28	340
01:45 PM	31	92	14	41	103	15	296
Total	130	392	68	151	501	73	1315
Grand Total	413	1263	216	469	1607	268	4236
Apprch %	24.6	75.4	31.5	68.5	85.7	14.3	
Total %	9.7	29.8	5.1	11.1	37.9	6.3	
Cars	411	1222	207	463	1566	264	4133
% Cars	99.5	96.8	95.8	98.7	97.4	98.5	97.6
Trucks	2	41	9	6	41	4	103
% Trucks	0.5	3.2	4.2	1.3	2.6	1.5	2.4

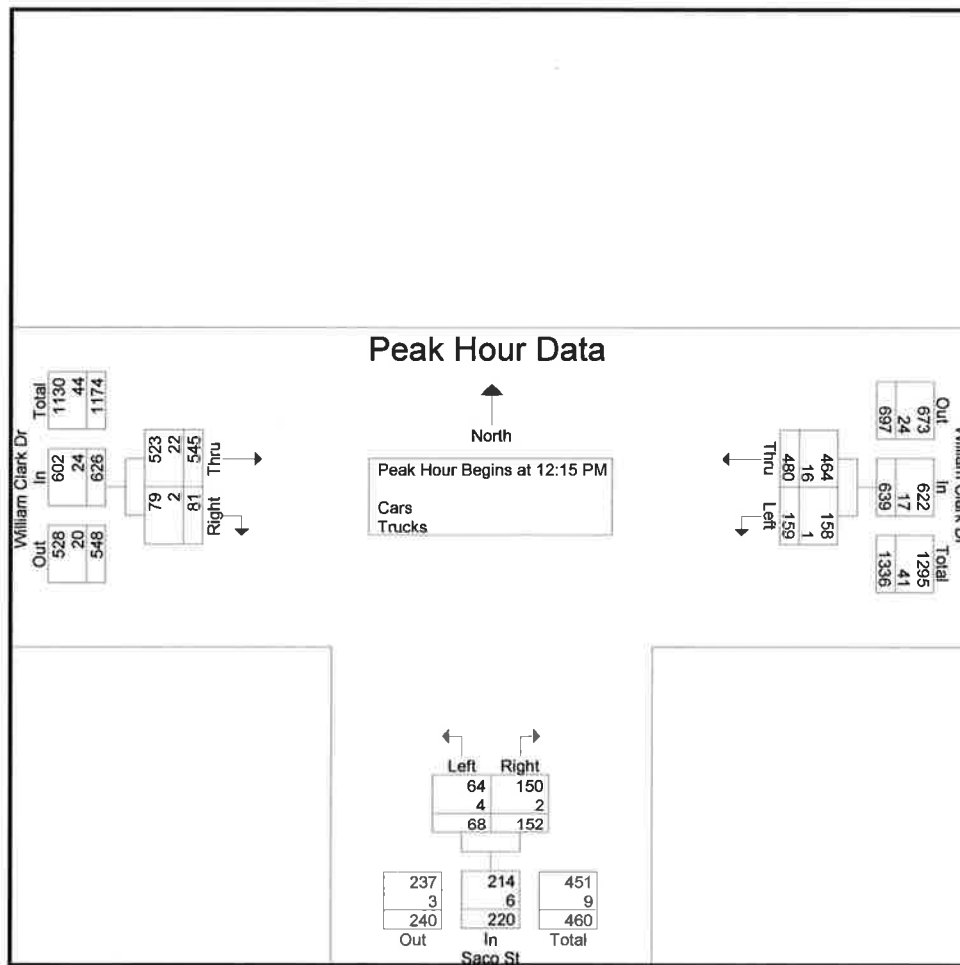
Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW07
 Site Code : 68460W07
 Start Date : 10/3/2015
 Page No : 2

	William Clark Dr From East			Saco St From South			William Clark Dr From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:15 PM										
12:15 PM	29	122	151	17	35	52	132	18	150	353
12:30 PM	44	131	175	19	34	53	146	25	171	399
12:45 PM	50	116	166	14	45	59	124	23	147	372
01:00 PM	36	111	147	18	38	56	143	15	158	361
Total Volume	159	480	639	68	152	220	545	81	626	1485
% App. Total	24.9	75.1		30.9	69.1		87.1	12.9		
PHF	.795	.916	.913	.895	.844	.932	.933	.810	.915	.930
Cars	158	464	622	64	150	214	523	79	602	1438
% Cars	99.4	96.7	97.3	94.1	98.7	97.3	96.0	97.5	96.2	96.8
Trucks	1	16	17	4	2	6	22	2	24	47
% Trucks	0.6	3.3	2.7	5.9	1.3	2.7	4.0	2.5	3.8	3.2



Accurate Counts

978-664-2565

N/S Street : Saco Street
E/W Street : William Clark Dr (Rte 25)
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW07
Site Code : 68460W07
Start Date : 10/3/2015
Page No : 4

Groups Printed- Cars

Start Time	William Clark Dr From East		Saco St From South		William Clark Dr From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	28	92	21	37	151	20	349
11:15 AM	36	83	22	38	144	34	357
11:30 AM	31	100	20	45	137	25	358
11:45 AM	40	109	13	45	120	24	351
Total	135	384	76	165	552	103	1415
12:00 PM	25	101	19	37	137	24	343
12:15 PM	29	120	16	34	129	18	346
12:30 PM	43	128	18	34	143	24	390
12:45 PM	50	111	13	44	116	22	356
Total	147	460	66	149	525	88	1435
01:00 PM	36	105	17	38	135	15	346
01:15 PM	20	98	18	32	128	15	311
01:30 PM	42	86	17	39	125	28	337
01:45 PM	31	89	13	40	101	15	289
Total	129	378	65	149	489	73	1283
Grand Total	411	1222	207	463	1566	264	4133
Apprch %	25.2	74.8	30.9	69.1	85.6	14.4	
Total %	9.9	29.6	5	11.2	37.9	6.4	

Accurate Counts

978-664-2565

N/S Street : Saco Street
E/W Street : William Clark Dr (Rte 25)
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW07
Site Code : 68460W07
Start Date : 10/3/2015
Page No : 7

Groups Printed- Trucks

Start Time	William Clark Dr From East		Saco St From South		William Clark Dr From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	0	1	2	0	4	1	8
11:15 AM	0	5	0	1	2	1	9
11:30 AM	0	2	0	0	4	0	6
11:45 AM	0	4	1	1	2	0	8
Total	0	12	3	2	12	2	31
12:00 PM	0	5	0	0	3	0	8
12:15 PM	0	2	1	1	3	0	7
12:30 PM	1	3	1	0	3	1	9
12:45 PM	0	5	1	1	8	1	16
Total	1	15	3	2	17	2	40
01:00 PM	0	6	1	0	8	0	15
01:15 PM	1	3	0	1	2	0	7
01:30 PM	0	2	1	0	0	0	3
01:45 PM	0	3	1	1	2	0	7
Total	1	14	3	2	12	0	32
Grand Total	2	41	9	6	41	4	103
Apprch %	4.7	95.3	60	40	91.1	8.9	
Total %	1.9	39.8	8.7	5.8	39.8	3.9	

Accurate Counts
978-664-2565

N/S Street : Saco Street
E/W Street : William Clark Dr (Rte 25)
City/State : Westbrook, ME
Weather : Clear

File Name : 6846SW07
Site Code : 68460W07
Start Date : 10/3/2015
Page No : 10

Groups Printed- Bikes Peds

[illegible]

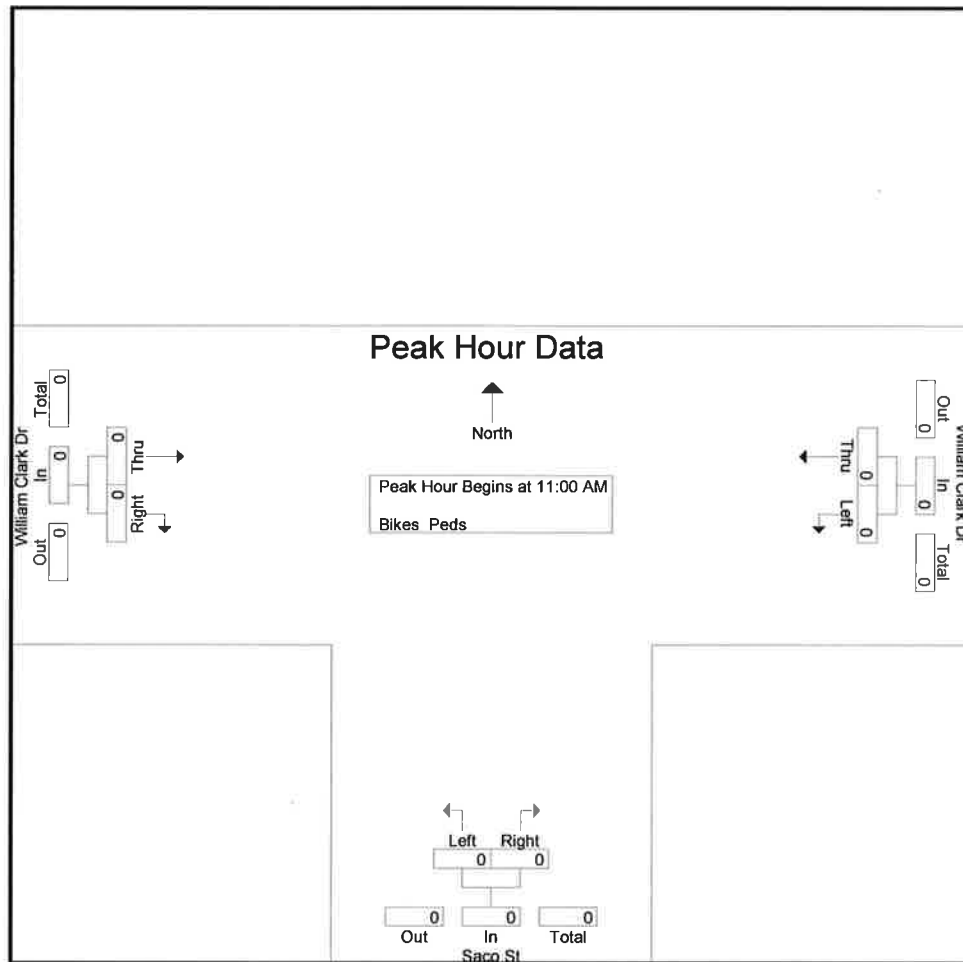
Accurate Counts

978-664-2565

N/S Street : Saco Street
 E/W Street : William Clark Dr (Rte 25)
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW07
 Site Code : 68460W07
 Start Date : 10/3/2015
 Page No : 11

	William Clark Dr From East			Saco St From South			William Clark Dr From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW08
 Site Code : 68460W08
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	13	51	4	32	153	12	14	31	39	12	161	25	547
11:15 AM	6	58	2	25	129	6	23	44	40	10	150	34	527
11:30 AM	13	58	6	26	129	13	24	33	35	7	179	27	550
11:45 AM	6	58	10	33	149	12	20	38	44	6	170	26	572
Total	38	225	22	116	560	43	81	146	158	35	660	112	2196
12:00 PM	12	43	8	34	122	5	21	48	35	8	154	23	513
12:15 PM	11	44	12	25	141	9	24	44	41	6	136	23	516
12:30 PM	9	58	3	24	174	12	19	34	45	11	160	22	571
12:45 PM	6	55	3	40	157	13	23	49	30	9	156	29	570
Total	38	200	26	123	594	39	87	175	151	34	606	97	2170
01:00 PM	11	58	9	21	137	9	27	36	37	7	146	26	524
01:15 PM	9	43	4	25	117	7	16	49	32	7	162	33	504
01:30 PM	6	46	6	16	130	9	21	53	33	5	147	22	494
01:45 PM	5	57	5	24	138	9	18	42	44	9	155	30	536
Total	31	204	24	86	522	34	82	180	146	28	610	111	2058
Grand Total	107	629	72	325	1676	116	250	501	455	97	1876	320	6424
Apprch %	13.2	77.8	8.9	15.4	79.2	5.5	20.7	41.5	37.7	4.2	81.8	14	
Total %	1.7	9.8	1.1	5.1	26.1	1.8	3.9	7.8	7.1	1.5	29.2	5	
Cars	107	629	72	325	1637	115	245	501	454	97	1837	313	6332
% Cars	100	100	100	100	97.7	99.1	98	100	99.8	100	97.9	97.8	98.6
Trucks	0	0	0	0	39	1	5	0	1	0	39	7	92
% Trucks	0	0	0	0	2.3	0.9	2	0	0.2	0	2.1	2.2	1.4

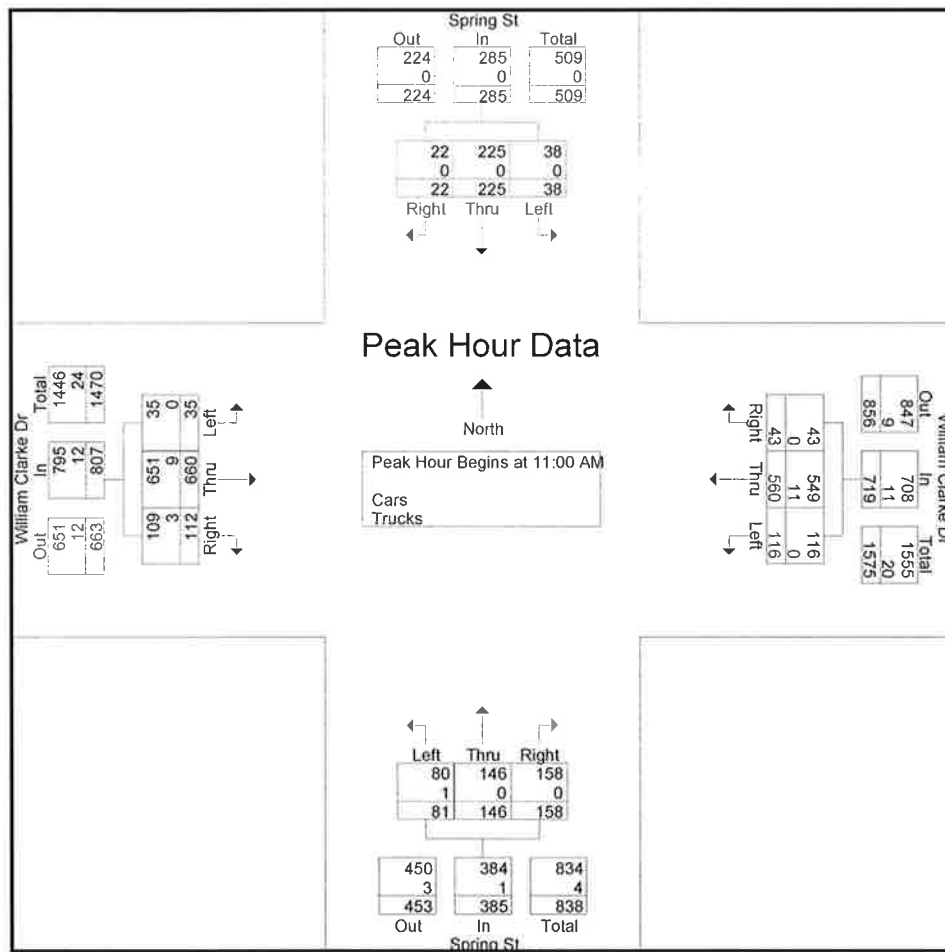
Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW08
 Site Code : 6846W08
 Start Date : 10/3/2015
 Page No : 2

	Spring St From North				William Clarke Dr From East				Spring St From South				William Clarke Dr From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	13	51	4	68	32	153	12	197	14	31	39	84	12	161	25	198	547
11:15 AM	6	58	2	66	25	129	6	160	23	44	40	107	10	150	34	194	527
11:30 AM	13	58	6	77	26	129	13	168	24	33	35	92	7	179	27	213	550
11:45 AM	6	58	10	74	33	149	12	194	20	38	44	102	6	170	26	202	572
Total Volume	38	225	22	285	116	560	43	719	81	146	158	385	35	660	112	807	2196
% App. Total	13.3	78.9	7.7		16.1	77.9	6		21	37.9	41		4.3	81.8	13.9		
PHF	.731	.970	.550	.925	.879	.915	.827	.912	.844	.830	.898	.900	.729	.922	.824	.947	.960
Cars	38	225	22	285	116	549	43	708	80	146	158	384	35	651	109	795	2172
% Cars	100	100	100	100	100	98.0	100	98.5	98.8	100	100	99.7	100	98.6	97.3	98.5	98.9
Trucks	0	0	0	0	0	11	0	11	1	0	0	1	0	9	3	12	24
% Trucks	0	0	0	0	0	2.0	0	1.5	1.2	0	0	0.3	0	1.4	2.7	1.5	1.1



Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW08
 Site Code : 68460W08
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	13	51	4	32	152	12	14	31	39	12	159	24	543
11:15 AM	6	58	2	25	124	6	23	44	40	10	149	34	521
11:30 AM	13	58	6	26	129	13	23	33	35	7	175	26	544
11:45 AM	6	58	10	33	144	12	20	38	44	6	168	25	564
Total	38	225	22	116	549	43	80	146	158	35	651	109	2172
12:00 PM	12	43	8	34	117	5	21	48	35	8	150	22	503
12:15 PM	11	44	12	25	138	9	24	44	41	6	134	22	510
12:30 PM	9	58	3	24	171	12	19	34	45	11	157	22	565
12:45 PM	6	55	3	40	153	12	22	49	30	9	148	29	556
Total	38	200	26	123	579	38	86	175	151	34	589	95	2134
01:00 PM	11	58	9	21	132	9	24	36	36	7	137	26	506
01:15 PM	9	43	4	25	114	7	16	49	32	7	159	31	496
01:30 PM	6	46	6	16	130	9	21	53	33	5	147	22	494
01:45 PM	5	57	5	24	133	9	18	42	44	9	154	30	530
Total	31	204	24	86	509	34	79	180	145	28	597	109	2026
Grand Total	107	629	72	325	1637	115	245	501	454	97	1837	313	6332
Apprch %	13.2	77.8	8.9	15.6	78.8	5.5	20.4	41.8	37.8	4.3	81.8	13.9	
Total %	1.7	9.9	1.1	5.1	25.9	1.8	3.9	7.9	7.2	1.5	29	4.9	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW08
 Site Code : 68460W08
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Spring St From North			William Clarke Dr From East			Spring St From South			William Clarke Dr From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	1	0	0	0	0	0	2	1	4
11:15 AM	0	0	0	0	5	0	0	0	0	0	1	0	6
11:30 AM	0	0	0	0	0	0	1	0	0	0	4	1	6
11:45 AM	0	0	0	0	5	0	0	0	0	0	2	1	8
Total	0	0	0	0	11	0	1	0	0	0	9	3	24
12:00 PM	0	0	0	0	5	0	0	0	0	0	4	1	10
12:15 PM	0	0	0	0	3	0	0	0	0	0	2	1	6
12:30 PM	0	0	0	0	3	0	0	0	0	0	3	0	6
12:45 PM	0	0	0	0	4	1	1	0	0	0	8	0	14
Total	0	0	0	0	15	1	1	0	0	0	17	2	36
01:00 PM	0	0	0	0	5	0	3	0	1	0	9	0	18
01:15 PM	0	0	0	0	3	0	0	0	0	0	3	2	8
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	5	0	0	0	0	0	1	0	6
Total	0	0	0	0	13	0	3	0	1	0	13	2	32
Grand Total	0	0	0	0	39	1	5	0	1	0	39	7	92
Apprch %	0	0	0	0	97.5	2.5	83.3	0	16.7	0	84.8	15.2	
Total %	0	0	0	0	42.4	1.1	5.4	0	1.1	0	42.4	7.6	

Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW08
 Site Code : 68460W08
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Spring St From North				William Clarke Dr From East				Spring St From South				William Clarke Dr From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	2	3
11:30 AM	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	5	0	5
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	3
Total	0	0	0	2	0	0	0	0	0	0	1	7	0	2	1	0	9	4	13
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
12:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
12:45 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	4	0	4
Total	0	0	0	5	0	0	0	0	0	0	0	0	0	3	0	1	6	3	9
01:00 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	3	0	3
01:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	2
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	2	3
Total	0	0	0	1	0	0	0	1	0	1	1	2	0	1	1	2	6	4	10
Grand Total	0	0	0	8	0	0	0	1	0	1	2	9	0	6	2	3	21	11	32
Apprch %	0	0	0		0	0	0		0	33.3	66.7		0	75	25				
Total %	0	0	0		0	0	0		0	9.1	18.2		0	54.5	18.2		65.6	34.4	

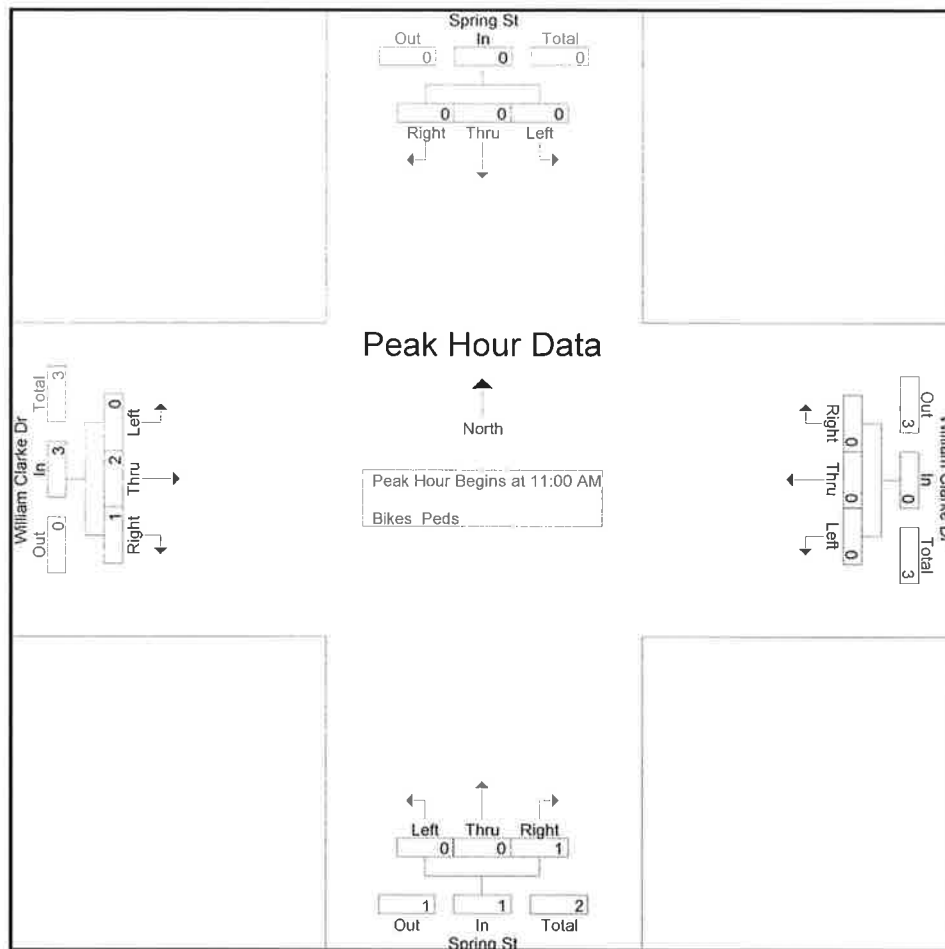
Accurate Counts

978-664-2565

N/S Street : Spring Street
 E/W Street : William Clarke Drive
 City/State : Westbrook, ME
 Weather : Clear

File Name : 6846SW08
 Site Code : 6846W08
 Start Date : 10/3/2015
 Page No : 11

	Spring St From North				William Clarke Dr From East				Spring St From South				William Clarke Dr From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	3	4
% App. Total	0	0	0		0	0	0		0	0	100		0	66.7	33.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.250	.375	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				12:30 PM				11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	1	2	0	2	1	3
% App. Total	0	0	0		0	0	0		0	50	50		0	66.7	33.3	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250	.000	.250	.250	.375

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW09
 Site Code : 68460W09
 Start Date : 10/3/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	14	28	12	9	126	7	41	22	8	5	171	28	471
11:15 AM	13	16	8	13	124	11	23	14	8	5	163	25	423
11:30 AM	11	17	7	13	127	9	30	12	13	11	180	33	463
11:45 AM	8	16	12	15	149	12	26	23	10	4	187	32	494
Total	46	77	39	50	526	39	120	71	39	25	701	118	1851
12:00 PM	6	25	9	9	127	9	21	9	16	6	171	27	435
12:15 PM	10	31	4	14	135	6	35	27	17	10	149	28	466
12:30 PM	9	22	7	15	143	5	50	22	18	5	179	34	509
12:45 PM	12	17	15	8	132	7	44	31	16	9	136	25	452
Total	37	95	35	46	537	27	150	89	67	30	635	114	1862
01:00 PM	17	18	6	16	124	11	33	13	14	5	164	32	453
01:15 PM	12	13	4	7	119	8	27	16	6	3	167	27	409
01:30 PM	5	12	7	8	116	11	27	19	8	4	149	21	387
01:45 PM	18	23	13	10	137	4	25	11	6	2	173	23	445
Total	52	66	30	41	496	34	112	59	34	14	653	103	1694
Grand Total	135	238	104	137	1559	100	382	219	140	69	1989	335	5407
Apprch %	28.3	49.9	21.8	7.6	86.8	5.6	51.6	29.6	18.9	2.9	83.1	14	
Total %	2.5	4.4	1.9	2.5	28.8	1.8	7.1	4.1	2.6	1.3	36.8	6.2	
Cars	135	237	104	137	1517	100	378	218	140	69	1959	323	5317
% Cars	100	99.6	100	100	97.3	100	99	99.5	100	100	98.5	96.4	98.3
Trucks	0	1	0	0	42	0	4	1	0	0	30	12	90
% Trucks	0	0.4	0	0	2.7	0	1	0.5	0	0	1.5	3.6	1.7

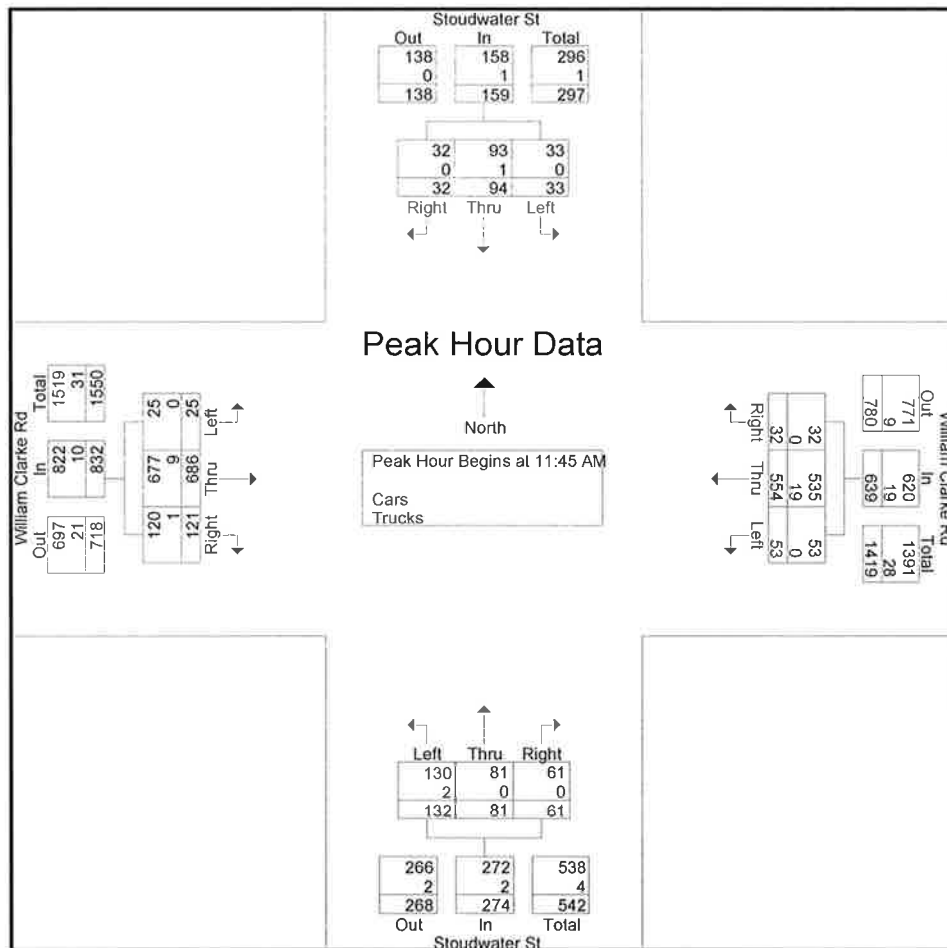
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW09
 Site Code : 68460W09
 Start Date : 10/3/2015
 Page No : 2

	Stoudwater St From North				William Clarke Rd From East				Stoudwater St From South				William Clarke Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	8	16	12	36	15	149	12	176	26	23	10	59	4	187	32	223	494
12:00 PM	6	25	9	40	9	127	9	145	21	9	16	46	6	171	27	204	435
12:15 PM	10	31	4	45	14	135	6	155	35	27	17	79	10	149	28	187	466
12:30 PM	9	22	7	38	15	143	5	163	50	22	18	90	5	179	34	218	509
Total Volume	33	94	32	159	53	554	32	639	132	81	61	274	25	686	121	832	1904
% App. Total	20.8	59.1	20.1		8.3	86.7	5		48.2	29.6	22.3		3	82.5	14.5		
PHF	.825	.758	.667	.883	.883	.930	.667	.908	.660	.750	.847	.761	.625	.917	.890	.933	.935
Cars	33	93	32	158	53	535	32	620	130	81	61	272	25	677	120	822	1872
% Cars	100	98.9	100	99.4	100	96.6	100	97.0	98.5	100	100	99.3	100	98.7	99.2	98.8	98.3
Trucks	0	1	0	1	0	19	0	19	2	0	0	2	0	9	1	10	32
% Trucks	0	1.1	0	0.6	0	3.4	0	3.0	1.5	0	0	0.7	0	1.3	0.8	1.2	1.7



Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW09
 Site Code : 68460W09
 Start Date : 10/3/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	14	28	12	9	124	7	41	22	8	5	168	28	466
11:15 AM	13	16	8	13	119	11	22	14	8	5	161	25	415
11:30 AM	11	17	7	13	126	9	30	12	13	11	177	32	458
11:45 AM	8	16	12	15	142	12	26	23	10	4	186	32	486
Total	46	77	39	50	511	39	119	71	39	25	692	117	1825
12:00 PM	6	25	9	9	121	9	21	9	16	6	166	27	424
12:15 PM	10	30	4	14	132	6	35	27	17	10	148	27	460
12:30 PM	9	22	7	15	140	5	48	22	18	5	177	34	502
12:45 PM	12	17	15	8	127	7	43	30	16	9	131	23	438
Total	37	94	35	46	520	27	147	88	67	30	622	111	1824
01:00 PM	17	18	6	16	122	11	33	13	14	5	160	25	440
01:15 PM	12	13	4	7	116	8	27	16	6	3	165	26	403
01:30 PM	5	12	7	8	116	11	27	19	8	4	149	21	387
01:45 PM	18	23	13	10	132	4	25	11	6	2	171	23	438
Total	52	66	30	41	486	34	112	59	34	14	645	95	1668
Grand Total	135	237	104	137	1517	100	378	218	140	69	1959	323	5317
Apprch %	28.4	49.8	21.8	7.8	86.5	5.7	51.4	29.6	19	2.9	83.3	13.7	
Total %	2.5	4.5	2	2.6	28.5	1.9	7.1	4.1	2.6	1.3	36.8	6.1	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW09
 Site Code : 68460W09
 Start Date : 10/3/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stoudwater St From North			William Clarke Rd From East			Stoudwater St From South			William Clarke Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	2	0	0	0	0	0	3	0	5
11:15 AM	0	0	0	0	5	0	1	0	0	0	2	0	8
11:30 AM	0	0	0	0	1	0	0	0	0	0	3	1	5
11:45 AM	0	0	0	0	7	0	0	0	0	0	1	0	8
Total	0	0	0	0	15	0	1	0	0	0	9	1	26
12:00 PM	0	0	0	0	6	0	0	0	0	0	5	0	11
12:15 PM	0	1	0	0	3	0	0	0	0	0	1	1	6
12:30 PM	0	0	0	0	3	0	2	0	0	0	2	0	7
12:45 PM	0	0	0	0	5	0	1	1	0	0	5	2	14
Total	0	1	0	0	17	0	3	1	0	0	13	3	38
01:00 PM	0	0	0	0	2	0	0	0	0	0	4	7	13
01:15 PM	0	0	0	0	3	0	0	0	0	0	2	1	6
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	5	0	0	0	0	0	2	0	7
Total	0	0	0	0	10	0	0	0	0	0	8	8	26
Grand Total	0	1	0	0	42	0	4	1	0	0	30	12	90
Apprch %	0	100	0	0	100	0	80	20	0	0	71.4	28.6	
Total %	0	1.1	0	0	46.7	0	4.4	1.1	0	0	33.3	13.3	

Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW09
 Site Code : 68460W09
 Start Date : 10/3/2015
 Page No : 10

Groups Printed- Bikes Peds																				
Start Time	Stoudwater St From North				William Clarke Rd From East				Stoudwater St From South				William Clarke Rd From West				Exclu. Total		Inclu. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	2		2	4
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	3		1	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7		0	7
Total	0	0	0	0	0	0	0	0	0	0	0	12	0	3	0	1	13		3	16
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2		0	2
12:15 PM	0	0	0	0	0	1	0	0	0	3	0	0	0	1	0	0	0		5	5
12:30 PM	0	0	0	1	0	0	0	0	0	3	0	4	0	0	0	1	6		3	9
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3		0	3
Total	0	0	0	1	0	1	0	0	0	6	0	6	0	1	0	4	11		8	19
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		0	2
01:15 PM	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	1	2		3	5
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Total	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	3	4		3	7
Grand Total	0	2	0	1	0	1	0	0	0	6	0	19	0	5	0	8	28		14	42
Apprch %	0	100	0		0	100	0		0	100	0		0	100	0					
Total %	0	14.3	0		0	7.1	0		0	42.9	0		0	35.7	0		66.7		33.3	

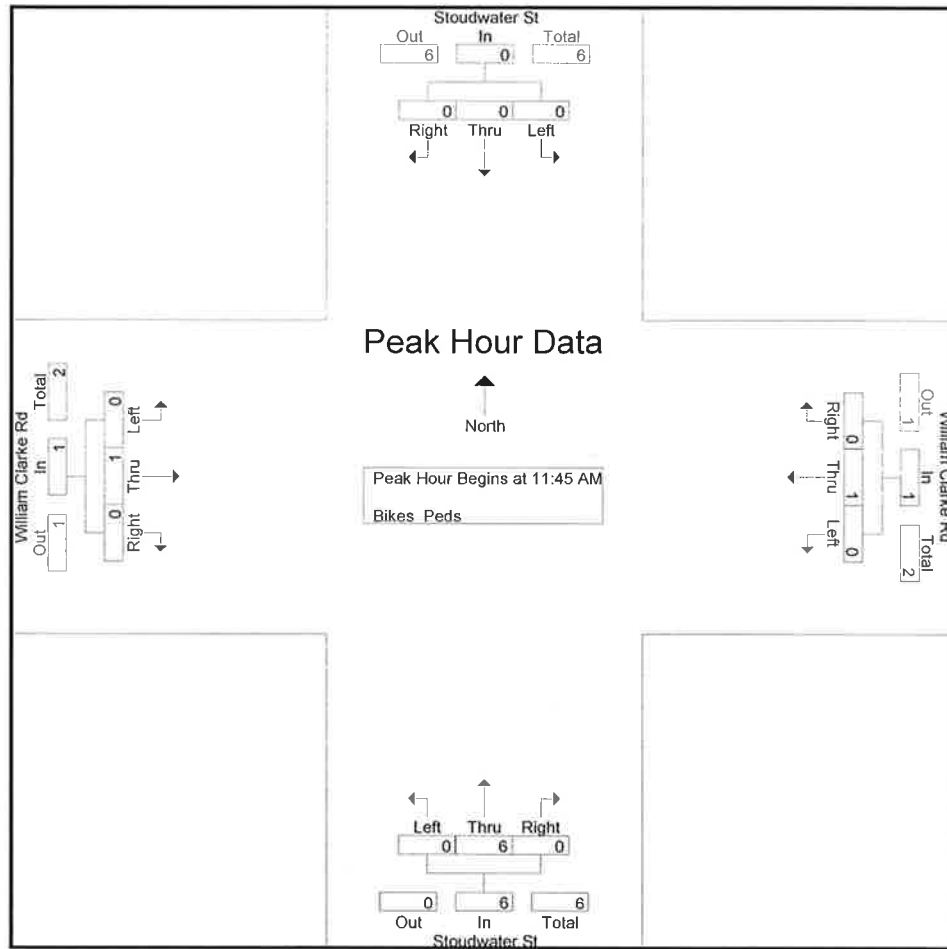
Accurate Counts

978-664-2565

N/S Street : Stoudwater Street
 E/W Street : William Clarke Road
 City/State : Westbrook, ME
 Weather : Cloudy

File Name : 6846SW09
 Site Code : 68460W09
 Start Date : 10/3/2015
 Page No : 11

	Stoudwater St From North				William Clarke Rd From East				Stoudwater St From South				William Clarke Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	1	0	3	0	3	0	1	0	1	5
12:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
Total Volume	0	0	0	0	0	1	0	1	0	6	0	6	0	1	0	1	8
% App. Total	0	0	0		0	100	0		0	100	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.500	.000	.500	.000	.250	.000	.250	.400



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:30 PM				11:30 AM				11:45 AM				11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0
+45 mins.	0	2	0	2	0	1	0	1	0	3	0	3	0	0	0	0
Total Volume	0	2	0	2	0	1	0	1	0	6	0	6	0	3	0	3
% App. Total	0	100	0		0	100	0		0	100	0		0	100	0	
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.500	.000	.500	.000	.375	.000	.375

Accurate Counts

978-664-2565

Stevens Street
Woodford Street
Portland, ME
Cloudy

File Name : 6846WP10
Site Code : 68460P10
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int.	Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
6:00 AM	17	77	8	12	21	11	2	39	17	7	46	5		262
6:15 AM	28	89	11	18	43	27	1	77	18	14	67	5		398
6:30 AM	37	100	16	25	42	30	1	80	15	17	80	7		450
6:45 AM	51	104	14	27	42	20	4	71	16	18	73	4		444
Total	133	370	49	82	148	88	8	267	66	56	266	21		1554
7:00 AM	39	93	19	14	37	19	1	52	15	14	65	4		372
7:15 AM	30	77	11	15	36	16	1	63	13	12	75	7		356
7:30 AM	33	60	7	13	49	10	2	46	16	15	67	4		322
7:45 AM	24	66	14	18	37	13	3	49	16	11	68	3		322
Total	126	296	51	60	159	58	7	210	60	52	275	18		1372
8:00 AM	259	666	100	142	307	146	15	477	126	108	541	39		2926
8:15 AM	25.3	65	9.8	23.9	51.6	24.5	2.4	77.2	20.4	15.7	78.6	5.7		
8:30 AM	8.9	22.8	3.4	4.9	10.5	5	0.5	16.3	4.3	3.7	18.5	1.3		
8:45 AM	257	650	97	139	303	143	14	462	126	107	532	38		2868
8:00 AM	99.2	97.6	97	97.9	98.7	97.9	93.3	96.9	100	99.1	98.3	97.4		98
8:15 AM	2	16	3	3	4	3	1	15	0	1	9	1		58
8:30 AM	0.8	2.4	3	2.1	1.3	2.1	6.7	3.1	0	0.9	1.7	2.6		2

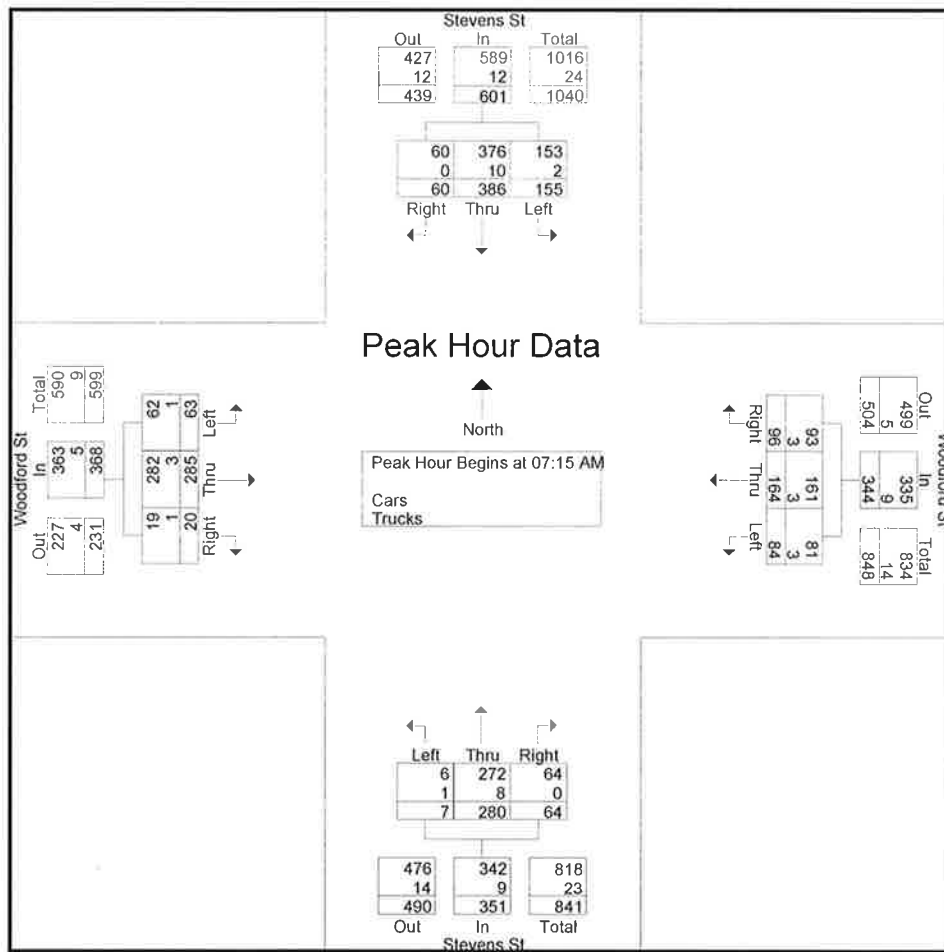
Accurate Counts

978-664-2565

N/S Street : Stevens Street
E/W Street : Woodford Street
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP10
Site Code : 68460P10
Start Date : 9/29/2015
Page No : 2

	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	28	89	11	128	18	43	27	88	1	77	18	96	14	67	5	86	398
07:30 AM	37	100	16	153	25	42	30	97	1	80	15	96	17	80	7	104	450
07:45 AM	51	104	14	169	27	42	20	89	4	71	16	91	18	73	4	95	444
08:00 AM	39	93	19	151	14	37	19	70	1	52	15	68	14	65	4	83	372
Total Volume	155	386	60	601	84	164	96	344	7	280	64	351	63	285	20	368	1664
% App. Total	25.8	64.2	10		24.4	47.7	27.9		2	79.8	18.2		17.1	77.4	5.4		
PHF	.760	.928	.789	.889	.778	.953	.800	.887	.438	.875	.889	.914	.875	.891	.714	.885	.924
Cars	153	376	60	589	81	161	93	335	6	272	64	342	62	282	19	363	1629
% Cars	98.7	97.4	100	98.0	96.4	98.2	96.9	97.4	85.7	97.1	100	97.4	98.4	98.9	95.0	98.6	97.9
Trucks	2	10	0	12	3	3	3	9	1	8	0	9	1	3	1	5	35
% Trucks	1.3	2.6	0	2.0	3.6	1.8	3.1	2.6	14.3	2.9	0	2.6	1.6	1.1	5.0	1.4	2.1



Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP10
 Site Code : 68460P10
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	17	75	7	12	21	11	2	38	17	7	45	5	257
07:15 AM	28	87	11	17	42	26	1	74	18	14	66	5	389
07:30 AM	37	97	16	25	40	28	0	79	15	16	79	7	439
07:45 AM	50	102	14	25	42	20	4	69	16	18	73	4	437
Total	132	361	48	79	145	85	7	260	66	55	263	21	1522
08:00 AM	38	90	19	14	37	19	1	50	15	14	64	3	364
08:15 AM	30	75	9	15	36	16	1	60	13	12	73	7	347
08:30 AM	33	60	7	13	48	10	2	45	16	15	65	4	318
08:45 AM	24	64	14	18	37	13	3	47	16	11	67	3	317
Total	125	289	49	60	158	58	7	202	60	52	269	17	1346
Grand Total	257	650	97	139	303	143	14	462	126	107	532	38	2868
Apprch %	25.6	64.7	9.7	23.8	51.8	24.4	2.3	76.7	20.9	15.8	78.6	5.6	
Total %	9	22.7	3.4	4.8	10.6	5	0.5	16.1	4.4	3.7	18.5	1.3	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP10
 Site Code : 68460P10
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	2	1	0	0	0	0	1	0	0	1	0	5
07:15 AM	0	2	0	1	1	1	0	3	0	0	1	0	9
07:30 AM	0	3	0	0	2	2	1	1	0	1	1	0	11
07:45 AM	1	2	0	2	0	0	0	2	0	0	0	0	7
Total	1	9	1	3	3	3	1	7	0	1	3	0	32
08:00 AM	1	3	0	0	0	0	0	2	0	0	1	1	8
08:15 AM	0	2	2	0	0	0	0	3	0	0	2	0	9
08:30 AM	0	0	0	0	1	0	0	1	0	0	2	0	4
08:45 AM	0	2	0	0	0	0	0	2	0	0	1	0	5
Total	1	7	2	0	1	0	0	8	0	0	6	1	26
Grand Total	2	16	3	3	4	3	1	15	0	1	9	1	58
Apprch %	9.5	76.2	14.3	30	40	30	6.2	93.8	0	9.1	81.8	9.1	
Total %	3.4	27.6	5.2	5.2	6.9	5.2	1.7	25.9	0	1.7	15.5	1.7	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP10
 Site Code : 68460P10
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	4	0	0	0	0	0	0	0	1	0	1	0	5	10	1	11
07:15 AM	0	0	0	2	0	0	1	4	0	0	0	2	0	1	0	9	17	2	19
07:30 AM	1	0	0	1	0	0	0	1	0	1	0	5	0	3	0	7	14	5	19
07:45 AM	0	2	0	1	0	0	0	1	0	2	0	0	0	0	0	4	6	4	10
Total	1	2	0	8	0	0	1	6	0	3	0	8	0	5	0	25	47	12	59
08:00 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	4	4	4	8
08:15 AM	1	0	0	1	0	0	0	4	0	0	0	3	0	0	0	12	20	1	21
08:30 AM	2	0	0	0	0	0	0	1	0	1	0	1	0	0	0	2	4	3	7
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	2	1	3
Total	3	1	0	1	0	2	0	5	0	2	0	5	0	1	0	19	30	9	39
Grand Total	4	3	0	9	0	2	1	11	0	5	0	13	0	6	0	44	77	21	98
Apprch %	57.1	42.9	0		0	66.7	33.3		0	100	0		0	100	0				
Total %	19	14.3	0		0	9.5	4.8		0	23.8	0		0	28.6	0		78.6	21.4	

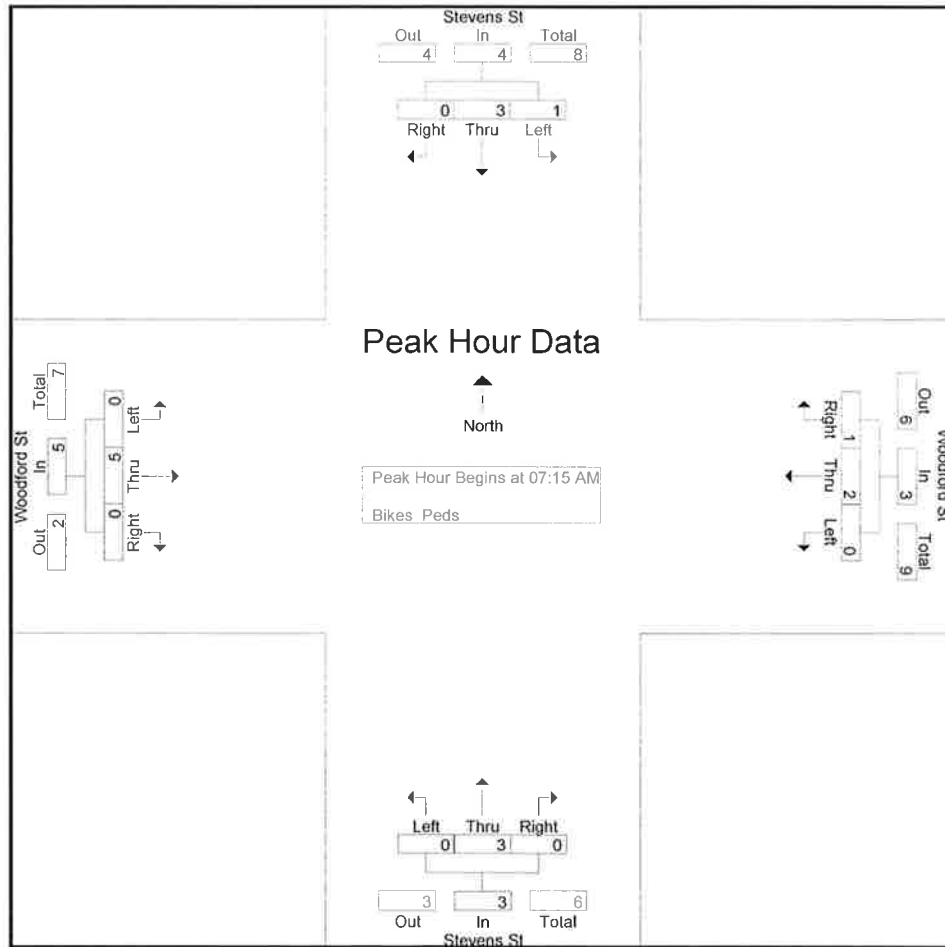
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP10
 Site Code : 68460P10
 Start Date : 9/29/2015
 Page No : 11

	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				
Start Time :	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
07:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	0	3	0	3	5
07:45 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
08:00 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	1	0	1	4
Total Volume	1	3	0	4	0	2	1	3	0	3	0	3	0	5	0	5	15
% App. Total	25	75	0		0	66.7	33.3		0	100	0		0	100	0		
PHF	.250	.375	.000	.500	.000	.250	.250	.375	.000	.375	.000	.375	.000	.417	.000	.417	.750



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM				07:15 AM				07:00 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	1	1	0	0	0	0	0	1	0	1
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	1	0	0	1	0	0	0	0	0	1	0	1	0	3	0	3
+45 mins.	2	0	0	2	0	2	0	2	0	2	0	2	0	0	0	0
Total Volume	3	3	0	6	0	2	1	3	0	3	0	3	0	5	0	5
% App. Total	50	50	0		0	66.7	33.3		0	100	0		0	100	0	
PHF	.375	.375	.000	.750	.000	.250	.250	.375	.000	.375	.000	.375	.000	.417	.000	.417

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP10
 Site Code : 68460P10
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	23	73	22	16	49	37	1	67	21	14	39	1	363
04:15 PM	19	85	21	20	64	39	3	111	25	14	62	6	469
04:30 PM	20	87	18	13	79	23	1	99	27	16	46	1	430
04:45 PM	24	93	17	16	78	42	4	94	32	4	53	5	462
Total	86	338	78	65	270	141	9	371	105	48	200	13	1724
05:00 PM	21	81	23	16	77	42	1	108	27	12	53	4	465
05:15 PM	26	93	17	21	66	45	1	99	24	14	49	3	458
05:30 PM	27	65	10	16	80	34	0	106	27	12	47	3	427
05:45 PM	27	72	13	14	55	36	1	116	43	17	35	4	433
Total	101	311	63	67	278	157	3	429	121	55	184	14	1783
Grand Total	187	649	141	132	548	298	12	800	226	103	384	27	3507
Apprch %	19.1	66.4	14.4	13.5	56	30.5	1.2	77.1	21.8	20	74.7	5.3	
Total %	5.3	18.5	4	3.8	15.6	8.5	0.3	22.8	6.4	2.9	10.9	0.8	
Cars	187	643	141	131	544	298	12	796	226	103	384	27	3492
% Cars	100	99.1	100	99.2	99.3	100	100	99.5	100	100	100	100	99.6
Trucks	0	6	0	1	4	0	0	4	0	0	0	0	15
% Trucks	0	0.9	0	0.8	0.7	0	0	0.5	0	0	0	0	0.4

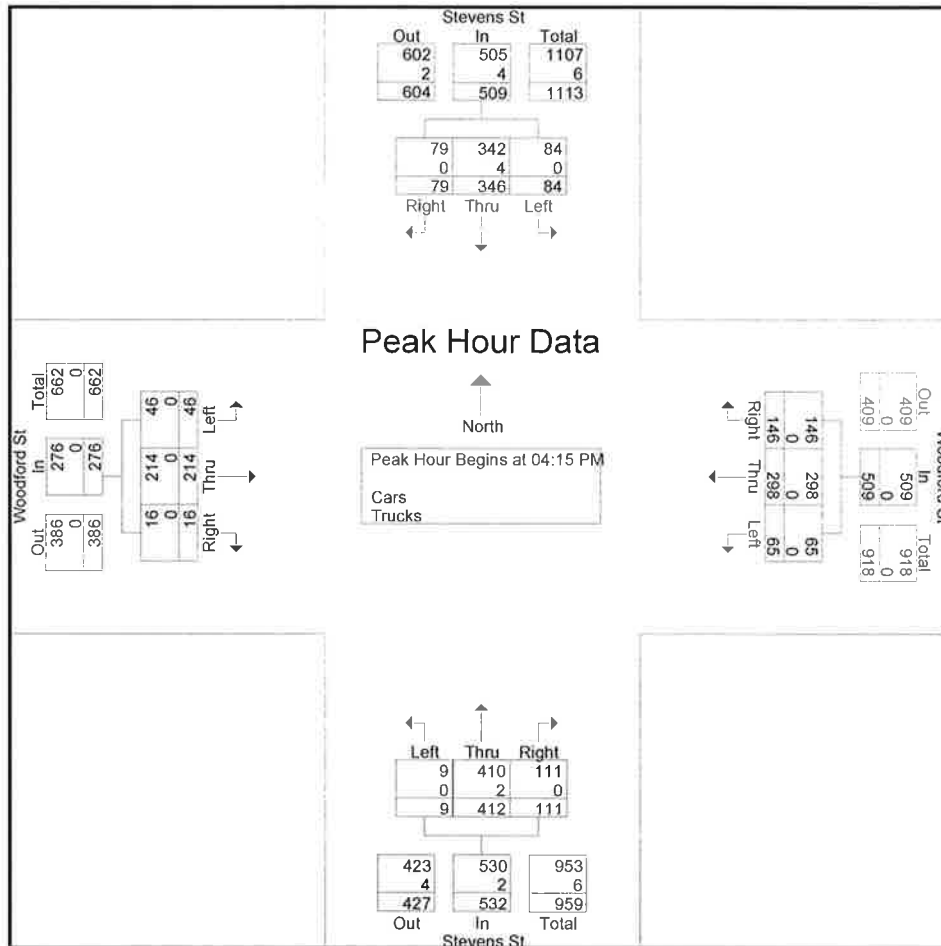
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP10
 Site Code : 68460P10
 Start Date : 9/29/2015
 Page No : 2

	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	19	85	21	125	20	64	39	123	3	111	25	139	14	62	6	82	469
04:30 PM	20	87	18	125	13	79	23	115	1	99	27	127	16	46	1	63	430
04:45 PM	24	93	17	134	16	78	42	136	4	94	32	130	4	53	5	62	462
05:00 PM	21	81	23	125	16	77	42	135	1	108	27	136	12	53	4	69	465
Total Volume	84	346	79	509	65	298	146	509	9	412	111	532	46	214	16	276	1826
% App. Total	16.5	68	15.5		12.8	58.5	28.7		1.7	77.4	20.9		16.7	77.5	5.8		
PHF	.875	.930	.859	.950	.813	.943	.869	.936	.563	.928	.867	.957	.719	.863	.667	.841	.973
Cars	84	342	79	505	65	298	146	509	9	410	111	530	46	214	16	276	1820
% Cars	100	98.8	100	99.2	100	100	100	100	100	99.5	100	99.6	100	100	100	100	99.7
Trucks	0	4	0	4	0	0	0	0	0	2	0	2	0	0	0	0	6
% Trucks	0	1.2	0	0.8	0	0	0	0	0	0.5	0	0.4	0	0	0	0	0.3



Accurate Counts

978-664-2565

N/S Street : Stevens Street
E/W Street : Woodford Street
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP10
Site Code : 68460P10
Start Date : 9/29/2015
Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	23	72	22	15	47	37	1	66	21	14	39	1	358
04:15 PM	19	83	21	20	64	39	3	110	25	14	62	6	466
04:30 PM	20	86	18	13	79	23	1	99	27	16	46	1	429
04:45 PM	24	92	17	16	78	42	4	94	32	4	53	5	461
Total	86	333	78	64	268	141	9	369	105	48	200	13	1714
05:00 PM	21	81	23	16	77	42	1	107	27	12	53	4	464
05:15 PM	26	92	17	21	65	45	1	99	24	14	49	3	456
05:30 PM	27	65	10	16	79	34	0	105	27	12	47	3	425
05:45 PM	27	72	13	14	55	36	1	116	43	17	35	4	433
Total	101	310	63	67	276	157	3	427	121	55	184	14	1778
Grand Total	187	643	141	131	544	298	12	796	226	103	384	27	3492
Apprch %	19.3	66.2	14.5	13.5	55.9	30.6	1.2	77	21.9	20	74.7	5.3	
Total %	5.4	18.4	4	3.8	15.6	8.5	0.3	22.8	6.5	2.9	11	0.8	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP10
 Site Code : 68460P10
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	1	0	1	2	0	0	1	0	0	0	0	5
04:15 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	5	0	1	2	0	0	2	0	0	0	0	10
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	2	0	0	2	0	0	0	0	5
Grand Total	0	6	0	1	4	0	0	4	0	0	0	0	15
Apprch %	0	100	0	20	80	0	0	100	0	0	0	0	
Total %	0	40	0	6.7	26.7	0	0	26.7	0	0	0	0	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP10
 Site Code : 68460P10
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	1	0	0	1	0	0	0	1	0	1	0	1	0	0	0	2	5	2	7
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
04:30 PM	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	6	8	1	9
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	4	0	4
Total	1	0	0	4	0	0	0	2	0	2	0	1	0	0	0	11	18	3	21
05:00 PM	0	1	0	2	0	0	0	0	0	0	0	1	0	0	0	3	6	1	7
05:15 PM	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	1	3	2	5
05:30 PM	0	1	0	2	0	1	1	1	0	0	0	0	0	2	0	2	5	5	10
05:45 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Total	0	2	0	8	0	2	1	1	1	0	0	1	0	2	0	6	16	8	24
Grand Total	1	2	0	12	0	2	1	3	1	2	0	2	0	2	0	17	34	11	45
Apprch %	33.3	66.7	0		0	66.7	33.3		33.3	66.7	0		0	100	0				
Total %	9.1	18.2	0		0	18.2	9.1		9.1	18.2	0		0	18.2	0		75.6	24.4	

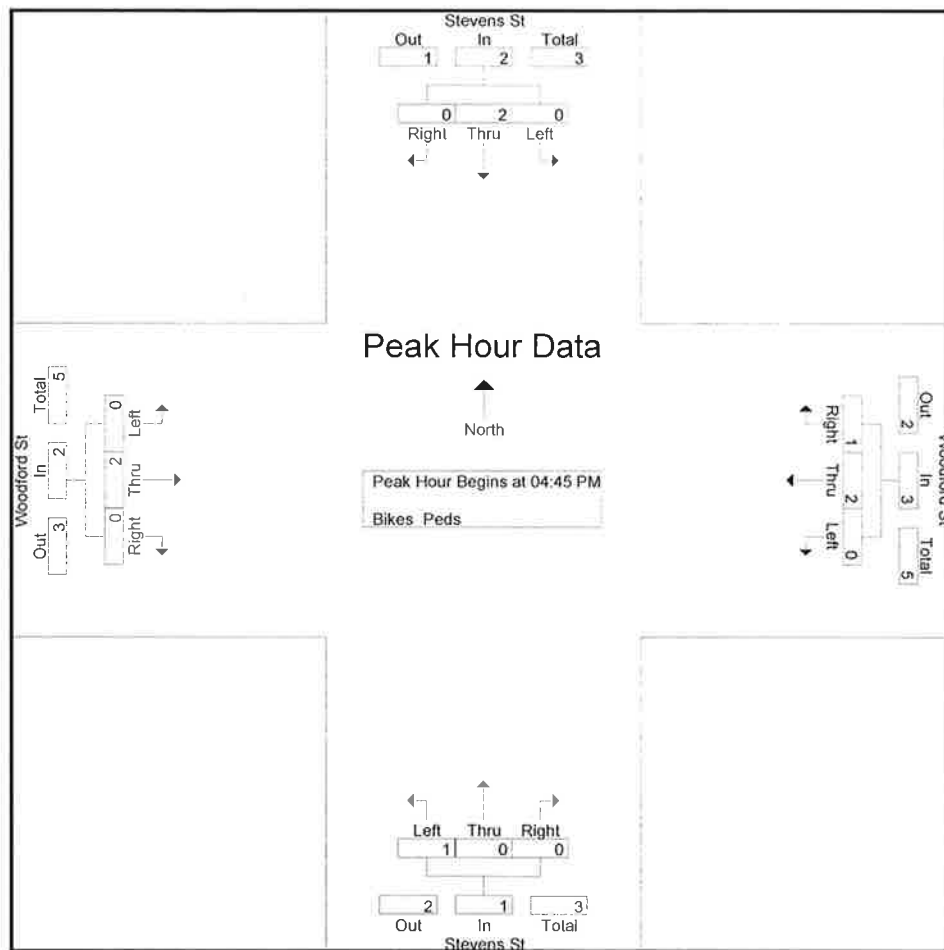
Accurate Counts

978-664-2565

N/S Street : Stevens Street
E/W Street : Woodford Street
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP10
Site Code : 68460P10
Start Date : 9/29/2015
Page No : 11

	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	2
05:30 PM	0	1	0	1	0	1	1	2	0	0	0	0	0	2	0	2	5
Total Volume	0	2	0	2	0	2	1	3	1	0	0	1	0	2	0	2	8
% App. Total	0	100	0		0	66.7	33.3		100	0	0		0	100	0		
PHF	.000	.500	.000	.500	.000	.500	.250	.375	.250	.000	.000	.250	.000	.250	.000	.250	.400



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:00 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0
+45 mins.	0	1	0	1	0	1	1	2	0	0	0	0	0	2	0	2
Total Volume	0	2	0	2	0	2	1	3	0	2	0	2	0	2	0	2
% App. Total	0	100	0		0	66.7	33.3		0	100	0		0	100	0	
PHF	.000	.500	.000	.500	.000	.500	.250	.375	.000	.500	.000	.500	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest Ave From North					Woodford St From East					Forest Ave From Southeast					Deering Ave From South					Woodford St From West					Int. Total
	Left	Br Lt	Thru	Right		Hd Lt	Left	Thru	Right		Hd Lt	Br Lt	Br Rt	Hd Rt		Left	Thru	Right		Hd Rt	Left	Thru	Br Rt	Right		
07:00 AM	0	135	50	14		1	1	22	4		4	7	123	1		0	0	0		0	31	38	19	3		453
07:15 AM	0	167	87	26		1	10	30	2		4	15	136	1		0	0	0		0	37	51	30	3		600
07:30 AM	0	164	91	21		5	3	29	4		10	23	207	4		0	0	0		0	45	64	21	2		693
07:45 AM	0	170	107	36		2	4	22	1		10	13	150	3		0	0	0		0	23	51	25	4		621
Total	0	636	335	97		9	18	103	11		28	58	616	9		0	0	0		0	136	204	95	12		2367
08:00 AM	1	157	95	24		4	3	22	0		1	16	156	2		0	0	0		0	33	57	23	2		596
08:15 AM	0	148	95	11		3	2	21	4		9	19	155	5		0	0	0		0	27	50	28	4		581
08:30 AM	0	146	90	24		0	3	19	3		7	15	150	5		0	0	0		0	25	47	37	4		575
08:45 AM	1	145	76	16		3	2	24	1		8	9	160	3		0	0	0		0	32	48	27	2		557
Total	2	596	356	75		10	10	86	8		25	59	621	15		0	0	0		0	117	202	115	12		2309
Grand Total	2	1232	691	172		19	28	189	19		53	117	1237	24		0	0	0		0	253	406	210	24		4676
Approch %	0.1	58.8	33	8.2		7.5	11	74.1	7.5		3.7	8.2	86.4	1.7		0	0	0		0	28.3	45.5	23.5	2.7		
Total %	0	26.3	14.8	3.7		0.4	0.6	4	0.4		1.1	2.5	26.5	0.5		0	0	0		0	5.4	8.7	4.5	0.5		
Cars	2	1203	674	167		19	28	186	19		51	111	1200	24		0	0	0		0	247	404	206	24		4565
% Cars	100	97.6	97.5	97.1		100	100	98.4	100		96.2	94.9	97	100		0	0	0		0	97.6	99.5	98.1	100		97.6
Trucks	0	29	17	5		0	0	3	0		2	6	37	0		0	0	0		0	6	2	4	0		111
% Trucks	0	2.4	2.5	2.9		0	0	1.6	0		3.8	5.1	3	0		0	0	0		0	2.4	0.5	1.9	0		2.4

Accurate Counts

978-664-2565

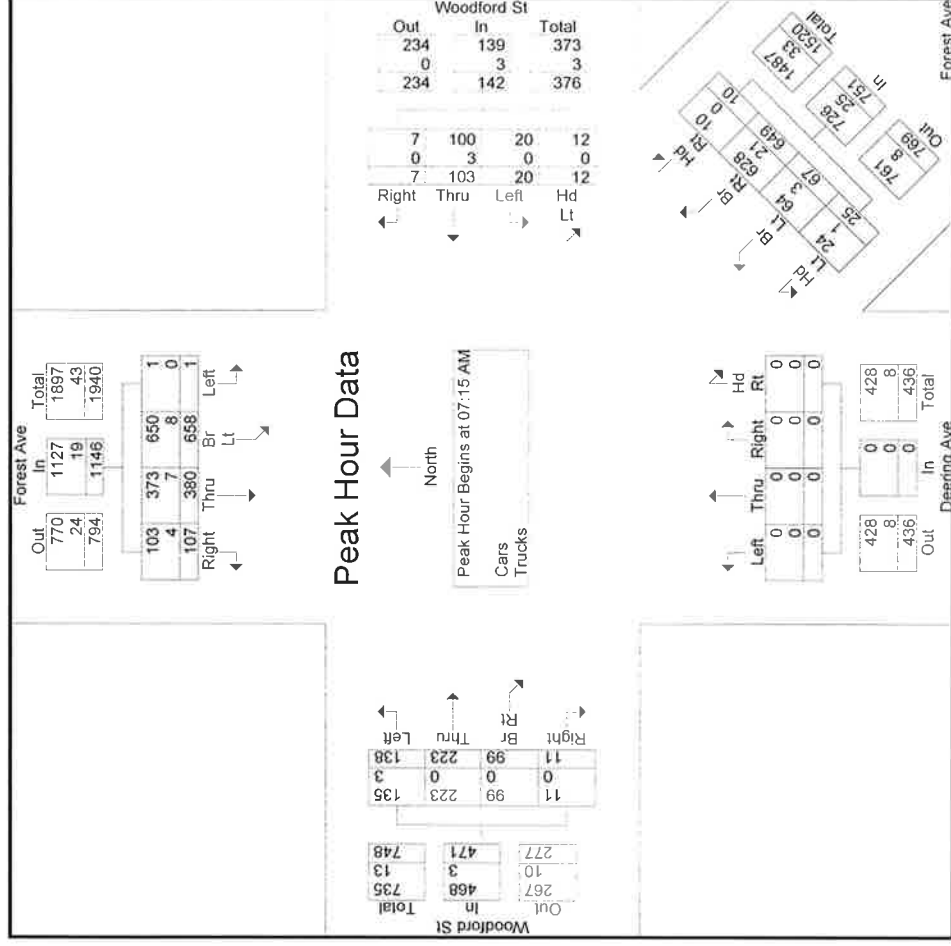
N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 2

	Forest Ave From North					Woodford St From East					Forest Ave From Southeast					Deering Ave From South					Woodford St From West						
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 07:15 AM																											
07:15 AM	0	167	87	26	280	1	10	30	2	43	4	15	136	1	156	0	0	0	0	0	37	51	30	3	121	600	
07:30 AM	0	164	91	21	276	5	3	29	4	41	10	23	207	4	244	0	0	0	0	0	45	64	21	2	132	693	
07:45 AM	0	170	107	36	313	2	4	22	1	29	10	13	150	3	176	0	0	0	0	0	23	51	25	4	103	621	
08:00 AM	1	157	95	24	277	4	3	22	0	29	1	16	156	2	175	0	0	0	0	0	33	57	23	2	115	596	
Total Volume	1	658	380	107	1146	12	20	103	7	142	25	67	649	10	751	0	0	0	0	0	138	223	99	11	471	2510	
% App. Total	0.1	57.4	33.2	9.3		8.5	14.1	72.5	4.9		3.3	8.9	86.4	1.3		0	0	0	0		29.3	47.3	21	2.3			
PHF	.250	.968	.888	.743	.915	.600	.500	.858	.438	.826	.625	.728	.784	.625	.769	.000	.000	.000	.000	.000	.767	.871	.825	.688	.892	.905	
Cars	1	650	373	103	1127	12	20	100	7	139	24	64	628	10	726	0	0	0	0	0	135	223	99	11	468	2460	
% Cars	100	98.8	98.2	96.3	98.3	100	100	97.1	100	97.9	96.0	95.5	96.8	100	96.7	0	0	0	0	0	97.8	100	100	100	99.4	98.0	
Trucks	0	8	7	4	19	0	0	3	0	3	1	3	21	0	25	0	0	0	0	0	3	0	0	0	3	50	
% Trucks	0	1.2	1.8	3.7	1.7	0	0	2.9	0	2.1	4.0	4.5	3.2	0	3.3	0	0	0	0	0	2.2	0	0	0	0.6	2.0	

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 3



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:00 AM				07:15 AM												
+0 mins.	0	167	87	26	280	1	10	30	2	43	10	23	207	4	244	0	0	0	0	0	37	51	30	3	121
+15 mins.	0	164	91	21	276	5	3	29	4	41	10	13	150	3	176	0	0	0	0	0	45	64	21	2	132
+30 mins.	0	170	107	36	313	2	4	22	1	29	1	16	156	2	175	0	0	0	0	0	23	51	25	4	103
+45 mins.	1	157	95	24	277	4	3	22	0	29	9	19	155	5	188	0	0	0	0	0	33	57	23	2	115
Total Volume	1	658	380	107	1146	12	20	103	7	142	30	71	668	14	783	0	0	0	0	0	138	223	99	11	471
% App. Total	0.1	57.4	33.2	9.3		8.5	14.1	72.5	4.9		3.8	9.1	85.3	1.8		0	0	0	0		29.3	47.3	21	2.3	
PHF	.250	.968	.888	.743	.915	.600	.500	.858	.438	.826	.750	.772	.807	.700	.802	.000	.000	.000	.000	.000	.767	.871	.825	.688	.892

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 5

Groups Printed- Cars																						
		Forest Ave From North				Woodford St From East				Forest Ave From Southeast				Deering Ave From South				Woodford St From West				
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total	
07:00 AM	0	129	50	14	1	1	22	4	4	7	121	1	0	0	0	0	0	31	38	18	3	444
07:15 AM	0	164	85	25	1	10	30	2	4	14	132	1	0	0	0	0	0	37	51	30	3	589
07:30 AM	0	161	89	20	5	3	26	4	9	21	204	4	0	0	0	0	0	43	64	21	2	676
07:45 AM	0	170	106	34	2	4	22	1	10	13	143	3	0	0	0	0	0	23	51	25	4	611
Total	0	624	330	93	9	18	100	11	27	55	600	9	0	0	0	0	0	134	204	94	12	2320
08:00 AM	1	155	93	24	4	3	22	0	1	16	149	2	0	0	0	0	0	32	57	23	2	584
08:15 AM	0	145	93	11	3	2	21	4	8	18	153	5	0	0	0	0	0	27	50	27	4	571
08:30 AM	0	141	87	24	0	3	19	3	7	13	144	5	0	0	0	0	0	24	46	36	4	556
08:45 AM	1	138	71	15	3	2	24	1	8	9	154	3	0	0	0	0	0	30	47	26	2	534
Total	2	579	344	74	10	10	86	8	24	56	600	15	0	0	0	0	0	113	200	112	12	2245
Grand Total	2	1203	674	167	19	28	186	19	51	111	1200	24	0	0	0	0	0	247	404	206	24	4565
Approch %	0.1	58.8	32.9	8.2	7.5	11.1	73.8	7.5	3.7	8	86.6	1.7	0	0	0	0	0	28	45.9	23.4	2.7	
Total %	0	26.4	14.8	3.7	0.4	0.6	4.1	0.4	1.1	2.4	26.3	0.5	0	0	0	0	0	5.4	8.8	4.5	0.5	

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 9

Groups Printed- Trucks

Start Time	Forest Ave From North				Woodford St From East				Forest Ave From Southeast				Deering Ave From South				Woodford St From West				Int. Total
	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	
07:00 AM	0	6	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	9
07:15 AM	0	3	2	1	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	11
07:30 AM	0	3	2	1	0	0	3	0	1	2	3	0	0	0	0	0	2	0	0	0	17
07:45 AM	0	0	1	2	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	10
Total	0	12	5	4	0	0	3	0	1	3	16	0	0	0	0	0	2	0	1	0	47
08:00 AM	0	2	2	0	0	0	0	0	0	0	7	0	0	0	0	0	1	0	0	0	12
08:15 AM	0	3	2	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	0	10
08:30 AM	0	5	3	0	0	0	0	0	0	2	6	0	0	0	0	0	1	1	1	0	19
08:45 AM	0	7	5	1	0	0	0	0	0	0	6	0	0	0	0	0	2	1	1	0	23
Total	0	17	12	1	0	0	0	0	1	3	21	0	0	0	0	0	4	2	3	0	64
Grand Total	0	29	17	5	0	0	3	0	2	6	37	0	0	0	0	0	6	2	4	0	111
Approch %	0	56.9	33.3	9.8	0	0	100	0	4.4	13.3	82.2	0	0	0	0	0	50	16.7	33.3	0	
Total %	0	26.1	15.3	4.5	0	0	2.7	0	1.8	5.4	33.3	0	0	0	0	0	5.4	1.8	3.6	0	

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 13

Start Time		Forest Ave						Woodford St						Groups Printed- Bikes Peds												Deering Ave						Woodford St					
		From North						From East						Forest Ave						From Southeast						From South						From West					
		Left	Br Lt	Thru	Right	Peds	Hd Lt	Left	Thru	Right	Peds	Hd Lt	Br Lt	Br Rt	Hd Rt	Peds	Left	Thru	Right	Hd Rt	Peds	Left	Thru	Br Rt	Right	Peds	Ends Total	Inclu Total	Int Total								
07:00 AM	0	0	1	0	0	0	0	0	0	0	3	0	0	1	0	2	0	0	0	0	3	0	1	0	0	0	8	3	11								
07:15 AM	0	0	0	0	4	0	0	0	0	0	1	0	0	2	0	2	0	0	4	0	3	0	1	0	0	2	12	7	19								
07:30 AM	0	0	0	0	4	0	0	0	0	0	0	0	0	1	0	2	0	0	3	0	0	1	0	1	4	10	6	16									
07:45 AM	0	0	1	0	2	0	0	0	0	0	1	0	0	0	0	3	0	1	2	0	0	0	0	0	0	6	4	10									
Total	0	0	2	0	10	0	0	0	0	5	0	0	4	0	9	0	1	9	0	6	0	3	0	1	6	36	20	56									
08:00 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	3	0	0	2	0	0	0	0	0	0	1	8	2	10									
08:15 AM	0	0	0	0	4	0	0	1	0	0	0	0	0	0	1	0	0	2	0	1	0	0	0	0	3	9	3	12									
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	0	1	0	2	0	0	0	3	4	7									
08:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0	0	0	0	1	1	3	4	7									
Total	0	0	0	0	7	0	0	1	0	3	0	0	1	0	6	0	0	8	0	2	0	2	0	1	5	23	13	36									
Grand Total	0	0	2	0	17	0	0	1	0	8	0	0	5	0	15	0	1	17	0	8	0	5	0	2	11	59	33	92									
Approch %	0	0	100	0	0	0	0	100	0	0	0	0	100	0	0	0	5.6	94.4	0	0	0	71.4	0	28.6	0												
Total %	0	0	6.1	0	0	0	0	3	0	0	0	0	15.2	0	0	0	3	51.5	0	0	0	15.2	0	6.1	64.1		35.9										

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP11
 Site Code : 68460P11
 Start Date : 9/29/2015
 Page No : 14

	Forest Ave From North					Woodford St From East					Forest Ave From Southeast					Deering Ave From South					Woodford St From West				
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total				
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:00 AM																									
07:00 AM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3			
07:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	4	0	4	0	1	0	0	1	7			
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	2	6			
07:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4			
Total Volume	0	0	2	0	2	0	0	0	0	0	4	0	0	4	0	10	3	0	1	4	20				
% App. Total	0	0	100	0		0	0	0	0		0	0	100	0	10	75	0	25							
PHF	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.500	.000	.250	.563	.000	.750	.000	.250	.500	.714			

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

Peak Hour Data

North

Peak Hour Begins at 07:00 AM
Bikes, Peds

Woodford St

Out: 0, In: 4, Total: 4

Right: 1, Br: 0, Thru: 3, Left: 0

Deerling Ave

Out: 3, In: 10, Total: 13

Left: 0, Thru: 1, Right: 9, Hd: 0

Peak Hour for Each Approach Begins at:

	07:00 AM				07:30 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	4	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	3	0	1	2
+45 mins.	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	2	0	0	0	0
Total Volume	0	0	2	0	2	0	1	0	1	0	0	4	0	1	11	0	12	0	3	1
% App. Total	0	0	100	0	0	0	100	0	0	0	0	100	0	0	8.3	91.7	0	75	0	25
PHF	.000	.000	.500	.000	.500	.000	.250	.000	.250	.000	.000	.500	.000	.000	.250	.688	.000	.750	.000	.500

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 1

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks																							
		Forest Ave				Woodford St				Forest Ave				Deering Ave				Woodford St					
		From North		From East		From Southeast		From South		From West		From South		From West									
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Left	Thru	Right	Hd Rt	Left	Thru	Right	Br Rt	Left	Thru	Right	Int.	Total
04:00 PM	1	138	58	31	3	5	39	3	6	35	182	3	0	0	32	24	23	6	32	24	23	6	589
04:15 PM	0	122	72	32	2	2	50	1	13	24	176	0	0	0	32	34	26	3	32	34	26	3	589
04:30 PM	1	143	71	15	0	3	48	4	7	38	165	4	0	0	42	45	30	3	42	45	30	3	619
04:45 PM	0	165	68	29	0	5	56	2	6	35	218	3	0	0	34	32	27	2	34	32	27	2	682
Total	2	568	269	107	5	15	193	10	32	132	741	10	0	0	140	135	106	14	140	135	106	14	2479
05:00 PM	0	137	61	17	3	1	67	6	4	43	177	5	0	0	40	43	21	1	40	43	21	1	626
05:15 PM	0	174	99	23	1	9	45	1	5	36	210	3	0	0	32	40	14	1	32	40	14	1	693
05:30 PM	1	115	51	22	2	7	47	4	5	41	160	10	0	0	31	42	35	6	31	42	35	6	579
05:45 PM	0	115	62	24	3	0	44	6	3	39	182	4	0	0	36	36	24	7	36	36	24	7	585
Total	1	541	273	86	9	17	203	17	17	159	729	22	0	0	139	161	94	15	139	161	94	15	2483
Grand Total	3	1109	542	193	14	32	396	27	49	291	1470	32	0	0	279	296	200	29	279	296	200	29	4962
Approch %	0.2	60	29.3	10.4	3	6.8	84.4	5.8	2.7	15.8	79.8	1.7	0	0	34.7	36.8	24.9	3.6	34.7	36.8	24.9	3.6	
Total %	0.1	22.3	10.9	3.9	0.3	0.6	8	0.5	1	5.9	29.6	0.6	0	0	5.6	6	4	0.6	5.6	6	4	0.6	
Cars	3	1095	534	190	14	31	396	26	49	289	1456	32	0	0	279	296	198	29	279	296	198	29	4917
% Cars	100	98.7	98.5	98.4	100	96.9	100	96.3	100	99.3	99	100	0	0	100	100	99	100	100	100	99	100	99.1
Trucks	0	14	8	3	0	1	0	1	0	2	14	0	0	0	0	0	0	0	0	0	0	0	45
% Trucks	0	1.3	1.5	1.6	0	3.1	0	3.7	0	0.7	1	0	0	0	0	0	1	0	0	0	1	0	0.9

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 2

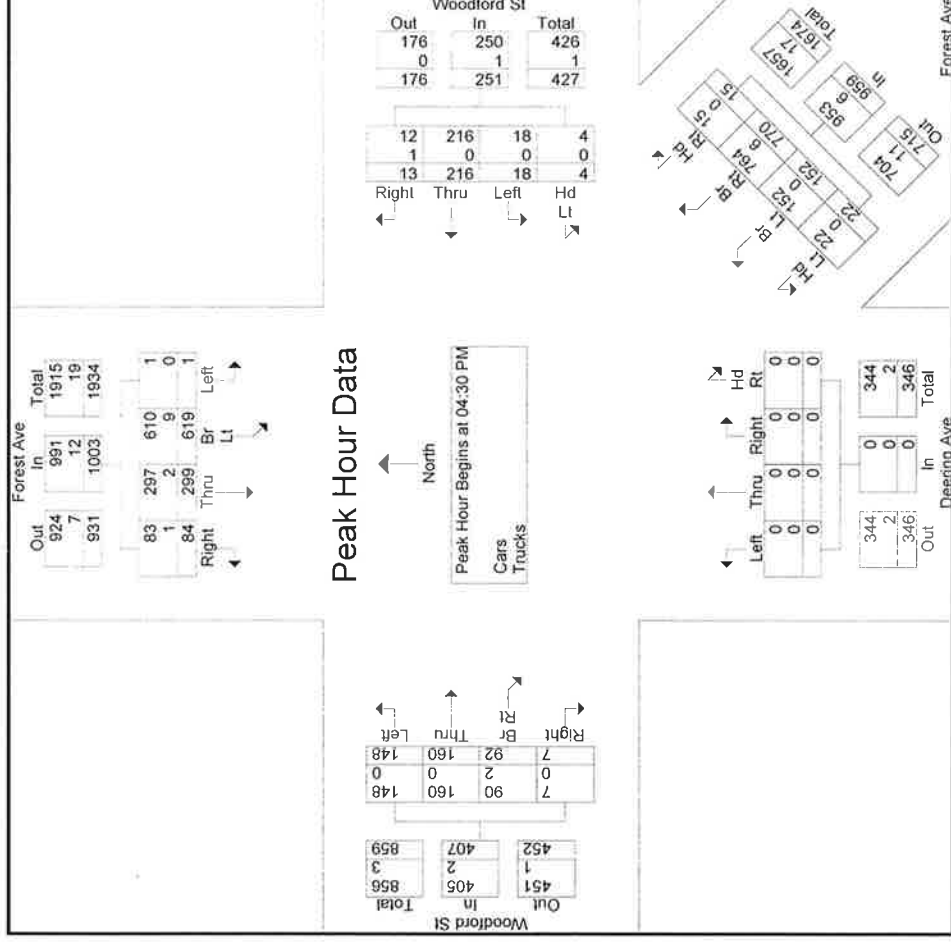
Forest Ave From North					Woodford St From East					Forest Ave From Southeast					Deering Ave From South					Woodford St From West						
Start Time	Left	Br Lt	Thru	Right	App Total	Hd Lt	Left	Thru	Right	App Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App Total	Left	Thru	Right	Hd Rt	App Total	Left	Thru	Br Rt	Right	App Total	Int Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:30 PM																										
04:30 PM	1	143	71	15	230	0	3	48	4	55	7	38	165	4	214	0	0	0	0	0	42	45	30	3	120	619
04:45 PM	0	165	68	29	262	0	5	56	2	63	6	35	218	3	262	0	0	0	0	0	34	32	27	2	95	682
05:00 PM	0	137	61	17	215	3	1	67	6	77	4	43	177	5	229	0	0	0	0	0	40	43	21	1	105	626
05:15 PM	0	174	99	23	296	1	9	45	1	56	5	36	210	3	254	0	0	0	0	0	32	40	14	1	87	693
Total Volume	1	619	299	84	1003	4	18	216	13	251	22	152	770	15	959	0	0	0	0	0	148	160	92	7	407	2620
% App. Total	0.1	61.7	29.8	8.4		1.6	7.2	86.1	5.2		2.3	15.8	80.3	1.6		0	0	0	0	0	36.4	39.3	22.6	1.7		
PHF	.250	.889	.755	.724	.847	.333	.500	.806	.542	.815	.786	.884	.883	.750	.915	.000	.000	.000	.000	.000	.881	.889	.767	.583	.848	.945
Cars	1	610	297	83	991	4	18	216	12	250	22	152	764	15	953	0	0	0	0	0	148	160	90	7	405	2599
% Cars	100	98.5	99.3	98.8	98.8	100	100	100	92.3	99.6	100	100	99.2	100	99.4	0	0	0	0	0	100	100	97.8	100	99.5	99.2
Trucks	0	9	2	1	12	0	0	0	1	1	0	0	6	0	6	0	0	0	0	0	0	0	2	0	2	21
% Trucks	0	1.5	0.7	1.2	1.2	0	0	0	7.7	0.4	0	0	0.8	0	0.6	0	0	0	0	0	0	0	2.2	0	0.5	0.8

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 3



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM				04:45 PM				04:00 PM				04:15 PM			
+0 mins.	1	143	71	15	230	0	5	56	2	63	6	35	218	3	262	0
+15 mins.	0	165	68	29	262	3	1	67	6	77	4	43	177	5	229	0
+30 mins.	0	137	61	17	215	1	9	45	1	56	5	36	210	3	254	0
+45 mins.	0	174	99	23	296	2	7	47	4	60	5	41	160	10	216	0
Total Volume	1	619	299	84	1003	6	22	215	13	256	20	155	765	21	961	0
% App. Total	0.1	61.7	29.8	8.4		2.3	8.6	84	5.1		2.1	16.1	79.6	2.2		0
PHF	.250	.889	.755	.724	.847	.500	.611	.802	.542	.831	.833	.901	.877	.525	.917	.000

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP11
 Site Code : 68460P11
 Start Date : 9/29/2015
 Page No : 5

Groups Printed- Cars																					
Forest Ave From North				Woodford St From East				Forest Ave From Southeast				Deering Ave From South				Woodford St From West					
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total
04:00 PM	1	136	57	29	3	5	39	3	6	34	177	3	0	0	0	0	32	24	23	6	578
04:15 PM	0	121	70	32	2	2	50	1	13	24	174	0	0	0	0	0	32	34	26	3	584
04:30 PM	1	143	71	15	0	3	48	4	7	38	163	4	0	0	0	0	42	45	28	3	615
04:45 PM	0	160	67	29	0	5	56	1	6	35	216	3	0	0	0	0	34	32	27	2	673
Total	2	560	265	105	5	15	193	9	32	131	730	10	0	0	0	0	140	135	104	14	2450
05:00 PM	0	136	60	17	3	1	67	6	4	43	175	5	0	0	0	0	40	43	21	1	622
05:15 PM	0	171	99	22	1	9	45	1	5	36	210	3	0	0	0	0	32	40	14	1	689
05:30 PM	1	115	50	22	2	6	47	4	5	40	159	10	0	0	0	0	31	42	35	6	575
05:45 PM	0	113	60	24	3	0	44	6	3	39	182	4	0	0	0	0	36	36	24	7	581
Total	1	535	269	85	9	16	203	17	17	158	726	22	0	0	0	0	139	161	94	15	2467
Grand Total	3	1095	534	190	14	31	396	26	49	289	1456	32	0	0	0	0	279	296	198	29	4917
Approch %	0.2	60.1	29.3	10.4	3	6.6	84.8	5.6	2.7	15.8	79.7	1.8	0	0	0	0	34.8	36.9	24.7	3.6	
Total %	0.1	22.3	10.9	3.9	0.3	0.6	8.1	0.5	1	5.9	29.6	0.7	0	0	0	0	5.7	6	4	0.6	

Woodford St From West				Woodford St From East				Forest Ave From Southeast				Deering Ave From South			
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right
04:00 PM	32	24	23	6	578	32	24	23	6	578	32	24	23	6	578
04:15 PM	32	34	26	3	584	32	34	26	3	584	32	34	26	3	584
04:30 PM	42	45	28	3	615	42	45	28	3	615	42	45	28	3	615
04:45 PM	34	32	27	2	673	34	32	27	2	673	34	32	27	2	673
Total	140	135	104	14	2450	140	135	104	14	2450	140	135	104	14	2450
05:00 PM	40	43	21	1	622	40	43	21	1	622	40	43	21	1	622
05:15 PM	32	40	14	1	689	32	40	14	1	689	32	40	14	1	689
05:30 PM	31	42	35	6	575	31	42	35	6	575	31	42	35	6	575
05:45 PM	36	36	24	7	581	36	36	24	7	581	36	36	24	7	581
Total	139	161	94	15	2467	139	161	94	15	2467	139	161	94	15	2467
Grand Total	279	296	198	29	4917	279	296	198	29	4917	279	296	198	29	4917
Approch %	34.8	36.9	24.7	3.6		34.8	36.9	24.7	3.6		34.8	36.9	24.7	3.6	
Total %	5.7	6	4	0.6		5.7	6	4	0.6		5.7	6	4	0.6	

Accurate Counts

978-664-2565

File Name : 6846WP11
 Site Code : 68460P11
 Start Date : 9/29/2015
 Page No : 9

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Cloudy

Groups Printed- Trucks

Start Time	Forest Ave From North			Woodford St From East			Forest Ave From Southeast			Deering Ave From South			Woodford St From West			Int. Total
	Left	Br Lt	Thru	Right	Hd Lt	Hd Rt	Left	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Br Rt	Thru	
04:00 PM	0	2	1	2	0	0	0	1	5	0	0	0	0	0	0	11
04:15 PM	0	1	2	0	0	0	0	0	2	0	0	0	0	0	0	5
04:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	4
04:45 PM	0	5	1	0	0	0	0	0	2	0	0	0	0	0	0	9
Total	0	8	4	2	0	0	0	1	11	0	0	0	0	2	0	29
05:00 PM	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	4
05:15 PM	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	4
05:30 PM	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	4
05:45 PM	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	6	4	1	0	0	0	1	3	0	0	0	0	0	0	16
Grand Total	0	14	8	3	0	0	0	2	14	0	0	0	0	2	0	45
Apprch %	0	56	32	12	0	50	0	12.5	87.5	0	0	0	0	100	0	
Total %	0	31.1	17.8	6.7	0	2.2	0	4.4	31.1	0	0	0	0	4.4	0	

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP11
Site Code : 68460P11
Start Date : 9/29/2015
Page No : 13

		Groups Printed- Bikes Peds																														
		Forest Ave From North						Woodford St From East						Forest Ave From Southeast						Deering Ave From South						Woodford St From West						
Start Time		Left	Br Lt	Thru	Right	Peds	Hd Lt	Left	Thru	Right	Peds	Hd Lt	Left	Br Lt	Br Rt	Hd Rt	Peds	Left	Thru	Right	Hd Rt	Peds	Left	Thru	Br Rt	Br Rt	Right	Peds	Endo Total	Inch. Total	Int. Total	
04:00 PM		0	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	3	1	1	0	0	2	10	3	13	
04:15 PM		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	0	2	0	1	0	0	0	1	7	2	9		
04:30 PM		0	0	0	0	3	0	0	0	1	1	0	0	0	0	0	1	0	0	0	4	0	1	0	0	0	4	10	5	15		
04:45 PM		0	0	1	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	6	10	3	13		
Total		0	0	1	0	5	0	0	1	0	8	0	0	1	0	1	0	5	0	0	8	0	6	1	1	0	0	13	37	13	50	
05:00 PM		0	0	0	0	2	0	0	0	0	6	0	0	0	0	0	1	2	0	0	1	0	0	0	0	0	0	0	10	2	12	
05:15 PM		0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	3	0	0	2	0	2	0	0	0	4	12	2	14		
05:30 PM		0	0	0	0	4	0	0	0	0	4	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	1	10	2	12		
05:45 PM		0	0	0	0	0	0	0	0	0	11	0	1	1	0	0	6	0	0	3	0	1	0	1	0	0	1	19	6	25		
Total		0	0	0	0	8	0	0	0	0	22	0	1	2	1	1	12	0	0	7	0	3	0	1	0	0	6	51	12	63		
Grand Total		0	0	1	0	13	0	0	1	0	30	0	1	3	1	17	0	0	0	15	0	9	1	2	0	0	19	88	25	113		
Apprch %		0	0	100	0		0	0	100	0		0	20	60	20			0	0	100	0		33.3	66.7	0	0						
Total %		0	0	4	0		0	0	4	0		0	4	12	4			0	0	60	0		4	8	0	0		77.9	22.1			

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP11
 Site Code : 68460P11
 Start Date : 9/29/2015
 Page No : 14

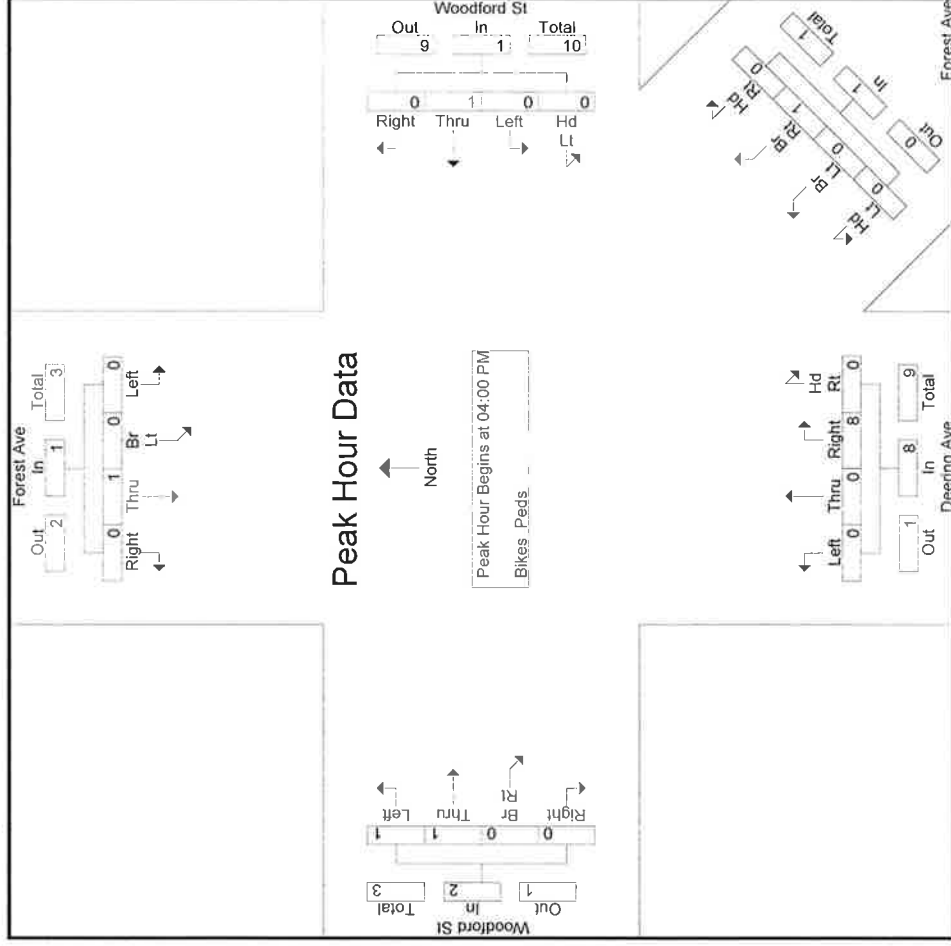
Forest Ave From North						Woodford St From East						Forest Ave From Southeast						Deering Ave From South						Woodford St From West					
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total			
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																													
Peak Hour for Entire Intersection Begins at 04:00 PM																													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	2	3								
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2								
04:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	4	0	0	0	0	0	4								
04:45 PM	0	0	1	0	1	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1								
Total Volume	0	0	1	0	1	0	0	1	0	1	0	0	1	0	8	1	1	0	0	2	13								
% App. Total	0	0	100	0		0	0	100	0		0	0	100	0		50	50	0	0										
PHF	.000	.000	.250	.000	.250	.000	.000	.250	.000	.250	.000	.000	.250	.000	.500	.250	.250	.000	.000	.250	.650								

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP11
 Site Code : 68460P11
 Start Date : 9/29/2015
 Page No : 15



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
+30 mins.	0	0	0	0	0	1	0	0	1	0	0	4	0	0	0	0
+45 mins.	0	0	1	0	0	0	0	1	1	0	2	0	0	0	0	0
Total Volume	0	0	1	0	1	0	1	2	1	4	0	0	8	0	0	2
% App. Total	0	0	100	0	0	0	100	0	25	50	25	0	0	100	0	50
PHF	.000	.000	.250	.000	.250	.000	.250	.000	.250	.500	.250	.500	.000	.500	.000	.250

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Ocean Ave / Saunders St
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 1

Groups Printed-- Cars -- Trucks																								
Forest Ave From North					Ocean Ave From East					Vannah Ave From Southeast					Forest Ave From South					Saunders St From West				
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total			
07:00 AM	5	10	160	0	2	29	1	15	0	0	7	2	0	130	34	0	1	1	4	0	401			
07:15 AM	14	6	210	0	0	63	0	10	1	0	12	2	0	123	50	1	3	5	3	3	506			
07:30 AM	11	4	231	1	1	52	7	9	0	2	18	0	0	185	70	2	1	7	7	4	612			
07:45 AM	9	5	242	2	0	58	6	14	1	1	8	0	0	140	29	0	0	8	10	2	535			
Total	39	25	843	3	3	202	14	48	2	3	45	4	0	578	183	3	5	21	24	9	2054			
08:00 AM	14	7	202	0	1	65	1	6	1	1	9	0	0	145	49	0	2	2	7	1	513			
08:15 AM	10	9	202	0	1	36	4	8	3	1	12	0	1	143	40	1	0	3	6	1	481			
08:30 AM	9	4	220	0	0	36	1	9	0	0	7	1	0	151	27	0	1	2	7	0	475			
08:45 AM	10	13	193	0	0	42	1	7	0	0	16	2	1	152	28	1	1	0	7	5	479			
Total	43	33	817	0	2	179	7	30	4	2	44	3	2	591	144	2	4	7	27	7	1948			
Grand Total	82	58	1660	3	5	381	21	78	6	5	89	7	2	1169	327	5	9	28	51	16	4002			
Approch %	4.5	3.2	92.1	0.2	1	78.6	4.3	16.1	5.6	4.7	83.2	6.5	0.1	77.8	21.8	0.3	8.7	26.9	49	15.4				
Total %	2	1.4	41.5	0.1	0.1	9.5	0.5	1.9	0.1	0.1	2.2	0.2	0	29.2	8.2	0.1	0.2	0.7	1.3	0.4				
Cars	81	58	1633	3	4	377	21	77	6	5	89	7	2	1143	320	5	9	27	51	16	3934			
% Cars	98.8	100	98.4	100	80	99	100	98.7	100	100	100	100	100	97.8	97.9	100	100	96.4	100	100	98.3			
Trucks	1	0	27	0	1	4	0	1	0	0	0	0	0	26	7	0	0	1	0	0	68			
% Trucks	1.2	0	1.6	0	20	1	0	1.3	0	0	0	0	0	2.2	2.1	0	0	3.6	0	0	1.7			

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WPI2
 Site Code : 6846WPI2
 Start Date : 9/29/2015
 Page No : 2

Forest Ave From North						Ocean Ave From East					Vannah Ave From Southeast					Forest Ave From South					Saunders St From West					
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM – Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:15 AM																										
07:15 AM	14	6	210	0	230	0	63	0	10	73	1	0	12	2	15	0	123	50	1	174	3	5	3	3	14	506
07:30 AM	11	4	231	1	247	1	52	7	9	69	0	2	18	0	20	0	185	70	2	257	1	7	7	4	19	612
07:45 AM	9	5	242	2	258	0	58	6	14	78	1	1	8	0	10	0	140	29	0	169	0	8	10	2	20	535
08:00 AM	14	7	202	0	223	1	65	1	6	73	1	1	9	0	11	0	145	49	0	194	2	2	7	1	12	513
Total Volume	48	22	885	3	958	2	238	14	39	293	3	4	47	2	56	0	593	198	3	794	6	22	27	10	65	2166
% App. Total	5	2.3	92.4	0.3		0.7	81.2	4.8	13.3		5.4	7.1	83.9	3.6		0	74.7	24.9	0.4		9.2	33.8	41.5	15.4		
PHF	.857	.786	.914	.375	.928	.500	.915	.500	.696	.939	.750	.500	.653	.250	.700	.000	.801	.707	.375	.772	.500	.688	.675	.625	.813	.885
Cars	47	22	874	3	946	2	237	14	39	292	3	4	47	2	56	0	580	192	3	775	6	21	27	10	64	2133
% Cars	97.9	100	98.8	100	98.7	100	99.6	100	100	99.7	100	100	100	100	100	0	97.8	97.0	100	97.6	100	95.5	100	100	98.5	98.5
Trucks	1	0	11	0	12	0	1	0	0	1	0	0	0	0	0	0	13	6	0	19	0	1	0	0	1	33
% Trucks	2.1	0	1.2	0	1.3	0	0.4	0	0	0.3	0	0	0	0	0	0	2.2	3.0	0	2.4	0	4.5	0	0	1.5	1.5

N/S Street : Forest Avenue
E/W Street : Ocean Ave / Saunders St
City/State : Portland, ME
Weather : Cloudy

Forest Ave

Out	In	Total
672	946	1618
13	12	25
685	958	1643

Southbound Forest Ave

Right	Thru	Br	Left
3	874	22	47
0	11	0	1
3	885	22	48

Northbound Forest Ave

Right	Thru	Br	Left
3	874	22	47
0	11	0	1
3	885	22	48

Ocean Ave

Out	In	Total
262	292	554
8	1	9
270	293	563

Eastbound Ocean Ave

Right	Thru	Left	Hd
39	14	237	2
0	0	1	0
39	14	238	2

Westbound Ocean Ave

Left	Thru	Right	Hd
0	580	192	3
0	13	6	0
0	593	198	3

Forest Ave

Out	In	Total
1124	775	1899
1136	794	1930

Southbound Forest Ave

Right	Thru	Br	Left
3	874	22	47
0	11	0	1
3	885	22	48

Northbound Forest Ave

Right	Thru	Br	Left
3	874	22	47
0	11	0	1
3	885	22	48

Ocean Ave

Out	In	Total
262	292	554
8	1	9
270	293	563

Eastbound Ocean Ave

Right	Thru	Left	Hd
39	14	237	2
0	0	1	0
39	14	238	2

Westbound Ocean Ave

Left	Thru	Right	Hd
0	580	192	3
0	13	6	0
0	593	198	3

Forest Ave

Out	In	Total
1124	775	1899
1136	794	1930

Southbound Forest Ave

Right	Thru	Br	Left
3	874	22	47
0	11	0	1
3	885	22	48

Northbound Forest Ave

Right	Thru	Br	Left
3	874	22	47
0	11	0	1
3	885	22	48

Ocean Ave

Out	In	Total
262	292	554
8	1	9
270	293	563

Eastbound Ocean Ave

Right	Thru	Left	Hd
39	14	237	2
0	0	1	0
39	14	238	2

Westbound Ocean Ave

Left	Thru	Right	Hd
0	580	192	3
0	13	6	0
0	593	198	3

Forest Ave

Out	In	Total
1124	775	1899
1136	794	1930

Southbound Forest Ave

Right	Thru	Br	Left
3	874	22	47
0	11	0	1
3	885	22	48

Northbound Forest Ave

Right	Thru	Br	Left
3	874	22	47
0	11	0	1
3	885	22	48

Ocean Ave

Out	In	Total
262	292	554
8	1	9
270	293	563

Eastbound Ocean Ave

Right	Thru	Left	Hd
39	14	237	2
0	0	1	0
39	14	238	2

Westbound Ocean Ave

Left	Thru	Right	Hd
0	580	192	3
0	13	6	0
0	593	198	3

Forest Ave

Out	In	Total
1124	775	1899
1136	794	1930

Peak Hour for Each Approach Begins at:

	07:15 AM					07:15 AM					07:30 AM					07:30 AM					07:15 AM				
+0 mins.	14	6	210	0	230	0	63	0	10	73	0	2	18	0	20	0	185	70	2	257	3	5	3	3	14
+15 mins.	11	4	231	1	247	1	52	7	9	69	1	1	8	0	10	0	140	29	0	169	1	7	7	4	19
+30 mins.	9	5	242	2	258	0	58	6	14	78	1	1	9	0	11	0	145	49	0	194	0	8	10	2	20
+45 mins.	14	7	202	0	223	1	65	1	6	73	3	1	12	0	16	1	143	40	1	185	2	2	7	1	12
Total Volume	48	22	885	3	958	2	238	14	39	293	5	5	47	0	57	1	613	188	3	805	6	22	27	10	65
% App. Total	5	2.3	92.4	0.3		0.7	81.2	4.8	13.3		8.8	8.8	82.5	0		0.1	76.1	23.4	0.4		9.2	33.8	41.5	15.4	
PHF	.857	.786	.914	.375	.928	.500	.915	.500	.696	.939	.417	.625	.653	.000	.713	.250	.828	.671	.375	.783	.500	.688	.675	.625	.813

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Ocean Ave / Saunders St
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 5

Groups Printed- Cars																								
Forest Ave From North					Ocean Ave From East					Vannah Ave From Southeast					Forest Ave From South					Saunders St From West				
Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total				
Start Time	5	10	157	0	1	29	1	15	0	0	7	2	0	129	33	0	1	1	4	0	395			
07:00 AM																								
07:15 AM	14	6	209	0	0	63	0	10	1	0	12	2	0	121	50	1	3	5	3	3	503			
07:30 AM	11	4	227	1	1	51	7	9	0	2	18	0	0	183	69	2	1	7	7	4	604			
07:45 AM	8	5	240	2	0	58	6	14	1	1	8	0	0	137	26	0	0	7	10	2	525			
Total	38	25	833	3	2	201	14	48	2	3	45	4	0	570	178	3	5	20	24	9	2027			
08:00 AM	14	7	198	0	1	65	1	6	1	1	9	0	0	139	47	0	2	2	7	1	501			
08:15 AM	10	9	201	0	1	35	4	8	3	1	12	0	1	141	40	1	0	3	6	1	477			
08:30 AM	9	4	215	0	0	36	1	9	0	0	7	1	0	146	27	0	1	2	7	0	465			
08:45 AM	10	13	186	0	0	40	1	6	0	0	16	2	1	147	28	1	1	0	7	5	464			
Total	43	33	800	0	2	176	7	29	4	2	44	3	2	573	142	2	4	7	27	7	1907			
Grand Total	81	58	1633	3	4	377	21	77	6	5	89	7	2	1143	320	5	9	27	51	16	3934			
Approch %	4.6	3.3	92	0.2	0.8	78.7	4.4	16.1	5.6	4.7	83.2	6.5	0.1	77.8	21.8	0.3	8.7	26.2	49.5	15.5				
Total %	2.1	1.5	41.5	0.1	0.1	9.6	0.5	2	0.2	0.1	2.3	0.2	0.1	29.1	8.1	0.1	0.2	0.7	1.3	0.4				

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP12
 Site Code : 6846WP12
 Start Date : 9/29/2015
 Page No : 9

Groups Printed- Trucks																		
Forest Ave From North					Ocean Ave From East				Vannah Ave From Southeast				Forest Ave From South				Saunders St From West	
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Rt	Br Rt	Left	Hd Rt	Left	Thru	Right	Left	Thru	
07:00 AM	0	0	3	0	1	0	0	0	0	0	0	0	0	1	1	0	0	
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	
07:30 AM	0	0	4	0	0	1	0	0	0	0	0	0	0	2	1	0	0	
07:45 AM	1	0	2	0	0	0	0	0	0	0	0	0	0	3	3	0	0	
Total	1	0	10	0	1	1	0	0	0	0	0	0	0	8	5	0	0	
08:00 AM	0	0	4	0	0	0	0	0	0	0	0	0	0	6	2	0	0	
08:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	
08:30 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	5	0	0	0	
08:45 AM	0	0	7	0	0	2	0	1	0	0	0	0	0	5	0	0	0	
Total	0	0	17	0	0	3	0	1	0	0	0	0	0	18	2	0	0	
Grand Total	1	0	27	0	1	4	0	1	0	0	0	0	0	26	7	0	0	
Approch %	3.6	0	96.4	0	16.7	66.7	0	16.7	0	0	0	0	0	78.8	21.2	0	0	
Total %	1.5	0	39.7	0	1.5	5.9	0	1.5	0	0	0	0	0	38.2	10.3	0	0	

Int. Total

6

3

8

10

27

12

4

10

15

41

68

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 13

Groups Printed- Bikes Peds

Groups: Trained- Bikes- Peds																																																	
Forest Ave From North										Ocean Ave From East										Vannah Ave From Southeast										Forest Ave From South										Saunders St From West									
Start Time	Left		Br Lt		Thru		Right		Peds	Hd Lt		Left		Br Lt		Thru		Right		Peds	Hd Rt		Left		Thru		Br Rt		Right		Peds	Excl. Total	Incl. Total	Int. Total															
07:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5																
07:15 AM	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	7	3	10																	
07:30 AM	0	0	2	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	5	4	9																		
07:45 AM	1	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	4	7																		
Total	1	0	4	0	4	0	0	1	0	6	0	0	0	0	0	0	4	1	0	0	0	0	0	1	0	0	2	19	12	31																			
08:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	4	5																			
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3	1	4																			
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3																		
08:45 AM	0	0	1	0	2	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	2	7																			
Total	0	0	1	0	2	0	1	0	4	0	0	1	0	0	1	0	1	0	0	0	0	0	6	0	0	2	9	10	19																				
Grand Total	1	0	5	0	6	0	1	1	0	10	0	1	0	0	8	0	5	1	0	0	4	0	7	0	0	4	28	22	50																				
Apprch %	16.7	0	83.3	0		0	50	50	0		0	100	0	0		0	83.3	16.7	0			0	100	0	0																								
Total %	4.5	0	22.7	0		0	4.5	4.5	0		0	4.5	0	0		0	22.7	4.5	0			0	31.8	0	0					56	44																		

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP12
 Site Code : 6846WP12
 Start Date : 9/29/2015
 Page No : 14

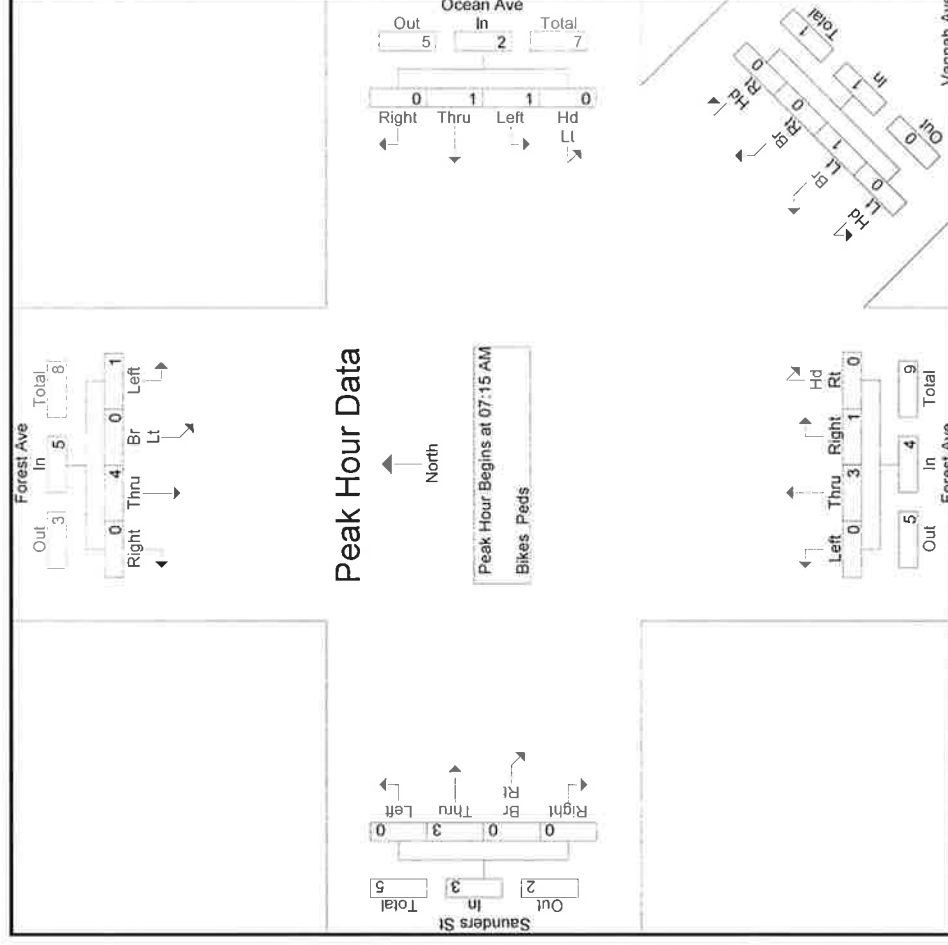
Start Time	Forest Ave From North			Ocean Ave From East			Vannah Ave From Southeast			Forest Ave From South			Saunders St From West		
	Left	Br Lt	Thru	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Br Rt	Right
							App. Total								Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 07:15 AM															
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
07:30 AM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	1	0	1	0	0	0	0	0	0	0	0	2	0	0	0
08:00 AM	0	0	0	0	1	0	1	0	1	0	0	0	0	2	0
Total Volume	1	0	4	0	1	1	2	0	1	0	0	3	1	0	3
% App. Total	20	0	80	0	50	50	0	0	100	0	0	75	25	0	0
PHF	.250	.000	.500	.000	.250	.250	.500	.000	.250	.000	.000	.375	.250	.000	.375
											.000	.375	.000	.000	.938

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP12
 Site Code : 6846WP12
 Start Date : 9/29/2015
 Page No : 15



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM		07:15 AM		07:45 AM		08:00 AM		08:15 AM		08:30 AM		08:45 AM		Total	
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	1	0	2	0	1	0	0	0	0	0	0	0	0	0
Total Volume	1	0	4	0	5	0	1	1	0	0	2	0	1	0	6	6
% App. Total	20	0	80	0	0	0	50	50	0	0	25	25	0	100	0	0
PHF	.250	.000	.500	.000	.625	.000	.250	.250	.000	.000	.500	.000	.625	.000	.500	.500

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Ocean Ave / Saunders St
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest Ave From North				Ocean Ave From East				Vannah Ave From Southeast				Forest Ave From South				Saunders St From West				Int. Total
	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	
04:00 PM	16	5	162	1	0	52	3	16	4	2	23	3	0	178	30	3	0	2	5	1	506
04:15 PM	8	8	190	0	1	43	9	16	5	2	31	3	0	155	51	4	2	1	1	1	531
04:30 PM	9	7	189	2	0	44	3	10	5	0	30	0	0	160	42	2	1	2	2	5	513
04:45 PM	6	5	210	1	0	53	2	19	0	0	26	1	0	194	45	3	1	1	3	1	571
Total	39	25	751	4	1	192	17	61	14	4	110	7	0	687	168	12	4	6	11	8	2121
05:00 PM	8	7	178	1	1	46	6	22	1	1	25	5	0	167	58	4	1	6	2	4	543
05:15 PM	13	7	239	1	0	41	3	28	1	2	21	1	0	183	55	3	1	1	4	3	607
05:30 PM	9	12	143	1	0	51	5	19	1	2	35	1	0	160	33	1	0	2	1	0	476
05:45 PM	13	6	140	1	1	39	3	23	3	0	30	1	0	163	49	3	2	4	1	3	485
Total	43	32	700	4	2	177	17	92	6	5	111	8	0	673	195	11	4	13	8	10	2111
Grand Total	82	57	1451	8	3	369	34	153	20	9	221	15	0	1360	363	23	8	19	19	18	4232
Apprch %	5.1	3.6	90.8	0.5	0.5	66	6.1	27.4	7.5	3.4	83.4	5.7	0	77.9	20.8	1.3	12.5	29.7	29.7	28.1	
Total %	1.9	1.3	34.3	0.2	0.1	8.7	0.8	3.6	0.5	0.2	5.2	0.4	0	32.1	8.6	0.5	0.2	0.4	0.4	0.4	
Cars	82	57	1431	8	3	369	34	153	20	9	220	15	0	1352	362	23	8	19	19	18	4202
% Cars	100	100	98.6	100	100	100	100	100	100	100	99.5	100	0	99.4	99.7	100	100	100	100	100	99.3
Trucks	0	0	20	0	0	0	0	0	0	0	1	0	0	8	1	0	0	0	0	0	30
% Trucks	0	0	1.4	0	0	0	0	0	0	0	0.5	0	0	0.6	0.3	0	0	0	0	0	0.7

Accurate Counts

978-664-2565

File Name : 6846WP12
 Site Code : 6846WP12
 Start Date : 9/29/2015
 Page No : 2

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Cloudy

	Forest Ave From North					Ocean Ave From East					Vannah Ave From Southeast					Forest Ave From South					Saunders St From West					
	From North					From East					From Southeast					From South					From West					
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:30 PM																										
04:30 PM	9	7	189	2	207	0	44	3	10	57	5	0	30	0	35	0	160	42	2	204	1	2	2	5	10	513
04:45 PM	6	5	210	1	222	0	53	2	19	74	0	0	26	1	27	0	194	45	3	242	1	1	3	1	6	571
05:00 PM	8	7	178	1	194	1	46	6	22	75	1	1	25	5	32	0	167	58	4	229	1	6	2	4	13	543
05:15 PM	13	7	239	1	260	0	41	3	28	72	1	2	21	1	25	0	183	55	3	241	1	1	4	3	9	607
Total Volume	36	26	816	5	883	1	184	14	79	278	7	3	102	7	119	0	704	200	12	916	4	10	11	13	38	2234
% App. Total	4.1	2.9	92.4	0.6		0.4	66.2	5	28.4		5.9	2.5	85.7	5.9		0	76.9	21.8	1.3		10.5	26.3	28.9	34.2		
PHF	.692	.929	.854	.625	.849	.250	.868	.583	.705	.927	.350	.375	.850	.350	.850	.000	.907	.862	.750	.946	1.00	.417	.688	.650	.731	.920
Cars	36	26	806	5	873	1	184	14	79	278	7	3	102	7	119	0	700	200	12	912	4	10	11	13	38	2220
% Cars	100	100	98.8	100	98.9	100	100	100	100	100	100	100	100	100	100	0	99.4	100	100	99.6	100	100	100	100	100	99.4
Trucks	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	14
% Trucks	0	0	1.2	0	1.1	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0.4	0	0	0	0	0	0.6

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 3

	04:30 PM				04:45 PM				04:30 PM				04:00 PM				04:30 PM				04:30 PM				
+0 mins.	9	7	189	2	207	0	53	2	19	74	4	2	23	3	32	0	160	42	2	204	1	2	2	5	10
+15 mins.	6	5	210	1	222	1	46	6	22	75	5	2	31	3	41	0	194	45	3	242	1	1	3	1	6
+30 mins.	8	7	178	1	194	0	41	3	28	72	5	0	30	0	35	0	167	58	4	229	1	6	2	4	13
+45 mins.	13	7	239	1	260	0	51	5	19	75	0	0	26	1	27	0	183	55	3	241	1	1	4	3	9
Total Volume	36	26	816	5	883	1	191	16	88	296	14	4	110	7	135	0	704	200	12	916	4	10	11	13	38
% App. Total	4.1	2.9	92.4	0.6		0.3	64.5	5.4	29.7		10.4	3	81.5	5.2		0	76.9	21.8	1.3		10.5	26.3	28.9	34.2	
PHF	.692	.929	.854	.625	.849	.250	.901	.667	.786	.987	.700	.500	.887	.583	.823	.000	.907	.862	.750	.946	1.000	.417	.688	.650	.731

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Ocean Ave / Saunders St
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 5

Groups Printed- Cars

	Forest Ave From North				Ocean Ave From East				Vannah Ave From Southeast				Forest Ave From South				Saunders St From West				
	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total
Start Time	16	5	157	1	0	52	3	16	4	2	23	3	0	176	29	3	0	2	5	1	498
04:00 PM																					
04:15 PM	8	8	188	0	1	43	9	16	5	2	30	3	0	154	51	4	2	1	1	1	527
04:30 PM	9	7	189	2	0	44	3	10	5	0	30	0	0	159	42	2	1	2	2	5	512
04:45 PM	6	5	205	1	0	53	2	19	0	0	26	1	0	193	45	3	1	1	3	1	565
Total	39	25	739	4	1	192	17	61	14	4	109	7	0	682	167	12	4	6	11	8	2102
05:00 PM	8	7	176	1	1	46	6	22	1	1	25	5	0	165	58	4	1	6	2	4	539
05:15 PM	13	7	236	1	0	41	3	28	1	2	21	1	0	183	55	3	1	1	4	3	604
05:30 PM	9	12	142	1	0	51	5	19	1	2	35	1	0	159	33	1	0	2	1	0	474
05:45 PM	13	6	138	1	1	39	3	23	3	0	30	1	0	163	49	3	2	4	1	3	483
Total	43	32	692	4	2	177	17	92	6	5	111	8	0	670	195	11	4	13	8	10	2100
Grand Total	82	57	1431	8	3	369	34	153	20	9	220	15	0	1352	362	23	8	19	19	18	4202
Approch %	5.2	3.6	90.7	0.5	0.5	66	6.1	27.4	7.6	3.4	83.3	5.7	0	77.8	20.8	1.3	12.5	29.7	29.7	28.1	
Total %	2	1.4	34.1	0.2	0.1	8.8	0.8	3.6	0.5	0.2	5.2	0.4	0	32.2	8.6	0.5	0.2	0.5	0.5	0.4	

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP12
 Site Code : 6846WP12
 Start Date : 9/29/2015
 Page No : 9

Groups Printed- Trucks																					
		Forest Ave From North				Ocean Ave From East				Vannah Ave From Southeast				Forest Ave From South				Saunders St From West			
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total
04:00 PM	0	0	5	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	8
04:15 PM	0	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6
Total	0	0	12	0	0	0	0	0	0	0	1	0	0	5	1	0	0	0	0	0	19
05:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
05:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
05:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	8	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	11
Grand Total	0	0	20	0	0	0	0	0	0	0	1	0	0	8	1	0	0	0	0	0	30
Apprch %	0	0	100	0	0	0	0	0	0	0	100	0	0	88.9	11.1	0	0	0	0	0	0
Total %	0	0	66.7	0	0	0	0	0	0	0	3.3	0	0	26.7	3.3	0	0	0	0	0	0

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 13

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 13

File Name : 6846WP12
Site Code : 6846WP12
Start Date : 9/29/2015
Page No : 13

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP12
 Site Code : 6846WP12
 Start Date : 9/29/2015
 Page No : 14

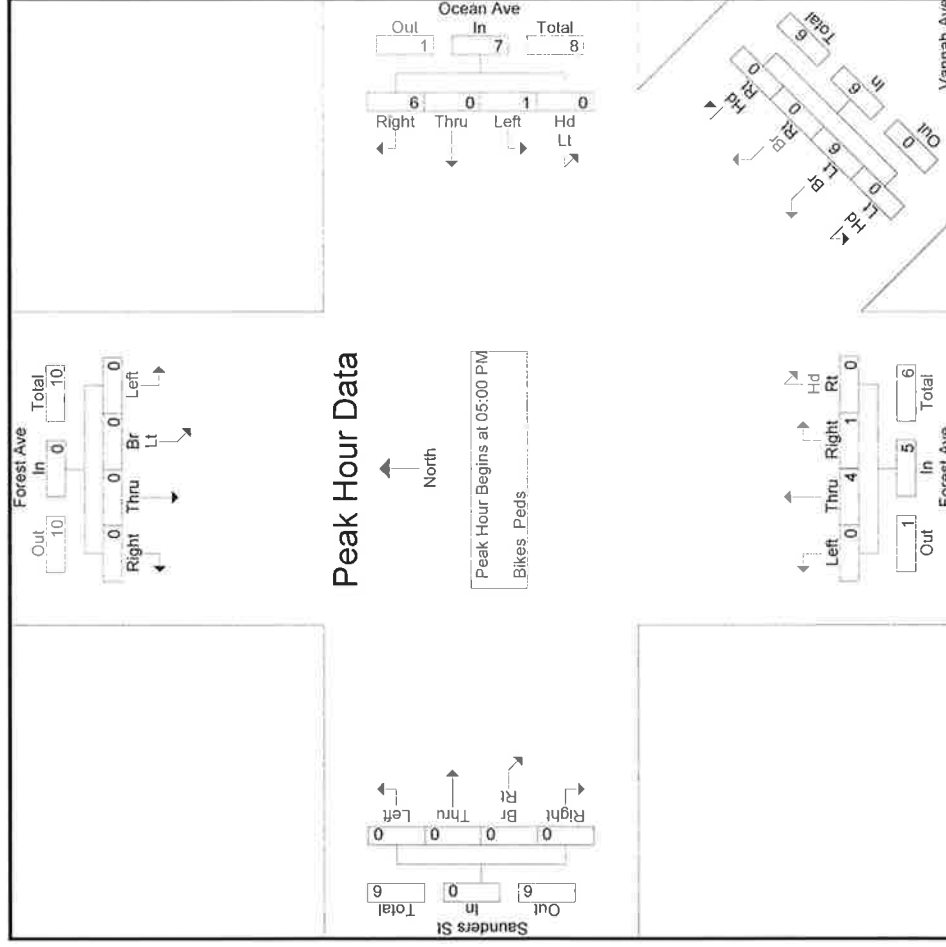
	Forest Ave From North					Ocean Ave From East					Vannah Ave From Southeast					Forest Ave From South					Saunders St From West					
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 05:00 PM																										
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	1	0	6	7	0	2	0	0	0	2	0	1	1	0	2	0	0	0	0	11
Total Volume	0	0	0	0	0	0	1	0	6	7	0	6	0	0	6	0	4	1	0	5	0	0	0	0	0	18
% App. Total	0	0	0	0	0	0	14.3	0	85.7	0	0	100	0	0	0	0	80	20	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.750	.000	.000	.750	.000	.500	.250	.000	.625	.000	.000	.000	.000	.000	.409

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP12
 Site Code : 6846WP12
 Start Date : 9/29/2015
 Page No : 15



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0
+15 mins.	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
+45 mins.	0	0	1	0	0	1	0	6	2	0	0	0	2	0	1	1	2	0	0	0
Total Volume	0	0	2	0	0	1	0	6	7	0	6	0	6	0	4	1	5	0	2	0
% App. Total	0	0	100	0	0	14.3	0	85.7	0	100	0	0	80	0	20	0	0	100	0	0
PHF	.000	.000	.500	.000	.250	.250	.000	.250	.000	.750	.000	.000	.500	.000	.250	.000	.625	.000	.500	.000

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	20	72	0	14	47	11	6	48	9	0	110	7	344
07:15 AM	32	83	4	17	67	19	14	73	16	10	156	5	496
07:30 AM	29	94	2	23	97	22	15	56	15	7	164	12	536
07:45 AM	22	106	3	26	100	31	17	47	16	1	151	13	533
Total	103	355	9	80	311	83	52	224	56	18	581	37	1909
08:00 AM	34	105	2	22	77	11	21	43	16	8	147	10	496
08:15 AM	32	74	4	18	64	14	16	44	23	7	156	8	460
08:30 AM	23	58	0	14	75	17	10	46	21	3	165	9	441
08:45 AM	26	56	3	21	100	14	16	39	16	6	139	16	452
Total	115	293	9	75	316	56	63	172	76	24	607	43	1849
Grand Total	218	648	18	155	627	139	115	396	132	42	1188	80	3758
Apprch %	24.7	73.3	2	16.8	68.1	15.1	17.9	61.6	20.5	3.2	90.7	6.1	
Total %	5.8	17.2	0.5	4.1	16.7	3.7	3.1	10.5	3.5	1.1	31.6	2.1	
Cars	216	631	18	154	614	138	111	383	129	39	1171	73	3677
% Cars	99.1	97.4	100	99.4	97.9	99.3	96.5	96.7	97.7	92.9	98.6	91.2	97.8
Trucks	2	17	0	1	13	1	4	13	3	3	17	7	81
% Trucks	0.9	2.6	0	0.6	2.1	0.7	3.5	3.3	2.3	7.1	1.4	8.8	2.2

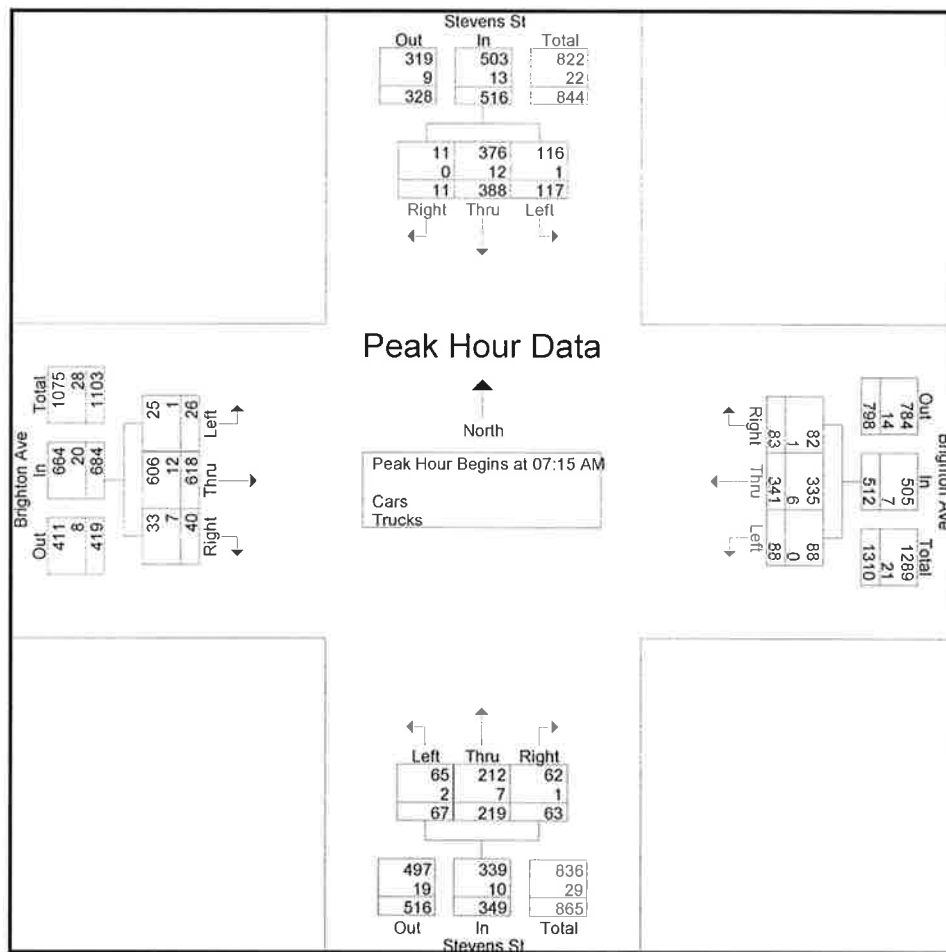
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 2

	Stevens St From North				Brighton Ave From East				Stevens St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	32	83	4	119	17	67	19	103	14	73	16	103	10	156	5	171	496
07:30 AM	29	94	2	125	23	97	22	142	15	56	15	86	7	164	12	183	536
07:45 AM	22	106	3	131	26	100	31	157	17	47	16	80	1	151	13	165	533
08:00 AM	34	105	2	141	22	77	11	110	21	43	16	80	8	147	10	165	496
Total Volume	117	388	11	516	88	341	83	512	67	219	63	349	26	618	40	684	2061
% App. Total	22.7	75.2	2.1		17.2	66.6	16.2		19.2	62.8	18.1		3.8	90.4	5.8		
PHF	.860	.915	.688	.915	.846	.853	.669	.815	.798	.750	.984	.847	.650	.942	.769	.934	.961
Cars	116	376	11	503	88	335	82	505	65	212	62	339	25	606	33	664	2011
% Cars	99.1	96.9	100	97.5	100	98.2	98.8	98.6	97.0	96.8	98.4	97.1	96.2	98.1	82.5	97.1	97.6
Trucks	1	12	0	13	0	6	1	7	2	7	1	10	1	12	7	20	50
% Trucks	0.9	3.1	0	2.5	0	1.8	1.2	1.4	3.0	3.2	1.6	2.9	3.8	1.9	17.5	2.9	2.4



Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	19	71	0	14	46	11	6	47	9	0	109	7	339
07:15 AM	32	80	4	17	65	19	13	71	16	9	154	5	485
07:30 AM	28	92	2	23	95	21	15	55	15	7	164	11	528
07:45 AM	22	103	3	26	98	31	17	45	15	1	146	10	517
Total	101	346	9	80	304	82	51	218	55	17	573	33	1869
08:00 AM	34	101	2	22	77	11	20	41	16	8	142	7	481
08:15 AM	32	71	4	17	62	14	14	42	21	6	155	8	446
08:30 AM	23	58	0	14	73	17	10	44	21	2	163	9	434
08:45 AM	26	55	3	21	98	14	16	38	16	6	138	16	447
Total	115	285	9	74	310	56	60	165	74	22	598	40	1808
Grand Total	216	631	18	154	614	138	111	383	129	39	1171	73	3677
Apprch %	25	72.9	2.1	17	67.8	15.2	17.8	61.5	20.7	3	91.3	5.7	
Total %	5.9	17.2	0.5	4.2	16.7	3.8	3	10.4	3.5	1.1	31.8	2	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	1	1	0	0	1	0	0	1	0	0	1	0	5
07:15 AM	0	3	0	0	2	0	1	2	0	1	2	0	11
07:30 AM	1	2	0	0	2	1	0	1	0	0	0	1	8
07:45 AM	0	3	0	0	2	0	0	2	1	0	5	3	16
Total	2	9	0	0	7	1	1	6	1	1	8	4	40
08:00 AM	0	4	0	0	0	0	1	2	0	0	5	3	15
08:15 AM	0	3	0	1	2	0	2	2	2	1	1	0	14
08:30 AM	0	0	0	0	2	0	0	2	0	1	2	0	7
08:45 AM	0	1	0	0	2	0	0	1	0	0	1	0	5
Total	0	8	0	1	6	0	3	7	2	2	9	3	41
Grand Total	2	17	0	1	13	1	4	13	3	3	17	7	81
Apprch %	10.5	89.5	0	6.7	86.7	6.7	20	65	15	11.1	63	25.9	
Total %	2.5	21	0	1.2	16	1.2	4.9	16	3.7	3.7	21	8.6	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Stevens St From North				Brighton Ave From East				Stevens St From South				Brighton Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	1	0	0	1	0	1	0	1	0	1	0	0	0	2	0	1	3	5	8
07:15 AM	0	0	0	2	0	1	0	5	0	0	0	0	0	0	0	2	9	1	10
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2	2	4
07:45 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	2	2	4	6
Total	2	0	0	3	0	4	0	8	0	3	0	0	0	3	0	5	16	12	28
08:00 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	2	3
08:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	1	2
08:45 AM	0	0	0	0	0	2	0	1	0	0	0	0	0	1	0	0	1	3	4
Total	0	2	0	0	0	3	0	2	1	0	0	0	0	3	0	1	3	9	12
Grand Total	2	2	0	3	0	7	0	10	1	3	0	0	0	6	0	6	19	21	40
Apprch %	50	50	0		0	100	0		25	75	0		0	100	0				
Total %	9.5	9.5	0		0	33.3	0		4.8	14.3	0		0	28.6	0		47.5	52.5	

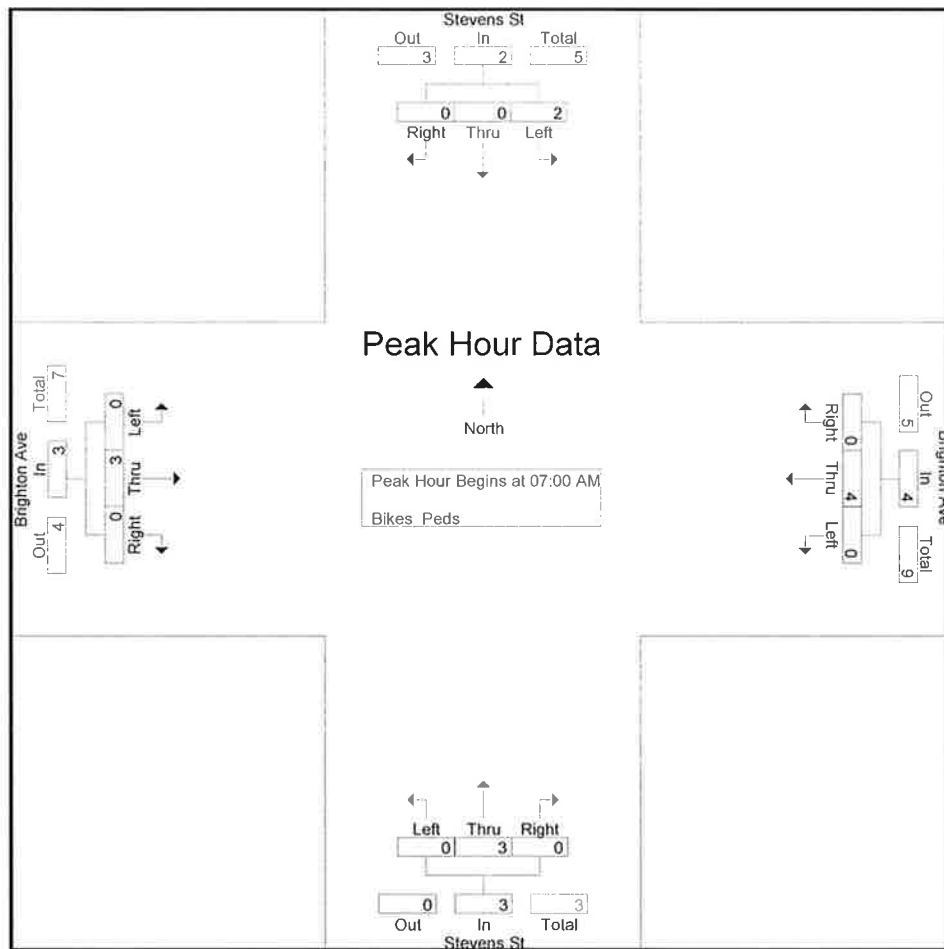
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 11

Stevens St From North					Brighton Ave From East					Stevens St From South					Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:00 AM																			
07:00 AM	1	0	0	1	0	1	0	1		0	1	0	1		0	2	0	2	5
07:15 AM	0	0	0	0	0	1	0	1		0	0	0	0		0	0	0	0	1
07:30 AM	0	0	0	0	0	2	0	2		0	0	0	0		0	0	0	0	2
07:45 AM	1	0	0	1	0	0	0	0		0	2	0	2		0	1	0	1	4
Total Volume	2	0	0	2	0	4	0	4		0	3	0	3		0	3	0	3	12
% App. Total	100	0	0		0	100	0			0	100	0			0	100	0		
PHF	.500	.000	.000	.500	.000	.500	.000	.500		.000	.375	.000	.375		.000	.375	.000	.375	.600



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	1	0	1	0	2	0	2
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	0	2	0	2	0	0	0	0	0	0	0	0
+45 mins.	0	2	0	2	0	0	0	0	0	2	0	2	0	1	0	1
Total Volume	1	2	0	3	0	4	0	4	0	3	0	3	0	3	0	3
% App. Total	33.3	66.7	0		0	100	0		0	100	0		0	100	0	
PHF	.250	.250	.000	.375	.000	.500	.000	.500	.000	.375	.000	.375	.000	.375	.000	.375

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	24	73	7	18	187	14	19	80	22	4	112	11	571
04:15 PM	19	87	4	17	171	25	20	84	14	7	127	8	583
04:30 PM	21	67	3	18	148	27	21	83	20	5	133	8	554
04:45 PM	35	74	3	19	164	29	29	85	18	9	121	17	603
Total	99	301	17	72	670	95	89	332	74	25	493	44	2311
05:00 PM	35	74	5	22	146	19	22	99	19	8	107	7	563
05:15 PM	29	70	6	21	192	20	19	89	16	3	148	15	628
05:30 PM	28	68	4	21	146	35	36	96	14	12	117	10	587
05:45 PM	16	58	1	15	148	40	24	104	13	6	115	11	551
Total	108	270	16	79	632	114	101	388	62	29	487	43	2329
Grand Total	207	571	33	151	1302	209	190	720	136	54	980	87	4640
Apprch %	25.5	70.4	4.1	9.1	78.3	12.6	18.2	68.8	13	4.8	87.4	7.8	
Total %	4.5	12.3	0.7	3.3	28.1	4.5	4.1	15.5	2.9	1.2	21.1	1.9	
Cars	206	563	33	151	1288	209	185	716	136	54	968	86	4595
% Cars	99.5	98.6	100	100	98.9	100	97.4	99.4	100	100	98.8	98.9	99
Trucks	1	8	0	0	14	0	5	4	0	0	12	1	45
% Trucks	0.5	1.4	0	0	1.1	0	2.6	0.6	0	0	1.2	1.1	1

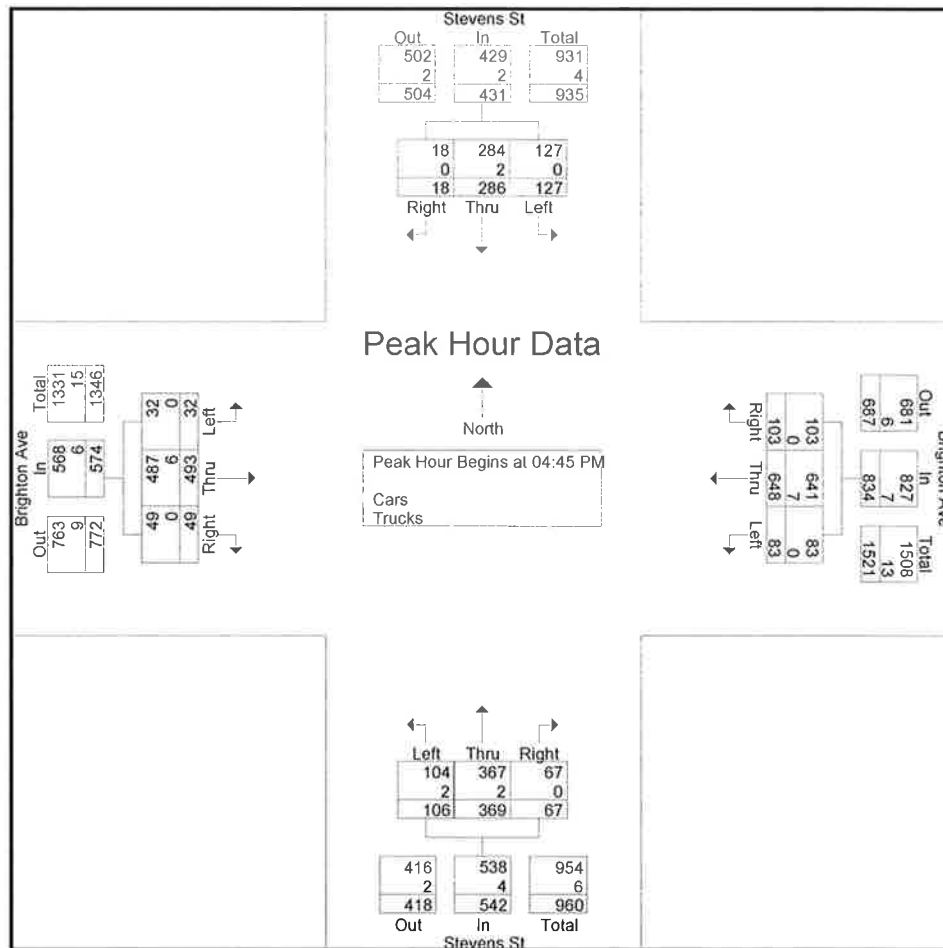
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 2

	Stevens St From North				Brighton Ave From East				Stevens St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	35	74	3	112	19	164	29	212	29	85	18	132	9	121	17	147	603
05:00 PM	35	74	5	114	22	146	19	187	22	99	19	140	8	107	7	122	563
05:15 PM	29	70	6	105	21	192	20	233	19	89	16	124	3	148	15	166	628
05:30 PM	28	68	4	100	21	146	35	202	36	96	14	146	12	117	10	139	587
Total Volume	127	286	18	431	83	648	103	834	106	369	67	542	32	493	49	574	2381
% App. Total	29.5	66.4	4.2		10	77.7	12.4		19.6	68.1	12.4		5.6	85.9	8.5		
PHF	.907	.966	.750	.945	.943	.844	.736	.895	.736	.932	.882	.928	.667	.833	.721	.864	.948
Cars	127	284	18	429	83	641	103	827	104	367	67	538	32	487	49	568	2362
% Cars	100	99.3	100	99.5	100	98.9	100	99.2	98.1	99.5	100	99.3	100	98.8	100	99.0	99.2
Trucks	0	2	0	2	0	7	0	7	2	2	0	4	0	6	0	6	19
% Trucks	0	0.7	0	0.5	0	1.1	0	0.8	1.9	0.5	0	0.7	0	1.2	0	1.0	0.8



Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	24	70	7	18	186	14	17	79	22	4	109	10	560
04:15 PM	19	85	4	17	169	25	19	83	14	7	126	8	576
04:30 PM	20	66	3	18	146	27	21	83	20	5	131	8	548
04:45 PM	35	73	3	19	162	29	29	85	18	9	119	17	598
Total	98	294	17	72	663	95	86	330	74	25	485	43	2282
05:00 PM	35	74	5	22	144	19	21	98	19	8	107	7	559
05:15 PM	29	70	6	21	190	20	18	89	16	3	147	15	624
05:30 PM	28	67	4	21	145	35	36	95	14	12	114	10	581
05:45 PM	16	58	1	15	146	40	24	104	13	6	115	11	549
Total	108	269	16	79	625	114	99	386	62	29	483	43	2313
Grand Total	206	563	33	151	1288	209	185	716	136	54	968	86	4595
Apprch %	25.7	70.2	4.1	9.2	78.2	12.7	17.8	69	13.1	4.9	87.4	7.8	
Total %	4.5	12.3	0.7	3.3	28	4.5	4	15.6	3	1.2	21.1	1.9	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	3	0	0	1	0	2	1	0	0	3	1	11
04:15 PM	0	2	0	0	2	0	1	1	0	0	1	0	7
04:30 PM	1	1	0	0	2	0	0	0	0	0	2	0	6
04:45 PM	0	1	0	0	2	0	0	0	0	0	2	0	5
Total	1	7	0	0	7	0	3	2	0	0	8	1	29
05:00 PM	0	0	0	0	2	0	1	1	0	0	0	0	4
05:15 PM	0	0	0	0	2	0	1	0	0	0	1	0	4
05:30 PM	0	1	0	0	1	0	0	1	0	0	3	0	6
05:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	0	1	0	0	7	0	2	2	0	0	4	0	16
Grand Total	1	8	0	0	14	0	5	4	0	0	12	1	45
Apprch %	11.1	88.9	0	0	100	0	55.6	44.4	0	0	92.3	7.7	
Total %	2.2	17.8	0	0	31.1	0	11.1	8.9	0	0	26.7	2.2	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds																						
	Stevens St From North				Brighton Ave From East				Stevens St From South				Brighton Ave From West									
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu Total	Inclu Total	Int Total			
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	2		
04:15 PM	0	0	0	1	0	1	0	1	0	0	0	0	0	1	0	0	2	2	4			
04:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	1	3	1	4			
04:45 PM	0	1	0	1	0	1	0	0	0	0	0	0	0	2	0	0	1	4	5			
Total	0	1	0	3	0	2	0	2	0	1	0	0	0	5	0	1	6	9	15			
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	2	4			
05:15 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	1	1	5	6			
05:30 PM	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	1	1	4	5			
05:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	3	3			
Total	0	0	1	0	1	6	0	0	0	1	0	0	0	5	0	4	4	14	18			
Grand Total	0	1	1	3	1	8	0	2	0	2	0	0	0	10	0	5	10	23	33			
Apprch %	0	50	50		11.1	88.9	0		0	100	0		0	100	0							
Total %	0	4.3	4.3		4.3	34.8	0		0	8.7	0		0	43.5	0		30.3	69.7				

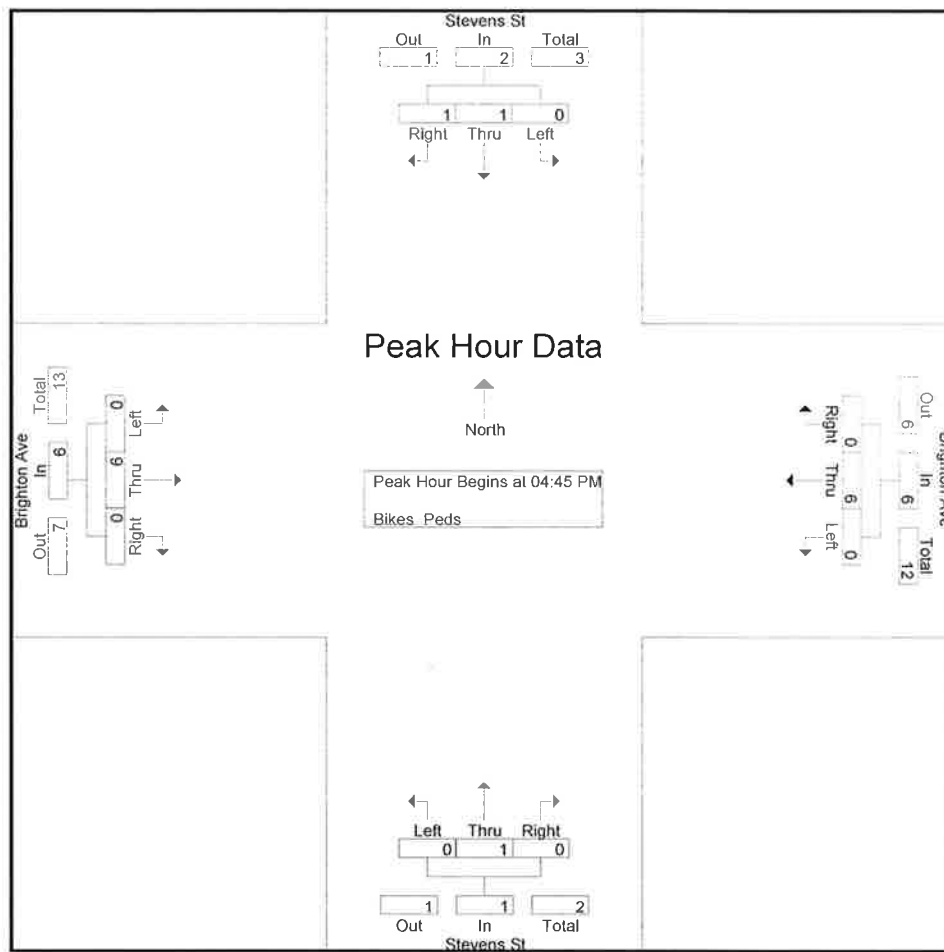
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP13
 Site Code : 68460P13
 Start Date : 9/29/2015
 Page No : 11

	Stevens St From North				Brighton Ave From East				Stevens St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	2	0	2	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
05:15 PM	0	0	0	0	0	2	0	2	0	1	0	1	0	2	0	2	5
05:30 PM	0	0	1	1	0	3	0	3	0	0	0	0	0	0	0	0	4
Total Volume	0	1	1	2	0	6	0	6	0	1	0	1	0	6	0	6	15
% App. Total	0	50	50		0	100	0		0	100	0		0	100	0		
PHF	.000	.250	.250	.500	.000	.500	.000	.500	.000	.250	.000	.250	.000	.750	.000	.750	.750



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				04:00 PM				04:30 PM			
+0 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	1	0	1
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2
+45 mins.	0	0	1	1	1	1	0	2	0	0	0	0	0	2	0	2
Total Volume	0	1	1	2	1	6	0	7	0	1	0	1	0	7	0	7
% App. Total	0	50	50		14.3	85.7	0		0	100	0		0	100	0	
PHF	.000	.250	.250	.500	.250	.500	.000	.583	.000	.250	.000	.250	.000	.875	.000	.875

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	1	19	10	1	57	2	16	15	1	11	90	40	263
07:15 AM	0	39	9	2	58	0	20	21	0	13	122	44	328
07:30 AM	2	58	15	0	89	3	38	23	2	14	177	56	477
07:45 AM	1	52	11	0	77	1	38	23	1	9	137	60	410
Total	4	168	45	3	281	6	112	82	4	47	526	200	1478
08:00 AM	0	34	14	0	68	2	32	14	2	17	164	40	387
08:15 AM	0	32	11	0	45	1	27	18	0	7	138	41	320
08:30 AM	0	30	10	1	65	1	26	10	1	8	167	43	362
08:45 AM	1	26	13	0	94	3	21	14	0	16	129	37	354
Total	1	122	48	1	272	7	106	56	3	48	598	161	1423
Grand Total	5	290	93	4	553	13	218	138	7	95	1124	361	2901
Apprch %	1.3	74.7	24	0.7	97	2.3	60.1	38	1.9	6	71.1	22.8	
Total %	0.2	10	3.2	0.1	19.1	0.4	7.5	4.8	0.2	3.3	38.7	12.4	
Cars	5	285	93	4	542	12	218	137	7	94	1113	355	2865
% Cars	100	98.3	100	100	98	92.3	100	99.3	100	98.9	99	98.3	98.8
Trucks	0	5	0	0	11	1	0	1	0	1	11	6	36
% Trucks	0	1.7	0	0	2	7.7	0	0.7	0	1.1	1	1.7	1.2

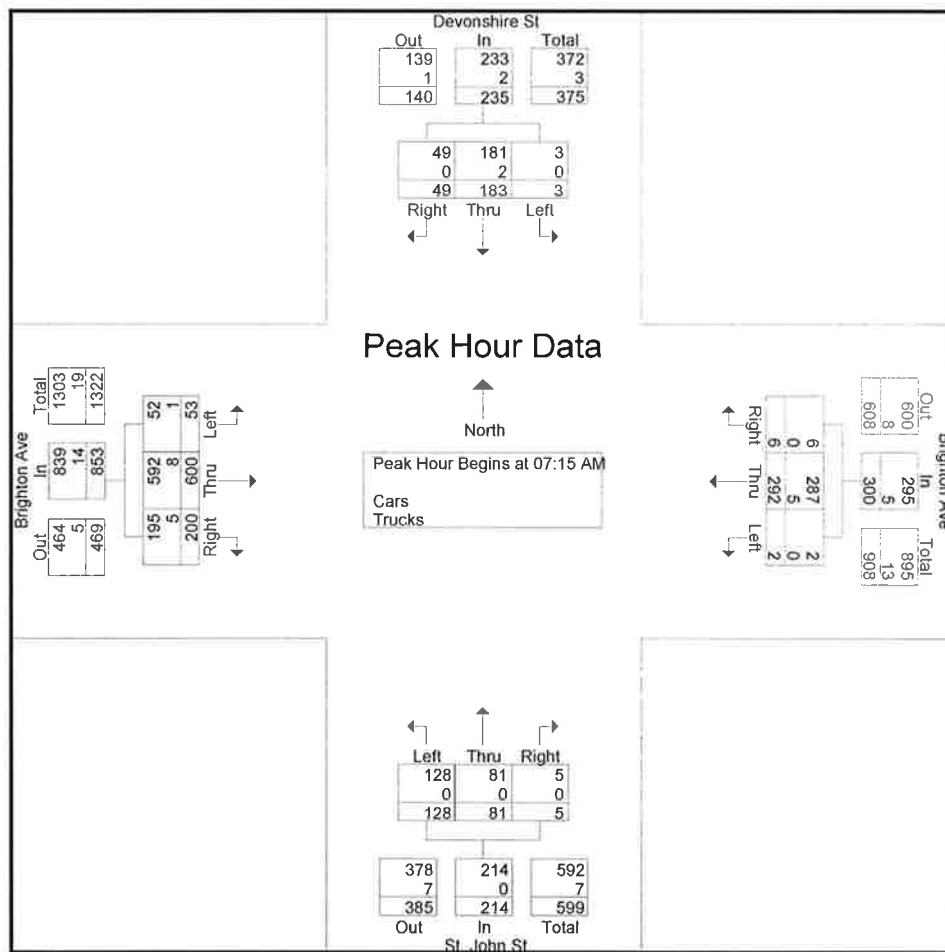
Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 2

	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	39	9	48	2	58	0	60	20	21	0	41	13	122	44	179	328
07:30 AM	2	58	15	75	0	89	3	92	38	23	2	63	14	177	56	247	477
07:45 AM	1	52	11	64	0	77	1	78	38	23	1	62	9	137	60	206	410
08:00 AM	0	34	14	48	0	68	2	70	32	14	2	48	17	164	40	221	387
Total Volume	3	183	49	235	2	292	6	300	128	81	5	214	53	600	200	853	1602
% App. Total	1.3	77.9	20.9		0.7	97.3	2		59.8	37.9	2.3		6.2	70.3	23.4		
PHF	.375	.789	.817	.783	.250	.820	.500	.815	.842	.880	.625	.849	.779	.847	.833	.863	.840
Cars	3	181	49	233	2	287	6	295	128	81	5	214	52	592	195	839	1581
% Cars	100	98.9	100	99.1	100	98.3	100	98.3	100	100	100	100	98.1	98.7	97.5	98.4	98.7
Trucks	0	2	0	2	0	5	0	5	0	0	0	0	1	8	5	14	21
% Trucks	0	1.1	0	0.9	0	1.7	0	1.7	0	0	0	0	1.9	1.3	2.5	1.6	1.3



Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	1	18	10	1	56	1	16	15	1	11	90	40	260
07:15 AM	0	39	9	2	57	0	20	21	0	13	120	43	324
07:30 AM	2	56	15	0	88	3	38	23	2	14	177	55	473
07:45 AM	1	52	11	0	74	1	38	23	1	8	136	57	402
Total	4	165	45	3	275	5	112	82	4	46	523	195	1459
08:00 AM	0	34	14	0	68	2	32	14	2	17	159	40	382
08:15 AM	0	31	11	0	44	1	27	18	0	7	138	40	317
08:30 AM	0	30	10	1	63	1	26	10	1	8	165	43	358
08:45 AM	1	25	13	0	92	3	21	13	0	16	128	37	349
Total	1	120	48	1	267	7	106	55	3	48	590	160	1406
Grand Total	5	285	93	4	542	12	218	137	7	94	1113	355	2865
Apprch %	1.3	74.4	24.3	0.7	97.1	2.2	60.2	37.8	1.9	6	71.3	22.7	
Total %	0.2	9.9	3.2	0.1	18.9	0.4	7.6	4.8	0.2	3.3	38.8	12.4	

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	1	0	0	1	1	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	1	0	0	0	0	0	2	1	4
07:30 AM	0	2	0	0	1	0	0	0	0	0	0	1	4
07:45 AM	0	0	0	0	3	0	0	0	0	1	1	3	8
Total	0	3	0	0	6	1	0	0	0	1	3	5	19
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	5
08:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	3
08:30 AM	0	0	0	0	2	0	0	0	0	0	2	0	4
08:45 AM	0	1	0	0	2	0	0	1	0	0	1	0	5
Total	0	2	0	0	5	0	0	1	0	0	8	1	17
Grand Total	0	5	0	0	11	1	0	1	0	1	11	6	36
Apprch %	0	100	0	0	91.7	8.3	0	100	0	5.6	61.1	33.3	
Total %	0	13.9	0	0	30.6	2.8	0	2.8	0	2.8	30.6	16.7	

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	2	0	0	0	0	0	2	0	3	0	0	2	5	7
07:15 AM	0	0	0	0	0	3	0	0	0	0	0	10	0	1	0	0	10	4	14
07:30 AM	0	0	0	0	0	2	0	0	0	0	0	8	0	4	0	0	8	6	14
07:45 AM	0	1	0	0	0	2	0	0	0	0	0	2	0	1	0	0	2	4	6
Total	0	1	0	0	0	9	0	0	0	0	0	22	0	9	0	0	22	19	41
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	2	1	3
08:15 AM	0	0	0	0	0	2	0	0	0	0	0	1	0	2	0	0	1	4	5
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	2	0	0	5	2	7
08:45 AM	0	0	0	2	0	2	0	1	0	0	0	0	0	1	0	0	3	3	6
Total	0	0	0	2	0	5	0	1	0	0	0	8	0	5	0	0	11	10	21
Grand Total	0	1	0	2	0	14	0	1	0	0	0	30	0	14	0	0	33	29	62
Apprch %	0	100	0		0	100	0		0	0	0		0	100	0				
Total %	0	3.4	0		0	48.3	0		0	0	0		0	48.3	0		53.2	46.8	

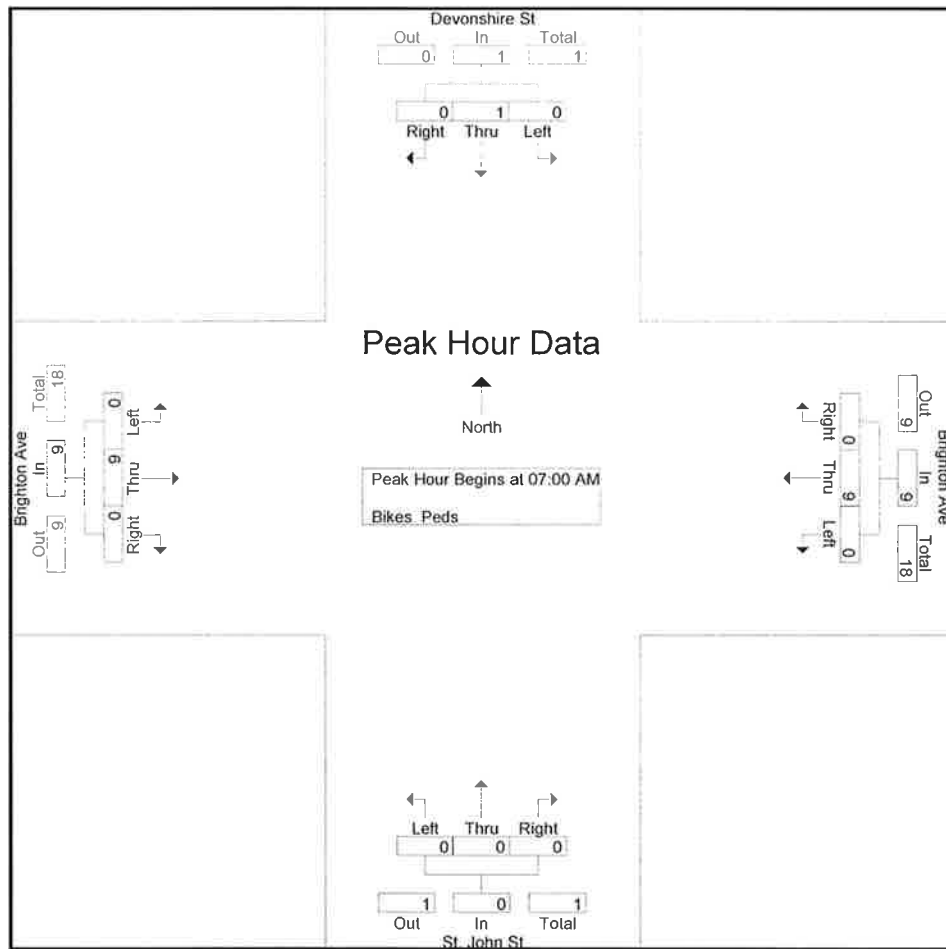
Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 11

	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
07:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
07:45 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	1	0	1	4
Total Volume	0	1	0	1	0	9	0	9	0	0	0	0	0	9	0	9	19
% App. Total	0	100	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.250	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000	.000	.563	.000	.563	.792



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4
+45 mins.	0	1	0	1	0	2	0	2	0	0	0	0	0	1	0	1
Total Volume	0	1	0	1	0	9	0	9	0	0	0	0	0	9	0	9
% App. Total	0	100	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.250	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000	.000	.563	.000	.563

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	1	14	5	0	174	4	55	28	2	16	133	31	463
04:15 PM	0	25	11	0	125	6	58	36	3	17	98	36	415
04:30 PM	0	23	6	2	152	3	33	33	5	19	129	32	437
04:45 PM	5	21	7	0	128	4	50	37	4	19	116	35	426
Total	6	83	29	2	579	17	196	134	14	71	476	134	1741
05:00 PM	1	23	11	1	180	1	54	29	4	18	129	33	484
05:15 PM	1	17	15	2	152	2	47	36	4	23	139	34	472
05:30 PM	2	25	13	0	177	4	42	21	4	17	136	33	474
05:45 PM	1	30	8	1	116	4	50	22	3	15	102	30	382
Total	5	95	47	4	625	11	193	108	15	73	506	130	1812
Grand Total	11	178	76	6	1204	28	389	242	29	144	982	264	3553
Apprch %	4.2	67.2	28.7	0.5	97.3	2.3	58.9	36.7	4.4	10.4	70.6	19	
Total %	0.3	5	2.1	0.2	33.9	0.8	10.9	6.8	0.8	4.1	27.6	7.4	
Cars	11	176	76	6	1197	28	387	242	29	144	971	264	3531
% Cars	100	98.9	100	100	99.4	100	99.5	100	100	100	98.9	100	99.4
Trucks	0	2	0	0	7	0	2	0	0	0	11	0	22
% Trucks	0	1.1	0	0	0.6	0	0.5	0	0	0	1.1	0	0.6

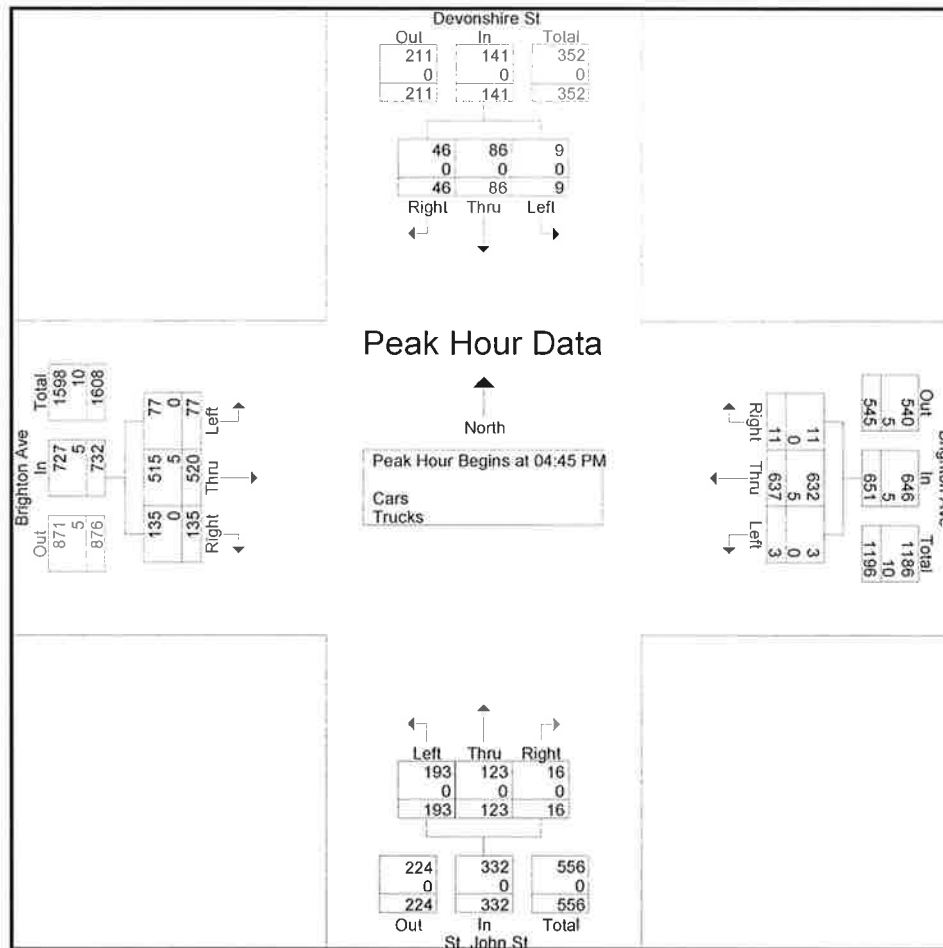
Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 2

	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	5	21	7	33	0	128	4	132	50	37	4	91	19	116	35	170	426
05:00 PM	1	23	11	35	1	180	1	182	54	29	4	87	18	129	33	180	484
05:15 PM	1	17	15	33	2	152	2	156	47	36	4	87	23	139	34	196	472
05:30 PM	2	25	13	40	0	177	4	181	42	21	4	67	17	136	33	186	474
Total Volume	9	86	46	141	3	637	11	651	193	123	16	332	77	520	135	732	1856
% App. Total	6.4	61	32.6		0.5	97.8	1.7		58.1	37	4.8		10.5	71	18.4		
PHF	.450	.860	.767	.881	.375	.885	.688	.894	.894	.831	1.00	.912	.837	.935	.964	.934	.959
Cars	9	86	46	141	3	632	11	646	193	123	16	332	77	515	135	727	1846
% Cars	100	100	100	100	100	99.2	100	99.2	100	100	100	100	100	99.0	100	99.3	99.5
Trucks	0	0	0	0	0	5	0	5	0	0	0	0	0	5	0	5	10
% Trucks	0	0	0	0	0	0.8	0	0.8	0	0	0	0	0	1.0	0	0.7	0.5



Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	1	13	5	0	174	4	55	28	2	16	132	31	461
04:15 PM	0	25	11	0	124	6	57	36	3	17	96	36	411
04:30 PM	0	23	6	2	152	3	33	33	5	19	126	32	434
04:45 PM	5	21	7	0	126	4	50	37	4	19	114	35	422
Total	6	82	29	2	576	17	195	134	14	71	468	134	1728
05:00 PM	1	23	11	1	179	1	54	29	4	18	129	33	483
05:15 PM	1	17	15	2	151	2	47	36	4	23	139	34	471
05:30 PM	2	25	13	0	176	4	42	21	4	17	133	33	470
05:45 PM	1	29	8	1	115	4	49	22	3	15	102	30	379
Total	5	94	47	4	621	11	192	108	15	73	503	130	1803
Grand Total	11	176	76	6	1197	28	387	242	29	144	971	264	3531
Apprch %	4.2	66.9	28.9	0.5	97.2	2.3	58.8	36.8	4.4	10.4	70.4	19.1	
Total %	0.3	5	2.2	0.2	33.9	0.8	11	6.9	0.8	4.1	27.5	7.5	

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
04:15 PM	0	0	0	0	1	0	1	0	0	0	2	0	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
04:45 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
Total	0	1	0	0	3	0	1	0	0	0	8	0	13
05:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	1	0	0	0	0	0	3	0	4
05:45 PM	0	1	0	0	1	0	1	0	0	0	0	0	3
Total	0	1	0	0	4	0	1	0	0	0	3	0	9
Grand Total	0	2	0	0	7	0	2	0	0	0	11	0	22
Apprch %	0	100	0	0	100	0	100	0	0	0	100	0	
Total %	0	9.1	0	0	31.8	0	9.1	0	0	0	50	0	

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	3	0	0	0	1	0	1	0	3	0	1	0	1	8	2	10
04:15 PM	0	0	0	2	0	1	0	1	0	0	0	2	0	1	0	3	8	2	10
04:30 PM	0	0	0	2	0	2	0	0	0	0	0	2	0	2	0	0	4	4	8
04:45 PM	0	0	0	3	0	1	0	1	0	2	0	4	0	1	1	0	8	5	13
Total	0	0	0	10	0	4	0	3	0	3	0	11	0	5	1	4	28	13	41
05:00 PM	0	0	0	2	0	2	0	0	0	0	0	1	0	1	0	0	3	3	6
05:15 PM	0	0	0	2	0	1	0	0	0	0	0	1	0	3	0	0	3	4	7
05:30 PM	0	0	0	1	0	2	0	1	0	0	0	0	0	0	0	1	3	2	5
05:45 PM	0	0	0	7	0	2	0	1	1	0	0	1	0	1	0	0	9	4	13
Total	0	0	0	12	0	7	0	2	1	0	0	3	0	5	0	1	18	13	31
Grand Total	0	0	0	22	0	11	0	5	1	3	0	14	0	10	1	5	46	26	72
Apprch %	0	0	0		0	100	0		25	75	0		0	90.9	9.1				
Total %	0	0	0		0	42.3	0		3.8	11.5	0		0	38.5	3.8		63.9	36.1	

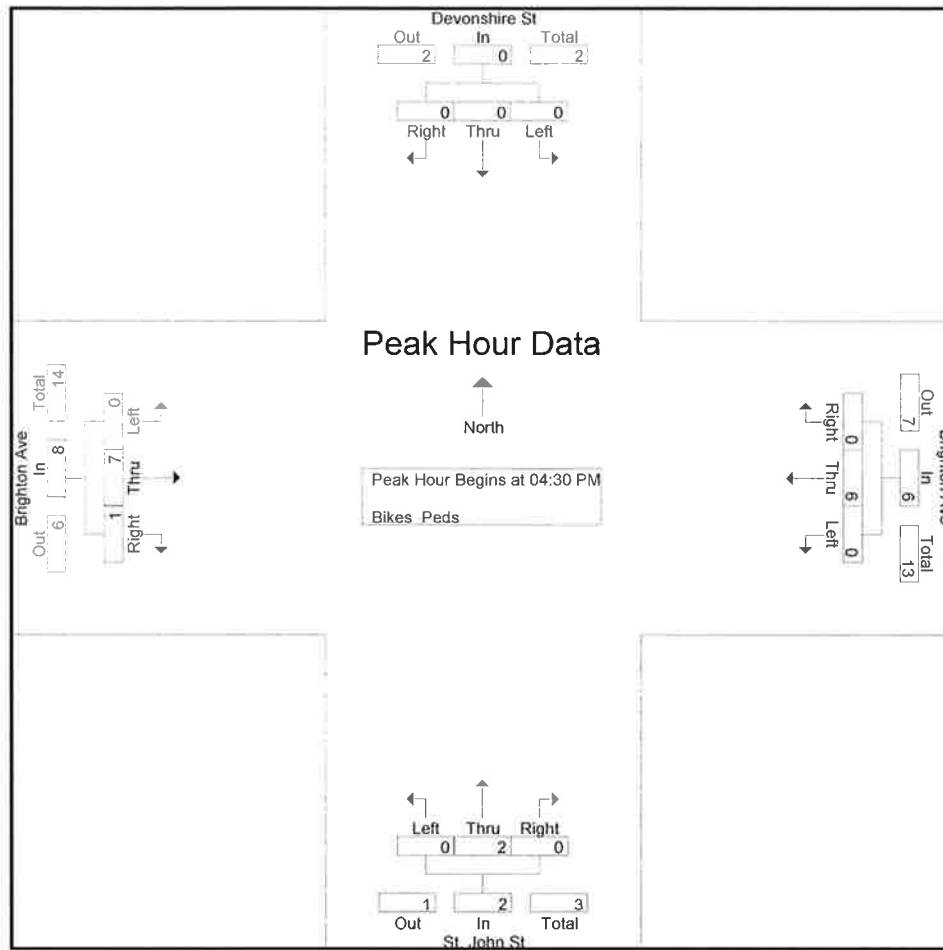
Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP14
 Site Code : 68460P14
 Start Date : 9/29/2015
 Page No : 11

	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
04:45 PM	0	0	0	0	0	1	0	1	0	2	0	2	0	1	1	2	5
05:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
Total Volume	0	0	0	0	0	6	0	6	0	2	0	2	0	7	1	8	16
% App. Total	0	0	0		0	100	0		0	100	0		0	87.5	12.5		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.250	.000	.250	.000	.583	.250	.667	.800



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:30 PM			
+0 mins.	0	0	0	0	0	2	0	2	0	1	0	1	0	2	0	2
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	2	0	2	0	2	0	2	0	3	0	3
Total Volume	0	0	0	0	0	7	0	7	0	3	0	3	0	7	1	8
% App. Total	0	0	0		0	100	0		0	100	0		0	87.5	12.5	
PHF	.000	.000	.000	.000	.000	.875	.000	.875	.000	.375	.000	.375	.000	.583	.250	.667

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	42	42	1	0	2	21	34	0	34	0	66	242
07:15 AM	0	44	73	1	0	1	39	41	0	55	0	104	358
07:30 AM	0	51	76	1	0	1	37	39	0	53	0	90	348
07:45 AM	0	44	93	1	0	0	35	40	0	32	0	94	339
Total	0	181	284	4	0	4	132	154	0	174	0	354	1287
08:00 AM	0	66	67	2	0	0	39	40	0	30	6	66	316
08:15 AM	0	45	49	0	0	1	35	42	0	43	0	92	307
08:30 AM	0	36	45	2	0	1	44	37	0	47	0	96	308
08:45 AM	0	37	62	0	0	0	37	31	0	40	0	68	275
Total	0	184	223	4	0	2	155	150	0	160	6	322	1206
Grand Total	0	365	507	8	0	6	287	304	0	334	6	676	2493
Apprch %	0	41.9	58.1	57.1	0	42.9	48.6	51.4	0	32.9	0.6	66.5	
Total %	0	14.6	20.3	0.3	0	0.2	11.5	12.2	0	13.4	0.2	27.1	
Cars	0	336	504	8	0	6	286	287	0	330	6	671	2434
% Cars	0	92.1	99.4	100	0	100	99.7	94.4	0	98.8	100	99.3	97.6
Trucks	0	29	3	0	0	0	1	17	0	4	0	5	59
% Trucks	0	7.9	0.6	0	0	0	0.3	5.6	0	1.2	0	0.7	2.4

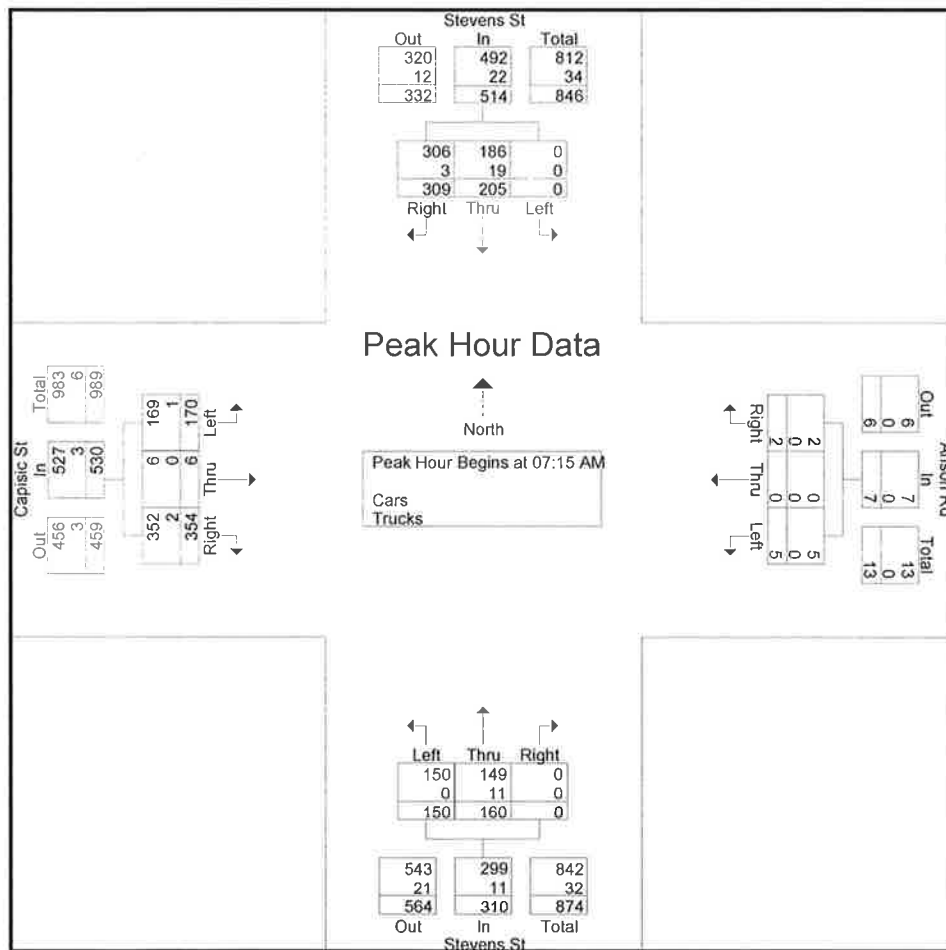
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 2

	Stevens St From North				Anson Rd From East				Stevens St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	44	73	117	1	0	1	2	39	41	0	80	55	0	104	159	358
07:30 AM	0	51	76	127	1	0	1	2	37	39	0	76	53	0	90	143	348
07:45 AM	0	44	93	137	1	0	0	1	35	40	0	75	32	0	94	126	339
08:00 AM	0	66	67	133	2	0	0	2	39	40	0	79	30	6	66	102	316
Total Volume	0	205	309	514	5	0	2	7	150	160	0	310	170	6	354	530	1361
% App. Total	0	39.9	60.1		71.4	0	28.6		48.4	51.6	0		32.1	1.1	66.8		
PHF	.000	.777	.831	.938	.625	.000	.500	.875	.962	.976	.000	.969	.773	.250	.851	.833	.950
Cars	0	186	306	492	5	0	2	7	150	149	0	299	169	6	352	527	1325
% Cars	0	90.7	99.0	95.7	100	0	100	100	100	93.1	0	96.5	99.4	100	99.4	99.4	97.4
Trucks	0	19	3	22	0	0	0	0	0	11	0	11	1	0	2	3	36
% Trucks	0	9.3	1.0	4.3	0	0	0	0	0	6.9	0	3.5	0.6	0	0.6	0.6	2.6



Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	40	42	1	0	2	21	33	0	34	0	66	239
07:15 AM	0	42	70	1	0	1	39	37	0	55	0	104	349
07:30 AM	0	47	76	1	0	1	37	37	0	53	0	89	341
07:45 AM	0	40	93	1	0	0	35	38	0	31	0	94	332
Total	0	169	281	4	0	4	132	145	0	173	0	353	1261
08:00 AM	0	57	67	2	0	0	39	37	0	30	6	65	303
08:15 AM	0	39	49	0	0	1	34	39	0	41	0	91	294
08:30 AM	0	36	45	2	0	1	44	36	0	46	0	95	305
08:45 AM	0	35	62	0	0	0	37	30	0	40	0	67	271
Total	0	167	223	4	0	2	154	142	0	157	6	318	1173
Grand Total	0	336	504	8	0	6	286	287	0	330	6	671	2434
Apprch %	0	40	60	57.1	0	42.9	49.9	50.1	0	32.8	0.6	66.6	
Total %	0	13.8	20.7	0.3	0	0.2	11.8	11.8	0	13.6	0.2	27.6	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
07:15 AM	0	2	3	0	0	0	0	4	0	0	0	0	9
07:30 AM	0	4	0	0	0	0	0	2	0	0	0	1	7
07:45 AM	0	4	0	0	0	0	0	2	0	1	0	0	7
Total	0	12	3	0	0	0	0	9	0	1	0	1	26
08:00 AM	0	9	0	0	0	0	0	3	0	0	0	1	13
08:15 AM	0	6	0	0	0	0	1	3	0	2	0	1	13
08:30 AM	0	0	0	0	0	0	0	1	0	1	0	1	3
08:45 AM	0	2	0	0	0	0	0	1	0	0	0	1	4
Total	0	17	0	0	0	0	1	8	0	3	0	4	33
Grand Total	0	29	3	0	0	0	1	17	0	4	0	5	59
Apprch %	0	90.6	9.4	0	0	0	5.6	94.4	0	44.4	0	55.6	
Total %	0	49.2	5.1	0	0	0	1.7	28.8	0	6.8	0	8.5	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Stevens St From North				Anson Rd From East				Stevens St From South				Capisic St From West				Exclu Total	Inclu Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	2	4	1	5
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	2	0	0	1	0	3	2	5
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	0	8
Total	0	1	0	1	0	0	0	1	0	1	0	3	0	0	1	14	19	3	22
08:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	4	2	6
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3	0	3
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	6	7	2	9
Grand Total	0	1	2	1	0	0	0	2	0	1	0	3	0	0	1	20	26	5	31
Apprch %	0	33.3	66.7		0	0	0		0	100	0		0	0	100				
Total %	0	20	40		0	0	0		0	20	0		0	0	20		83.9	16.1	

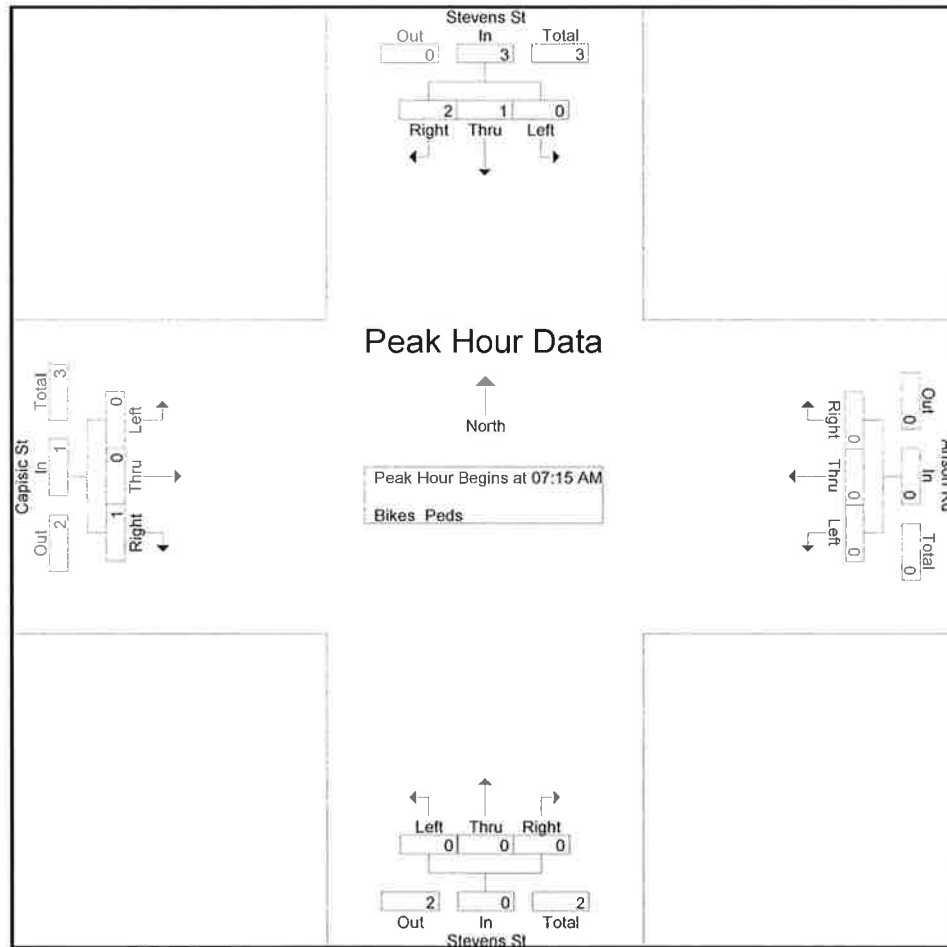
Accurate Counts

978-664-2565

N/S Street : Stevens Street
E/W Street : Anson Rd / Capisic Street
City/State : Portland, ME
Weather : Clear

File Name : 6846WP15
Site Code : 68460P15
Start Date : 9/29/2015
Page No : 11

Stevens St From North					Anson Rd From East				Stevens St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	1	2	3	0	0	0	0	0	0	0	0	0	0	1	1	4
% App. Total	0	33.3	66.7		0	0	0		0	0	0		0	0	100		
PHF	.000	.250	.250	.375	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	2	3	0	0	0	0	0	1	0	1	0	0	1	1
% App. Total	0	33.3	66.7		0	0	0		0	100	0		0	0	100	
PHF	.000	.250	.250	.375	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	46	48	1	0	0	70	53	0	71	0	40	329
04:15 PM	0	50	60	0	0	0	80	56	0	63	0	52	361
04:30 PM	0	47	40	0	0	0	74	41	2	84	0	59	347
04:45 PM	0	42	59	1	0	0	71	66	0	76	1	50	366
Total	0	185	207	2	0	0	295	216	2	294	1	201	1403
05:00 PM	0	44	46	0	0	1	88	51	0	95	0	61	386
05:15 PM	0	64	52	0	0	1	96	63	1	76	0	63	416
05:30 PM	0	45	49	0	0	0	81	63	2	80	0	57	377
05:45 PM	0	43	51	0	0	0	77	53	1	72	0	62	359
Total	0	196	198	0	0	2	342	230	4	323	0	243	1538
Grand Total	0	381	405	2	0	2	637	446	6	617	1	444	2941
Apprch %	0	48.5	51.5	50	0	50	58.5	41	0.6	58.1	0.1	41.8	
Total %	0	13	13.8	0.1	0	0.1	21.7	15.2	0.2	21	0	15.1	
Cars	0	374	402	2	0	1	636	434	6	616	1	442	2914
% Cars	0	98.2	99.3	100	0	50	99.8	97.3	100	99.8	100	99.5	99.1
Trucks	0	7	3	0	0	1	1	12	0	1	0	2	27
% Trucks	0	1.8	0.7	0	0	50	0.2	2.7	0	0.2	0	0.5	0.9

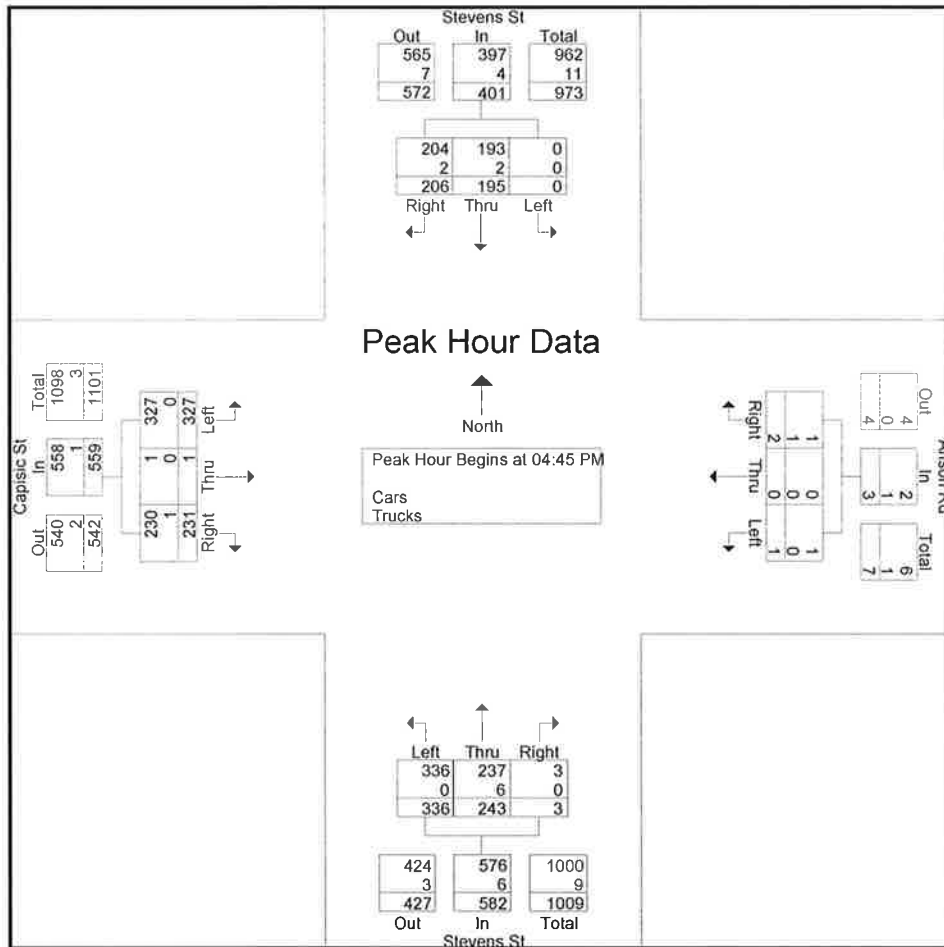
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 2

	Stevens St From North				Anson Rd From East				Stevens St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	42	59	101	1	0	0	1	71	66	0	137	76	1	50	127	366
05:00 PM	0	44	46	90	0	0	1	1	88	51	0	139	95	0	61	156	386
05:15 PM	0	64	52	116	0	0	1	1	96	63	1	160	76	0	63	139	416
05:30 PM	0	45	49	94	0	0	0	0	81	63	2	146	80	0	57	137	377
Total Volume	0	195	206	401	1	0	2	3	336	243	3	582	327	1	231	559	1545
% App. Total	0	48.6	51.4		33.3	0	66.7		57.7	41.8	0.5		58.5	0.2	41.3		
PHF	.000	.762	.873	.864	.250	.000	.500	.750	.875	.920	.375	.909	.861	.250	.917	.896	.928
Cars	0	193	204	397	1	0	1	2	336	237	3	576	327	1	230	558	1533
% Cars	0	99.0	99.0	99.0	100	0	50.0	66.7	100	97.5	100	99.0	100	100	99.6	99.8	99.2
Trucks	0	2	2	4	0	0	1	1	0	6	0	6	0	0	1	1	12
% Trucks	0	1.0	1.0	1.0	0	0	50.0	33.3	0	2.5	0	1.0	0	0	0.4	0.2	0.8



Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	43	48	1	0	0	70	50	0	70	0	40	322
04:15 PM	0	49	60	0	0	0	80	54	0	63	0	52	358
04:30 PM	0	46	39	0	0	0	74	40	2	84	0	58	343
04:45 PM	0	41	57	1	0	0	71	64	0	76	1	50	361
Total	0	179	204	2	0	0	295	208	2	293	1	200	1384
05:00 PM	0	44	46	0	0	1	88	50	0	95	0	60	384
05:15 PM	0	64	52	0	0	0	96	61	1	76	0	63	413
05:30 PM	0	44	49	0	0	0	81	62	2	80	0	57	375
05:45 PM	0	43	51	0	0	0	76	53	1	72	0	62	358
Total	0	195	198	0	0	1	341	226	4	323	0	242	1530
Grand Total	0	374	402	2	0	1	636	434	6	616	1	442	2914
Apprch %	0	48.2	51.8	66.7	0	33.3	59.1	40.3	0.6	58.2	0.1	41.7	
Total %	0	12.8	13.8	0.1	0	0	21.8	14.9	0.2	21.1	0	15.2	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	3	0	0	0	0	0	3	0	1	0	0	7
04:15 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
04:30 PM	0	1	1	0	0	0	0	1	0	0	0	1	4
04:45 PM	0	1	2	0	0	0	0	2	0	0	0	0	5
Total	0	6	3	0	0	0	0	8	0	1	0	1	19
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
05:15 PM	0	0	0	0	0	1	0	2	0	0	0	0	3
05:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	1	0	0	0	1	1	4	0	0	0	1	8
Grand Total	0	7	3	0	0	1	1	12	0	1	0	2	27
Apprch %	0	70	30	0	0	100	7.7	92.3	0	33.3	0	66.7	
Total %	0	25.9	11.1	0	0	3.7	3.7	44.4	0	3.7	0	7.4	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP15
 Site Code : 68460P15
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Stevens St From North				Anson Rd From East				Stevens St From South				Capisic St From West				Exclu Total	Inclu Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	2
04:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	3	4	2	6
05:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	5	0	5
05:15 PM	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	1	5	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	0	0	0	0	0	0	5	0	0	0	1	0	0	0	6	12	0	12
Grand Total	0	1	0	0	0	0	0	6	0	0	0	1	1	0	0	9	16	2	18
Apprch %	0	100	0		0	0	0		0	0	0		100	0	0				
Total %	0	50	0		0	0	0		0	0	0		50	0	0		88.9	11.1	

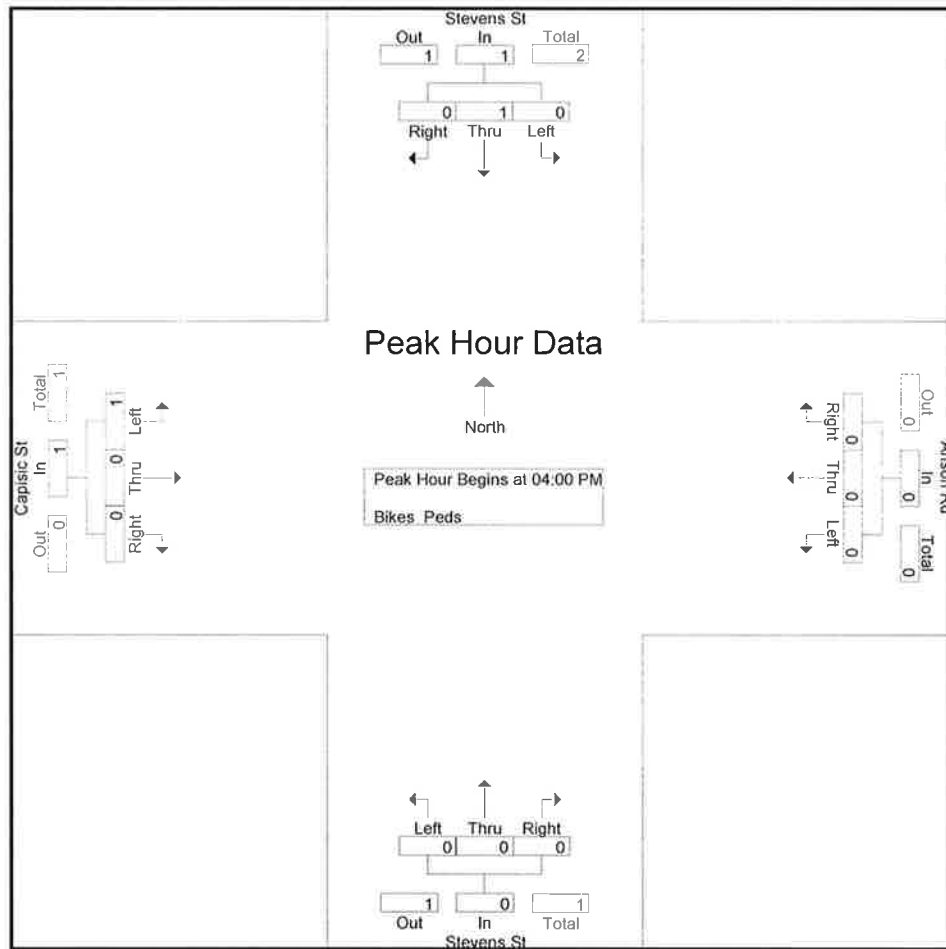
Accurate Counts

978-664-2565

N/S Street : Stevens Street
E/W Street : Anson Rd / Capisic Street
City/State : Portland, ME
Weather : Clear

File Name : 6846WP15
Site Code : 68460P15
Start Date : 9/29/2015
Page No : 11

	Stevens St From North				Anson Rd From East				Stevens St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
% App. Total	0	100	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.500



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		100	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
E/W Street : Capisic Street
City/State : Portland, ME
Weather : Clear

File Name : 6846WP16
Site Code : 68460P16
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	58	27	0	9	0	30	0	87	24	235
07:15 AM	0	0	0	61	29	0	7	0	56	0	91	30	274
07:30 AM	0	0	0	77	30	0	9	0	51	0	96	32	295
07:45 AM	0	0	0	98	50	0	11	0	31	0	112	54	356
Total	0	0	0	294	136	0	36	0	168	0	386	140	1160
08:00 AM	0	0	0	75	38	0	15	0	38	0	84	36	286
08:15 AM	0	0	0	56	37	0	10	0	45	0	91	35	274
08:30 AM	0	0	0	49	41	0	14	0	46	0	97	34	281
08:45 AM	0	0	0	60	39	0	11	0	47	0	65	38	260
Total	0	0	0	240	155	0	50	0	176	0	337	143	1101
Grand Total	0	0	0	534	291	0	86	0	344	0	723	283	2261
Apprch %	0	0	0	64.7	35.3	0	20	0	80	0	71.9	28.1	
Total %	0	0	0	23.6	12.9	0	3.8	0	15.2	0	32	12.5	
Cars	0	0	0	530	288	0	83	0	336	0	718	278	2233
% Cars	0	0	0	99.3	99	0	96.5	0	97.7	0	99.3	98.2	98.8
Trucks	0	0	0	4	3	0	3	0	8	0	5	5	28
% Trucks	0	0	0	0.7	1	0	3.5	0	2.3	0	0.7	1.8	1.2

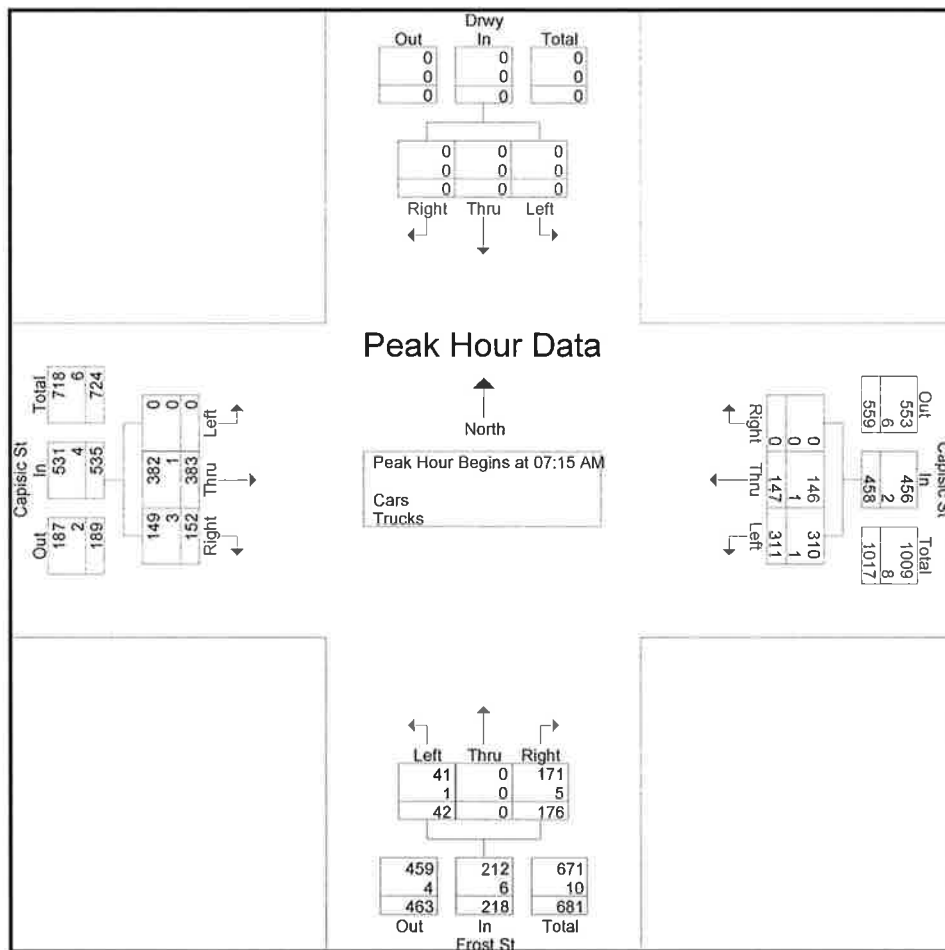
Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 2

	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	61	29	0	90	7	0	56	63	0	91	30	121	274
07:30 AM	0	0	0	0	77	30	0	107	9	0	51	60	0	96	32	128	295
07:45 AM	0	0	0	0	98	50	0	148	11	0	31	42	0	112	54	166	356
08:00 AM	0	0	0	0	75	38	0	113	15	0	38	53	0	84	36	120	286
Total Volume	0	0	0	0	311	147	0	458	42	0	176	218	0	383	152	535	1211
% App. Total	0	0	0		67.9	32.1	0		19.3	0	80.7		0	71.6	28.4		
PHF	.000	.000	.000	.000	.793	.735	.000	.774	.700	.000	.786	.865	.000	.855	.704	.806	.850
Cars	0	0	0	0	310	146	0	456	41	0	171	212	0	382	149	531	1199
% Cars	0	0	0	0	99.7	99.3	0	99.6	97.6	0	97.2	97.2	0	99.7	98.0	99.3	99.0
Trucks	0	0	0	0	1	1	0	2	1	0	5	6	0	1	3	4	12
% Trucks	0	0	0	0	0.3	0.7	0	0.4	2.4	0	2.8	2.8	0	0.3	2.0	0.7	1.0



Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	57	26	0	8	0	30	0	87	23	231
07:15 AM	0	0	0	61	29	0	7	0	56	0	91	30	274
07:30 AM	0	0	0	76	29	0	8	0	50	0	96	31	290
07:45 AM	0	0	0	98	50	0	11	0	27	0	111	52	349
Total	0	0	0	292	134	0	34	0	163	0	385	136	1144
08:00 AM	0	0	0	75	38	0	15	0	38	0	84	36	286
08:15 AM	0	0	0	56	36	0	10	0	44	0	89	35	270
08:30 AM	0	0	0	48	41	0	14	0	45	0	96	33	277
08:45 AM	0	0	0	59	39	0	10	0	46	0	64	38	256
Total	0	0	0	238	154	0	49	0	173	0	333	142	1089
Grand Total	0	0	0	530	288	0	83	0	336	0	718	278	2233
Apprch %	0	0	0	64.8	35.2	0	19.8	0	80.2	0	72.1	27.9	
Total %	0	0	0	23.7	12.9	0	3.7	0	15	0	32.2	12.4	

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	1	1	0	1	0	0	0	0	1	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	1	0	1	0	1	0	0	1	5
07:45 AM	0	0	0	0	0	0	0	0	4	0	1	2	7
Total	0	0	0	2	2	0	2	0	5	0	1	4	16
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	1	0	2	0	4
08:30 AM	0	0	0	1	0	0	0	0	1	0	1	1	4
08:45 AM	0	0	0	1	0	0	1	0	1	0	1	0	4
Total	0	0	0	2	1	0	1	0	3	0	4	1	12
Grand Total	0	0	0	4	3	0	3	0	8	0	5	5	28
Apprch %	0	0	0	57.1	42.9	0	27.3	0	72.7	0	50	50	
Total %	0	0	0	14.3	10.7	0	10.7	0	28.6	0	17.9	17.9	

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	2	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	3	3	6
08:00 AM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	2	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	2	3
Grand Total	0	0	0	0	2	0	0	0	1	0	0	2	0	2	0	2	4	5	9
Apprch %	0	0	0		100	0	0		100	0	0		0	100	0				
Total %	0	0	0		40	0	0		20	0	0		0	40	0		44.4	55.6	

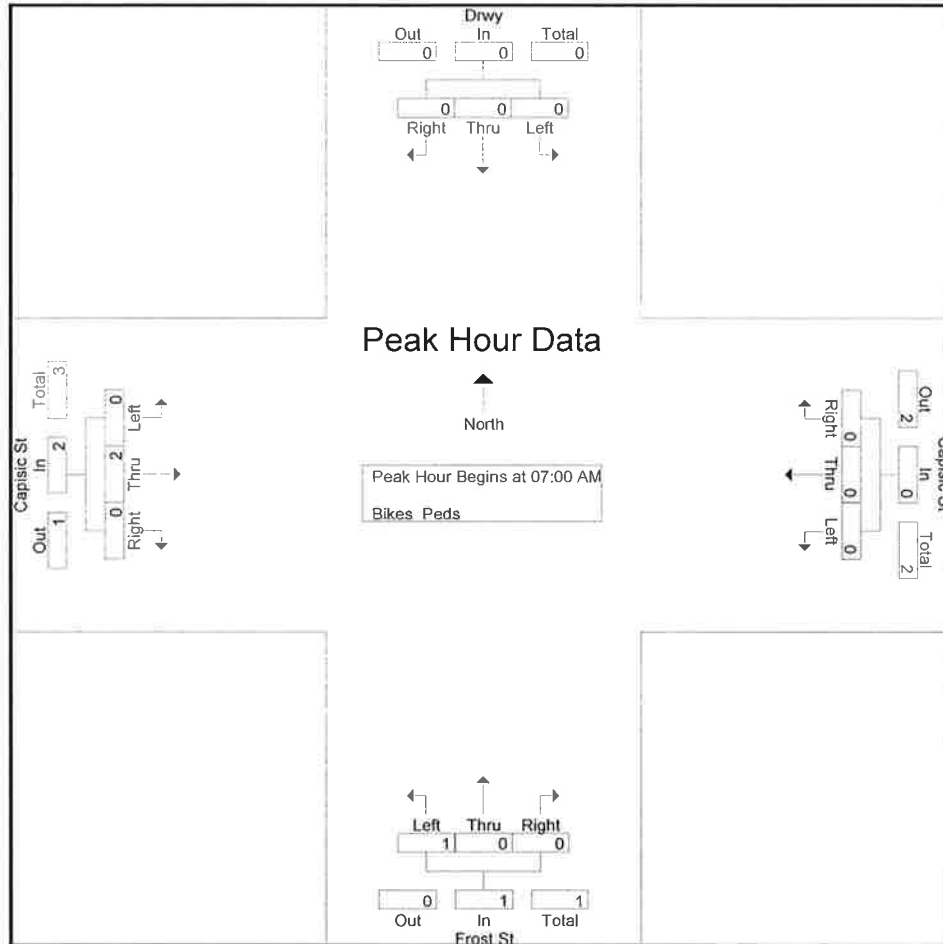
Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 11

	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	3
% App. Total	0	0	0		0	0	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.250	.000	.250	.375



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
+45 mins.	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	0	0	2	1	0	0	1	0	2	0	2
% App. Total	0	0	0		100	0	0		100	0	0		0	100	0	
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.250	.000	.000	.250	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int	Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
04:00 PM	0	0	0	42	70	0	51	0	73	0	41	24		301
04:15 PM	0	0	0	57	90	0	30	0	62	0	49	33		321
04:30 PM	0	0	0	39	73	0	29	0	82	0	57	20		300
04:45 PM	0	0	0	54	77	0	39	0	88	0	34	23		315
Total	0	0	0	192	310	0	149	0	305	0	181	100		1237
05:00 PM	0	0	0	46	91	0	43	0	98	0	56	22		356
05:15 PM	0	0	0	47	91	0	51	0	75	0	54	17		335
05:30 PM	0	0	0	46	93	0	44	0	85	0	55	20		343
05:45 PM	0	0	0	44	79	0	30	0	62	0	60	22		297
Total	0	0	0	183	354	0	168	0	320	0	225	81		1331
Grand Total	0	0	0	375	664	0	317	0	625	0	406	181		2568
Apprch %	0	0	0	36.1	63.9	0	33.7	0	66.3	0	69.2	30.8		
Total %	0	0	0	14.6	25.9	0	12.3	0	24.3	0	15.8	7		
Cars	0	0	0	370	663	0	316	0	623	0	403	181		2556
% Cars	0	0	0	98.7	99.8	0	99.7	0	99.7	0	99.3	100		99.5
Trucks	0	0	0	5	1	0	1	0	2	0	3	0		12
% Trucks	0	0	0	1.3	0.2	0	0.3	0	0.3	0	0.7	0		0.5

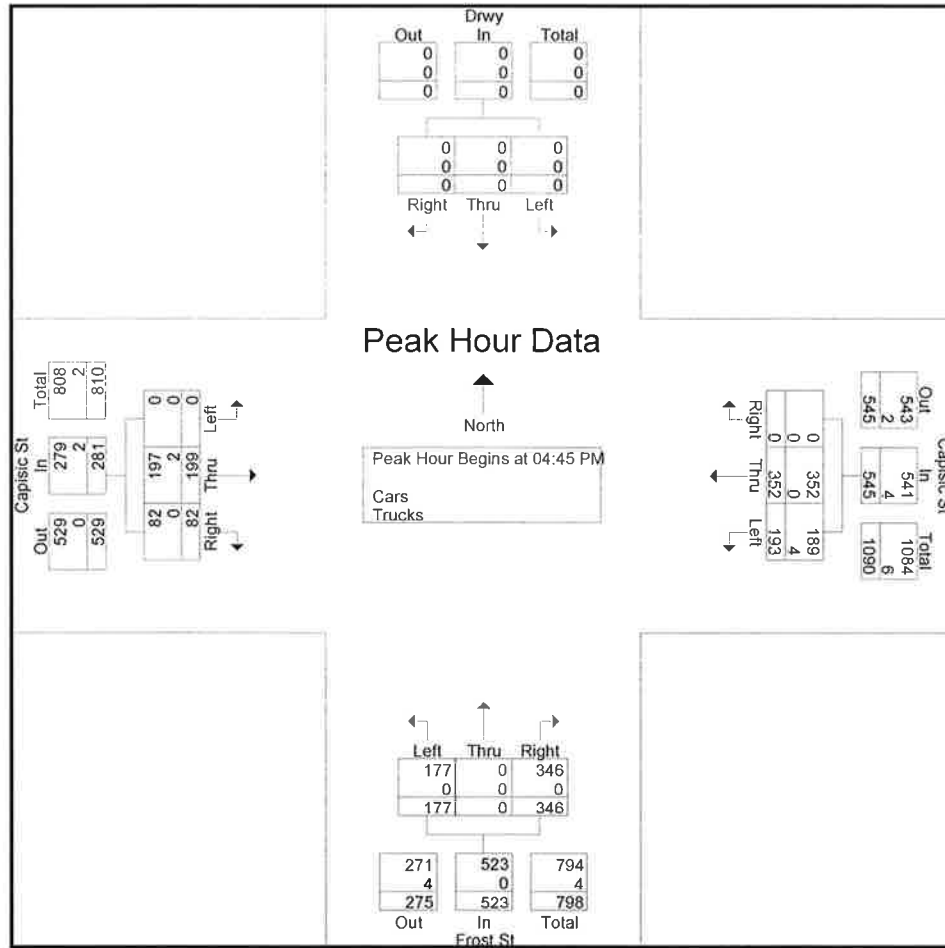
Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 2

	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	54	77	0	131	39	0	88	127	0	34	23	57	315
05:00 PM	0	0	0	0	46	91	0	137	43	0	98	141	0	56	22	78	356
05:15 PM	0	0	0	0	47	91	0	138	51	0	75	126	0	54	17	71	335
05:30 PM	0	0	0	0	46	93	0	139	44	0	85	129	0	55	20	75	343
Total Volume	0	0	0	0	193	352	0	545	177	0	346	523	0	199	82	281	1349
% App. Total	0	0	0		35.4	64.6	0		33.8	0	66.2		0	70.8	29.2		
PHF	.000	.000	.000	.000	.894	.946	.000	.980	.868	.000	.883	.927	.000	.888	.891	.901	.947
Cars	0	0	0	0	189	352	0	541	177	0	346	523	0	197	82	279	1343
% Cars	0	0	0	0	97.9	100	0	99.3	100	0	100	100	0	99.0	100	99.3	99.6
Trucks	0	0	0	0	4	0	0	4	0	0	0	0	0	2	0	2	6
% Trucks	0	0	0	0	2.1	0	0	0.7	0	0	0	0	0	1.0	0	0.7	0.4



Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	0	0	42	70	0	51	0	72	0	41	24	300
04:15 PM	0	0	0	57	90	0	29	0	61	0	49	33	319
04:30 PM	0	0	0	38	73	0	29	0	82	0	56	20	298
04:45 PM	0	0	0	53	77	0	39	0	88	0	33	23	313
Total	0	0	0	190	310	0	148	0	303	0	179	100	1230
05:00 PM	0	0	0	46	91	0	43	0	98	0	56	22	356
05:15 PM	0	0	0	45	91	0	51	0	75	0	54	17	333
05:30 PM	0	0	0	45	93	0	44	0	85	0	54	20	341
05:45 PM	0	0	0	44	78	0	30	0	62	0	60	22	296
Total	0	0	0	180	353	0	168	0	320	0	224	81	1326
Grand Total	0	0	0	370	663	0	316	0	623	0	403	181	2556
Apprch %	0	0	0	35.8	64.2	0	33.7	0	66.3	0	69	31	
Total %	0	0	0	14.5	25.9	0	12.4	0	24.4	0	15.8	7.1	

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	2
04:30 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
04:45 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
Total	0	0	0	2	0	0	1	0	2	0	2	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	3	1	0	0	0	0	0	1	0	5
Grand Total	0	0	0	5	1	0	1	0	2	0	3	0	12
Apprch %	0	0	0	83.3	16.7	0	33.3	0	66.7	0	100	0	
Total %	0	0	0	41.7	8.3	0	8.3	0	16.7	0	25	0	

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2	2	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	2
Total	0	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	3	1	4
Grand Total	0	0	0	0	1	0	0	0	0	0	1	4	0	1	0	1	5	3	8
Apprch %	0	0	0		100	0	0		0	0	100		0	100	0				
Total %	0	0	0		33.3	0	0		0	0	33.3		0	33.3	0		62.5	37.5	

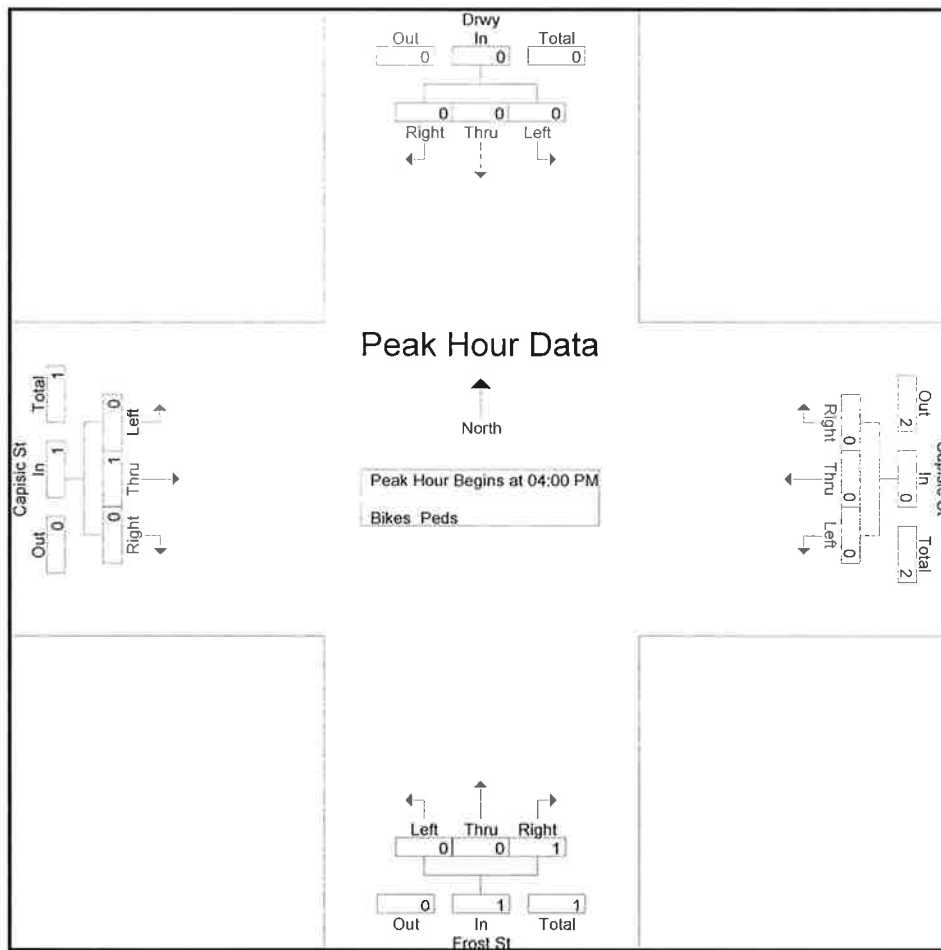
Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP16
 Site Code : 68460P16
 Start Date : 9/29/2015
 Page No : 11

	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2
% App. Total	0	0	0		0	0	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.000	.250	.500



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	1
% App. Total	0	0	0		100	0	0		0	0	100		0	100	0	
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP01
 Site Code : 68460P01
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	21	143	8	45	37	6	16	69	46	38	70	10	509
07:15 AM	42	135	22	51	47	6	19	79	60	27	94	10	592
07:30 AM	40	166	12	76	53	15	9	90	70	28	81	7	647
07:45 AM	46	134	5	94	62	16	17	83	65	26	62	3	613
Total	149	578	47	266	199	43	61	321	241	119	307	30	2361
08:00 AM	47	158	13	67	50	18	17	74	33	22	55	12	566
08:15 AM	53	141	17	61	49	18	16	84	37	27	72	8	583
08:30 AM	16	121	11	75	63	13	20	76	64	26	48	6	539
08:45 AM	26	99	18	61	42	18	24	72	47	23	44	12	486
Total	142	519	59	264	204	67	77	306	181	98	219	38	2174
Grand Total	291	1097	106	530	403	110	138	627	422	217	526	68	4535
Apprch %	19.5	73.4	7.1	50.8	38.6	10.5	11.6	52.8	35.6	26.8	64.9	8.4	
Total %	6.4	24.2	2.3	11.7	8.9	2.4	3	13.8	9.3	4.8	11.6	1.5	
Cars	279	1057	85	512	396	98	122	581	399	199	515	54	4297
% Cars	95.9	96.4	80.2	96.6	98.3	89.1	88.4	92.7	94.5	91.7	97.9	79.4	94.8
Trucks	12	40	21	18	7	12	16	46	23	18	11	14	238
% Trucks	4.1	3.6	19.8	3.4	1.7	10.9	11.6	7.3	5.5	8.3	2.1	20.6	5.2

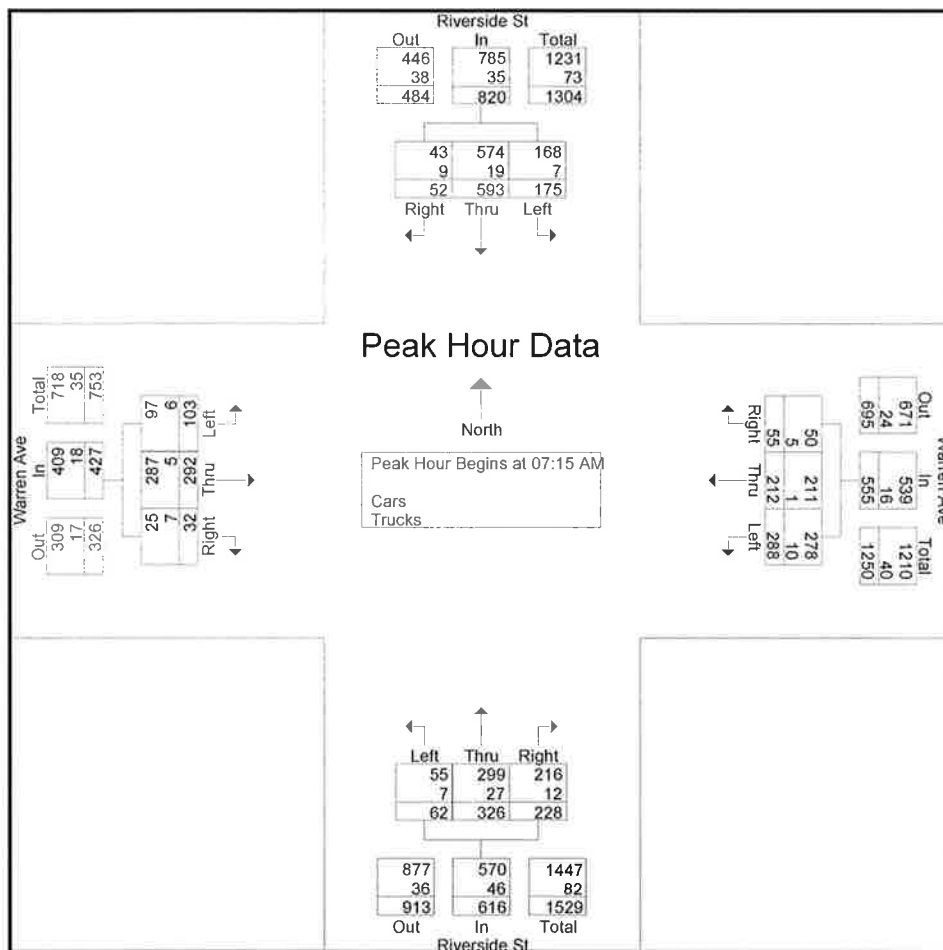
Accurate Counts

978-664-2565

N/S Street : Riverside Street
E/W Street : Warren Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP01
Site Code : 68460P01
Start Date : 9/30/2015
Page No : 2

	Riverside St From North				Warren Ave From East				Riverside St From South				Warren Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	42	135	22	199	51	47	6	104	19	79	60	158	27	94	10	131	592
07:30 AM	40	166	12	218	76	53	15	144	9	90	70	169	28	81	7	116	647
07:45 AM	46	134	5	185	94	62	16	172	17	83	65	165	26	62	3	91	613
08:00 AM	47	158	13	218	67	50	18	135	17	74	33	124	22	55	12	89	566
Total Volume	175	593	52	820	288	212	55	555	62	326	228	616	103	292	32	427	2418
% App. Total	21.3	72.3	6.3		51.9	38.2	9.9		10.1	52.9	37		24.1	68.4	7.5		
PHF	.931	.893	.591	.940	.766	.855	.764	.807	.816	.906	.814	.911	.920	.777	.667	.815	.934
Cars	168	574	43	785	278	211	50	539	55	299	216	570	97	287	25	409	2303
% Cars	96.0	96.8	82.7	95.7	96.5	99.5	90.9	97.1	88.7	91.7	94.7	92.5	94.2	98.3	78.1	95.8	95.2
Trucks	7	19	9	35	10	1	5	16	7	27	12	46	6	5	7	18	115
% Trucks	4.0	3.2	17.3	4.3	3.5	0.5	9.1	2.9	11.3	8.3	5.3	7.5	5.8	1.7	21.9	4.2	4.8



Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP01
 Site Code : 68460P01
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	21	141	5	43	37	6	14	66	41	34	67	8	483
07:15 AM	42	132	17	49	47	6	19	70	58	25	92	8	565
07:30 AM	39	159	12	73	53	14	7	82	69	27	81	6	622
07:45 AM	44	132	3	93	61	16	15	80	58	25	61	3	591
Total	146	564	37	258	198	42	55	298	226	111	301	25	2261
08:00 AM	43	151	11	63	50	14	14	67	31	20	53	8	525
08:15 AM	52	134	14	59	45	13	14	73	36	25	70	8	543
08:30 AM	16	117	8	73	61	12	19	73	59	24	47	3	512
08:45 AM	22	91	15	59	42	17	20	70	47	19	44	10	456
Total	133	493	48	254	198	56	67	283	173	88	214	29	2036
Grand Total	279	1057	85	512	396	98	122	581	399	199	515	54	4297
Apprch %	19.6	74.4	6	50.9	39.4	9.7	11.1	52.7	36.2	25.9	67.1	7	
Total %	6.5	24.6	2	11.9	9.2	2.3	2.8	13.5	9.3	4.6	12	1.3	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP01
 Site Code : 68460P01
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	2	3	2	0	0	2	3	5	4	3	2	26
07:15 AM	0	3	5	2	0	0	0	9	2	2	2	2	27
07:30 AM	1	7	0	3	0	1	2	8	1	1	0	1	25
07:45 AM	2	2	2	1	1	0	2	3	7	1	1	0	22
Total	3	14	10	8	1	1	6	23	15	8	6	5	100
08:00 AM	4	7	2	4	0	4	3	7	2	2	2	4	41
08:15 AM	1	7	3	2	4	5	2	11	1	2	2	0	40
08:30 AM	0	4	3	2	2	1	1	3	5	2	1	3	27
08:45 AM	4	8	3	2	0	1	4	2	0	4	0	2	30
Total	9	26	11	10	6	11	10	23	8	10	5	9	138
Grand Total	12	40	21	18	7	12	16	46	23	18	11	14	238
Apprch %	16.4	54.8	28.8	48.6	18.9	32.4	18.8	54.1	27.1	41.9	25.6	32.6	
Total %	5	16.8	8.8	7.6	2.9	5	6.7	19.3	9.7	7.6	4.6	5.9	

978-664-2565

N/S Street : Riverside Street
E/W Street : Warren Avenue
City/State : Portland, ME
Weather : Cloudy

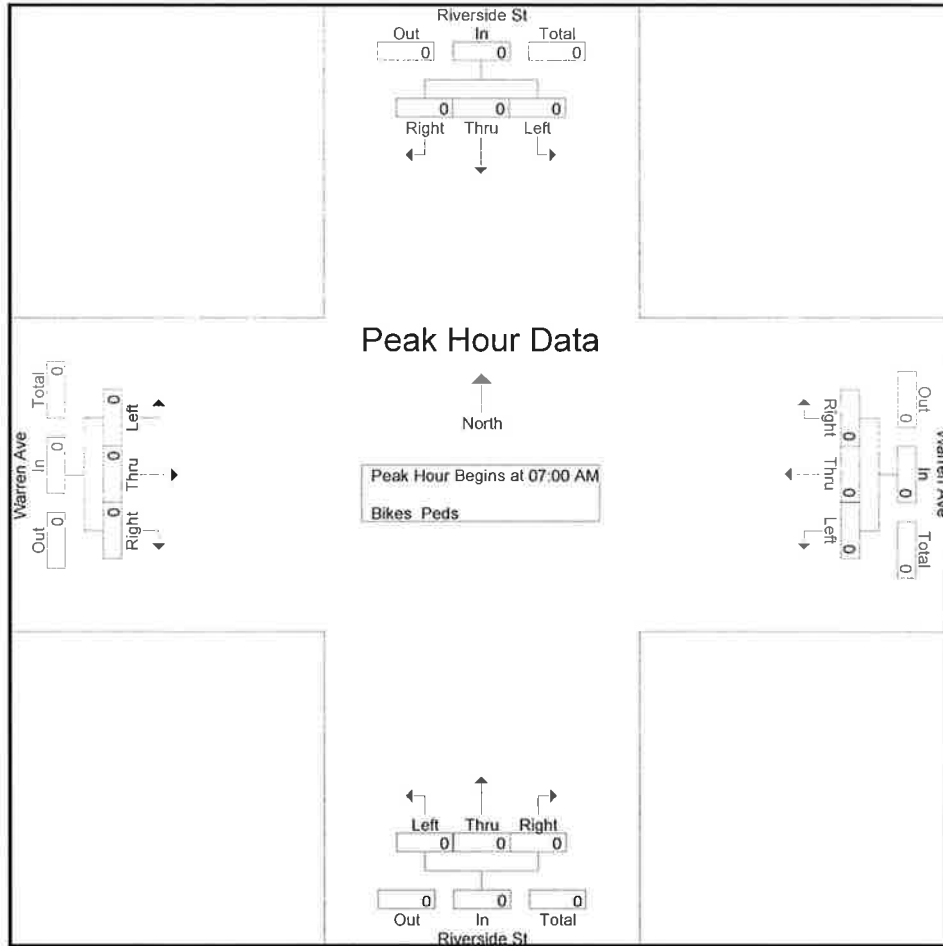
File Name : 6846WP01
Site Code : 68460P01
Start Date : 9/30/2015
Page No : 10

[illegible]

978-664-2565

N/S Street : Riverside Street
E/W Street : Warren Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP01
Site Code : 68460P01
Start Date : 9/30/2015
Page No : 11

[illegible]

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP01
 Site Code : 68460P01
 Start Date : 9/30/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	26	136	12	112	54	33	10	151	57	29	47	21	688
04:15 PM	16	118	14	117	62	15	7	169	75	24	42	9	668
04:30 PM	23	140	2	115	51	30	14	150	80	25	47	16	693
04:45 PM	26	103	14	101	43	24	16	166	96	29	40	7	665
Total	91	497	42	445	210	102	47	636	308	107	176	53	2714
05:00 PM	23	146	6	83	49	31	9	163	88	29	54	23	704
05:15 PM	20	129	5	96	32	17	6	195	109	16	33	11	669
05:30 PM	24	124	7	102	42	26	12	161	99	21	44	9	671
05:45 PM	18	132	4	91	38	18	9	164	83	24	29	11	621
Total	85	531	22	372	161	92	36	683	379	90	160	54	2665
Grand Total	176	1028	64	817	371	194	83	1319	687	197	336	107	5379
Apprch %	13.9	81.1	5	59.1	26.8	14	4	63.1	32.9	30.8	52.5	16.7	
Total %	3.3	19.1	1.2	15.2	6.9	3.6	1.5	24.5	12.8	3.7	6.2	2	
Cars	172	1008	60	806	365	192	77	1295	662	192	329	99	5257
% Cars	97.7	98.1	93.8	98.7	98.4	99	92.8	98.2	96.4	97.5	97.9	92.5	97.7
Trucks	4	20	4	11	6	2	6	24	25	5	7	8	122
% Trucks	2.3	1.9	6.2	1.3	1.6	1	7.2	1.8	3.6	2.5	2.1	7.5	2.3

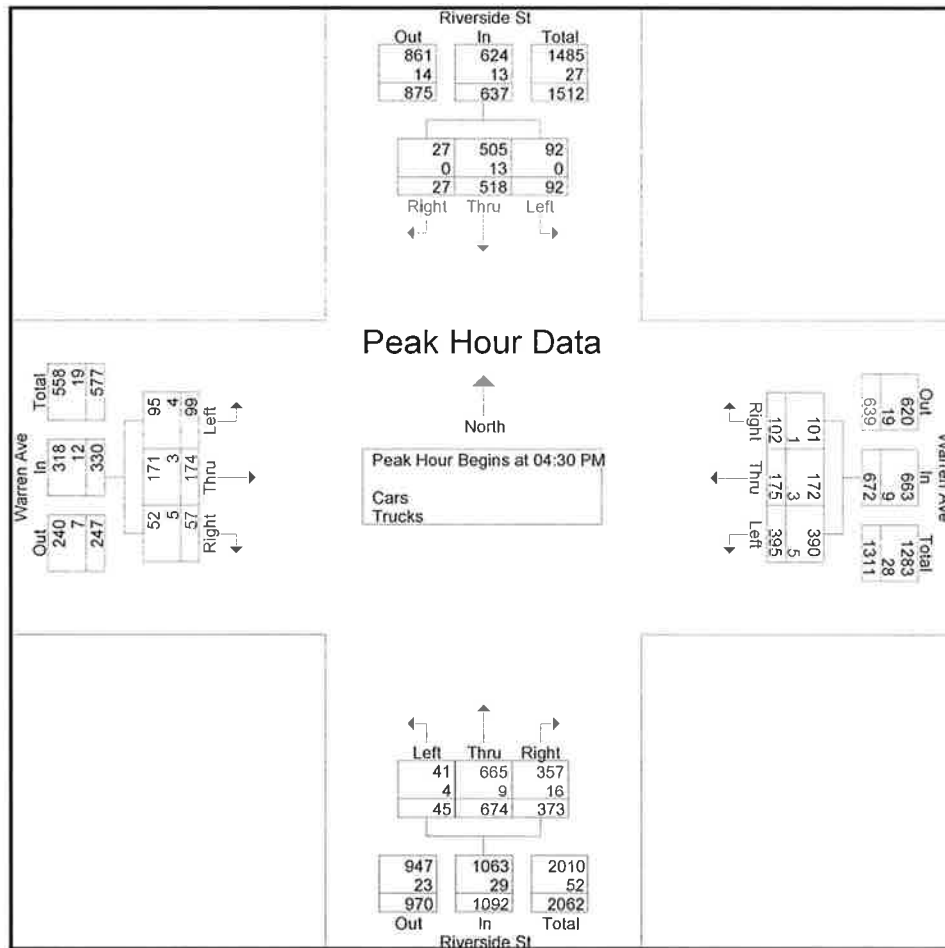
Accurate Counts

978-664-2565

N/S Street : Riverside Street
E/W Street : Warren Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP01
Site Code : 68460P01
Start Date : 9/30/2015
Page No : 2

	Riverside St From North				Warren Ave From East				Riverside St From South				Warren Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	23	140	2	165	115	51	30	196	14	150	80	244	25	47	16	88	693
04:45 PM	26	103	14	143	101	43	24	168	16	166	96	278	29	40	7	76	665
05:00 PM	23	146	6	175	83	49	31	163	9	163	88	260	29	54	23	106	704
05:15 PM	20	129	5	154	96	32	17	145	6	195	109	310	16	33	11	60	669
Total Volume	92	518	27	637	395	175	102	672	45	674	373	1092	99	174	57	330	2731
% App. Total	14.4	81.3	4.2		58.8	26	15.2		4.1	61.7	34.2		30	52.7	17.3		
PHF	885	887	.482	.910	.859	.858	.823	.857	.703	.864	.856	.881	.853	.806	.620	.778	.970
Cars	92	505	27	624	390	172	101	663	41	665	357	1063	95	171	52	318	2668
% Cars	100	97.5	100	98.0	98.7	98.3	99.0	98.7	91.1	98.7	95.7	97.3	96.0	98.3	91.2	96.4	97.7
Trucks	0	13	0	13	5	3	1	9	4	9	16	29	4	3	5	12	63
% Trucks	0	2.5	0	2.0	1.3	1.7	1.0	1.3	8.9	1.3	4.3	2.7	4.0	1.7	8.8	3.6	2.3



Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP01
 Site Code : 68460P01
 Start Date : 9/30/2015
 Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	22	134	11	109	53	32	10	148	53	28	44	19	663
04:15 PM	16	115	11	115	61	15	6	161	73	24	42	9	648
04:30 PM	23	136	2	111	51	29	13	148	74	23	45	14	669
04:45 PM	26	102	14	100	41	24	14	164	91	28	40	7	651
Total	87	487	38	435	206	100	43	621	291	103	171	49	2631
05:00 PM	23	139	6	83	49	31	8	160	84	28	53	20	684
05:15 PM	20	128	5	96	31	17	6	193	108	16	33	11	664
05:30 PM	24	124	7	101	42	26	11	159	97	21	43	9	664
05:45 PM	18	130	4	91	37	18	9	162	82	24	29	10	614
Total	85	521	22	371	159	92	34	674	371	89	158	50	2626
Grand Total	172	1008	60	806	365	192	77	1295	662	192	329	99	5257
Apprch %	13.9	81.3	4.8	59.1	26.8	14.1	3.8	63.7	32.5	3.1	53.1	16	
Total %	3.3	19.2	1.1	15.3	6.9	3.7	1.5	24.6	12.6	3.7	6.3	1.9	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP01
 Site Code : 68460P01
 Start Date : 9/30/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	4	2	1	3	1	1	0	3	4	1	3	2	25
04:15 PM	0	3	3	2	1	0	1	8	2	0	0	0	20
04:30 PM	0	4	0	4	0	1	1	2	6	2	2	2	24
04:45 PM	0	1	0	1	2	0	2	2	5	1	0	0	14
Total	4	10	4	10	4	2	4	15	17	4	5	4	83
05:00 PM	0	7	0	0	0	0	1	3	4	1	1	3	20
05:15 PM	0	1	0	0	1	0	0	2	1	0	0	0	5
05:30 PM	0	0	0	1	0	0	1	2	2	0	1	0	7
05:45 PM	0	2	0	0	1	0	0	2	1	0	0	1	7
Total	0	10	0	1	2	0	2	9	8	1	2	4	39
Grand Total	4	20	4	11	6	2	6	24	25	5	7	8	122
Apprch %	14.3	71.4	14.3	57.9	31.6	10.5	10.9	43.6	45.5	25	35	40	
Total %	3.3	16.4	3.3	9	4.9	1.6	4.9	19.7	20.5	4.1	5.7	6.6	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
E/W Street : Warren Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP01
Site Code : 68460P01
Start Date : 9/30/2015
Page No : 10

Groups Printed- Bikes Peds

Start Time	Riverside St From North				Warren Ave From East				Riverside St From South				Warren Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	2
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	2	3
Apprch %	0	100	0		0	0	0		0	0	0		0	100	0				
Total %	0	50	0		0	0	0		0	0	0		0	50	0		33.3	66.7	

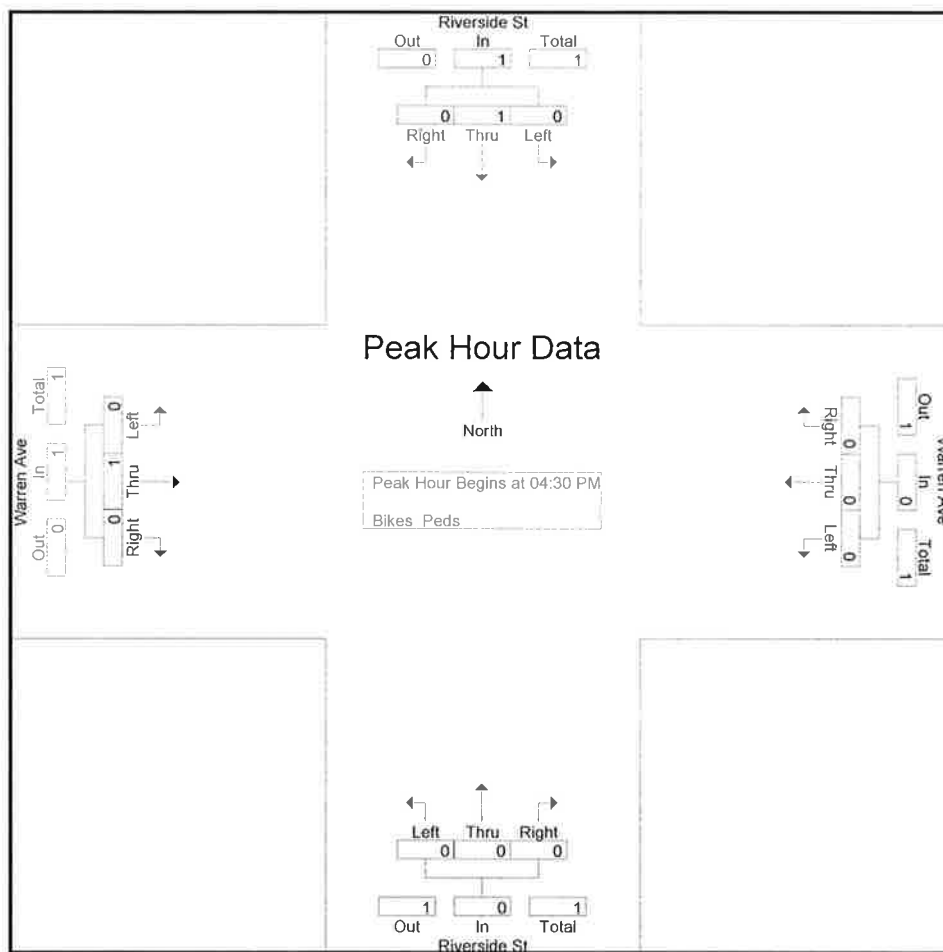
Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP01
 Site Code : 68460P01
 Start Date : 9/30/2015
 Page No : 11

	Riverside St From North				Warren Ave From East				Riverside St From South				Warren Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
% App. Total	0	100	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				04:00 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	100	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP02
 Site Code : 68460P02
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	124	54	30	41	65	105	4	28	25	45	44	3	568
07:15 AM	156	69	37	36	91	147	2	50	27	39	36	2	692
07:30 AM	156	77	44	45	74	149	11	58	40	44	37	9	744
07:45 AM	125	80	39	48	93	155	9	64	33	53	25	6	730
Total	561	280	150	170	323	556	26	200	125	181	142	20	2734
08:00 AM	138	65	35	38	74	152	9	63	25	30	39	6	674
08:15 AM	123	75	39	34	56	154	5	54	29	38	30	11	648
08:30 AM	133	76	32	37	70	115	12	47	30	51	41	8	652
08:45 AM	100	53	53	35	59	105	6	61	32	39	25	12	580
Total	494	269	159	144	259	526	32	225	116	158	135	37	2554
Grand Total	1055	549	309	314	582	1082	58	425	241	339	277	57	5288
Apprch %	55.1	28.7	16.2	15.9	29.4	54.7	8	58.7	33.3	50.4	41.2	8.5	
Total %	20	10.4	5.8	5.9	11	20.5	1.1	8	4.6	6.4	5.2	1.1	
Cars	953	536	295	302	561	990	58	411	231	320	261	56	4974
% Cars	90.3	97.6	95.5	96.2	96.4	91.5	100	96.7	95.9	94.4	94.2	98.2	94.1
Trucks	102	13	14	12	21	92	0	14	10	19	16	1	314
% Trucks	9.7	2.4	4.5	3.8	3.6	8.5	0	3.3	4.1	5.6	5.8	1.8	5.9

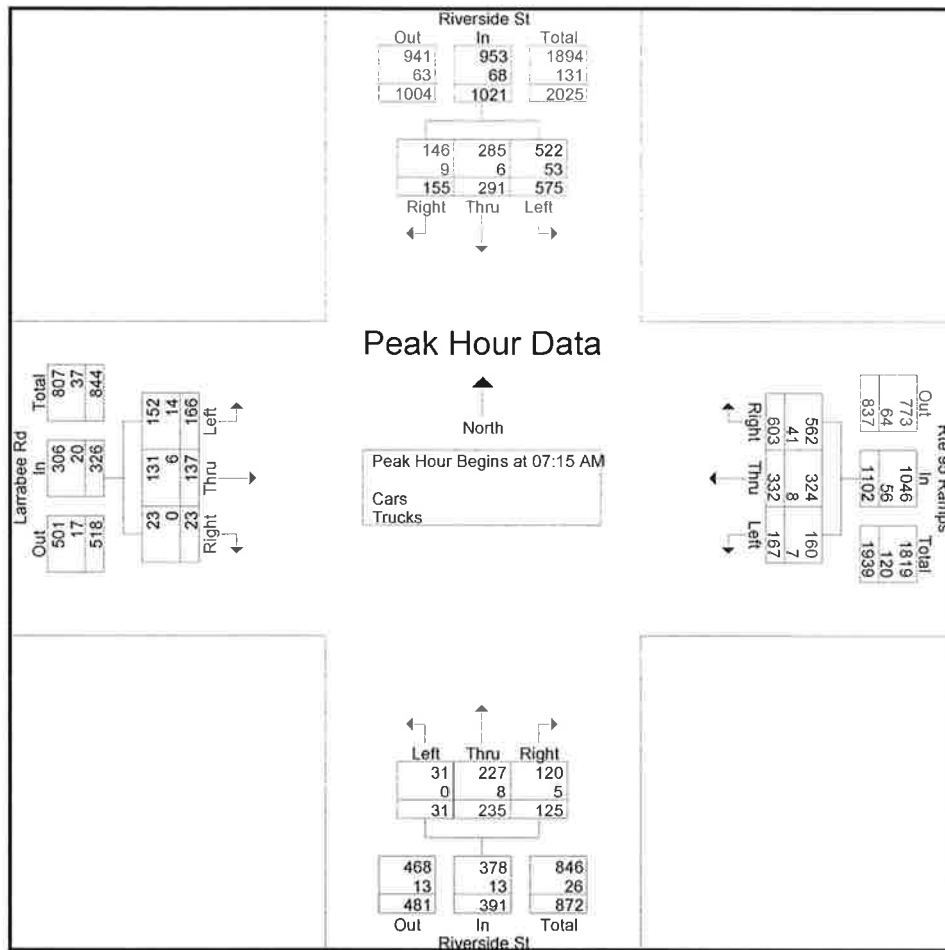
Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP02
 Site Code : 68460P02
 Start Date : 9/29/2015
 Page No : 2

	Riverside St From North				Rte 95 Ramps From East				Riverside St From South				Larrabee Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	156	69	37	262	36	91	147	274	2	50	27	79	39	36	2	77	692
07:30 AM	156	77	44	277	45	74	149	268	11	58	40	109	44	37	9	90	744
07:45 AM	125	80	39	244	48	93	155	296	9	64	33	106	53	25	6	84	730
08:00 AM	138	65	35	238	38	74	152	264	9	63	25	97	30	39	6	75	674
Total Volume	575	291	155	1021	167	332	603	1102	31	235	125	391	166	137	23	326	2840
% App. Total	56.3	28.5	15.2		15.2	30.1	54.7		7.9	60.1	32		50.9	42	7.1		
PHF	.921	.909	.881	.921	.870	.892	.973	.931	.705	.918	.781	.897	.783	.878	.639	.906	.954
Cars	522	285	146	953	160	324	562	1046	31	227	120	378	152	131	23	306	2683
% Cars	90.8	97.9	94.2	93.3	95.8	97.6	93.2	94.9	100	96.6	96.0	96.7	91.6	95.6	100	93.9	94.5
Trucks	53	6	9	68	7	8	41	56	0	8	5	13	14	6	0	20	157
% Trucks	9.2	2.1	5.8	6.7	4.2	2.4	6.8	5.1	0	3.4	4.0	3.3	8.4	4.4	0	6.1	5.5



Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP02
 Site Code : 68460P02
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	105	52	29	40	62	93	4	24	24	45	42	2	522
07:15 AM	142	67	35	34	89	136	2	46	26	38	34	2	651
07:30 AM	146	75	40	44	74	141	11	58	37	44	35	9	714
07:45 AM	113	79	36	46	91	148	9	62	32	44	24	6	690
Total	506	273	140	164	316	518	26	190	119	171	135	19	2577
08:00 AM	121	64	35	36	70	137	9	61	25	26	38	6	628
08:15 AM	110	73	38	33	55	143	5	53	28	37	27	11	613
08:30 AM	127	74	30	35	63	96	12	46	28	48	36	8	603
08:45 AM	89	52	52	34	57	96	6	61	31	38	25	12	553
Total	447	263	155	138	245	472	32	221	112	149	126	37	2397
Grand Total	953	536	295	302	561	990	58	411	231	320	261	56	4974
Apprch %	53.4	30	16.5	16.3	30.3	53.4	8.3	58.7	33	50.2	41	8.8	
Total %	19.2	10.8	5.9	6.1	11.3	19.9	1.2	8.3	4.6	6.4	5.2	1.1	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP02
 Site Code : 68460P02
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	19	2	1	1	3	12	0	4	1	0	2	1	46
07:15 AM	14	2	2	2	2	11	0	4	1	1	2	0	41
07:30 AM	10	2	4	1	0	8	0	0	3	0	2	0	30
07:45 AM	12	1	3	2	2	7	0	2	1	9	1	0	40
Total	55	7	10	6	7	38	0	10	6	10	7	1	157
08:00 AM	17	1	0	2	4	15	0	2	0	4	1	0	46
08:15 AM	13	2	1	1	1	11	0	1	1	1	3	0	35
08:30 AM	6	2	2	2	7	19	0	1	2	3	5	0	49
08:45 AM	11	1	1	1	2	9	0	0	1	1	0	0	27
Total	47	6	4	6	14	54	0	4	4	9	9	0	157
Grand Total	102	13	14	12	21	92	0	14	10	19	16	1	314
Apprch %	79.1	10.1	10.9	9.6	16.8	73.6	0	58.3	41.7	52.8	44.4	2.8	
Total %	32.5	4.1	4.5	3.8	6.7	29.3	0	4.5	3.2	6.1	5.1	0.3	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Cloudy

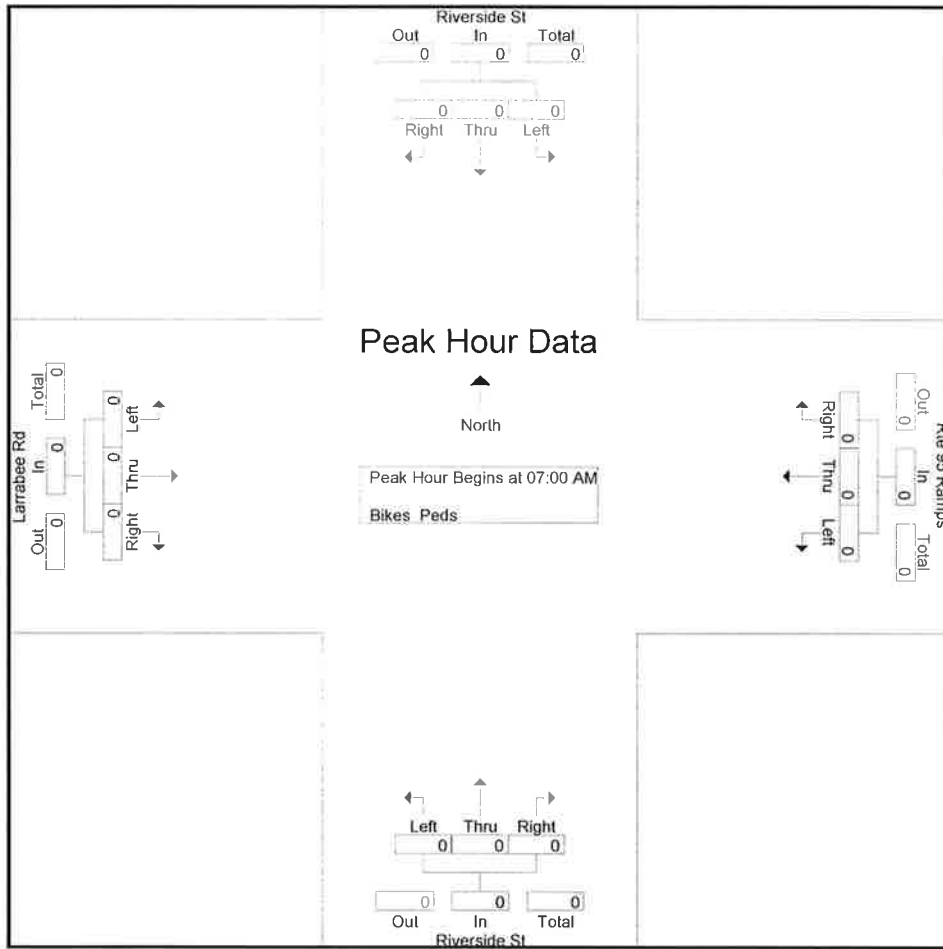
File Name : 6846WP02
 Site Code : 68460P02
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds																				
Start Time	Riverside St From North				Rte 95 Ramps From East				Riverside St From South				Larrabee Rd From West				Exclu. Total		Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	6	6
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	0	8	8
08:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3	0	3	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3	3
08:45 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	1	5	0	5	5
Total	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0	5	11	0	11	11
Grand Total	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0	13	19	0	19	19
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0					
Total %																	100	0		

978-664-2565

Weather : Cloudy

Page No : 11

[illegible]

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP02
 Site Code : 68460P02
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	111	66	88	32	68	125	8	90	42	37	48	13	728
04:15 PM	143	77	81	35	62	119	8	121	50	58	41	14	809
04:30 PM	116	62	64	33	64	139	9	105	55	74	62	21	804
04:45 PM	152	96	64	31	65	163	13	101	33	70	35	19	842
Total	522	301	297	131	259	546	38	417	180	239	186	67	3183
05:00 PM	120	69	64	35	67	161	4	96	60	77	85	13	851
05:15 PM	169	108	67	39	66	187	9	88	53	58	43	6	893
05:30 PM	105	66	54	52	56	137	4	82	41	63	61	11	732
05:45 PM	104	59	41	29	53	133	5	109	38	47	28	6	652
Total	498	302	226	155	242	618	22	375	192	245	217	36	3128
Grand Total	1020	603	523	286	501	1164	60	792	372	484	403	103	6311
Apprch %	47.5	28.1	24.4	14.7	25.7	59.7	4.9	64.7	30.4	48.9	40.7	10.4	
Total %	16.2	9.6	8.3	4.5	7.9	18.4	1	12.5	5.9	7.7	6.4	1.6	
Cars	989	602	518	281	493	1113	60	784	366	479	395	103	6183
% Cars	97	99.8	99	98.3	98.4	95.6	100	99	98.4	99	98	100	98
Trucks	31	1	5	5	8	51	0	8	6	5	8	0	128
% Trucks	3	0.2	1	1.7	1.6	4.4	0	1	1.6	1	2	0	2

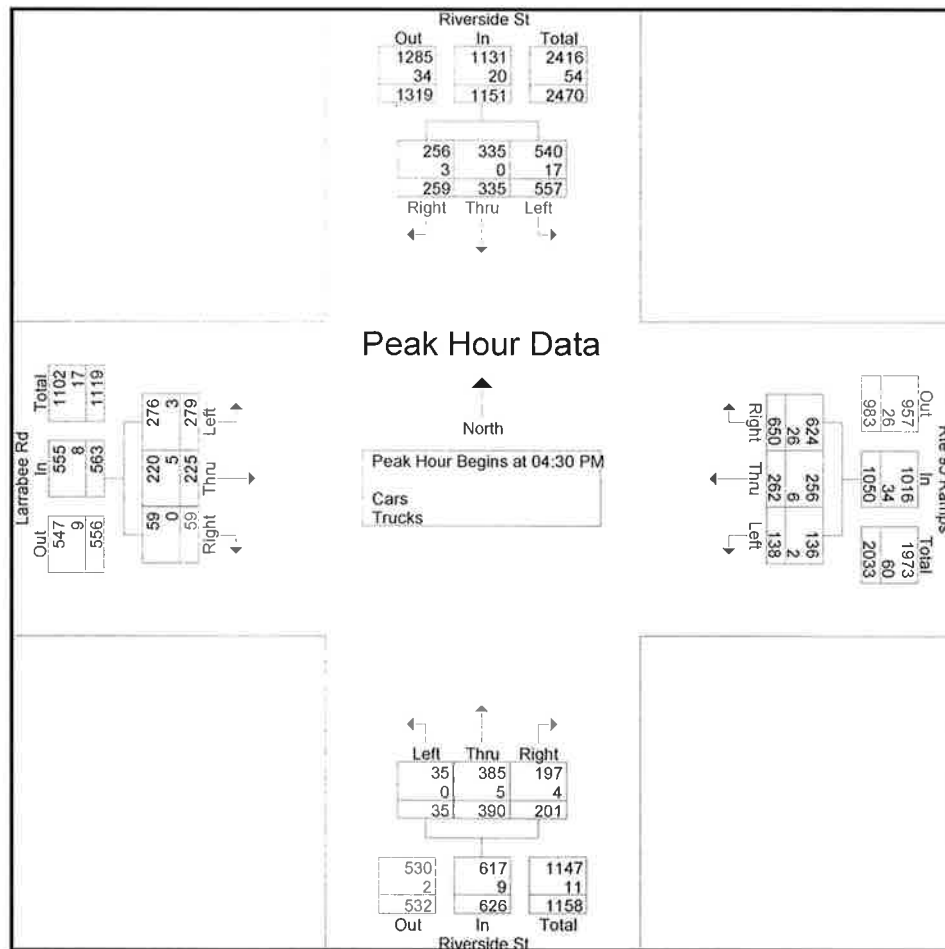
Accurate Counts

978-664-2565

N/S Street : Riverside Street
E/W Street : Larrabee Rd / Rte 95 Ramps
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP02
Site Code : 68460P02
Start Date : 9/29/2015
Page No : 2

	Riverside St From North				Rte 95 Ramps From East				Riverside St From South				Larrabee Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	116	62	64	242	33	64	139	236	9	105	55	169	74	62	21	157	804
04:45 PM	152	96	64	312	31	65	163	259	13	101	33	147	70	35	19	124	842
05:00 PM	120	69	64	253	35	67	161	263	4	96	60	160	77	85	13	175	851
05:15 PM	169	108	67	344	39	66	187	292	9	88	53	150	58	43	6	107	893
Total Volume	557	335	259	1151	138	262	650	1050	35	390	201	626	279	225	59	563	3390
% App. Total	48.4	29.1	22.5		13.1	25	61.9		5.6	62.3	32.1		49.6	40	10.5		
PHF	.824	.775	.966	.836	.885	.978	.869	.899	.673	.929	.838	.926	.906	.662	.702	.804	.949
Cars	540	335	256	1131	136	256	624	1016	35	385	197	617	276	220	59	555	3319
% Cars	96.9	100	98.8	98.3	98.6	97.7	96.0	96.8	100	98.7	98.0	98.6	98.9	97.8	100	98.6	97.9
Trucks	17	0	3	20	2	6	26	34	0	5	4	9	3	5	0	8	71
% Trucks	3.1	0	1.2	1.7	1.4	2.3	4.0	3.2	0	1.3	2.0	1.4	1.1	2.2	0	1.4	2.1



Accurate Counts

978-664-2565

N/S Street : Riverside Street
E/W Street : Larrabee Rd / Rte 95 Ramps
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP02
Site Code : 68460P02
Start Date : 9/29/2015
Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	105	65	87	31	67	119	8	89	42	37	48	13	711
04:15 PM	140	77	80	34	62	111	8	120	49	56	40	14	791
04:30 PM	113	62	62	32	62	129	9	104	53	73	61	21	781
04:45 PM	148	96	64	30	62	156	13	99	32	68	34	19	821
Total	506	300	293	127	253	515	38	412	176	234	183	67	3104
05:00 PM	113	69	64	35	67	157	4	95	60	77	84	13	838
05:15 PM	166	108	66	39	65	182	9	87	52	58	41	6	879
05:30 PM	103	66	54	51	55	133	4	82	40	63	59	11	721
05:45 PM	101	59	41	29	53	126	5	108	38	47	28	6	641
Total	483	302	225	154	240	598	22	372	190	245	212	36	3079
Grand Total	989	602	518	281	493	1113	60	784	366	479	395	103	6183
Apprch %	46.9	28.5	24.6	14.9	26.1	59	5	64.8	30.2	49	40.4	10.5	
Total %	16	9.7	8.4	4.5	8	18	1	12.7	5.9	7.7	6.4	1.7	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP02
 Site Code : 68460P02
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	6	1	1	1	1	6	0	1	0	0	0	0	17
04:15 PM	3	0	1	1	0	8	0	1	1	2	1	0	18
04:30 PM	3	0	2	1	2	10	0	1	2	1	1	0	23
04:45 PM	4	0	0	1	3	7	0	2	1	2	1	0	21
Total	16	1	4	4	6	31	0	5	4	5	3	0	79
05:00 PM	7	0	0	0	0	4	0	1	0	0	1	0	13
05:15 PM	3	0	1	0	1	5	0	1	1	0	2	0	14
05:30 PM	2	0	0	1	1	4	0	0	1	0	2	0	11
05:45 PM	3	0	0	0	0	7	0	1	0	0	0	0	11
Total	15	0	1	1	2	20	0	3	2	0	5	0	49
Grand Total	31	1	5	5	8	51	0	8	6	5	8	0	128
Apprch %	83.8	2.7	13.5	7.8	12.5	79.7	0	57.1	42.9	38.5	61.5	0	
Total %	24.2	0.8	3.9	3.9	6.2	39.8	0	6.2	4.7	3.9	6.2	0	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP02
 Site Code : 68460P02
 Start Date : 9/29/2015
 Page No : 10

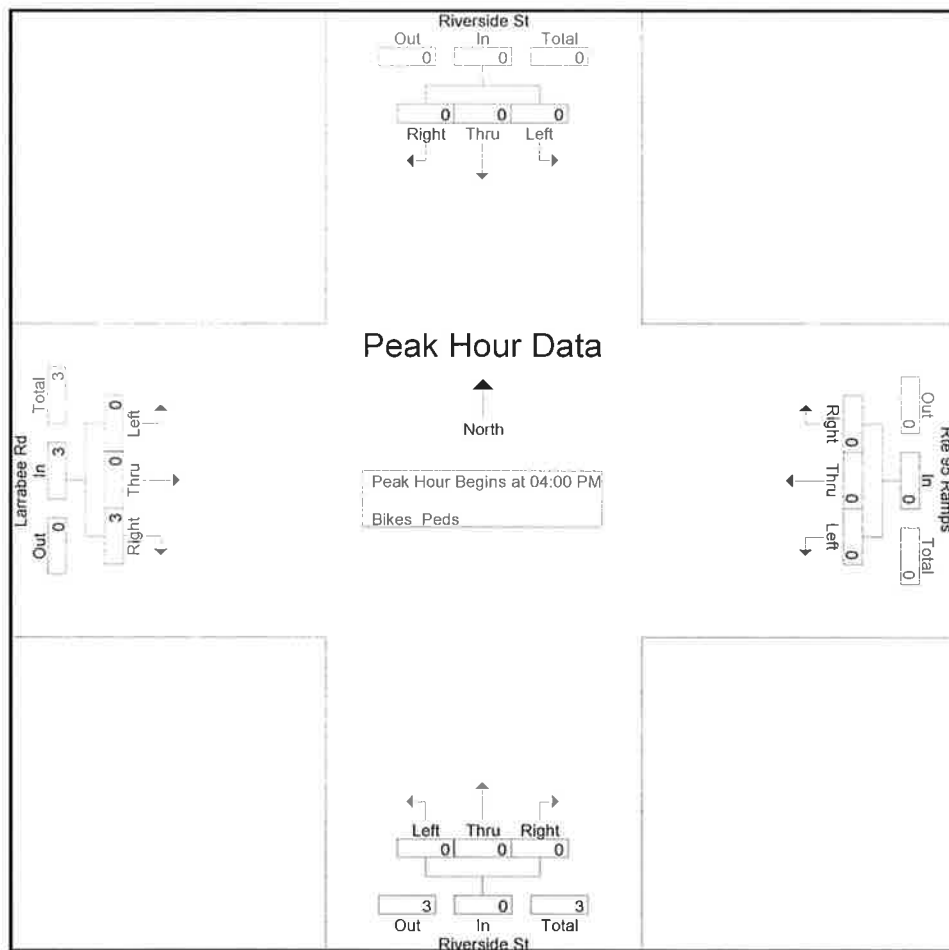
Groups Printed- Bikes Peds

Start Time	Riverside St From North				Rte 95 Ramps From East				Riverside St From South				Larrabee Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	7	0	7
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	9	12	3	15
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	3	1	4
Grand Total	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	11	15	4	19
Apprch %	0	0	0		0	0	0		0	0	0		0	0	100				
Total %	0	0	0		0	0	0		0	0	0		0	0	100		78.9	21.1	

978-664-2565

File Name : 6846WP02
Site Code : 68460P02
Start Date : 9/29/2015
Page No : 11

	Riverside St From North				Rte 95 Ramps From East				Riverside St From South				Larrabee Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
% App. Total	0	0	0		0	0	0		0	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

[illegible]

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private Dr
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	71	2	11	1	50	42	2	0	2	8	109	0	298
07:15 AM	101	1	5	1	74	56	0	1	0	8	134	1	382
07:30 AM	95	0	9	0	76	80	0	3	0	16	132	0	411
07:45 AM	99	1	16	1	99	80	1	0	1	20	132	0	450
Total	366	4	41	3	299	258	3	4	3	52	507	1	1541
08:00 AM	98	1	16	1	73	66	0	0	0	11	125	2	393
08:15 AM	96	0	10	3	73	66	2	1	2	9	132	0	394
08:30 AM	85	2	22	1	92	62	0	1	0	16	130	1	412
08:45 AM	58	3	14	1	122	84	1	1	2	8	87	0	381
Total	337	6	62	6	360	278	3	3	4	44	474	3	1580
Grand Total	703	10	103	9	659	536	6	7	7	96	981	4	3121
Apprch %	86.2	1.2	12.6	0.7	54.7	44.5	30	35	35	8.9	90.7	0.4	
Total %	22.5	0.3	3.3	0.3	21.1	17.2	0.2	0.2	0.2	3.1	31.4	0.1	
Cars	689	10	90	9	651	525	6	7	7	87	974	4	3059
% Cars	98	100	87.4	100	98.8	97.9	100	100	100	90.6	99.3	100	98
Trucks	14	0	13	0	8	11	0	0	0	9	7	0	62
% Trucks	2	0	12.6	0	1.2	2.1	0	0	0	9.4	0.7	0	2

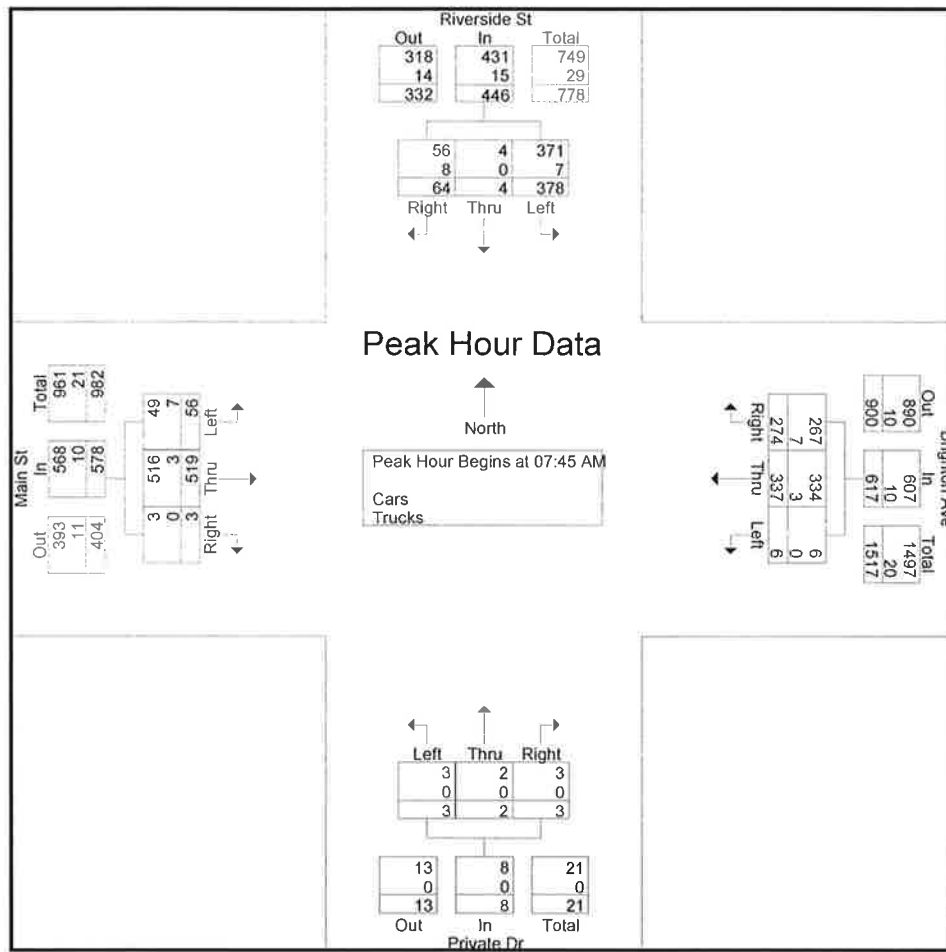
Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
E/W Street : Brighton Ave / Main St
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP04
Site Code : 68460P04
Start Date : 9/29/2015
Page No : 2

	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	99	1	16	116	1	99	80	180	1	0	1	2	20	132	0	152	450
08:00 AM	98	1	16	115	1	73	66	140	0	0	0	0	11	125	2	138	393
08:15 AM	96	0	10	106	3	73	66	142	2	1	2	5	9	132	0	141	394
08:30 AM	85	2	22	109	1	92	62	155	0	1	0	1	16	130	1	147	412
Total Volume	378	4	64	446	6	337	274	617	3	2	3	8	56	519	3	578	1649
% App. Total	84.8	0.9	14.3		1	54.6	44.4		37.5	25	37.5		9.7	89.8	0.5		
PHF	.955	.500	.727	.961	.500	.851	.856	.857	.375	.500	.375	.400	.700	.983	.375	.951	.916
Cars	371	4	56	431	6	334	267	607	3	2	3	8	49	516	3	568	1614
% Cars	98.1	100	87.5	96.6	100	99.1	97.4	98.4	100	100	100	100	87.5	99.4	100	98.3	97.9
Trucks	7	0	8	15	0	3	7	10	0	0	0	0	7	3	0	10	35
% Trucks	1.9	0	12.5	3.4	0	0.9	2.6	1.6	0	0	0	0	12.5	0.6	0	1.7	2.1



Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
E/W Street : Brighton Ave / Main St
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP04
Site Code : 68460P04
Start Date : 9/29/2015
Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	69	2	9	1	48	39	2	0	2	8	109	0	289
07:15 AM	100	1	4	1	73	55	0	1	0	8	132	1	376
07:30 AM	92	0	7	0	74	80	0	3	0	14	130	0	400
07:45 AM	96	1	14	1	98	78	1	0	1	16	130	0	436
Total	357	4	34	3	293	252	3	4	3	46	501	1	1501
08:00 AM	97	1	14	1	72	65	0	0	0	9	124	2	385
08:15 AM	94	0	8	3	73	63	2	1	2	9	132	0	387
08:30 AM	84	2	20	1	91	61	0	1	0	15	130	1	406
08:45 AM	57	3	14	1	122	84	1	1	2	8	87	0	380
Total	332	6	56	6	358	273	3	3	4	41	473	3	1558
Grand Total	689	10	90	9	651	525	6	7	7	87	974	4	3059
Apprch %	87.3	1.3	11.4	0.8	54.9	44.3	30	35	35	8.2	91.5	0.4	
Total %	22.5	0.3	2.9	0.3	21.3	17.2	0.2	0.2	0.2	2.8	31.8	0.1	

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	2	0	2	0	2	3	0	0	0	0	0	0	9
07:15 AM	1	0	1	0	1	1	0	0	0	0	2	0	6
07:30 AM	3	0	2	0	2	0	0	0	0	2	2	0	11
07:45 AM	3	0	2	0	1	2	0	0	0	4	2	0	14
Total	9	0	7	0	6	6	0	0	0	6	6	0	40
08:00 AM	1	0	2	0	1	1	0	0	0	2	1	0	8
08:15 AM	2	0	2	0	0	3	0	0	0	0	0	0	7
08:30 AM	1	0	2	0	1	1	0	0	0	1	0	0	6
08:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	5	0	6	0	2	5	0	0	0	3	1	0	22
Grand Total	14	0	13	0	8	11	0	0	0	9	7	0	62
Apprch %	51.9	0	48.1	0	42.1	57.9	0	0	0	56.2	43.8	0	
Total %	22.6	0	21	0	12.9	17.7	0	0	0	14.5	11.3	0	

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private Dr
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	2	3	2	5
07:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	1	0	0	0	0	0	0	0	2	0	2	4	3	7
08:00 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	2	1	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:45 AM	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	2	1	3
Total	0	0	0	3	0	2	0	1	0	0	0	0	0	1	0	0	4	3	7
Grand Total	0	0	0	5	0	3	0	1	0	0	0	0	0	3	0	2	8	6	14
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0				
Total %	0	0	0		0	50	0		0	0	0		0	50	0		57.1	42.9	

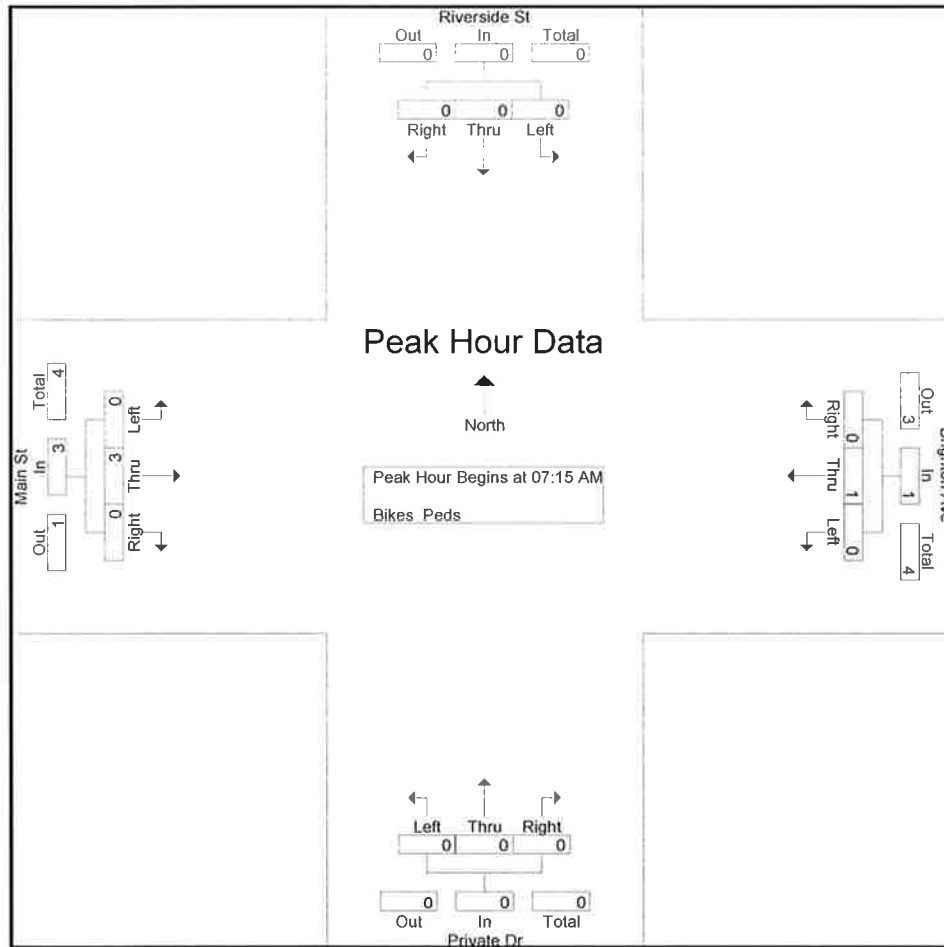
Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 11

	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.750	.000	.750	.500



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:00 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.750	.000	.750

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	78	4	15	4	185	127	2	0	0	11	106	1	533
04:15 PM	103	2	9	1	190	124	1	4	1	23	78	1	537
04:30 PM	80	0	13	2	181	133	3	0	0	16	105	1	534
04:45 PM	82	3	14	2	173	103	1	1	2	16	94	0	491
Total	343	9	51	9	729	487	7	5	3	66	383	3	2095
05:00 PM	96	2	17	1	176	115	2	3	1	16	94	1	524
05:15 PM	96	0	13	1	158	96	1	0	3	12	103	4	487
05:30 PM	105	1	6	3	172	99	3	2	2	14	108	1	516
05:45 PM	83	0	8	2	161	96	1	2	1	14	87	0	455
Total	380	3	44	7	667	406	7	7	7	56	392	6	1982
Grand Total	723	12	95	16	1396	893	14	12	10	122	775	9	4077
Apprch %	87.1	1.4	11.4	0.7	60.6	38.7	38.9	33.3	27.8	13.5	85.5	1	
Total %	17.7	0.3	2.3	0.4	34.2	21.9	0.3	0.3	0.2	3	19	0.2	
Cars	718	12	94	16	1390	886	14	12	10	114	774	9	4049
% Cars	99.3	100	98.9	100	99.6	99.2	100	100	100	93.4	99.9	100	99.3
Trucks	5	0	1	0	6	7	0	0	0	8	1	0	28
% Trucks	0.7	0	1.1	0	0.4	0.8	0	0	0	6.6	0.1	0	0.7

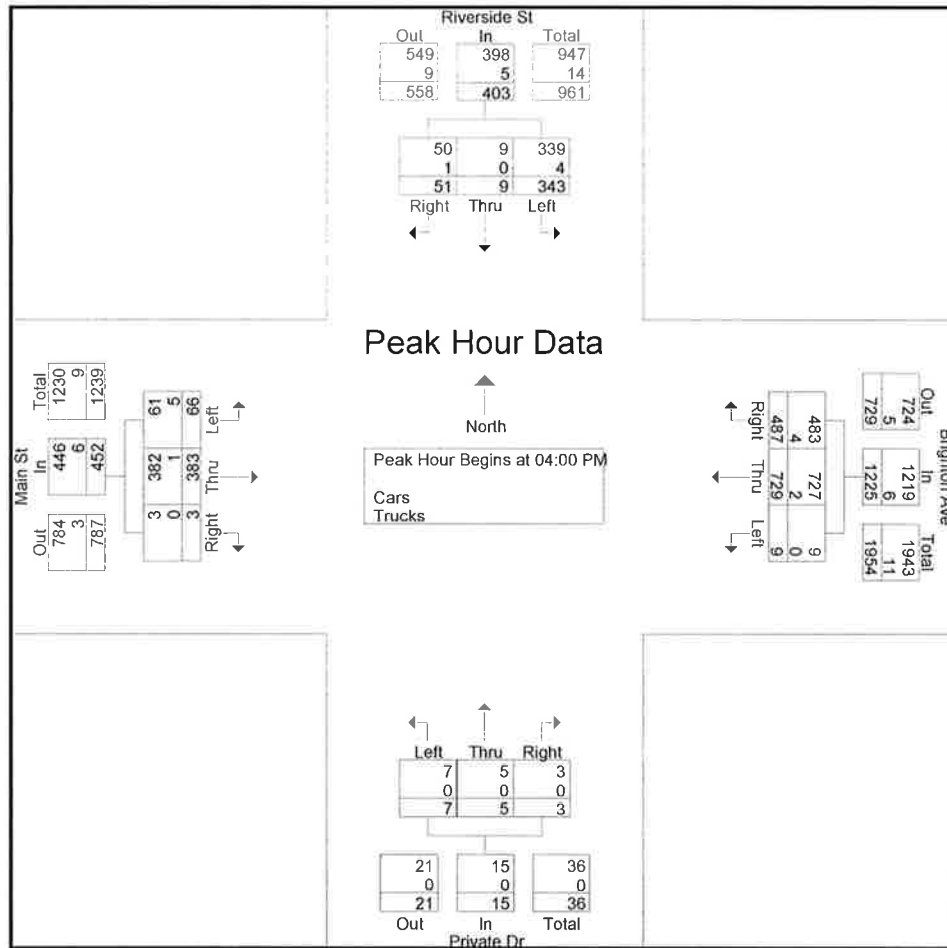
Accurate Counts

978-664-2565

N/S Street : Riverside St / Private Dr
E/W Street : Brighton Ave / Main St
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP04
Site Code : 68460P04
Start Date : 9/29/2015
Page No : 2

	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	78	4	15	97	4	185	127	316	2	0	0	2	11	106	1	118	533
04:15 PM	103	2	9	114	1	190	124	315	1	4	1	6	23	78	1	102	537
04:30 PM	80	0	13	93	2	181	133	316	3	0	0	3	16	105	1	122	534
04:45 PM	82	3	14	99	2	173	103	278	1	1	2	4	16	94	0	110	491
Total Volume	343	9	51	403	9	729	487	1225	7	5	3	15	66	383	3	452	2095
% App. Total	85.1	2.2	12.7		0.7	59.5	39.8		46.7	33.3	20		14.6	84.7	0.7		
PHF	.833	.563	.850	.884	.563	.959	.915	.969	.583	.313	.375	.625	.717	.903	.750	.926	.975
Cars	339	9	50	398	9	727	483	1219	7	5	3	15	61	382	3	446	2078
% Cars	98.8	100	98.0	98.8	100	99.7	99.2	99.5	100	100	100	100	92.4	99.7	100	98.7	99.2
Trucks	4	0	1	5	0	2	4	6	0	0	0	0	5	1	0	6	17
% Trucks	1.2	0	2.0	1.2	0	0.3	0.8	0.5	0	0	0	0	7.6	0.3	0	1.3	0.8



Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	77	4	14	4	184	126	2	0	0	9	106	1	527
04:15 PM	101	2	9	1	190	122	1	4	1	23	78	1	533
04:30 PM	80	0	13	2	180	133	3	0	0	14	104	1	530
04:45 PM	81	3	14	2	173	102	1	1	2	15	94	0	488
Total	339	9	50	9	727	483	7	5	3	61	382	3	2078
05:00 PM	96	2	17	1	175	113	2	3	1	16	94	1	521
05:15 PM	95	0	13	1	157	96	1	0	3	11	103	4	484
05:30 PM	105	1	6	3	171	99	3	2	2	13	108	1	514
05:45 PM	83	0	8	2	160	95	1	2	1	13	87	0	452
Total	379	3	44	7	663	403	7	7	7	53	392	6	1971
Grand Total	718	12	94	16	1390	886	14	12	10	114	774	9	4049
Apprch %	87.1	1.5	11.4	0.7	60.6	38.7	38.9	33.3	27.8	12.7	86.3	1	
Total %	17.7	0.3	2.3	0.4	34.3	21.9	0.3	0.3	0.2	2.8	19.1	0.2	

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	1	0	1	0	1	1	0	0	0	2	0	0	6
04:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	4
04:30 PM	0	0	0	0	1	0	0	0	0	2	1	0	4
04:45 PM	1	0	0	0	0	1	0	0	0	1	0	0	3
Total	4	0	1	0	2	4	0	0	0	5	1	0	17
05:00 PM	0	0	0	0	1	2	0	0	0	0	0	0	3
05:15 PM	1	0	0	0	1	0	0	0	0	1	0	0	3
05:30 PM	0	0	0	0	1	0	0	0	0	1	0	0	2
05:45 PM	0	0	0	0	1	1	0	0	0	1	0	0	3
Total	1	0	0	0	4	3	0	0	0	3	0	0	11
Grand Total	5	0	1	0	6	7	0	0	0	8	1	0	28
Apprch %	83.3	0	16.7	0	46.2	53.8	0	0	0	88.9	11.1	0	
Total %	17.9	0	3.6	0	21.4	25	0	0	0	28.6	3.6	0	

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				Excl. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	2	0	0	7	0	1	0	0	0	0	0	2	0	0	0	4	13	3	16
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	5	0	0	1	0	0	0	0	0	0	2	0	0	5	3	8
04:45 PM	0	0	0	2	0	1	0	0	0	0	0	0	0	1	1	0	2	3	5
Total	2	0	0	14	0	3	1	0	0	0	0	2	0	3	1	4	20	10	30
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	1	0	0	3	0	2	1	0	0	0	0	1	0	1	0	0	4	5	9
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
Total	1	0	0	3	0	4	1	0	0	0	0	2	0	2	0	0	5	8	13
Grand Total	3	0	0	17	0	7	2	0	0	0	0	4	0	5	1	4	25	18	43
Apprch %	100	0	0		0	77.8	22.2		0	0	0		0	83.3	16.7				
Total %	16.7	0	0		0	38.9	11.1		0	0	0		0	27.8	5.6		58.1	41.9	

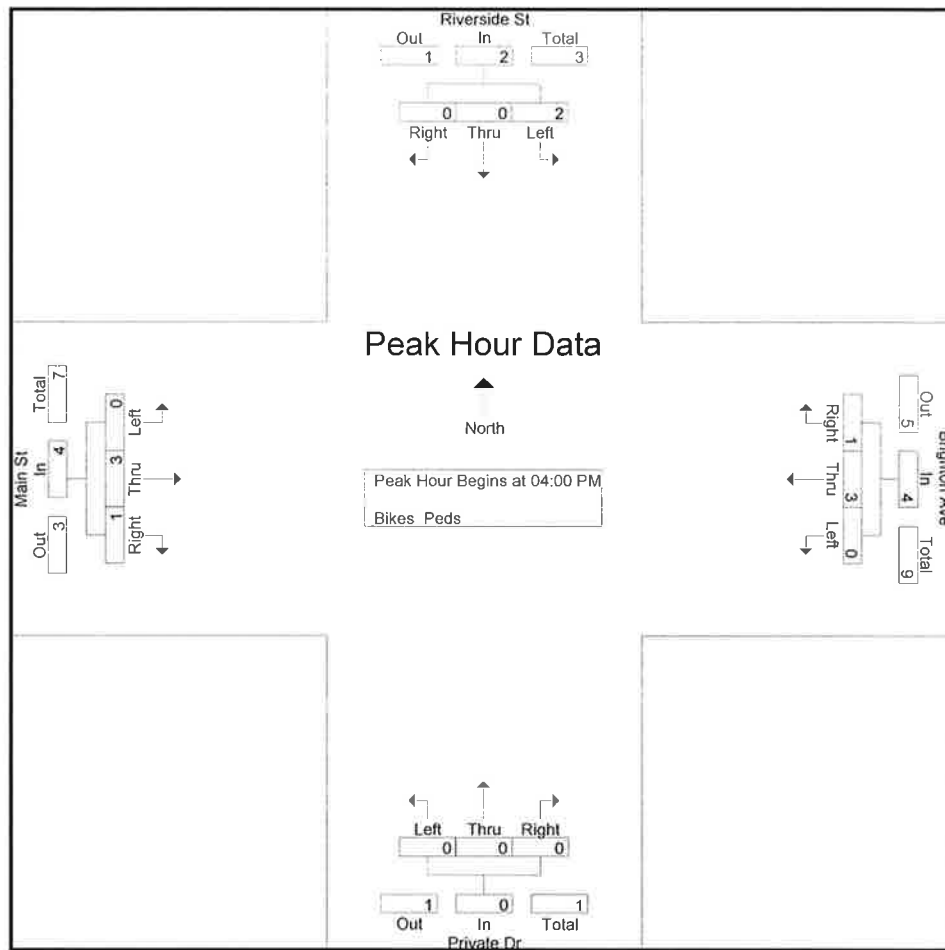
Accurate Counts

978-664-2565

N/S Street : Riverside St / Private Dr
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP04
 Site Code : 68460P04
 Start Date : 9/29/2015
 Page No : 11

	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	2	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	3
Total Volume	2	0	0	2	0	3	1	4	0	0	0	0	0	3	1	4	10
% App. Total	100	0	0		0	75	25		0	0	0		0	75	25		
PHF	.250	.000	.000	.250	.000	.750	.250	1.00	.000	.000	.000	.000	.000	.375	.250	.500	.833



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:00 PM				04:00 PM			
+0 mins.	2	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	2	1	3	0	0	0	0	0	1	1	2
Total Volume	2	0	0	2	0	5	1	6	0	0	0	0	0	3	1	4
% App. Total	100	0	0		0	83.3	16.7		0	0	0		0	75	25	
PHF	.250	.000	.000	.250	.000	.625	.250	.500	.000	.000	.000	.000	.000	.375	.250	.500

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks								
Start Time	Rand Rd From East		95 NB Ramp From South		Westbrook Arterial From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	29	23	68	26	86	115	347	
07:15 AM	18	23	88	39	120	92	380	
07:30 AM	39	29	110	63	93	123	457	
07:45 AM	46	47	106	73	150	151	573	
Total	132	122	372	201	449	481	1757	
08:00 AM	32	27	76	43	90	108	376	
08:15 AM	38	35	80	35	90	92	370	
08:30 AM	31	24	79	48	66	95	343	
08:45 AM	20	33	103	29	65	72	322	
Total	121	119	338	155	311	367	1411	
Grand Total	253	241	710	356	760	848	3168	
Apprch %	51.2	48.8	66.6	33.4	47.3	52.7		
Total %	8	7.6	22.4	11.2	24	26.8		
Cars	225	231	656	325	748	803	2988	
% Cars	88.9	95.9	92.4	91.3	98.4	94.7	94.3	
Trucks	28	10	54	31	12	45	180	
% Trucks	11.1	4.1	7.6	8.7	1.6	5.3	5.7	

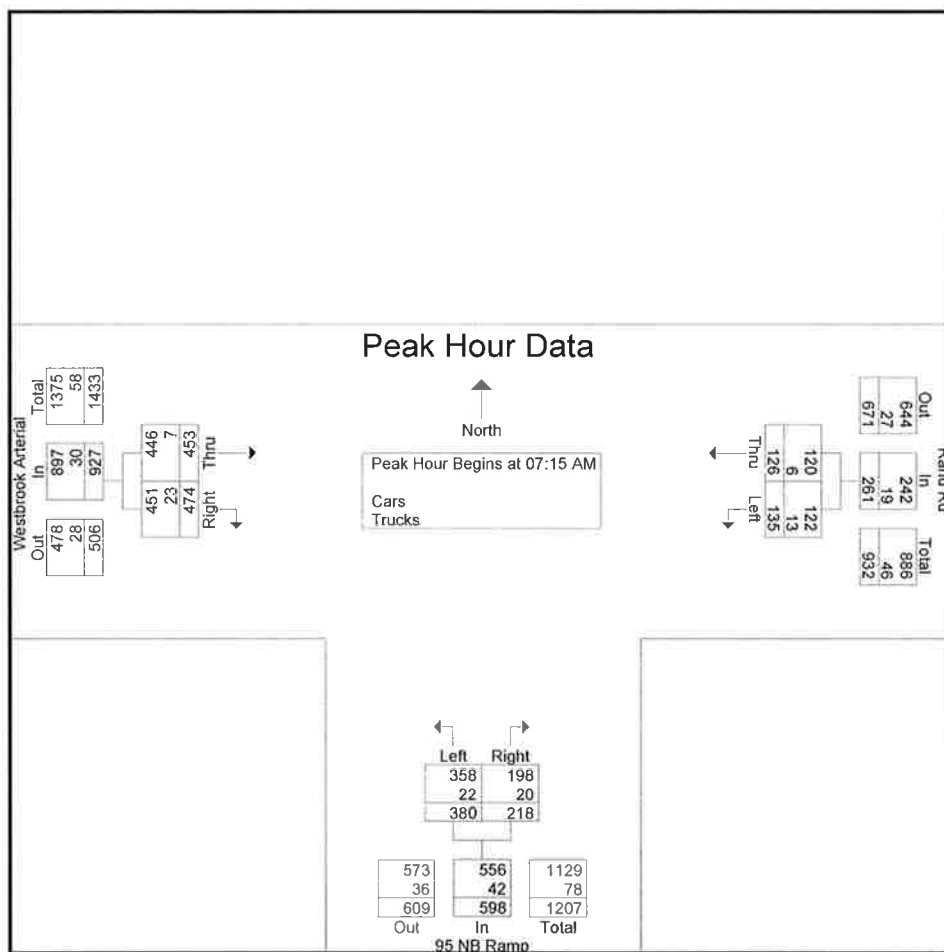
Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 2

	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	18	23	41	88	39	127	120	92	212	380
07:30 AM	39	29	68	110	63	173	93	123	216	457
07:45 AM	46	47	93	106	73	179	150	151	301	573
08:00 AM	32	27	59	76	43	119	90	108	198	376
Total Volume	135	126	261	380	218	598	453	474	927	1786
% App. Total	51.7	48.3		63.5	36.5		48.9	51.1		
PHF	.734	.670	.702	.864	.747	.835	.755	.785	.770	.779
Cars	122	120	242	358	198	556	446	451	897	1695
% Cars	90.4	95.2	92.7	94.2	90.8	93.0	98.5	95.1	96.8	94.9
Trucks	13	6	19	22	20	42	7	23	30	91
% Trucks	9.6	4.8	7.3	5.8	9.2	7.0	1.5	4.9	3.2	5.1



Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Rand Rd From East		95 NB Ramp From South		Westbrook Arterial From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	25	23	58	23	85	108	322
07:15 AM	18	22	80	34	118	89	361
07:30 AM	36	28	104	56	91	121	436
07:45 AM	38	44	103	69	148	140	542
Total	117	117	345	182	442	458	1661
08:00 AM	30	26	71	39	89	101	356
08:15 AM	33	34	74	33	88	87	349
08:30 AM	28	23	73	43	65	91	323
08:45 AM	17	31	93	28	64	66	299
Total	108	114	311	143	306	345	1327
Grand Total	225	231	656	325	748	803	2988
Apprch %	49.3	50.7	66.9	33.1	48.2	51.8	
Total %	7.5	7.7	22	10.9	25	26.9	

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks								
Start Time	Rand Rd From East		95 NB Ramp From South		Westbrook Arterial From West		Int. Total	
	Left	Thru	Left	Right	Thru	Right		
07:00 AM	4	0	10	3	1	7	25	
07:15 AM	0	1	8	5	2	3	19	
07:30 AM	3	1	6	7	2	2	21	
07:45 AM	8	3	3	4	2	11	31	
Total	15	5	27	19	7	23	96	
08:00 AM	2	1	5	4	1	7	20	
08:15 AM	5	1	6	2	2	5	21	
08:30 AM	3	1	6	5	1	4	20	
08:45 AM	3	2	10	1	1	6	23	
Total	13	5	27	12	5	22	84	
Grand Total	28	10	54	31	12	45	180	
Apprch %	73.7	26.3	63.5	36.5	21.1	78.9		
Total %	15.6	5.6	30	17.2	6.7	25		

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	0	1	0	0	0	2	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	1	0	0	0	2	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	1	1
Grand Total	0	2	0	0	0	0	1	0	0	0	3	3
Apprch %	0	100		0	0		100	0				
Total %	0	66.7		0	0		33.3	0		0	100	

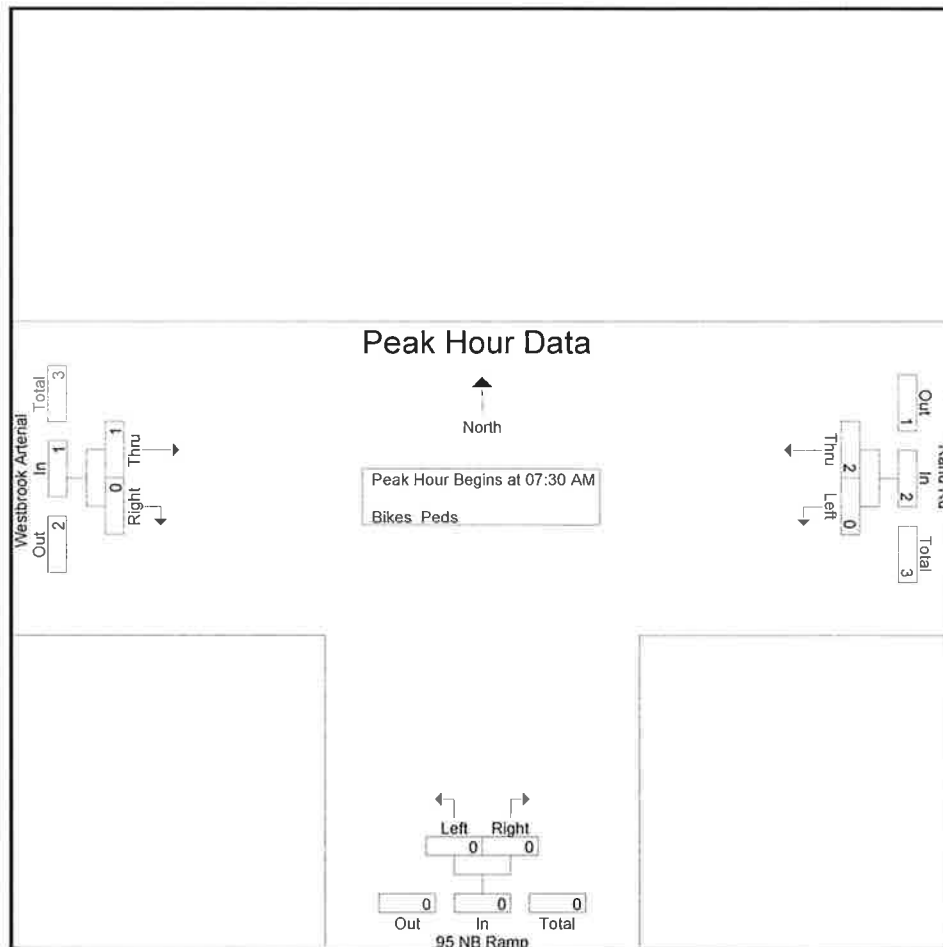
Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 11

	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	1	1	0	0	0	1	0	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	2	2	0	0	0	1	0	1	3
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.250	.000	.250	.375



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	2	2	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Rand Rd From East		95 NB Ramp From South		Westbrook Arterial From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	45	67	90	31	63	79	375
04:15 PM	40	63	105	39	76	59	382
04:30 PM	55	76	110	38	63	92	434
04:45 PM	34	64	114	36	61	100	409
Total	174	270	419	144	263	330	1600
05:00 PM	61	97	122	48	83	95	506
05:15 PM	35	77	134	54	79	91	470
05:30 PM	27	60	100	41	57	91	376
05:45 PM	29	68	59	38	41	64	299
Total	152	302	415	181	260	341	1651
Grand Total	326	572	834	325	523	671	3251
Apprch %	36.3	63.7	72	28	43.8	56.2	
Total %	10	17.6	25.7	10	16.1	20.6	
Cars	310	562	816	298	513	651	3150
% Cars	95.1	98.3	97.8	91.7	98.1	97	96.9
Trucks	16	10	18	27	10	20	101
% Trucks	4.9	1.7	2.2	8.3	1.9	3	3.1

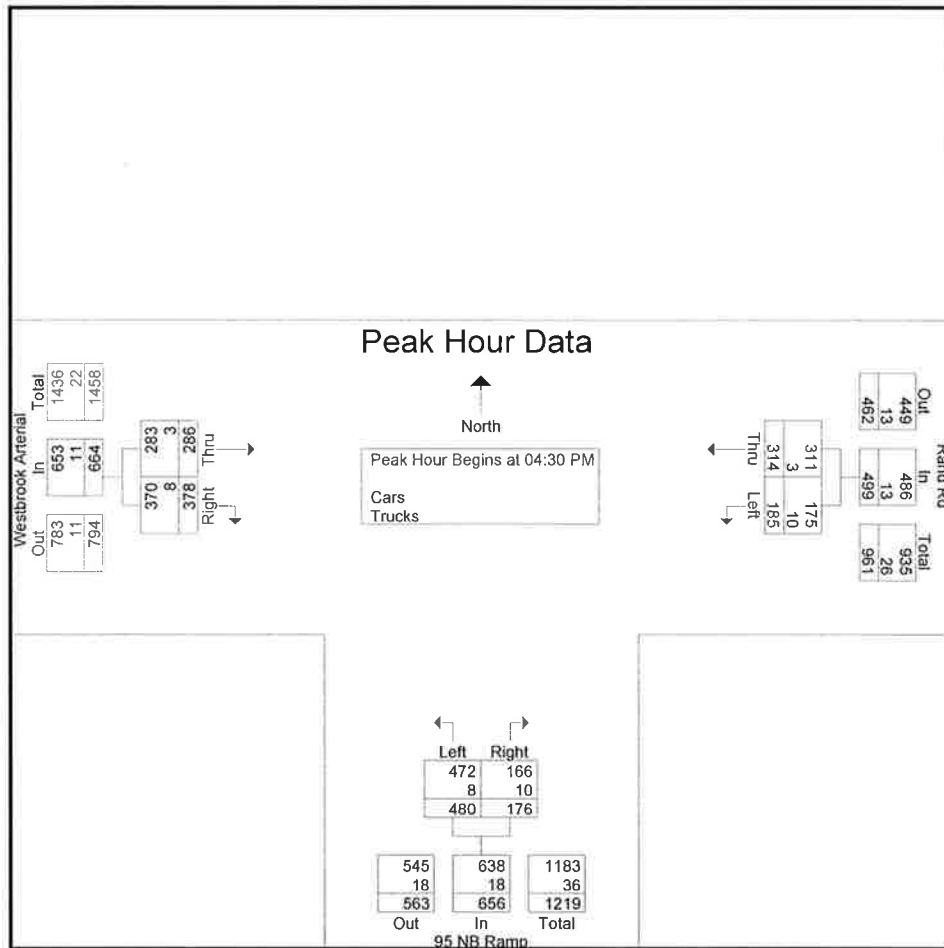
Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 2

	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	55	76	131	110	38	148	63	92	155	434
04:45 PM	34	64	98	114	36	150	61	100	161	409
05:00 PM	61	97	158	122	48	170	83	95	178	506
05:15 PM	35	77	112	134	54	188	79	91	170	470
Total Volume	185	314	499	480	176	656	286	378	664	1819
% App. Total	37.1	62.9		73.2	26.8		43.1	56.9		
PHF	.758	.809	.790	.896	.815	.872	.861	.945	.933	.899
Cars	175	311	486	472	166	638	283	370	653	1777
% Cars	94.6	99.0	97.4	98.3	94.3	97.3	99.0	97.9	98.3	97.7
Trucks	10	3	13	8	10	18	3	8	11	42
% Trucks	5.4	1.0	2.6	1.7	5.7	2.7	1.0	2.1	1.7	2.3



Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Rand Rd From East		95 NB Ramp From South		Westbrook Arterial From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	42	64	89	28	62	74	359
04:15 PM	38	61	101	34	72	56	362
04:30 PM	50	74	107	38	61	90	420
04:45 PM	32	64	112	33	61	99	401
Total	162	263	409	133	256	319	1542
05:00 PM	58	96	120	45	83	93	495
05:15 PM	35	77	133	50	78	88	461
05:30 PM	26	59	95	35	55	89	359
05:45 PM	29	67	59	35	41	62	293
Total	148	299	407	165	257	332	1608
Grand Total	310	562	816	298	513	651	3150
Apprch %	35.6	64.4	73.2	26.8	44.1	55.9	
Total %	9.8	17.8	25.9	9.5	16.3	20.7	

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Rand Rd From East		95 NB Ramp From South		Westbrook Arterial From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
04:00 PM	3	3	1	3	1	5	16
04:15 PM	2	2	4	5	4	3	20
04:30 PM	5	2	3	0	2	2	14
04:45 PM	2	0	2	3	0	1	8
Total	12	7	10	11	7	11	58
05:00 PM	3	1	2	3	0	2	11
05:15 PM	0	0	1	4	1	3	9
05:30 PM	1	1	5	6	2	2	17
05:45 PM	0	1	0	3	0	2	6
Total	4	3	8	16	3	9	43
Grand Total	16	10	18	27	10	20	101
Apprch %	61.5	38.5	40	60	33.3	66.7	
Total %	15.8	9.9	17.8	26.7	9.9	19.8	

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	1	0	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	0	2	2
05:00 PM	0	0	0	0	0	0	1	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	0	1	1
Grand Total	0	0	0	0	0	0	3	0	0	0	3	3
Apprch %	0	0		0	0		100	0				
Total %	0	0		0	0		100	0		0	100	

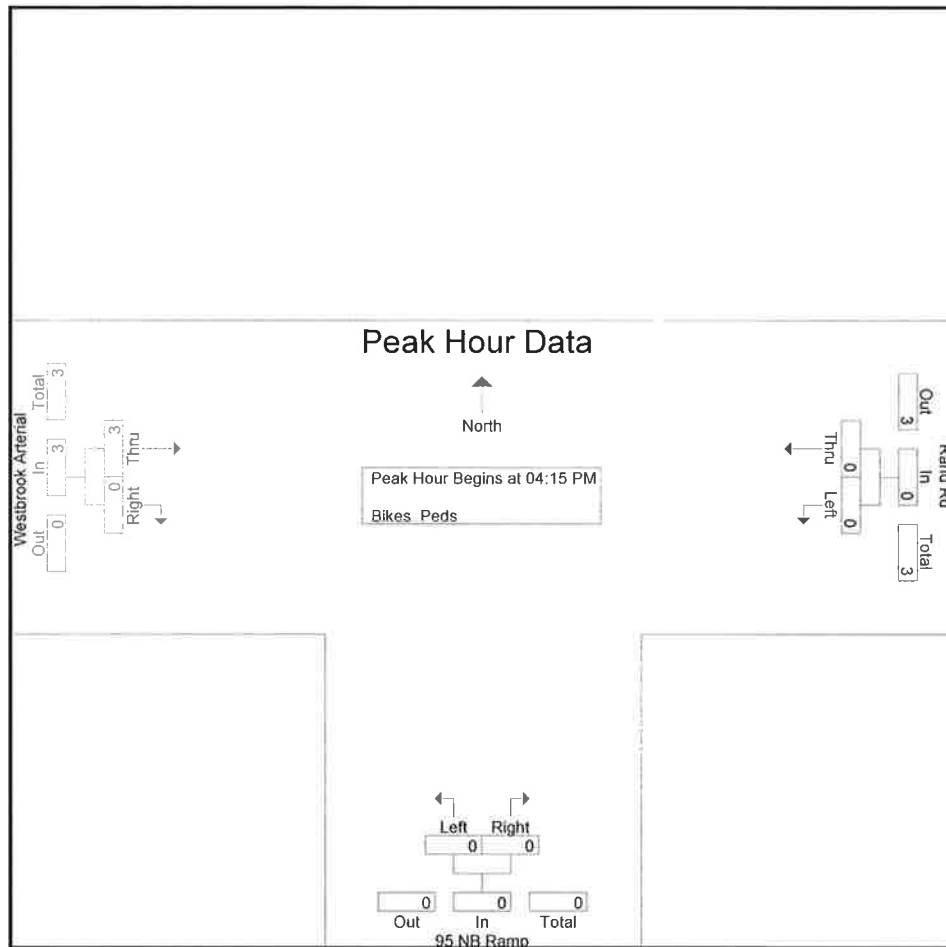
Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846WP06
 Site Code : 68460P06
 Start Date : 9/29/2015
 Page No : 11

	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	1	0	1	1
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	3	0	3	3
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.000	.750	.750



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	3	0	3
% App. Total	0	0		0	0		100	0	
PHF	.000	.000	.000	.000	.000	.000	.750	.000	.750

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	4	3	0	43	78	3	10	0	71	0	160	4	376
07:15 AM	2	1	0	54	107	3	5	2	122	1	212	0	509
07:30 AM	8	4	1	54	133	3	10	1	117	1	188	0	520
07:45 AM	9	0	0	84	188	2	11	1	149	1	198	1	644
Total	23	8	1	235	506	11	36	4	459	3	758	5	2049
08:00 AM	4	1	0	54	127	5	14	0	138	2	202	0	547
08:15 AM	8	1	1	46	118	4	14	2	93	0	197	1	485
08:30 AM	9	0	0	44	136	5	16	0	81	1	197	2	491
08:45 AM	5	2	1	45	182	3	9	0	77	1	135	0	460
Total	26	4	2	189	563	17	53	2	389	4	731	3	1983
Grand Total	49	12	3	424	1069	28	89	6	848	7	1489	8	4032
Apprch %	76.6	18.8	4.7	27.9	70.3	1.8	9.4	0.6	89.9	0.5	99	0.5	
Total %	1.2	0.3	0.1	10.5	26.5	0.7	2.2	0.1	21	0.2	36.9	0.2	
Cars	49	12	3	418	1053	27	85	6	830	7	1470	7	3967
% Cars	100	100	100	98.6	98.5	96.4	95.5	100	97.9	100	98.7	87.5	98.4
Trucks	0	0	0	6	16	1	4	0	18	0	19	1	65
% Trucks	0	0	0	1.4	1.5	3.6	4.5	0	2.1	0	1.3	12.5	1.6

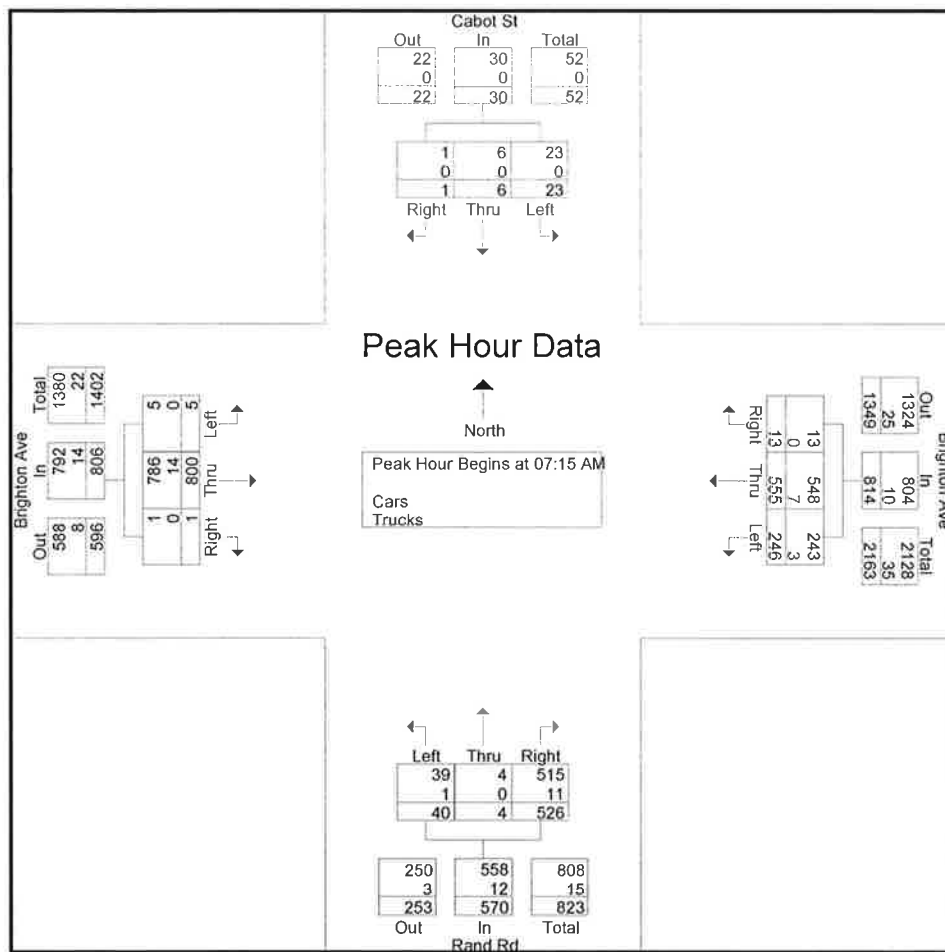
Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 2

	Cabot St From North				Brighton Ave From East				Rand Rd From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	1	0	3	54	107	3	164	5	2	122	129	1	212	0	213	509
07:30 AM	8	4	1	13	54	133	3	190	10	1	117	128	1	188	0	189	520
07:45 AM	9	0	0	9	84	188	2	274	11	1	149	161	1	198	1	200	644
08:00 AM	4	1	0	5	54	127	5	186	14	0	138	152	2	202	0	204	547
Total Volume	23	6	1	30	246	555	13	814	40	4	526	570	5	800	1	806	2220
% App. Total	76.7	20	3.3		30.2	68.2	1.6		7	0.7	92.3		0.6	99.3	0.1		
PHF	.639	.375	.250	.577	.732	.738	.650	.743	.714	.500	.883	.885	.625	.943	.250	.946	.862
Cars	23	6	1	30	243	548	13	804	39	4	515	558	5	786	1	792	2184
% Cars	100	100	100	100	98.8	98.7	100	98.8	97.5	100	97.9	97.9	100	98.3	100	98.3	98.4
Trucks	0	0	0	0	3	7	0	10	1	0	11	12	0	14	0	14	36
% Trucks	0	0	0	0	1.2	1.3	0	1.2	2.5	0	2.1	2.1	0	1.8	0	1.7	1.6



Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	4	3	0	43	76	2	8	0	69	0	158	3	366
07:15 AM	2	1	0	53	105	3	5	2	121	1	210	0	503
07:30 AM	8	4	1	54	130	3	10	1	115	1	185	0	512
07:45 AM	9	0	0	82	187	2	10	1	146	1	191	1	630
Total	23	8	1	232	498	10	33	4	451	3	744	4	2011
08:00 AM	4	1	0	54	126	5	14	0	133	2	200	0	539
08:15 AM	8	1	1	46	114	4	14	2	90	0	196	1	477
08:30 AM	9	0	0	43	133	5	15	0	80	1	196	2	484
08:45 AM	5	2	1	43	182	3	9	0	76	1	134	0	456
Total	26	4	2	186	555	17	52	2	379	4	726	3	1956
Grand Total	49	12	3	418	1053	27	85	6	830	7	1470	7	3967
Apprch %	76.6	18.8	4.7	27.9	70.3	1.8	9.2	0.7	90.1	0.5	99.1	0.5	
Total %	1.2	0.3	0.1	10.5	26.5	0.7	2.1	0.2	20.9	0.2	37.1	0.2	

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	2	1	2	0	2	0	2	1	10
07:15 AM	0	0	0	1	2	0	0	0	1	0	2	0	6
07:30 AM	0	0	0	0	3	0	0	0	2	0	3	0	8
07:45 AM	0	0	0	2	1	0	1	0	3	0	7	0	14
Total	0	0	0	3	8	1	3	0	8	0	14	1	38
08:00 AM	0	0	0	0	1	0	0	0	5	0	2	0	8
08:15 AM	0	0	0	0	4	0	0	0	3	0	1	0	8
08:30 AM	0	0	0	1	3	0	1	0	1	0	1	0	7
08:45 AM	0	0	0	2	0	0	0	0	1	0	1	0	4
Total	0	0	0	3	8	0	1	0	10	0	5	0	27
Grand Total	0	0	0	6	16	1	4	0	18	0	19	1	65
Apprch %	0	0	0	26.1	69.6	4.3	18.2	0	81.8	0	95	5	
Total %	0	0	0	9.2	24.6	1.5	6.2	0	27.7	0	29.2	1.5	

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Cabot St From North				Brighton Ave From East				Rand Rd From South				Brighton Ave From West				Exclu Total	Inclu Total	Int Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	4	5	2	7
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	2	3
07:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	2	2	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	0	0	0	1	2	0	1	0	0	0	0	0	3	0	8	9	6	15
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	2	1	3
08:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
08:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	1	2	3
Total	0	0	0	0	1	3	0	0	0	0	0	1	0	1	0	3	4	5	9
Grand Total	0	0	0	0	2	5	0	1	0	0	0	1	0	4	0	11	13	11	24
Apprch %	0	0	0		28.6	71.4	0		0	0	0		0	100	0				
Total %	0	0	0		18.2	45.5	0		0	0	0		0	36.4	0		54.2	45.8	

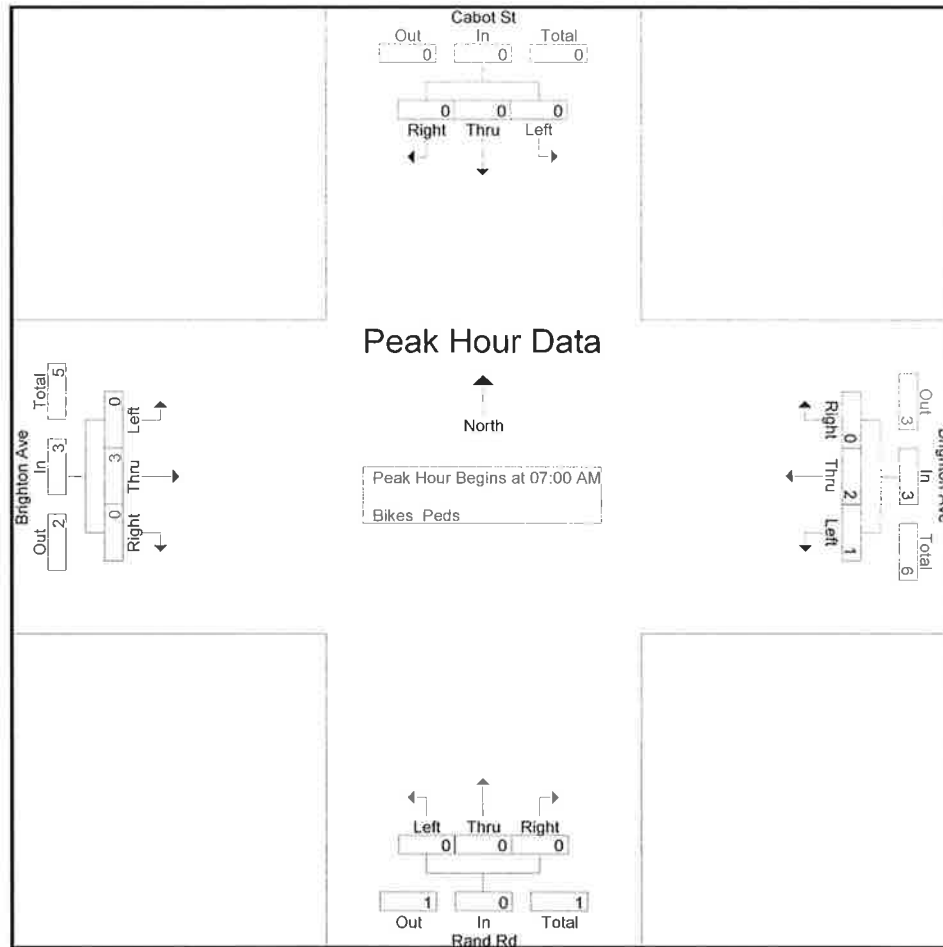
Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 11

	Cabot St From North				Brighton Ave From East				Rand Rd From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	2	0	3	0	0	0	0	0	3	0	3	6
% App. Total	0	0	0		33.3	66.7	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.250	.500	.000	.750	.000	.000	.000	.000	.000	.750	.000	.750	.750



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	3	0	4	0	0	0	0	0	3	0	3
% App. Total	0	0	0		25	75	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.250	.375	.000	.500	.000	.000	.000	.000	.000	.750	.000	.750

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	6	0	4	66	288	2	19	0	65	1	161	1	613
04:15 PM	3	0	2	79	246	5	18	1	107	1	166	0	628
04:30 PM	3	1	0	86	298	8	14	0	75	0	171	0	656
04:45 PM	6	0	4	77	236	9	18	1	90	5	132	0	578
Total	18	1	10	308	1068	24	69	2	337	7	630	1	2475
05:00 PM	4	0	2	101	272	7	17	1	104	1	176	0	685
05:15 PM	10	3	0	65	224	3	14	2	117	1	176	0	615
05:30 PM	3	1	1	84	271	1	14	1	79	1	190	1	647
05:45 PM	6	2	0	68	224	10	12	2	63	0	153	0	540
Total	23	6	3	318	991	21	57	6	363	3	695	1	2487
Grand Total	41	7	13	626	2059	45	126	8	700	10	1325	2	4962
Apprch %	67.2	11.5	21.3	22.9	75.4	1.6	15.1	1	83.9	0.7	99.1	0.1	
Total %	0.8	0.1	0.3	12.6	41.5	0.9	2.5	0.2	14.1	0.2	26.7	0	
Cars	40	7	13	615	2048	45	124	8	696	10	1320	1	4927
% Cars	97.6	100	100	98.2	99.5	100	98.4	100	99.4	100	99.6	50	99.3
Trucks	1	0	0	11	11	0	2	0	4	0	5	1	35
% Trucks	2.4	0	0	1.8	0.5	0	1.6	0	0.6	0	0.4	50	0.7

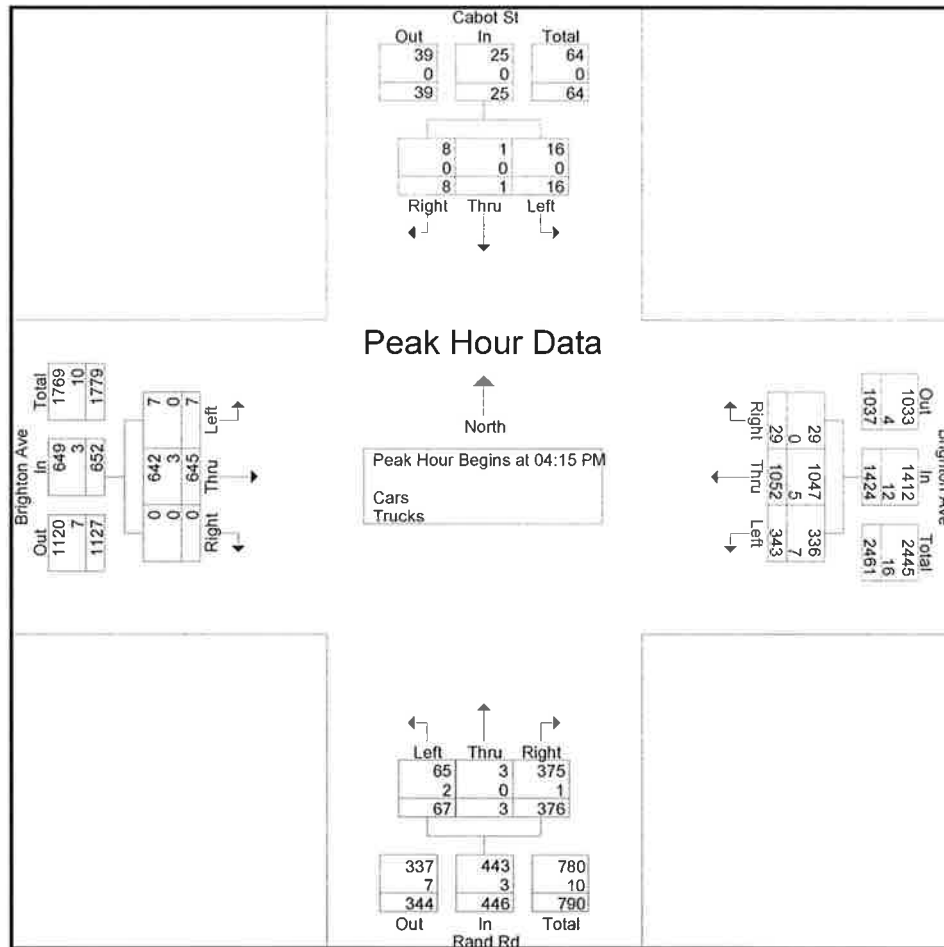
Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 2

	Cabot St From North				Brighton Ave From East				Rand Rd From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	3	0	2	5	79	246	5	330	18	1	107	126	1	166	0	167	628
04:30 PM	3	1	0	4	86	298	8	392	14	0	75	89	0	171	0	171	656
04:45 PM	6	0	4	10	77	236	9	322	18	1	90	109	5	132	0	137	578
05:00 PM	4	0	2	6	101	272	7	380	17	1	104	122	1	176	0	177	685
Total Volume	16	1	8	25	343	1052	29	1424	67	3	376	446	7	645	0	652	2547
% App. Total	64	4	32		24.1	73.9	2		15	0.7	84.3		1.1	98.9	0		
PHF	.667	.250	.500	.625	.849	.883	.806	.908	.931	.750	.879	.885	.350	.916	.000	.921	.930
Cars	16	1	8	25	336	1047	29	1412	65	3	375	443	7	642	0	649	2529
% Cars	100	100	100	100	98.0	99.5	100	99.2	97.0	100	99.7	99.3	100	99.5	0	99.5	99.3
Trucks	0	0	0	0	7	5	0	12	2	0	1	3	0	3	0	3	18
% Trucks	0	0	0	0	2.0	0.5	0	0.8	3.0	0	0.3	0.7	0	0.5	0	0.5	0.7



Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 4

Groups Printed- Cars

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	6	0	4	65	286	2	19	0	65	1	160	0	608
04:15 PM	3	0	2	76	245	5	17	1	107	1	164	0	621
04:30 PM	3	1	0	84	297	8	14	0	74	0	171	0	652
04:45 PM	6	0	4	76	235	9	18	1	90	5	131	0	575
Total	18	1	10	301	1063	24	68	2	336	7	626	0	2456
05:00 PM	4	0	2	100	270	7	16	1	104	1	176	0	681
05:15 PM	10	3	0	64	223	3	14	2	116	1	175	0	611
05:30 PM	3	1	1	83	270	1	14	1	77	1	190	1	643
05:45 PM	5	2	0	67	222	10	12	2	63	0	153	0	536
Total	22	6	3	314	985	21	56	6	360	3	694	1	2471
Grand Total	40	7	13	615	2048	45	124	8	696	10	1320	1	4927
Apprch %	66.7	11.7	21.7	22.7	75.6	1.7	15	1	84.1	0.8	99.2	0.1	
Total %	0.8	0.1	0.3	12.5	41.6	0.9	2.5	0.2	14.1	0.2	26.8	0	

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	0	0	0	1	2	0	0	0	0	0	1	1	5
04:15 PM	0	0	0	3	1	0	1	0	0	0	2	0	7
04:30 PM	0	0	0	2	1	0	0	0	1	0	0	0	4
04:45 PM	0	0	0	1	1	0	0	0	0	0	1	0	3
Total	0	0	0	7	5	0	1	0	1	0	4	1	19
05:00 PM	0	0	0	1	2	0	1	0	0	0	0	0	4
05:15 PM	0	0	0	1	1	0	0	0	1	0	1	0	4
05:30 PM	0	0	0	1	1	0	0	0	2	0	0	0	4
05:45 PM	1	0	0	1	2	0	0	0	0	0	0	0	4
Total	1	0	0	4	6	0	1	0	3	0	1	0	16
Grand Total	1	0	0	11	11	0	2	0	4	0	5	1	35
Apprch %	100	0	0	50	50	0	33.3	0	66.7	0	83.3	16.7	
Total %	2.9	0	0	31.4	31.4	0	5.7	0	11.4	0	14.3	2.9	

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Cabot St From North				Brighton Ave From East				Rand Rd From South				Brighton Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	2	2	3	5
Total	0	0	0	0	0	0	0	0	0	1	2	0	0	4	0	5	5	7	12
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	3	1	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	1	1	4	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	6	6	5	11
Grand Total	0	0	0	0	0	2	0	0	0	1	2	0	0	7	0	11	11	12	23
Apprch %	0	0	0		0	100	0		0	33.3	66.7		0	100	0				
Total %	0	0	0		0	16.7	0		0	8.3	16.7		0	58.3	0		47.8	52.2	

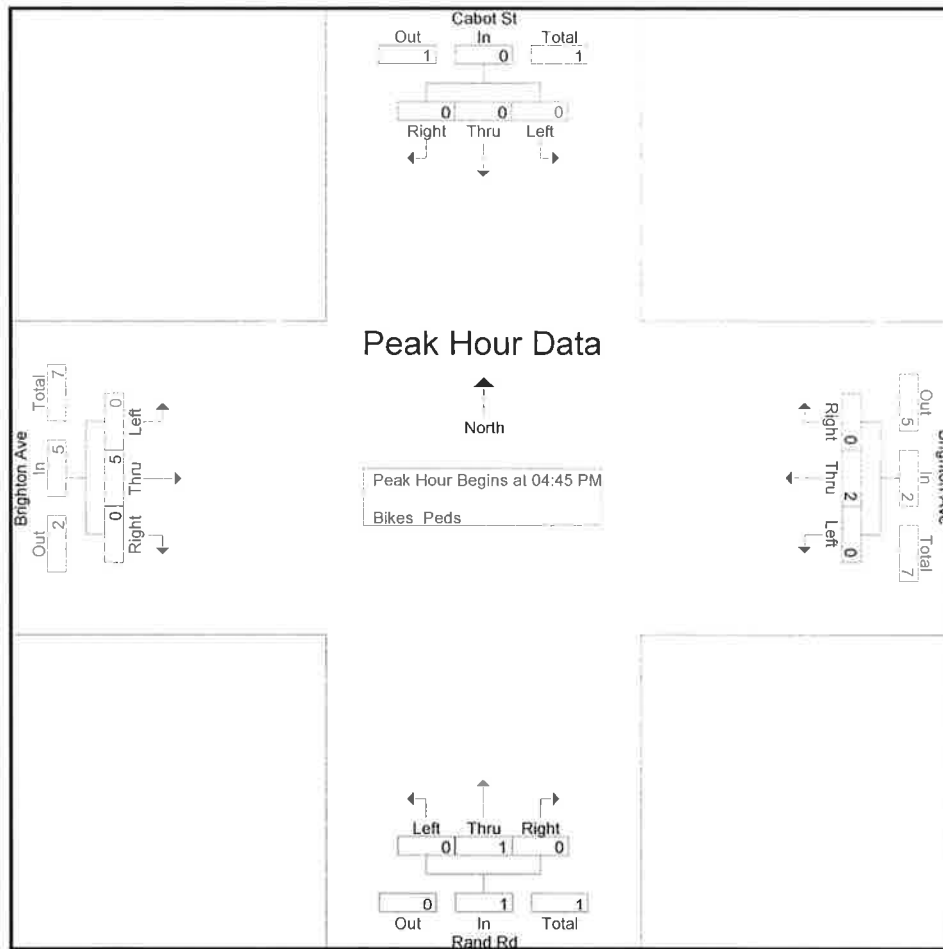
Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP07
 Site Code : 68460P07
 Start Date : 9/29/2015
 Page No : 11

	Cabot St From North				Brighton Ave From East				Rand Rd From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
Total Volume	0	0	0	0	0	2	0	2	0	1	0	1	0	5	0	5	8
% App. Total	0	0	0		0	100	0		0	100	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.000	.250	.000	.625	.000	.625	.500



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:00 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	2	0	2	0	1	0	1	0	2	0	2
Total Volume	0	0	0	0	0	2	0	2	0	1	2	3	0	5	0	5
% App. Total	0	0	0		0	100	0		0	33.3	66.7		0	100	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.500	.750	.000	.625	.000	.625

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP08
Site Code : 68460P08
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Groups Limited - Cars - Trucks																					
Start Time	Kent St From North				Brighton Ave From East				Capisic St From South				Hillcrest Ave From Southwest				Brighton Ave From West				
	Left	Thru	Br Rt	Right	Left	Br Lt	Thru	Right	Hd Lt	Thru	Left	Hd Lt	Br Rt	Thru	Right	Left	Thru	Right	Hd Rt	Int. Total	
07:00 AM	3	0	2	1	0	0	0	97	0	0	20	0	0	0	1	0	0	162	50	0	336
07:15 AM	2	0	4	0	1	0	126	1	0	32	2	3	0	0	0	0	0	267	84	0	522
07:30 AM	3	0	2	0	2	0	155	0	0	33	0	1	0	0	0	0	0	238	81	0	515
07:45 AM	6	0	6	0	1	0	191	1	0	40	1	2	0	0	0	2	277	89	0	616	
Total	14	0	14	1	4	0	569	2	0	125	3	6	0	0	1	0	2	944	304	0	1989
08:00 AM	6	0	2	1	2	0	141	1	0	39	1	10	0	0	0	0	1	244	86	0	534
08:15 AM	10	0	4	1	2	0	120	2	0	53	0	18	0	0	1	0	2	232	73	0	518
08:30 AM	10	0	8	1	4	0	129	2	0	49	5	7	0	0	0	0	2	217	85	0	519
08:45 AM	2	0	3	2	4	0	162	3	0	48	0	3	0	0	0	0	1	183	60	1	472
Total	28	0	17	5	12	0	552	8	0	189	6	38	0	0	1	0	6	876	304	1	2043
Grand Total	42	0	31	6	16	0	1121	10	0	314	9	44	0	0	2	0	8	1820	608	1	4032
Apprch %	53.2	0	39.2	7.6	1.4	0	97.7	0.9	0	85.6	2.5	12	0	0	100	0	0.3	74.7	24.9	0	
Total %	1	0	0.8	0.1	0.4	0	27.8	0.2	0	7.8	0.2	1.1	0	0	0	0	0.2	45.1	15.1	0	
Cars	41	0	31	6	16	0	1099	10	0	309	9	44	0	0	2	0	8	1785	605	1	3966
% Cars	97.6	0	100	100	100	0	98	100	0	98.4	100	100	0	0	100	0	100	98.1	99.5	100	98.4
Trucks	1	0	0	0	0	0	22	0	0	5	0	0	0	0	0	0	0	35	3	0	66
% Trucks	2.4	0	0	0	0	0	2	0	0	1.6	0	0	0	0	0	0	0	1.9	0.5	0	1.6

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP08
 Site Code : 68460P08
 Start Date : 9/29/2015
 Page No : 2

	Kent St						Brighton Ave						Capisic St						Hillcrest Ave						Brighton Ave							
	From North						From East						From South						From Southwest						From West							
Start Time	Left	Thru	Br	Rt	Right	App. Total	Left	Br	Lt	Thru	Right	App. Total	Hd	Lt	Left	Thru	Right	App. Total	Hd	Lt	Br	Rt	Hd	Rt	App. Total	Left	Thru	Right	Hd	Rt	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 07:15 AM																																
07:15 AM	2	0	4	0	0	6	1	0	126	1	128	0	32	2	3	37	0	0	0	0	0	0	0	0	0	0	267	84	0	351	522	
07:30 AM	3	0	2	0	5	5	2	0	155	0	157	0	33	0	1	34	0	0	0	0	0	0	0	0	0	0	238	81	0	319	515	
07:45 AM	6	0	6	0	12	12	1	0	191	1	193	0	40	1	2	43	0	0	0	0	0	0	0	0	2	277	89	0	368	616		
08:00 AM	6	0	2	1	9	9	2	0	141	1	144	0	39	1	10	50	0	0	0	0	0	0	0	0	1	244	86	0	331	534		
Total Volume	17	0	14	1	32	32	6	0	613	3	622	0	144	4	16	164	0	0	0	0	0	0	0	0	3	1026	340	0	1369	2187		
% App. Total	53.1	0	43.8	3.1			1	0	98.6	0.5		0	87.8	2.4	9.8		0	0	0	0	0	0	0	0.2	74.9	24.8	0					
PHF	.708	.000	.583	.250	.667	.667	.750	.000	.802	.750	.806	.000	.900	.500	.400	.820	.000	.000	.000	.000	.000	.000	.375	.926	.955	.000	.930	.888				
Cars	16	0	14	1	31	31	6	0	604	3	613	0	141	4	16	161	0	0	0	0	0	0	0	3	1002	339	0	1344	2149			
% Cars	94.1	0	100	100	96.9	96.9	100	0	98.5	100	98.6	0	97.9	100	100	98.2	0	0	0	0	0	0	0	100	97.7	99.7	0	98.2	98.3			
Trucks	1	0	0	0	1	1	0	0	9	0	9	0	3	0	0	3	0	0	0	0	0	0	0	0	0	24	1	0	25	38		
% Trucks	5.9	0	0	0	3.1	3.1	0	0	1.5	0	1.4	0	2.1	0	0	1.8	0	0	0	0	0	0	0	0	2.3	0.3	0	1.8	1.7			

File Name : 6846WP08
Site Code : 68460P08
Start Date : 9/29/2015
Page No : 3

[illegible]

Peak Hour for Each Approach Begins at:

	07:45 AM			07:15 AM			08:00 AM			07:00 AM			07:15 AM												
+0 mins.	6	0	0	12	1	0	126	1	128	0	39	1	10	50	0	0	1	0	1	0	267	84	0	351	
+15 mins.	6	0	2	1	9	2	0	155	0	157	0	53	0	18	71	0	0	0	0	0	238	81	0	319	
+30 mins.	10	0	4	1	15	1	0	191	1	193	0	49	5	7	61	0	0	0	0	2	277	89	0	368	
+45 mins.	10	0	8	1	19	2	0	141	1	144	0	48	0	3	51	0	0	0	0	1	244	86	0	331	
Total Volume	32	0	20	3	55	6	0	613	3	622	0	189	6	38	233	0	0	1	0	1	3	1026	340	0	1369
% App. Total	58.2	0	36.4	5.5		1	0	98.6	0.5		0	81.1	2.6	16.3		0	0	100	0	0.2	74.9	24.8	0		
PHF	800	000	625	750	724	750	000	802	750	806	000	892	300	528	820	000	000	250	000	250	375	926	955	000	930

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP08
 Site Code : 68460P08
 Start Date : 9/29/2015
 Page No : 5

Groups Printed- Cars

Start Time	Kent St From North					Brighton Ave From East					Capisic St From South					Hillcrest Ave From Southwest					Brighton Ave From West					Int. Total
	Left	Thru	Br Rt	Right		Left	Br Lt	Thru	Right		Left	Hd Lt	Thru	Right		Hd Lt	Br Lt	Br Rt	Hd Rt		Left	Thru	Right	Hd Rt		
07:00 AM	3	0	2	1		0	0	92	0		0	0	20	0		0	0	1	0		0	159	50	0		328
07:15 AM	1	0	4	0		1	0	123	1		0	0	30	2		0	0	0	0		0	264	83	0		512
07:30 AM	3	0	2	0		2	0	154	0		0	0	32	0		0	0	0	0		0	234	81	0		509
07:45 AM	6	0	6	0		1	0	189	1		0	0	40	1		0	0	0	0		2	267	89	0		604
Total	13	0	14	1		4	0	558	2		0	0	122	3		0	0	1	0		2	924	303	0		1953
08:00 AM	6	0	2	1		2	0	138	1		0	0	39	1		0	0	0	0		1	237	86	0		524
08:15 AM	10	0	4	1		2	0	117	2		0	0	52	0		0	0	1	0		2	228	72	0		509
08:30 AM	10	0	8	1		4	0	124	2		0	0	48	5		0	0	0	0		2	215	84	0		510
08:45 AM	2	0	3	2		4	0	162	3		0	0	48	0		0	0	0	0		1	181	60	1		470
Total	28	0	17	5		12	0	541	8		0	0	187	6		0	0	1	0		6	861	302	1		2013
Grand Total	41	0	31	6		16	0	1099	10		0	0	309	9		0	0	2	0		8	1785	605	1		3966
Approch %	52.6	0	39.7	7.7		1.4	0	97.7	0.9		0	0	85.4	2.5		0	0	100	0		0.3	74.4	25.2	0		
Total %	1	0	0.8	0.2		0.4	0	27.7	0.3		0	0	7.8	0.2		0	0	0.1	0		0.2	45	15.3	0		

Accurate Counts

978-664-2565

File Name : 6846WP08
 Site Code : 68460P08
 Start Date : 9/29/2015
 Page No : 9

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

Groups Printed- Trucks

Group 1 - Intersecting Streets																	
	Kent St From North			Brighton Ave From East			Capisic St From South			Hillcrest Ave From Southwest			Brighton Ave From West			Int. Total	
	Left	Thru	Br Rt	Right	Left	Thru	Br Lt	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right		Hd Rt
Start Time	Left	Thru	Br Rt	Right	Left	Thru	Br Lt	Right	Hd Lt	Left	Thru	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt
07:00 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	3	0	0
07:15 AM	1	0	0	0	0	3	0	0	0	0	2	0	0	0	3	1	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	0	0
07:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	10	0	0
Total	1	0	0	0	0	11	0	0	0	0	3	0	0	0	20	1	0
08:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	7	0	0
08:15 AM	0	0	0	0	0	3	0	0	0	0	1	0	0	0	4	1	0
08:30 AM	0	0	0	0	0	5	0	0	0	0	1	0	0	0	2	1	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Total	0	0	0	0	0	11	0	0	0	0	2	0	0	0	15	2	0
Grand Total	1	0	0	0	0	22	0	0	0	0	5	0	0	0	35	3	0
Approch %	100	0	0	0	0	100	0	0	0	0	100	0	0	0	92.1	7.9	0
Total %	1.5	0	0	0	0	33.3	0	0	0	0	7.6	0	0	0	53	4.5	0

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP08
Site Code : 68460P08
Start Date : 9/29/2015
Page No : 13

Groups Printed- Bikes Peds																																												
Kent St From North						Brighton Ave From East						Capisic St From South						Hillcrest Ave From Southwest						Brighton Ave From West																				
Start Time	Left		Thru		Br Rt		Right		Peds		Left		Br Lt		Thru		Right		Peds		Hd Lt		Br Rt		Hd Rt		Peds		Left		Thru		Right		Hd Rt		Peds		Bike Total		Hd Total		Int Total	
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1		
07:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3		
07:30 AM	0	0	0	0	0	0	0	1	0	3	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3	6	9	9	9	9			
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2	1	1	2	2	2	2		
Total	0	1	0	0	0	0	0	2	0	5	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	5	10	15	15	15	15	15		
08:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	1	2	3	3	3	3		
08:15 AM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	3	1	2	3	3	3	3		
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	1	
08:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2		
Total	0	0	0	0	1	0	0	4	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	3	6	9	9	9	9	9	9	9	
Grand Total	0	1	0	0	1	0	0	6	0	7	0	0	1	4	0	0	1	4	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	8	16	24	24	24	24	24	24	24	
Approch %	0	100	0	0		0	0	100	0		0	0	20	80		0	0	80		0	0	0	0	0	0	0	0	100	0	0	100	0	0											
Total %	0	6.2	0	0		0	0	37.5	0		0	0	6.2	25		0	0	25		0	0	0	0	0	0	0	0	25	0	0	25	0	0	33.3	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7		

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP08
 Site Code : 68460P08
 Start Date : 9/29/2015
 Page No : 14

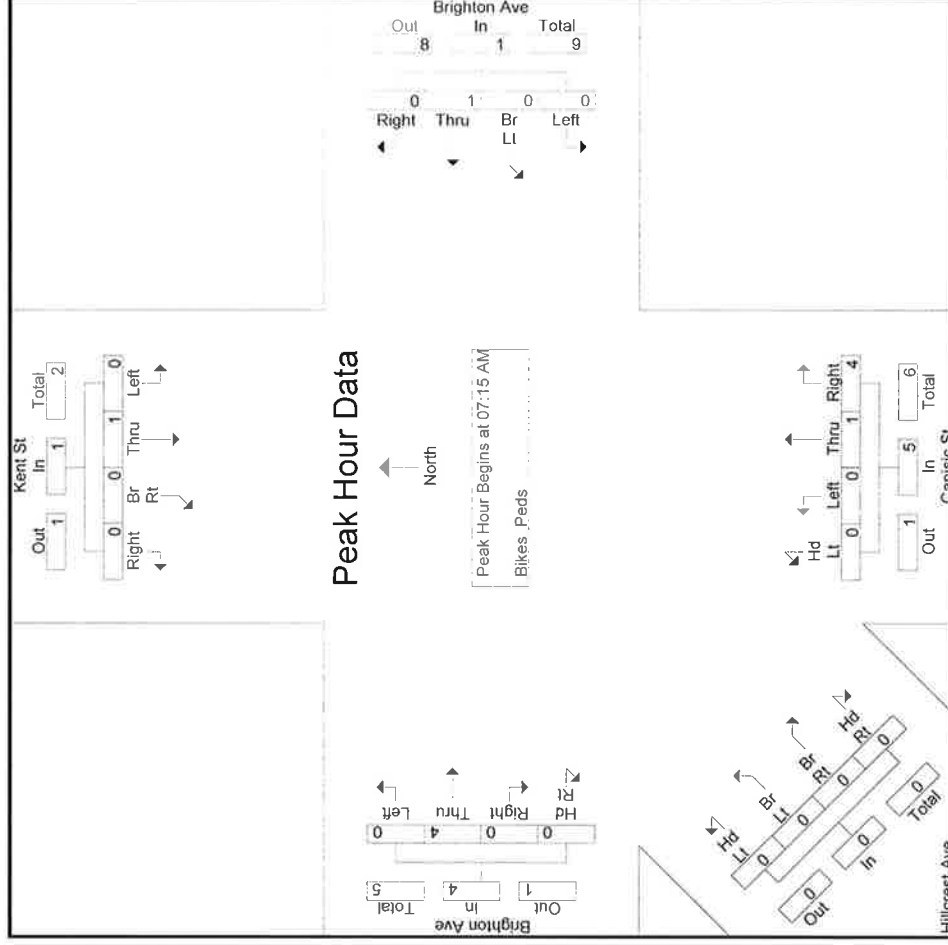
		Kent St From North					Brighton Ave From East					Capisic St From South					Hillcrest Ave From Southwest					Brighton Ave From West						
Start Time	Left	Thru	Br Rt	Right	App. Total	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Int. Total		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																												
Peak Hour for Entire Intersection Begins at 07:15 AM																												
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2		
07:30 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	1	2	3	0	0	0	0	0	0	2	0	0	6		
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1		
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	2		
Total Volume	0	1	0	0	1	0	0	1	0	1	0	0	0	1	4	5	0	0	0	0	0	4	0	0	0	4	11	
% App. Total	0	100	0	0	0	0	0	100	0	20	80	0	0	20	80	0	0	0	0	0	0	100	0	0	0	0	11	
PHF	.000	.250	.000	.000	.250	.000	.000	.250	.000	.500	.417	.000	.000	.250	.500	.417	.000	.000	.000	.000	.000	.500	.000	.000	.500	.458		

Accurate Counts

978-664-2565

File Name : 6846WP08
 Site Code : 68460P08
 Start Date : 9/29/2015
 Page No : 15

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:00 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
+15 mins.	0	1	0	0	2	0	0	1	2	3	0	0	0	0	2	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1
Total Volume	0	1	0	0	4	0	0	1	4	5	0	0	0	0	4	4
% App. Total	0	100	0	0	0	0	0	20	80	0	0	0	0	0	0	0
PHF	.000	.250	.000	.000	.500	.000	.000	.250	.500	.417	.000	.000	.000	.000	.500	.500

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP08
Site Code : 68460P08
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Kent St				Brighton Ave				Capisic St				Hillcrest Ave				Brighton Ave			
	Left	Thru	Br Rt	Right	Left	Thru	Br Lt	From East	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	From Southwest	Thru	Left	Hd Rt	From West
04:00 PM	5	0	5	3	1	0	0	279	3	0	96	4	5	1	0	2	166	2	44	1
04:15 PM	1	0	1	1	3	0	0	246	2	0	82	6	2	0	0	0	208	3	55	2
04:30 PM	5	0	3	2	2	0	0	285	5	1	74	3	5	1	0	2	198	1	50	0
04:45 PM	3	0	3	3	0	0	0	258	1	0	85	3	2	0	0	0	168	2	38	0
Total	14	0	12	9	6	0	0	1068	11	1	337	16	14	2	0	4	740	8	187	3
05:00 PM	5	0	4	3	0	0	0	266	4	0	86	4	7	0	0	1	195	2	56	0
05:15 PM	9	0	3	3	0	0	0	232	7	0	73	3	1	0	0	0	230	2	62	0
05:30 PM	4	0	1	7	2	0	0	267	4	0	93	3	4	0	0	0	195	1	67	0
05:45 PM	0	0	1	3	0	0	0	234	3	1	77	3	6	0	0	1	180	1	59	1
Total	18	0	9	16	2	0	0	999	18	1	329	13	18	0	0	2	800	6	244	1
Grand Total	32	0	21	25	8	0	0	2067	29	2	666	29	32	2	0	6	1540	14	431	4
Apprch %	41	0	26.9	32.1	0.4	0	0	98.2	1.4	0.3	91.4	4	4.4	25	0	75	77.4	0.7	21.7	0.2
Total %	0.7	0	0.4	0.5	0.2	0	0	42.1	0.6	0	13.6	0.6	0.7	0	0	0.1	31.4	0.3	8.8	0.1
Cars	32	0	21	25	8	0	0	2042	29	2	666	29	32	2	0	6	1528	14	431	4
% Cars	100	0	100	100	100	0	0	98.8	100	100	100	100	100	100	0	100	99.2	100	100	100
Trucks	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	12	0	0	0
% Trucks	0	0	0	0	0	0	0	1.2	0	0	0	0	0	0	0	0	0.8	0	0	0

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP08
 Site Code : 68460P08
 Start Date : 9/29/2015
 Page No : 2

	Kent St From North					Brighton Ave From East					Capisic St From South					Hillcrest Ave From Southwest					Brighton Ave From West										
Start Time	Left	Thru	Br	Rt	Right	App. Total	Left	Br	Lt	Thru	Right	App. Total	Hd	Lt	Thru	Right	App. Total	Br	Lt	Br	Rt	Hd	Rt	App. Total	Left	Thru	Right	Hd	Rt	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	5	0	4	3	12		0	0	266	4	270		0	86	4	7	97		0	0	1	0	0	1	2	195	56	0	253	633	
05:15 PM	9	0	3	3	15		0	0	232	7	239		0	73	3	1	77		0	0	0	0	0	0	2	230	62	0	294	625	
05:30 PM	4	0	1	7	12		2	0	267	4	273		0	93	3	4	100		0	0	0	0	0	0	1	195	67	0	263	648	
05:45 PM	0	0	1	3	4		0	0	234	3	237		1	77	3	6	87		0	0	1	0	1	1	1	180	59	1	241	570	
Total Volume	18	0	9	16	43		2	0	999	18	1019		1	329	13	18	361		0	0	2	0	2	2	6	800	244	1	1051	2476	
% App. Total	41.9	0	20.9	37.2			0.2	0	98	1.8			0.3	91.1	3.6	5			0	0	100	0			0.6	76.1	23.2	0.1			
PHF	.500	.000	.563	.571	.717		.250	.000	.935	.643	.933		.250	.884	.813	.643	.903		.000	.000	.500	.000		.500	.750	.870	.910	.250	.894	.955	
Cars	18	0	9	16	43		2	0	989	18	1009		1	329	13	18	361		0	0	2	0	2	2	6	794	244	1	1045	2460	
% Cars	100	0	100	100	100		100	0	99.0	100	99.0		100	100	100	100	100		0	0	100	0	100	100	100	99.3	100	100	99.4	99.4	
Trucks	0	0	0	0	0		0	0	0	0	10		0	0	0	0	0		0	0	0	0	0	0	0	6	0	0	6	16	
% Trucks	0	0	0	0	0		0	0	0	1.0	0		0	0	0	0	0		0	0	0	0	0	0	0	0.8	0	0	0.6	0.6	

File Name : 6846WP08
Site Code : 68460P08
Start Date : 9/29/2015
Page No : 3

Brighton Ave

Out	In	Total
832	1009	1841
6	10	16
838	1019	1857

Kent St

Out	In	Total
37	43	80
0	0	0
37	43	80

Peak Hour Data

Peak Hour Begins at 05:00 PM

Cars Trucks\$

Brighton Ave

Out	In	Total
1344	1051	2395
10	6	16
1334	1045	2379

Kent St

Out	In	Total
246	361	607
0	0	0
246	361	607

	04:45 PM				04:00 PM				04:00 PM				05:00 PM												
+0 mins.	3	0	3	3	9	1	0	279	3	283	0	96	4	5	105	1	0	2	0	3	2	195	56	0	253
+15 mins.	5	0	4	3	12	3	0	246	2	251	0	82	6	2	90	0	0	0	0	0	2	230	62	0	294
+30 mins.	9	0	3	3	15	2	0	285	5	292	1	74	3	5	83	1	0	2	0	3	1	195	67	0	263
+45 mins.	4	0	1	7	12	0	0	258	1	259	0	85	3	2	90	0	0	0	0	0	1	180	59	1	241
Total Volume	21	0	11	16	48	6	0	1068	11	1085	1	337	16	14	368	2	0	4	0	6	6	800	244	1	1051
% App. Total	43.8	0	22.9	33.3		0.6	0	98.4	1		0.3	91.6	4.3	3.8		33.3	0	66.7	0		0.6	76.1	23.2	0.1	
PHF	.583	.000	.688	.571	.800	.500	.000	.937	.550	.929	.250	.878	.667	.700	.876	.500	.000	.500	.000	.500	.750	.870	.910	.250	.894

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP08
Site Code : 68460P08
Start Date : 9/29/2015
Page No : 5

Groups Printed- Cars

Start Time	Kent St From North					Brighton Ave From East					Capisic St From South					Hillcrest Ave From Southwest					Brighton Ave From West					Int. Total
	Left	Thru	Br Rt	Right		Left	Br Lt	Thru	Right		Hd Lt	Left	Thru	Right		Hd Lt	Br Lt	Br Rt	Hd Rt		Left	Thru	Right	Hd Rt		
04:00 PM	5	0	5	3		1	0	274	3		0	96	4	5		1	0	2	0		2	165	44	1		611
04:15 PM	1	0	1	1		3	0	243	2		0	82	6	2		0	0	0	0		3	205	55	2		606
04:30 PM	5	0	3	2		2	0	280	5		1	74	3	5		1	0	2	0		1	198	50	0		632
04:45 PM	3	0	3	3		0	0	256	1		0	85	3	2		0	0	0	0		2	166	38	0		562
Total	14	0	12	9		6	0	1053	11		1	337	16	14		2	0	4	0		8	734	187	3		2411
05:00 PM	5	0	4	3		0	0	263	4		0	86	4	7		0	0	1	0		2	194	56	0		629
05:15 PM	9	0	3	3		0	0	229	7		0	73	3	1		0	0	0	0		2	228	62	0		620
05:30 PM	4	0	1	7		2	0	264	4		0	93	3	4		0	0	0	0		1	193	67	0		643
05:45 PM	0	0	1	3		0	0	233	3		1	77	3	6		0	0	1	0		1	179	59	1		568
Total	18	0	9	16		2	0	989	18		1	329	13	18		0	0	2	0		6	794	244	1		2460
Grand Total	32	0	21	25		8	0	2042	29		2	666	29	32		2	0	6	0		14	1528	431	4		4871
Apprch %	41	0	26.9	32.1		0.4	0	98.2	1.4		0.3	91.4	4	4.4		25	0	75	0		0.7	77.3	21.8	0.2		
Total %	0.7	0	0.4	0.5		0.2	0	41.9	0.6		0	13.7	0.6	0.7		0	0	0.1	0		0.3	31.4	8.8	0.1		

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP08
 Site Code : 68460P08
 Start Date : 9/29/2015
 Page No : 9

Groups Printed- Trucks

Groups Limited - Trucks																				
	Kent St From North			Brighton Ave From East					Capisic St From South				Hillcrest Ave From Southwest				Brighton Ave From West			
	Left	Thru	Br Rt	Right	Left	Br Lt	Thru	Right	Hd Lt	Left	Br Lt	Thru	Right	Hd Rt	Left	Br Lt	Thru	Right	Hd Rt	Int. Total
Start Time	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	6
04:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0	0	6
04:15 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
04:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	4
04:45 PM	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	6	0	0	21
Total	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	4
05:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	5
05:15 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	5
05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2
05:45 PM	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	6	0	0	16
Total	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	12	0	0	37
Grand Total	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	
Apprch %	0	0	0	0	0	0	67.6	0	0	0	0	0	0	0	0	0	32.4	0	0	
Total %	0	0	0	0	0	0														

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP08
Site Code : 68460P08
Start Date : 9/29/2015
Page No : 13

Groups Printed- Bikes Peds																												
Kent St						Brighton Ave						Capric St						Hillcrest Ave						Brighton Ave				
From North						From East						From South						From Southwest						From West				
Start Time	Left	Thru	Br Rt	Right	Peds	Left	Br Lt	Thru	Right	Peds	Hd Lt	Br Lt	Br Rt	Hd Rt	Peds	Left	Thru	Right	Hd Rt	Peds	Field Total	Infield Total	Int. Total					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1					
04:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2					
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	1	0	0	2	3	5					
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2					
Total	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	6	1	0	0	3	7	10					
05:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	2	0	0	0	4	2	6					
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2					
05:30 PM	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	2	0	0	0	1	6	7					
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	3					
Total	0	0	0	0	1	0	0	3	0	2	0	1	1	0	5	0	5	0	0	0	8	10	18					
Grand Total	0	0	0	0	2	0	0	3	0	2	0	1	1	0	6	1	0	11	1	0	11	17	28					
Apprch %	0	0	0	0	0	0	0	100	0	0	0	50	50	0	0	0	0	91.7	8.3	0	0	0	0					
Total %	0	0	0	0	0	0	0	0	17.6	0	0	5.9	5.9	0	0	0	0	64.7	5.9	0	39.3	60.7	60.7					

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP08
 Site Code : 68460P08
 Start Date : 9/29/2015
 Page No : 14

	Kent St From North					Brighton Ave From East					Capisic St From South					Hillcrest Ave From Southwest					Brighton Ave From West							
	Left	Thru	Br Rt	Right	App Total	Left	Br Lt	Thru	Right	App Total	Hd Lt	Left	Thru	Right	App Total	Hd Lt	Br Lt	Thru	Br Rt	Hd Rt	App Total	Left	Thru	Right	Hd Rt	App Total	Int Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																												
Peak Hour for Entire Intersection Begins at 04:45 PM																												
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	3	0	3	0	0	1	0	1	0	0	0	0	0	0	2	0	0	0	2	6
Total Volume	0	0	0	0	0	0	0	3	0	3	0	1	1	0	2	0	0	0	0	0	0	0	6	0	0	0	6	11
% App. Total	0	0	0	0	0	0	0	100	0	0	0	50	50	0	0	0	0	0	0	0	0	0	100	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.250	.000	.500	.000	.000	.000	.000	.000	.000	.750	.000	.000	.000	.750	.458	

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP09
Site Code : 68460P09
Start Date : 9/29/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Columbia Rd				Woodford St				Brighton Ave				Colonial Rd				Brighton Ave				Int. Total
	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Br Rt	Left	Br Lt	Thru	Right	
07:00 AM	2	5	6	5	4	1	29	1	0	53	0	0	5	3	5	5	6	42	107	3	282
07:15 AM	2	3	8	3	3	4	43	0	0	79	4	1	4	9	4	2	3	73	161	8	414
07:30 AM	0	3	12	7	3	14	53	1	0	103	2	2	4	12	4	8	8	72	146	5	459
07:45 AM	0	11	16	20	1	11	58	0	1	101	5	1	4	5	3	2	8	86	167	7	507
Total	4	22	42	35	11	30	183	2	1	336	11	4	17	29	16	17	25	273	581	23	1662
08:00 AM	0	3	9	5	0	10	48	2	0	98	2	1	4	3	9	5	5	67	164	9	444
08:15 AM	1	4	4	7	0	1	45	0	1	79	1	0	5	6	4	5	4	77	162	11	417
08:30 AM	3	3	9	7	2	7	42	1	5	75	3	0	8	3	3	5	1	68	147	8	400
08:45 AM	1	2	7	6	5	4	48	0	5	109	3	2	4	1	6	5	3	51	120	8	390
Total	5	12	29	25	7	22	183	3	11	361	9	3	21	13	22	20	13	263	593	36	1651
Grand Total	9	34	71	60	18	52	366	5	12	697	20	7	38	42	38	37	38	536	1174	59	3313
Approch %	5.2	19.5	40.8	34.5	4.1	11.8	83	1.1	1.6	94.7	2.7	1	24.5	27.1	24.5	23.9	2.1	29.7	65	3.3	
Total %	0.3	1	2.1	1.8	0.5	1.6	11	0.2	0.4	21	0.6	0.2	1.1	1.3	1.1	1.1	1.1	16.2	35.4	1.8	
Cars	9	33	71	60	18	52	357	5	12	681	20	6	37	42	38	36	38	525	1152	57	3249
% Cars	100	97.1	100	100	100	100	97.5	100	100	97.7	100	85.7	97.4	100	100	97.3	100	97.9	98.1	96.6	98.1
Trucks	0	1	0	0	0	0	9	0	0	16	0	1	1	0	0	1	0	11	22	2	64
% Trucks	0	2.9	0	0	0	0	2.5	0	0	2.3	0	14.3	2.6	0	0	2.7	0	2.1	1.9	3.4	1.9

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP09
Site Code : 68460P09
Start Date : 9/29/2015
Page No : 2

Columbia Rd						Woodford St					Brighton Ave					Colonial Rd					Brighton Ave						
From North						From Northeast					From East					From South					From West						
Start Time	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Left	Br Lt	Thru	Right	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 07:30 AM																											
07:30 AM	0	3	12	7	22	3	14	53	1	71	0	103	2	2	107	4	12	4	8	28	8	72	146	5	231	459	
07:45 AM	0	11	16	20	47	1	11	58	0	70	1	101	5	1	108	4	5	3	2	14	8	86	167	7	268	507	
08:00 AM	0	3	9	5	17	0	10	48	2	60	0	98	2	1	101	4	3	9	5	21	5	67	164	9	245	444	
08:15 AM	1	4	4	7	16	0	1	45	0	46	1	79	1	0	81	5	6	4	5	20	4	77	162	11	254	417	
Total Volume	1	21	41	39	102	4	36	204	3	247	2	381	10	4	397	17	26	20	20	83	25	302	639	32	998	1827	
% App. Total	1	20.6	40.2	38.2		1.6	14.6	82.6	1.2		0.5	96	2.5	1		20.5	31.3	24.1	24.1		2.5	30.3	64	3.2			
PHF	250	477	641	488	543	333	643	879	375	870	500	925	500	500	919	850	542	556	625	741	781	878	957	727	931	901	
Cars	1	20	41	39	101	4	36	198	3	241	2	373	10	3	388	17	26	20	20	83	25	296	622	31	974	1787	
% Trucks	100	95.2	100	100	99.0	100	100	97.1	100	97.6	100	97.9	100	75.0	97.7	100	100	100	100	100	100	98.0	97.3	96.9	97.6	97.8	
Trucks	0	1	0	0	1	0	0	6	0	6	0	8	0	1	9	0	0	0	0	0	0	6	17	1	24	40	
% Trucks	0	4.8	0	0	1.0	0	0	2.9	0	2.4	0	2.1	0	25.0	2.3	0	0	0	0	0	0	2.0	2.7	3.1	2.4	2.2	

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP09
 Site Code : 68460P09
 Start Date : 9/29/2015
 Page No : 5

Groups Printed- Cars

Start Time	Columbia Rd From North						Woodford St From Northeast						Brighton Ave From East						Colonial Rd From South						Brighton Ave From West																													
	Left			Right			Hd Lt			Br Lt			Br Rt			Hd Rt			Left			Thru			Right			Hd Rt			Left			Thru			Right			Hd Rt			Left			Br Lt			Br Rt			Hd Rt		
	Hd Lt	Left	Thru	Right	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Left	Thru	Br Rt	Right	Left	Thru	Br Rt	Right	Left	Thru	Br Rt	Right	Left	Thru	Br Rt	Right	Left	Thru	Br Rt	Right	Int. Total															
07:00 AM	2	5	6	5	4	1	28	1	0	52	0	0	0	0	4	3	5	5	6	41	105	3	6	41	105	3	6	41	105	3	6	41	105	3	6	41	105	3	276															
07:15 AM	2	3	8	3	3	4	42	0	0	77	4	1	4	1	4	9	4	2	3	72	159	7	3	72	159	7	3	72	159	7	3	72	159	7	3	72	159	7	407															
07:30 AM	0	3	12	7	3	14	49	1	0	102	2	1	4	1	4	12	4	8	8	70	144	5	8	70	144	5	8	70	144	5	8	70	144	5	8	70	144	5	449															
07:45 AM	0	11	16	20	1	11	58	0	1	99	5	1	4	1	4	5	3	2	8	85	159	7	8	85	159	7	8	85	159	7	8	85	159	7	8	85	159	7	496															
Total	4	22	42	35	11	30	177	2	1	330	11	3	16	29	16	17	25	268	567	22	25	268	567	22	25	268	567	22	25	268	567	22	25	268	567	22	25	268	567	22	1628													
08:00 AM	0	2	9	5	0	10	48	2	0	97	2	1	4	3	9	5	5	66	160	8	5	66	160	8	5	66	160	8	5	66	160	8	5	66	160	8	5	66	160	8	436													
08:15 AM	1	4	4	7	0	1	43	0	1	75	1	0	5	6	4	5	4	75	159	11	4	75	159	11	4	75	159	11	4	75	159	11	4	75	159	11	4	75	159	11	406													
08:30 AM	3	3	9	7	2	7	41	1	5	72	3	0	8	3	3	3	4	1	66	147	8	1	66	147	8	1	66	147	8	1	66	147	8	1	66	147	8	1	66	147	8	393												
08:45 AM	1	2	7	6	5	4	48	0	5	107	3	2	4	1	6	5	3	50	119	8	3	50	119	8	3	50	119	8	3	50	119	8	3	50	119	8	3	50	119	8	386													
Total	5	11	29	25	7	22	180	3	11	351	9	3	21	13	22	19	13	257	585	35	13	257	585	35	13	257	585	35	13	257	585	35	13	257	585	35	13	257	585	35	1621													
Grand Total	9	33	71	60	18	52	357	5	12	681	20	6	37	42	38	36	38	525	1152	57	38	525	1152	57	38	525	1152	57	38	525	1152	57	38	525	1152	57	38	525	1152	57	3249													
Approch %	5.2	19.1	41	34.7	4.2	12	82.6	1.2	1.7	94.7	2.8	0.8	24.2	27.5	24.8	23.5	2.1	29.6	65	3.2	2.1	29.6	65	3.2	2.1	29.6	65	3.2	2.1	29.6	65	3.2	2.1	29.6	65	3.2	2.1	29.6	65	3.2														
Total %	0.3	1	2.2	1.8	0.6	1.6	11	0.2	0.4	21	0.6	0.2	1.1	1.3	1.2	1.1	1.2	16.2	35.5	1.8	1.2	16.2	35.5	1.8	1.2	16.2	35.5	1.8	1.2	16.2	35.5	1.8	1.2	16.2	35.5	1.8	1.2	16.2	35.5	1.8														

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP09
 Site Code : 68460P09
 Start Date : 9/29/2015
 Page No : 9

Groups Printed- Trucks

Start Time	Columbia Rd From North				Woodford St From Northeast				Brighton Ave From East				Colonial Rd From South				Brighton Ave From West				Int. Total
	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Left	Br Lt	Thru	Right	
07:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	1	2	0	6
07:15 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	1	2	1	7
07:30 AM	0	0	0	0	0	0	4	0	0	1	0	1	0	0	0	0	0	2	2	0	10
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	8	0	11
Total	0	0	0	0	0	0	6	0	0	6	0	1	1	0	0	0	0	5	14	1	34
08:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	4	1	8
08:15 AM	0	0	0	0	0	0	2	0	0	4	0	0	0	0	0	0	0	2	3	0	11
08:30 AM	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0	1	0	2	0	0	7
08:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0	4
Total	0	1	0	0	0	0	3	0	0	10	0	0	0	0	0	1	0	6	8	1	30
Grand Total	0	1	0	0	0	0	9	0	0	16	0	1	1	0	0	1	0	11	22	2	64
Apprch %	0	100	0	0	0	0	100	0	0	94.1	0	5.9	50	0	0	50	0	31.4	62.9	5.7	
Total %	0	1.6	0	0	0	0	14.1	0	0	25	0	1.6	1.6	0	0	1.6	0	17.2	34.4	3.1	

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP09
Site Code : 68460P09
Start Date : 9/29/2015
Page No : 13

Groups Printed- Bikes Peds																										
Columbia Rd					Woodford St					Brighton Ave					Colonial Rd					Brighton Ave						
From North					From Northeast					From East					From South					From West						
Start Time	Hd Lt	Left	Thru	Right	Peds	Hd Lt	Br Lt	Br Rt	Hd Rt	Peds	Left	Thru	Right	Hd Rt	Peds	Left	Thru	Br Lt	Br Rt	Right	Peds	Left	Br Lt	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0	1	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	7	0	0	0	5	0	0	0	1	0	0	1
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	0	2	0	0	0	4	0	0	8	0	0	0	8	0	1	0	1	1	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	2
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	1	0	1	0	0	0	3	0	0	5	0	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	0	0	2	0	3	0	0	0	7	0	0	13	0	0	8	0	1	0	1	2	1	4	18
Approch %	0	0	0	0	0	40	0	60	0	0	0	100	0	0	0	0	0	100	0	0	25	50	25	0	42	42.9
Total %	0	0	0	0	0	8.3	0	12.5	0	0	0	29.2	0	0	0	0	0	33.3	0	0	4.2	8.3	4.2	0	57.1	57.1

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP09
 Site Code : 68460P09
 Start Date : 9/29/2015
 Page No : 14

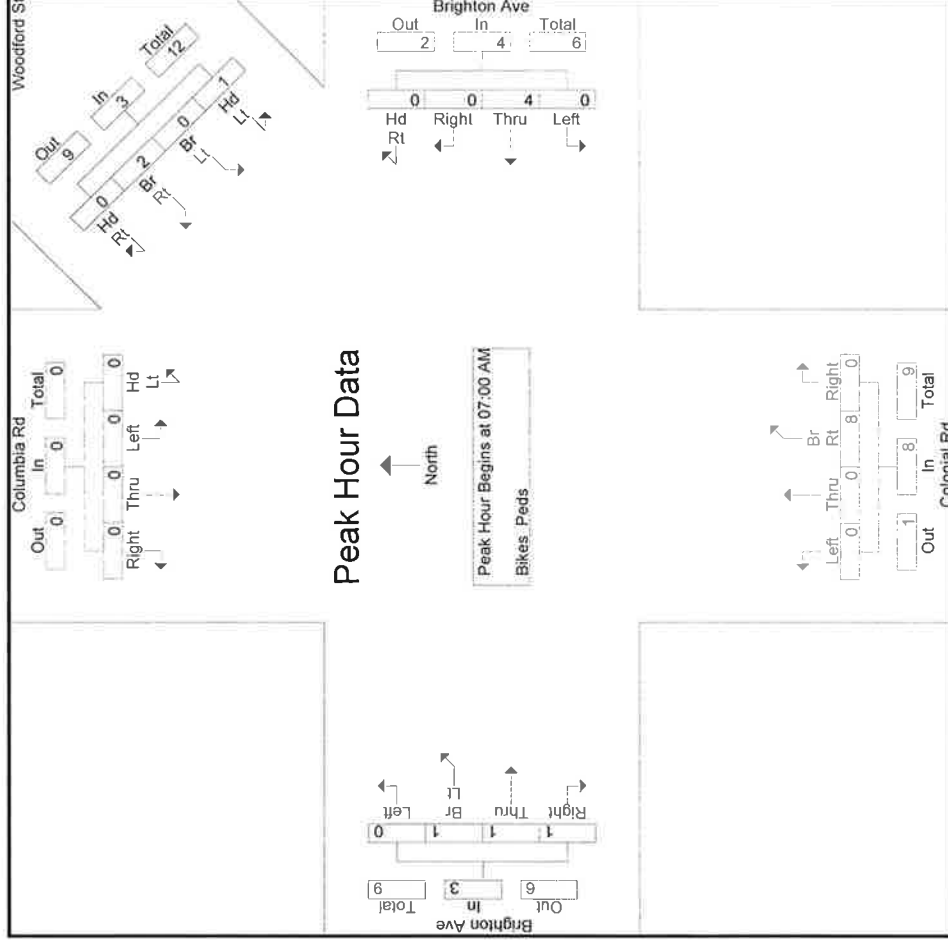
Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West						
Start Time	Hd Lt	Left	Thru	Right	App Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App Total	Left	Thru	Right	Hd Rt	App Total	Left	Thru	Br Rt	Right	App Total	Left	Br Lt	Thru	Right	App Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:00 AM																										
07:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	2	0	0	2	0	0	0	1	0	1	5
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	5	0	5	0	1	0	0	1	9
07:45 AM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Total Volume	0	0	0	0	0	1	0	2	0	3	0	4	0	0	4	0	0	8	0	8	0	1	1	1	3	18
% App. Total	0	0	0	0	0	33.3	0	66.7	0	375	0	100	0	0	100	0	0	100	0	33.3	0	33.3	33.3	33.3	750	500
PHF	.000	.000	.000	.000	.000	.250	.000	.500	.000	.375	.000	.333	.000	.000	.333	.000	.000	.400	.000	.400	.000	.250	.250	.750	.500	

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP09
 Site Code : 68460P09
 Start Date : 9/29/2015
 Page No : 15



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	1	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	0	5	0	0	8	0
% App. Total	0	0	0	0	0	33.3	0	66.7	0	0	100	0
PHF	.000	.000	.000	.000	.000	.375	.000	.417	.000	.000	.400	.250

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP09
Site Code : 68460P09
Start Date : 9/29/2015
Page No : 1

[illegible]

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP09
Site Code : 68460P09
Start Date : 9/29/2015
Page No : 2

	Columbia Rd					Woodford St					Brighton Ave					Colonial Rd					Brighton Ave						
	From North					From Northeast					From East					From South					From West						
Start Time	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Left	Br Lt	Thru	Right	App. Total	Int. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 04:30 PM																											
04:30 PM	2	4	5	7	18	4	3	74	0	81	5	189	4	2	200	7	10	6	6	29	3	57	144	9	213	541	
04:45 PM	1	3	4	6	14	4	9	84	0	97	3	159	3	1	166	9	8	6	2	25	2	44	118	10	174	476	
05:00 PM	4	4	8	9	25	6	8	76	1	91	3	167	4	1	175	7	13	4	6	30	4	56	121	8	189	510	
05:15 PM	0	3	1	12	16	6	11	84	1	102	5	173	2	2	182	9	21	3	15	48	7	59	137	12	215	563	
Total Volume	7	14	18	34	73	20	31	318	2	371	16	688	13	6	723	32	52	19	29	132	16	216	520	39	791	2090	
% App. Total	9.6	19.2	24.7	46.6		5.4	8.4	85.7	0.5		2.2	95.2	1.8	0.8		24.2	39.4	14.4	22		2	27.3	65.7	4.9			
PHF	.438	.875	.563	.708	.730	.833	.705	.946	.500	.909	.800	.910	.813	.750	.904	.889	.619	.792	.483	.688	.571	.915	.903	.813	.920	.928	
Cars	7	14	18	34	73	20	31	318	2	371	16	676	13	6	711	32	52	19	29	132	16	216	515	39	786	2073	
% Cars	100	100	100	100	100	100	100	100	100	100	100	98.3	100	100	98.3	100	100	100	100	100	100	100	99.0	100	99.4	99.2	
Trucks	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	0	5	0	5	17	
% Trucks	0	0	0	0	0	0	0	0	0	0	0	1.7	0	0	1.7	0	0	0	0	0	0	0	1.0	0	0.6	0.8	

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

Brighton Ave

Out	In	Total
1863	1072	1846
5	12	17
791	786	1577

Colonial Blvd

Out	In	Total
104	132	236
0	0	0
132	132	264

Brighton Ave (Side Section)

Out	In	Total
583	723	1306
5	12	17
371	248	619

Colonial Blvd (Side Section)

Out	In	Total
248	371	619
0	0	0
371	248	619

Peak Hour Data

Peak Hour Begins at 04:30 PM

Cars
Trucks

	04:45 PM				04:45 PM				04:30 PM				04:30 PM												
+0 mins.	1	3	4	6	14	4	9	84	0	97	5	189	4	2	200	9	8	6	2	25	3	57	144	9	213
+15 mins.	4	4	8	9	25	6	8	76	1	91	3	159	3	1	166	7	13	4	6	30	2	44	118	10	174
+30 mins.	0	3	1	12	16	6	11	84	1	102	3	167	4	1	175	9	21	3	15	48	4	56	121	8	189
+45 mins.	1	9	5	4	19	2	7	79	1	89	5	173	2	2	182	12	10	3	10	35	7	59	137	12	215
Total Volume	6	19	18	31	74	18	35	323	3	379	16	688	13	6	723	37	52	16	33	138	16	216	520	39	791
% App. Total	8.1	25.7	24.3	41.9		4.7	9.2	85.2	0.8		2.2	95.2	1.8	0.8		26.8	37.7	11.6	23.9		2	27.3	65.7	4.9	
PHF	.375	.528	.563	.646	.740	.750	.795	.961	.750	.929	.800	.910	.813	.750	.904	.771	.619	.667	.550	.719	.571	.915	.903	.813	.920

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP09
 Site Code : 68460P09
 Start Date : 9/29/2015
 Page No : 5

Groups Printed- Cars

	Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West					
Start Time	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Left	Thru	Br Lt	Thru	Right	Int. Total				
04:00 PM	1	3	8	2	2	4	63	0	5	183	5	0	6	3	7	8	3	41	106	5	455					
04:15 PM	1	2	7	4	2	14	70	1	4	146	0	0	5	4	11	6	5	67	121	3	473					
04:30 PM	2	4	5	7	4	3	74	0	5	185	4	2	7	10	6	6	3	57	142	9	535					
04:45 PM	1	3	4	6	4	9	84	0	3	157	3	1	9	8	6	2	2	44	117	10	473					
Total	5	12	24	19	12	30	291	1	17	671	12	3	27	25	30	22	13	209	486	27	1936					
05:00 PM	4	4	8	9	6	8	76	1	3	164	4	1	7	13	4	6	4	56	121	8	507					
05:15 PM	0	3	1	12	6	11	84	1	5	170	2	2	9	21	3	15	7	59	135	12	558					
05:30 PM	1	9	5	4	2	7	78	1	1	167	8	1	12	10	3	10	1	32	117	4	473					
05:45 PM	0	0	3	8	5	15	62	1	5	134	5	1	4	8	3	7	6	57	103	7	434					
Total	5	16	17	33	19	41	300	4	14	635	19	5	32	52	13	38	18	204	476	31	1972					
Grand Total	10	28	41	52	31	71	591	5	31	1306	31	8	59	77	43	60	31	413	962	58	3908					
Approch %	7.6	21.4	31.3	39.7	4.4	10.2	84.7	0.7	2.3	94.9	2.3	0.6	24.7	32.2	18	25.1	2.1	28.2	65.7	4						
Total %	0.3	0.7	1	1.3	0.8	1.8	15.1	0.1	0.8	33.4	0.8	0.2	1.5	2	1.1	1.5	0.8	10.6	24.6	1.5						

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

File Name : 6846WP09
Site Code : 68460P09
Start Date : 9/29/2015
Page No : 9

[illegible]

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

Groups Printed- Bikes Peds

Groups Limited - Bikes - Feet																														
Columbia Rd From North						Woodford St From Northeast						Brighton Ave From East						Colonial Rd From South						Brighton Ave From West						
Start Time	Hd Lt	Left	Thru	Right	Peds	Hd Lt	Br Lt	Br Rt	Hd Rt	Peds	Left	Thru	Br Rt	Right	Peds	Left	Thru	Br Lt	Br Rt	Right	Peds	Left	Br Lt	Thru	Right	Peds	Exclu Total	Inclu Total	Int Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	1	4	1	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	2	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	1	3	4
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	5	1	0	0	0	0	0	0	2	3	0	1	6	8	14	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	3	4
05:30 PM	0	0	0	0	1	0	0	0	0	1	0	1	0	0	2	0	0	0	0	0	0	0	0	1	3	0	0	4	5	9
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	0	1	0	3	0	0	2	0	0	1	0	0	0	0	1	6	0	1	5	11	16	
Grand Total	0	0	0	0	1	0	0	0	0	1	0	5	0	0	7	1	0	1	0	0	0	0	3	9	0	2	11	19	30	
Approch %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	50	0	25	75	0	0	0	25	75	0					
Total %	0	0	0	0	0	0	0	0	0	0	0	26.3	0	0	0	5.3	0	15.8	47.4	0	0	0	15.8	47.4	0		36.7	63.3		

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Cloudy

File Name : 6846WP09
 Site Code : 68460P09
 Start Date : 9/29/2015
 Page No : 14

		Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West					
Start Time	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Br Rt	Right	App. Total	Left	Br Lt	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 04:45 PM																											
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	
05:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	3	0	4	5
Total Volume	0	0	0	0	0	0	0	0	0	0	4	0	4	0	4	0	0	1	0	1	1	0	1	8	0	9	14
% App. Total	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	11.1	88.9	0	0	700
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.500	.000	.000	.250	.000	.000	.250	.000	.250	.667	.000	.563	.700

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Cloudy

Peak Hour Data

North

Peak Hour Begins at 04:45 PM
Bikes, Peds

Brighton Ave

Out: 4
In: 9
Total: 13

Right: 0
Thru: 8
Left: 0

Br: 1
Lt: 1

Columbia Rd

Out: 0
In: 0
Total: 0

Right: 0
Thru: 0
Left: 0

Hd: 0
Lt: 0

[illegible]

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP01
 Site Code : 68460P01
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	23	98	12	72	51	21	16	126	61	20	41	4	545
11:15 AM	38	116	25	72	54	21	15	126	71	23	57	7	625
11:30 AM	42	113	20	83	59	28	15	129	75	29	50	9	652
11:45 AM	41	95	14	79	60	33	25	102	57	24	58	7	595
Total	144	422	71	306	224	103	71	483	264	96	206	27	2417
12:00 PM	38	128	13	75	54	22	11	110	78	21	50	6	606
12:15 PM	32	112	18	96	62	35	10	111	81	27	56	9	649
12:30 PM	29	108	17	95	47	34	11	117	87	24	38	7	614
12:45 PM	25	113	14	70	47	24	5	109	72	12	44	3	538
Total	124	461	62	336	210	115	37	447	318	84	188	25	2407
01:00 PM	28	93	16	73	42	24	11	113	71	17	52	3	543
01:15 PM	25	91	12	81	55	25	12	117	78	23	46	4	569
01:30 PM	21	108	20	57	55	30	7	121	76	16	44	2	557
01:45 PM	19	98	19	77	47	26	6	99	77	28	45	2	543
Total	93	390	67	288	199	105	36	450	302	84	187	11	2212
Grand Total	361	1273	200	930	633	323	144	1380	884	264	581	63	7036
Apprch %	19.7	69.4	10.9	49.3	33.6	17.1	6	57.3	36.7	29.1	64	6.9	
Total %	5.1	18.1	2.8	13.2	9	4.6	2	19.6	12.6	3.8	8.3	0.9	
Cars	359	1267	193	926	628	322	143	1368	880	261	574	60	6981
% Cars	99.4	99.5	96.5	99.6	99.2	99.7	99.3	99.1	99.5	98.9	98.8	95.2	99.2
Trucks	2	6	7	4	5	1	1	12	4	3	7	3	55
% Trucks	0.6	0.5	3.5	0.4	0.8	0.3	0.7	0.9	0.5	1.1	1.2	4.8	0.8

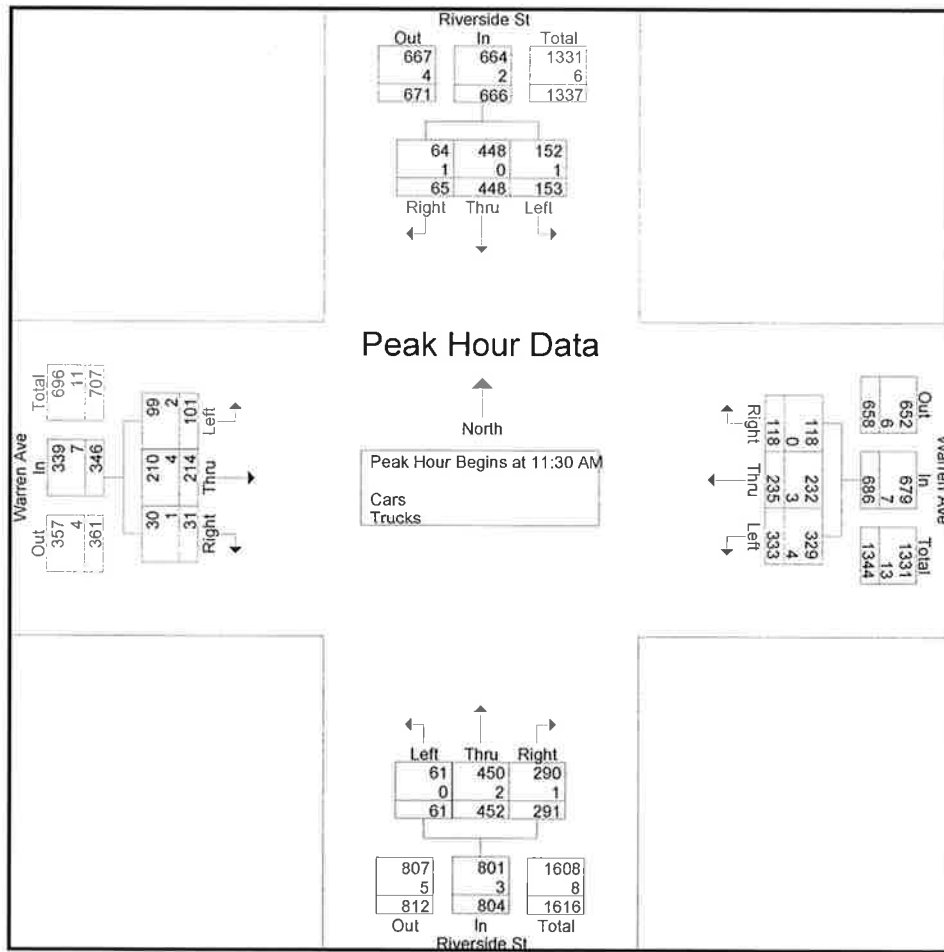
Accurate Counts

978-664-2565

N/S Street : Riverside Street
E/W Street : Warren Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP01
Site Code : 68460P01
Start Date : 9/26/2015
Page No : 2

	Riverside St From North				Warren Ave From East				Riverside St From South				Warren Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	42	113	20	175	83	59	28	170	15	129	75	219	29	50	9	88	652
11:45 AM	41	95	14	150	79	60	33	172	25	102	57	184	24	58	7	89	595
12:00 PM	38	128	13	179	75	54	22	151	11	110	78	199	21	50	6	77	606
12:15 PM	32	112	18	162	96	62	35	193	10	111	81	202	27	56	9	92	649
Total Volume	153	448	65	666	333	235	118	686	61	452	291	804	101	214	31	346	2502
% App. Total	23	67.3	9.8		48.5	34.3	17.2		7.6	56.2	36.2		29.2	61.8	9		
PHF	.911	.875	.813	.930	.867	.948	.843	.889	.610	.876	.898	.918	.871	.922	.861	.940	.959
Cars	152	448	64	664	329	232	118	679	61	450	290	801	99	210	30	339	2483
% Cars	99.3	100	98.5	99.7	98.8	98.7	100	99.0	100	99.6	99.7	99.6	98.0	98.1	96.8	98.0	99.2
Trucks	1	0	1	2	4	3	0	7	0	2	1	3	2	4	1	7	19
% Trucks	0.7	0	1.5	0.3	1.2	1.3	0	1.0	0	0.4	0.3	0.4	2.0	1.9	3.2	2.0	0.8



Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP01
 Site Code : 68460P01
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	23	95	11	72	51	21	15	125	60	20	40	3	536
11:15 AM	37	115	24	72	53	21	15	125	71	23	55	6	617
11:30 AM	42	113	20	83	59	28	15	129	75	28	49	8	649
11:45 AM	41	95	13	78	59	33	25	101	57	24	55	7	588
Total	143	418	68	305	222	103	70	480	263	95	199	24	2390
12:00 PM	38	128	13	75	52	22	11	110	78	20	50	6	603
12:15 PM	31	112	18	93	62	35	10	110	80	27	56	9	643
12:30 PM	29	108	16	95	47	33	11	117	86	24	38	7	611
12:45 PM	25	113	14	70	47	24	5	105	72	12	44	3	534
Total	123	461	61	333	208	114	37	442	316	83	188	25	2391
01:00 PM	28	93	14	73	42	24	11	112	70	17	52	3	539
01:15 PM	25	90	11	81	54	25	12	116	78	22	46	4	564
01:30 PM	21	107	20	57	55	30	7	120	76	16	44	2	555
01:45 PM	19	98	19	77	47	26	6	98	77	28	45	2	542
Total	93	388	64	288	198	105	36	446	301	83	187	11	2200
Grand Total	359	1267	193	926	628	322	143	1368	880	261	574	60	6981
Appreh %	19.7	69.7	10.6	49.4	33.5	17.2	6	57.2	36.8	29.2	64.1	6.7	
Total %	5.1	18.1	2.8	13.3	9	4.6	2	19.6	12.6	3.7	8.2	0.9	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP01
 Site Code : 68460P01
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Warren Ave From East			Riverside St From South			Warren Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	3	1	0	0	0	1	1	1	0	1	1	9
11:15 AM	1	1	1	0	1	0	0	1	0	0	2	1	8
11:30 AM	0	0	0	0	0	0	0	0	0	1	1	1	3
11:45 AM	0	0	1	1	1	0	0	1	0	0	3	0	7
Total	1	4	3	1	2	0	1	3	1	1	7	3	27
12:00 PM	0	0	0	0	2	0	0	0	0	1	0	0	3
12:15 PM	1	0	0	3	0	0	0	1	1	0	0	0	6
12:30 PM	0	0	1	0	0	1	0	0	1	0	0	0	3
12:45 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
Total	1	0	1	3	2	1	0	5	2	1	0	0	16
01:00 PM	0	0	2	0	0	0	0	1	1	0	0	0	4
01:15 PM	0	1	1	0	1	0	0	1	0	1	0	0	5
01:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
01:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	2	3	0	1	0	0	4	1	1	0	0	12
Grand Total	2	6	7	4	5	1	1	12	4	3	7	3	55
Apprch %	13.3	40	46.7	40	50	10	5.9	70.6	23.5	23.1	53.8	23.1	
Total %	3.6	10.9	12.7	7.3	9.1	1.8	1.8	21.8	7.3	5.5	12.7	5.5	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP01
 Site Code : 68460P01
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Riverside St From North				Warren Ave From East				Riverside St From South				Warren Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	4	4
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	4	4
Grand Total	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	4	4
Apprch %	0	100	0		50	0	50		0	0	100		0	0	0				
Total %	0	25	0		25	0	25		0	0	25		0	0	0		0	100	

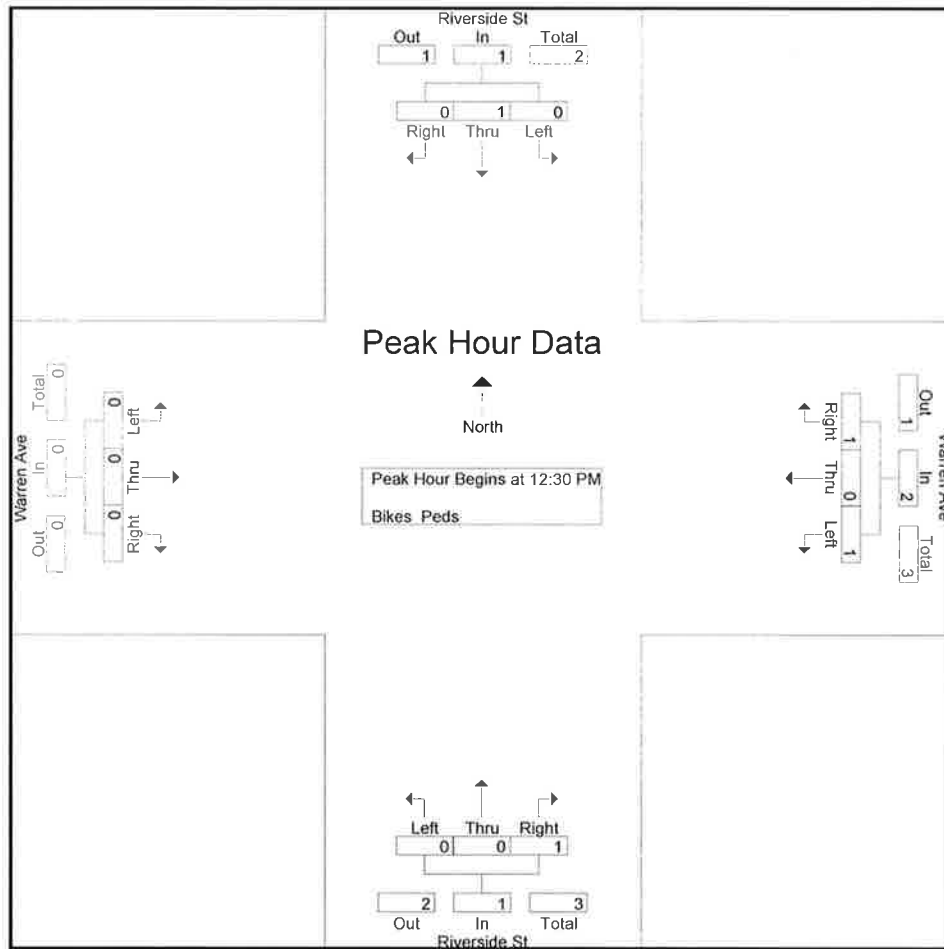
Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Warren Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP01
 Site Code : 68460P01
 Start Date : 9/26/2015
 Page No : 11

	Riverside St From North				Warren Ave From East				Riverside St From South				Warren Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	1	0	1	1	0	1	2	0	0	1	1	0	0	0	0	4
Total Volume	0	1	0	1	1	0	1	2	0	0	1	1	0	0	0	0	4
% App. Total	0	100	0		50	0	50		0	0	100		0	0	0		
PHF	.000	.250	.000	.250	.250	.000	.250	.250	.000	.000	.250	.250	.000	.000	.000	.000	.250



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:30 PM				12:30 PM				12:30 PM				11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	1	0	1	2	0	0	1	1	0	0	0	0
Total Volume	0	1	0	1	1	0	1	2	0	0	1	1	0	0	0	0
% App. Total	0	100	0		50	0	50		0	0	100		0	0	0	
PHF	.000	.250	.000	.250	.250	.000	.250	.250	.000	.000	.250	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP10
 Site Code : 68460P10
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	20	97	18	7	29	22	0	65	15	16	39	5	333
11:15 AM	22	95	12	11	49	21	3	63	16	9	47	13	361
11:30 AM	27	71	13	15	52	22	3	66	20	11	49	3	352
11:45 AM	18	58	15	9	30	16	1	71	20	15	33	1	287
Total	87	321	58	42	160	81	7	265	71	51	168	22	1333
12:00 PM	14	79	11	15	52	21	1	69	16	11	37	0	326
12:15 PM	17	76	23	16	40	19	4	55	26	14	45	6	341
12:30 PM	19	47	19	14	40	15	2	60	22	20	29	3	290
12:45 PM	17	60	5	12	51	16	0	47	22	13	37	2	282
Total	67	262	58	57	183	71	7	231	86	58	148	11	1239
01:00 PM	19	71	12	7	35	18	0	49	20	11	21	9	272
01:15 PM	11	46	16	15	28	19	3	66	19	13	24	2	262
01:30 PM	24	77	14	10	45	9	5	62	16	15	51	1	329
01:45 PM	19	56	12	13	39	12	1	57	23	22	26	2	282
Total	73	250	54	45	147	58	9	234	78	61	122	14	1145
Grand Total	227	833	170	144	490	210	23	730	235	170	438	47	3717
Apprch %	18.5	67.7	13.8	17.1	58.1	24.9	2.3	73.9	23.8	26	66.9	7.2	
Total %	6.1	22.4	4.6	3.9	13.2	5.6	0.6	19.6	6.3	4.6	11.8	1.3	
Cars	227	828	170	144	488	210	23	728	235	170	435	46	3704
% Cars	100	99.4	100	100	99.6	100	100	99.7	100	100	99.3	97.9	99.7
Trucks	0	5	0	0	2	0	0	2	0	0	3	1	13
% Trucks	0	0.6	0	0	0.4	0	0	0.3	0	0	0.7	2.1	0.3

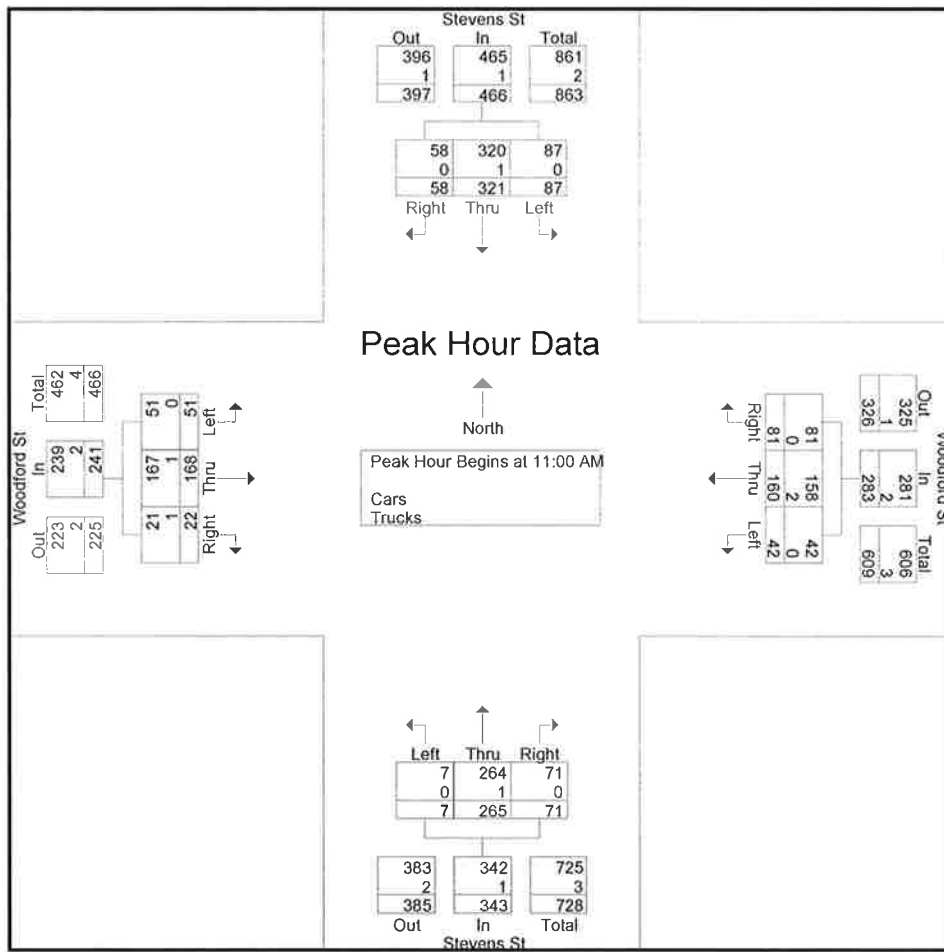
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP10
 Site Code : 68460P10
 Start Date : 9/26/2015
 Page No : 2

	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	20	97	18	135	7	29	22	58	0	65	15	80	16	39	5	60	333
11:15 AM	22	95	12	129	11	49	21	81	3	63	16	82	9	47	13	69	361
11:30 AM	27	71	13	111	15	52	22	89	3	66	20	89	11	49	3	63	352
11:45 AM	18	58	15	91	9	30	16	55	1	71	20	92	15	33	1	49	287
Total Volume	87	321	58	466	42	160	81	283	7	265	71	343	51	168	22	241	1333
% App. Total	18.7	68.9	12.4		14.8	56.5	28.6		2	77.3	20.7		21.2	69.7	9.1		
PHF	.806	.827	.806	.863	.700	.769	.920	.795	.583	.933	.888	.932	.797	.857	.423	.873	.923
Cars	87	320	58	465	42	158	81	281	7	264	71	342	51	167	21	239	1327
% Cars	100	99.7	100	99.8	100	98.8	100	99.3	100	99.6	100	99.7	100	99.4	95.5	99.2	99.5
Trucks	0	1	0	1	0	2	0	2	0	1	0	1	0	1	1	2	6
% Trucks	0	0.3	0	0.2	0	1.3	0	0.7	0	0.4	0	0.3	0	0.6	4.5	0.8	0.5



Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP10
 Site Code : 68460P10
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	20	97	18	7	29	22	0	65	15	16	39	5	333
11:15 AM	22	95	12	11	48	21	3	63	16	9	46	12	358
11:30 AM	27	71	13	15	52	22	3	66	20	11	49	3	352
11:45 AM	18	57	15	9	29	16	1	70	20	15	33	1	284
Total	87	320	58	42	158	81	7	264	71	51	167	21	1327
12:00 PM	14	78	11	15	52	21	1	69	16	11	37	0	325
12:15 PM	17	76	23	16	40	19	4	55	26	14	45	6	341
12:30 PM	19	47	19	14	40	15	2	60	22	20	29	3	290
12:45 PM	17	59	5	12	51	16	0	46	22	13	37	2	280
Total	67	260	58	57	183	71	7	230	86	58	148	11	1236
01:00 PM	19	71	12	7	35	18	0	49	20	11	20	9	271
01:15 PM	11	45	16	15	28	19	3	66	19	13	23	2	260
01:30 PM	24	77	14	10	45	9	5	62	16	15	51	1	329
01:45 PM	19	55	12	13	39	12	1	57	23	22	26	2	281
Total	73	248	54	45	147	58	9	234	78	61	120	14	1141
Grand Total	227	828	170	144	488	210	23	728	235	170	435	46	3704
Apprch %	18.5	67.6	13.9	17.1	58	24.9	2.3	73.8	23.8	26.1	66.8	7.1	
Total %	6.1	22.4	4.6	3.9	13.2	5.7	0.6	19.7	6.3	4.6	11.7	1.2	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP10
 Site Code : 68460P10
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Woodford St From East			Stevens St From South			Woodford St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	1	0	0	0	0	0	1	1	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	0	0	1	0	0	1	0	0	0	0	3
Total	0	1	0	0	2	0	0	1	0	0	1	1	6
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	0	2	0	0	0	0	0	1	0	0	0	0	3
01:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
01:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	0	0	0	0	0	0	2	0	4
Grand Total	0	5	0	0	2	0	0	2	0	0	3	1	13
Apprch %	0	100	0	0	100	0	0	100	0	0	75	25	
Total %	0	38.5	0	0	15.4	0	0	15.4	0	0	23.1	7.7	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
E/W Street : Woodford Street
City/State : Portland, ME
Weather : Clear

File Name : 6846SP10
Site Code : 68460P10
Start Date : 9/26/2015
Page No : 10

Groups Printed- Bikes Peds

Start Time	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	1	0	0	2	0	0	0	1	2	0	1	0	0	3	4	7
11:15 AM	0	0	0	4	1	0	0	0	0	0	0	0	1	0	0	0	4	2	6
11:30 AM	0	0	0	0	1	1	0	0	0	3	0	0	0	0	0	0	0	5	5
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	2	1	3
Total	0	0	0	6	2	1	2	0	0	3	1	3	1	2	0	0	9	12	21
12:00 PM	0	0	0	0	0	1	0	0	0	1	0	3	0	0	0	3	6	2	8
12:15 PM	2	1	0	0	0	0	0	2	0	2	0	0	0	0	0	4	6	5	11
12:30 PM	0	3	0	1	0	0	0	0	0	0	0	0	0	3	0	2	3	6	9
12:45 PM	0	2	0	1	1	0	1	0	0	0	0	1	0	0	0	2	4	4	8
Total	2	6	0	2	1	1	1	2	0	3	0	4	0	3	0	11	19	17	36
01:00 PM	0	1	0	0	0	0	2	0	0	1	0	3	0	0	0	1	4	4	8
01:15 PM	0	2	0	0	0	1	1	0	0	0	0	3	0	0	0	5	8	4	12
01:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	2	4	6
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	3	0	0	0	1	5	0	0	3	0	6	0	0	0	10	16	12	28
Grand Total	2	9	0	8	3	3	8	2	0	9	1	13	1	5	0	21	44	41	85
Apprch %	18.2	81.8	0		21.4	21.4	57.1		0	90	10		16.7	83.3	0				
Total %	4.9	22	0		7.3	7.3	19.5		0	22	2.4		2.4	12.2	0		51.8	48.2	

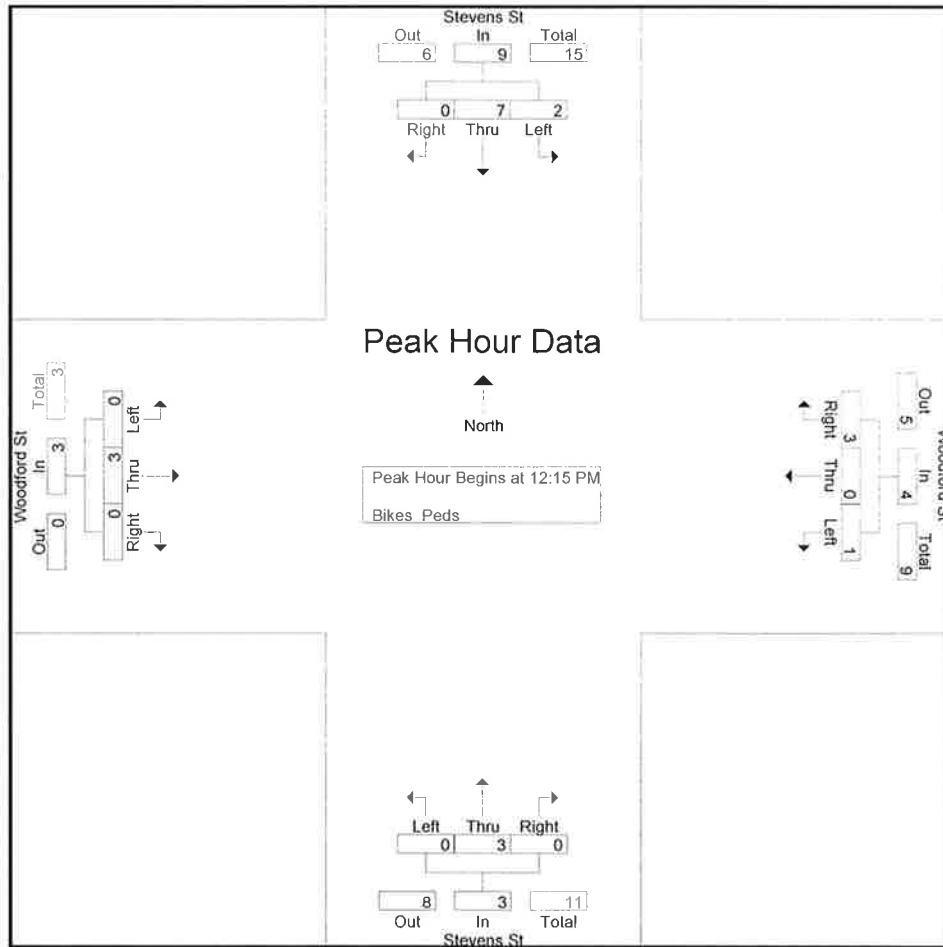
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Woodford Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP10
 Site Code : 68460P10
 Start Date : 9/26/2015
 Page No : 11

	Stevens St From North				Woodford St From East				Stevens St From South				Woodford St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	2	1	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
12:30 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	3	0	3	6
12:45 PM	0	2	0	2	1	0	1	2	0	0	0	0	0	0	0	0	4
01:00 PM	0	1	0	1	0	0	2	2	0	1	0	1	0	0	0	0	4
Total Volume	2	7	0	9	1	0	3	4	0	3	0	3	0	3	0	3	19
% App. Total	22.2	77.8	0		25	0	75		0	100	0		0	100	0		
PHF	.250	.583	.000	.750	.250	.000	.375	.500	.000	.375	.000	.375	.000	.250	.000	.250	.792



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:15 PM				12:45 PM				11:30 AM				11:45 AM			
+0 mins.	2	1	0	3	1	0	1	2	0	3	0	3	0	1	0	1
+15 mins.	0	3	0	3	0	0	2	2	0	0	0	0	0	0	0	0
+30 mins.	0	2	0	2	0	1	1	2	0	1	0	1	0	0	0	0
+45 mins.	0	1	0	1	0	0	2	2	0	2	0	2	0	3	0	3
Total Volume	2	7	0	9	1	1	6	8	0	6	0	6	0	4	0	4
% App. Total	22.2	77.8	0		12.5	12.5	75		0	100	0		0	100	0	
PHF	.250	.583	.000	.750	.250	.250	.750	1.000	.000	.500	.000	.500	.000	.333	.000	.333

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Clear

File Name : 6846SP11
Site Code : 68460P11
Start Date : 9/19/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Forest Ave From North				Woodford St From East				Forest Ave From Southeast				Deering Ave From South				Woodford St From West			
	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right
11:00 AM	0	118	47	16	1	6	21	4	7	24	127	6	0	0	0	0	22	31	25	2
11:15 AM	2	125	60	18	1	4	30	10	11	28	139	5	0	0	0	0	25	36	24	3
11:30 AM	0	142	44	17	3	1	40	3	6	30	128	15	0	0	0	0	27	32	29	8
11:45 AM	0	137	72	21	4	0	18	4	11	24	131	1	0	0	0	0	21	26	24	5
Total	2	522	223	72	9	11	109	21	35	106	525	27	0	0	0	0	95	125	102	18
12:00 PM	0	125	47	23	4	2	27	1	18	35	151	2	0	0	0	0	21	25	20	3
12:15 PM	0	134	56	22	6	3	21	4	5	27	152	4	0	0	0	0	35	35	20	2
12:30 PM	1	138	49	21	10	3	22	2	8	31	146	2	0	0	0	0	36	36	23	1
12:45 PM	0	122	46	22	1	6	24	2	9	31	148	5	0	0	0	0	25	28	33	9
Total	1	519	198	88	21	14	94	9	40	124	597	13	0	0	0	0	117	124	96	15
01:00 PM	0	130	49	13	3	4	34	2	6	24	163	2	0	0	0	0	30	15	17	4
01:15 PM	0	143	49	22	7	0	15	0	13	17	152	2	0	0	0	0	24	19	21	5
01:30 PM	0	121	45	14	1	4	24	6	9	30	147	5	0	0	0	0	23	31	23	6
01:45 PM	0	90	39	15	6	0	34	0	7	27	113	2	0	0	0	0	28	43	32	5
Total	0	484	182	64	17	8	107	8	35	98	575	11	0	0	0	0	105	108	93	20
Grand Total	3	1525	603	224	47	33	310	38	110	328	1697	51	0	0	0	0	317	357	291	53
Apprch %	0.1	64.8	25.6	9.5	11	7.7	72.4	8.9	5	15	77.6	2.3	0	0	0	0	31.1	35.1	28.6	5.2
Total %	0.1	25.5	10.1	3.7	0.8	0.6	5.2	0.6	1.8	5.5	28.3	0.9	0	0	0	0	5.3	6	4.9	0.9
Cars	3	1519	600	224	47	33	310	38	109	325	1685	51	0	0	0	0	315	357	289	53
% Cars	100	99.6	99.5	100	100	100	100	100	99.1	99.1	99.3	100	0	0	0	0	99.4	100	99.3	100
Trucks	0	6	3	0	0	0	0	0	1	3	12	0	0	0	0	0	2	0	2	0
% Trucks	0	0.4	0.5	0	0	0	0	0	0.9	0.9	0.7	0	0	0	0	0	0.6	0	0.7	0

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Clear

File Name : 6846SP11
Site Code : 68460P11
Start Date : 9/19/2015
Page No : 2

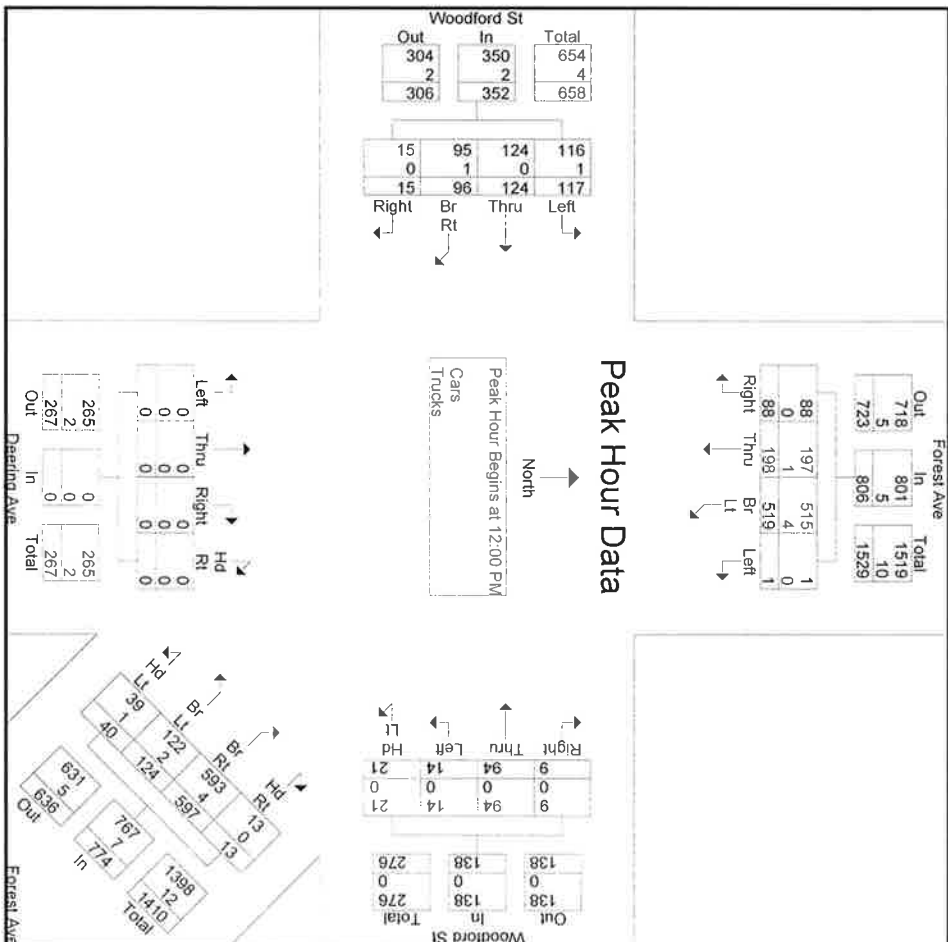
Forest Ave From North					Woodford St From East					Forest Ave From Southeast					Deering Ave From South					Woodford St From West							
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 12:00 PM																											
12:00 PM	0	125	47	23	195	4	2	27	1	34	18	35	151	2	206	0	0	0	0	0	0	21	25	20	3	69	504
12:15 PM	0	134	56	22	212	6	3	21	4	34	5	27	152	4	188	0	0	0	0	0	0	35	35	20	2	92	526
12:30 PM	1	138	49	21	209	10	3	22	2	37	8	31	146	2	187	0	0	0	0	0	0	36	36	23	1	96	529
12:45 PM	0	122	46	22	190	1	6	24	2	33	9	31	148	5	193	0	0	0	0	0	0	25	28	33	9	95	511
Total Volume	1	519	198	88	806	21	14	94	9	138	40	124	597	13	774	0	0	0	0	0	0	117	124	96	15	352	2070
% App. Total	0.1	64.4	24.6	10.9		15.2	10.1	68.1	6.5		5.2	16	77.1	1.7		0	0	0	0	0		33.2	35.2	27.3	4.3		
PHF	.250	.940	.884	.957	.950	.525	.583	.870	.563	.932	.556	.886	.982	.650	.939	.000	.000	.000	.000	.000	.000	.813	.861	.727	.417	.917	.978
Cars	1	515	197	88	801	21	14	94	9	138	39	122	593	13	767	0	0	0	0	0	0	116	124	95	15	350	2056
% Cars	100	99.2	99.5	100	99.4	100	100	100	100	100	97.5	98.4	99.3	100	99.1	0	0	0	0	0	0	99.1	100	99.0	100	99.4	99.3
Trucks	0	4	1	0	5	0	0	0	0	0	1	2	4	0	7	0	0	0	0	0	0	1	0	1	0	2	14
% Trucks	0	0.8	0.5	0	0.6	0	0	0	0	0	2.5	1.6	0.7	0	0.9	0	0	0	0	0	0	0.9	0	1.0	0	0.6	0.7

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Woodford St / Deering Ave
City/State : Portland, ME
Weather : Clear

File Name : 6846SP11
Site Code : 68460P11
Start Date : 9/19/2015
Page No : 3



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:45 AM					11:15 AM					12:00 PM					11:00 AM					12:00 PM					
+0 mins.	0	137	72	21	230	1	4	30	10	45	18	35	151	2	206	0	0	0	0	0	0	21	25	20	3	69
+15 mins.	0	125	47	23	195	3	1	40	3	47	5	27	152	4	188	0	0	0	0	0	0	35	35	20	2	92
+30 mins.	0	134	56	22	212	4	0	18	4	26	8	31	146	2	187	0	0	0	0	0	0	36	36	23	1	96
+45 mins.	1	138	49	21	209	4	2	27	1	34	9	31	148	5	193	0	0	0	0	0	0	25	28	33	9	95
Total Volume	1	534	224	87	846	12	7	115	18	152	40	124	597	13	774	0	0	0	0	0	0	117	124	96	15	352
% App. Total	0.1	63.1	26.5	10.3		7.9	4.6	75.7	11.8		5.2	16	77.1	1.7		0	0	0	0	0	0	33.2	35.2	27.3	4.3	
PHF	.250	.967	.778	.946	.920	.750	.438	.719	.450	.809	.556	.886	.982	.650	.939	.000	.000	.000	.000	.000	.000	.813	.861	.727	.417	.917

Accurate Counts

978-664-2565

File Name : 6846SP11
 Site Code : 68460P11
 Start Date : 9/19/2015
 Page No : 5

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Clear

Groups Printed- Cars																								
Forest Ave From North					Woodford St From East					Forest Ave From Southeast					Deering Ave From South					Woodford St From West				
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total			
11:00 AM	0	118	47	16	1	6	21	4	7	24	126	6	0	0	0	0	22	31	24	2	455			
11:15 AM	2	125	60	18	1	4	30	10	11	28	138	5	0	0	0	0	25	36	24	3	520			
11:30 AM	0	142	44	17	3	1	40	3	6	30	126	15	0	0	0	0	27	32	29	8	523			
11:45 AM	0	137	72	21	4	0	18	4	11	23	131	1	0	0	0	0	21	26	24	5	498			
Total	2	522	223	72	9	11	109	21	35	105	521	27	0	0	0	0	95	125	101	18	1996			
12:00 PM	0	124	46	23	4	2	27	1	17	34	150	2	0	0	0	0	20	25	20	3	498			
12:15 PM	0	132	56	22	6	3	21	4	5	27	150	4	0	0	0	0	35	35	20	2	522			
12:30 PM	1	138	49	21	10	3	22	2	8	31	145	2	0	0	0	0	36	36	23	1	528			
12:45 PM	0	121	46	22	1	6	24	2	9	30	148	5	0	0	0	0	25	28	32	9	508			
Total	1	515	197	88	21	14	94	9	39	122	593	13	0	0	0	0	116	124	95	15	2056			
01:00 PM	0	129	47	13	3	4	34	2	6	24	162	2	0	0	0	0	30	15	17	4	492			
01:15 PM	0	143	49	22	7	0	15	0	13	17	151	2	0	0	0	0	23	19	21	5	487			
01:30 PM	0	121	45	14	1	4	24	6	9	30	145	5	0	0	0	0	23	31	23	6	487			
01:45 PM	0	89	39	15	6	0	34	0	7	27	113	2	0	0	0	0	28	43	32	5	440			
Total	0	482	180	64	17	8	107	8	35	98	571	11	0	0	0	0	104	108	93	20	1906			
Grand Total	3	1519	600	224	47	33	310	38	109	325	1685	51	0	0	0	0	315	357	289	53	5958			
Apprch %	0.1	64.7	25.6	9.5	11	7.7	72.4	8.9	5	15	77.6	2.4	0	0	0	0	31.1	35.2	28.5	5.2				
Total %	0.1	25.5	10.1	3.8	0.8	0.6	5.2	0.6	1.8	5.5	28.3	0.9	0	0	0	0	5.3	6	4.9	0.9				

Accurate Counts

978-664-2565

File Name : 6846SP11
 Site Code : 68460P11
 Start Date : 9/19/2015
 Page No : 9

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Clear

Groups Printed- Trucks																						
Forest Ave					Woodford St					Forest Ave					Deering Ave					Woodford St		
From North					From East					From Southeast					From South					From West		
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	1	0	6
12:00 PM	0	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	6
12:15 PM	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	3
Total	0	4	1	0	0	0	0	0	1	2	4	0	0	0	0	0	1	0	1	0	0	14
01:00 PM	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
01:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
01:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	2	0	0	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	9
Grand Total	0	6	3	0	0	0	0	0	1	3	12	0	0	0	0	0	2	0	2	0	0	29
Approch %	0	66.7	33.3	0	0	0	0	0	6.2	18.8	75	0	0	0	0	0	50	0	50	0	0	
Total %	0	20.7	10.3	0	0	0	0	0	3.4	10.3	41.4	0	0	0	0	0	6.9	0	6.9	0	0	

Accurate Counts

978-664-2565

File Name : 6846SP11
 Site Code : 68460P11
 Start Date : 9/19/2015
 Page No : 13

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Clear

Groups Printed- Bikes Peds																																					
Forest Ave From North						Woodford St From East						Forest Ave From Southeast						Deering Ave From South						Woodford St From West													
Start Time	Left		Br Lt		Thru		Right		Peds		Hd Lt		Left		Br Lt		Thru		Right		Peds		Hd Rt		Left		Thru		Br Rt		Right		Peds		Excl. Total	Inclu. Total	Int. Total
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	1	5		
11:15 AM	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	1	0	9	0	0	0	0	0	0	0	0	0	1	0	3	0	18	3	21			
11:30 AM	1	0	0	0	1	0	0	0	0	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11	3	14				
11:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	5	10	1	11				
Total	1	0	0	1	1	1	0	0	1	0	12	0	0	0	4	0	10	0	0	0	0	7	0	0	0	1	0	13	43	8	51						
12:00 PM	0	0	0	0	0	1	0	0	1	0	5	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	8	3	11					
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2					
12:30 PM	0	1	0	1	1	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	2	8	2	10						
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	0	0	2	2	4					
Total	0	1	0	1	2	2	0	0	1	0	8	0	1	2	1	4	0	0	0	0	2	0	0	0	1	0	3	19	8	27							
01:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	5	0	5						
01:15 PM	1	0	0	0	0	0	0	0	2	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	3	9						
01:30 PM	0	0	0	0	0	2	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4	2	6						
01:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	4	7	3	10						
Total	1	0	0	0	4	4	0	0	3	0	9	0	1	1	0	4	1	0	0	0	1	0	1	0	0	4	22	8	30								
Grand Total	2	1	0	2	7	7	0	0	5	0	29	0	2	7	1	18	1	0	0	0	10	0	1	2	0	20	84	24	108								
Approch %	40	20	0	40			0	0	100	0		0	20	70	10		100	0	0	0		0	33.3	66.7	0												
Total %	8.3	4.2	0	8.3			0	0	20.8	0		0	8.3	29.2	4.2		4.2	0	0	0		0	4.2	8.3	0				77.8	22.2							

Accurate Counts

978-664-2565

File Name : 6846SP11
 Site Code : 68460P11
 Start Date : 9/19/2015
 Page No : 14

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Clear

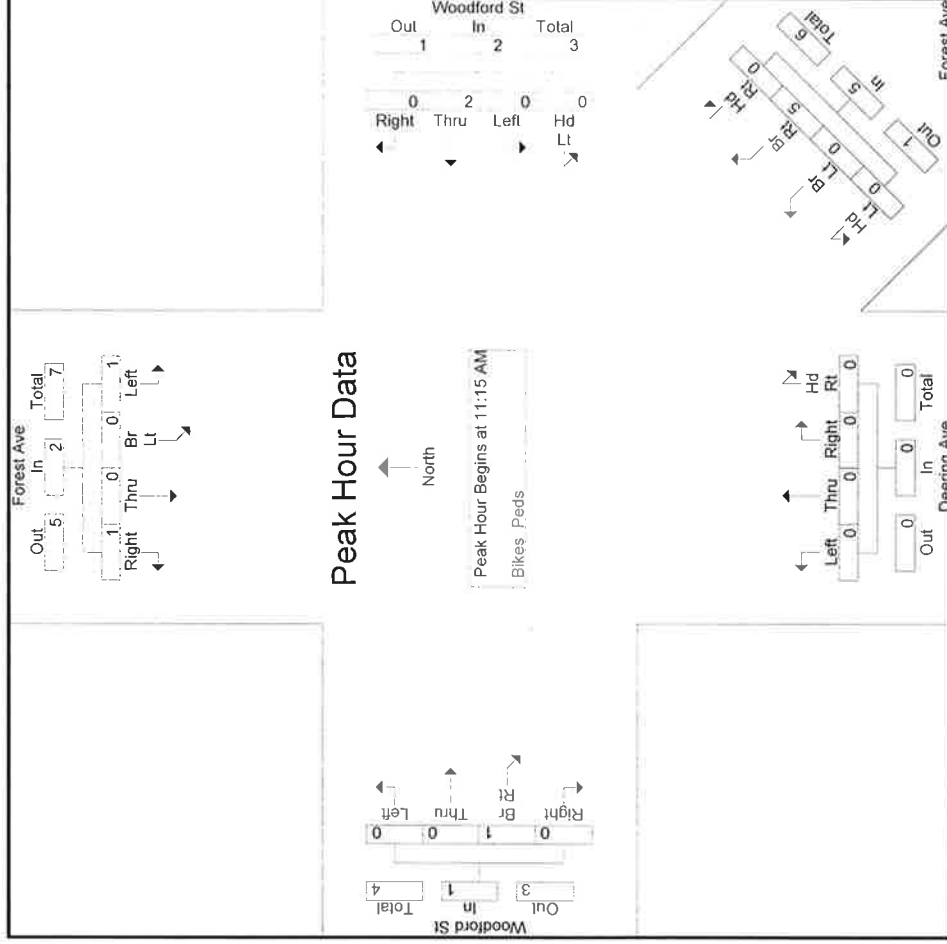
	Forest Ave From North					Woodford St From East				Forest Ave From Southeast					Deering Ave From South				Woodford St From West			
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 11:15 AM																						
11:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	3	
11:30 AM	1	0	0	1	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
12:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	3	
Total Volume	1	0	0	1	2	0	0	2	0	2	0	0	5	0	5	0	0	0	1	0	10	
% App. Total	50	0	0	50		0	0	100	0		0	0	100	0		0	0	100	0			
PHF	.250	.000	.000	.250	.250	.000	.000	.500	.000	.000	.000	.000	.625	.000	.625	.000	.000	.250	.000	.250	.833	

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Woodford St / Deering Ave
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP11
 Site Code : 68460P11
 Start Date : 9/19/2015
 Page No : 15



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	12:30 PM			12:45 PM			11:15 AM			01:00 PM			11:00 AM		
+0 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
+30 mins.	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0
+45 mins.	1	0	0	0	1	0	1	0	0	2	1	0	0	0	0
Total Volume	1	1	0	1	3	0	3	0	5	0	5	1	0	0	1
% App. Total	33.3	33.3	0	33.3	0	0	100	0	100	0	100	0	0	100	0
PHF	.250	.250	.000	.250	.375	.000	.375	.000	.625	.000	.250	.000	.000	.250	.250

File Name : 6846SP12
Site Code : 6846WP12
Start Date : 9/19/2015
Page No : 1

N/S Street : Forest Avenue
E/W Street : Ocean Ave / Saunders St
City/State : Portland, ME
Weather : Clear

Groups Printed- Cars - Trucks																					
Forest Ave From North				Ocean Ave From East				Vannah Ave From Southeast				Forest Ave From South				Saunders St From West					
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total
11:00 AM	11	17	144	2	2	46	3	6	3	1	29	2	1	131	30	2	1	1	0	3	435
11:15 AM	8	19	156	0	0	38	5	14	8	1	15	4	0	125	42	0	0	2	2	0	439
11:30 AM	9	19	177	1	2	34	1	12	3	1	27	3	2	130	37	5	0	0	1	4	468
11:45 AM	5	13	161	1	0	45	1	15	1	1	22	0	0	125	21	4	1	4	1	0	421
Total	33	68	638	4	4	163	10	47	15	4	93	9	3	511	130	11	2	7	4	7	1763
12:00 PM	8	12	163	2	0	39	1	10	7	1	35	0	1	153	29	2	2	3	1	0	469
12:15 PM	13	8	166	1	1	35	0	9	5	0	25	1	0	131	40	5	1	1	3	0	445
12:30 PM	6	11	163	1	0	37	3	14	4	2	26	1	0	133	36	7	1	4	2	2	453
12:45 PM	12	18	149	0	1	43	3	20	2	1	28	5	0	139	37	2	1	5	0	3	469
Total	39	49	641	4	2	154	7	53	18	4	114	7	1	556	142	16	5	13	6	5	1836
01:00 PM	15	10	157	0	0	31	2	16	5	0	21	1	0	157	38	2	0	2	0	1	458
01:15 PM	8	18	171	2	0	37	4	22	3	1	21	1	0	140	31	3	1	0	2	3	468
01:30 PM	7	11	151	0	2	37	1	16	4	1	25	0	2	138	30	3	0	2	1	0	431
01:45 PM	7	8	95	0	0	28	2	5	0	1	14	0	0	103	25	2	0	1	2	2	295
Total	37	47	574	2	2	133	9	59	12	3	81	2	2	538	124	10	1	5	5	6	1652
Grand Total	109	164	1853	10	8	450	26	159	45	11	288	18	6	1605	396	37	8	25	15	18	5251
Apprch %	5.1	7.7	86.8	0.5	1.2	70	4	24.7	12.4	3	79.6	5	0.3	78.5	19.4	1.8	12.1	37.9	22.7	27.3	
Total %	2.1	3.1	35.3	0.2	0.2	8.6	0.5	3	0.9	0.2	5.5	0.3	0.1	30.6	7.5	0.7	0.2	0.5	0.3	0.3	
Cars	109	164	1845	10	8	450	26	159	45	11	288	18	6	1593	396	37	8	25	15	18	5231
% Cars	100	100	99.6	100	100	100	100	100	100	100	100	100	100	99.3	100	100	100	100	100	100	99.6
Trucks	0	0	8	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	20
% Trucks	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0.4

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP12
 Site Code : 6846WP12
 Start Date : 9/19/2015
 Page No : 2

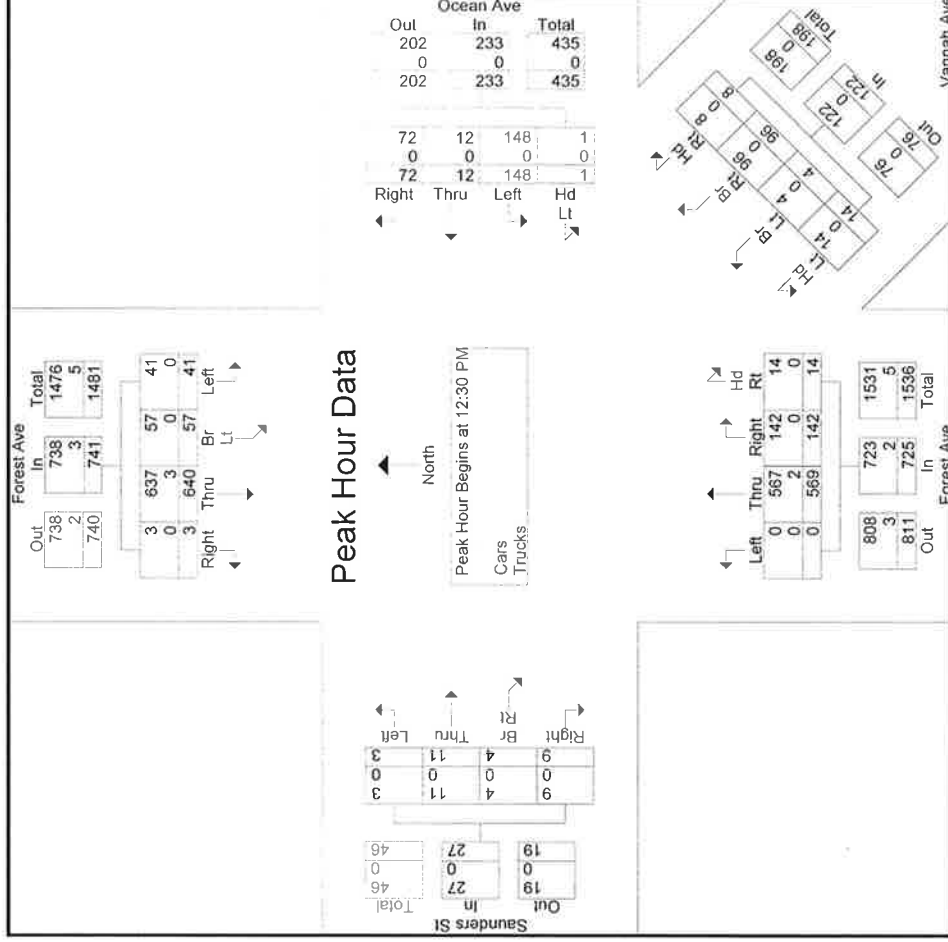
Forest Ave From North					Ocean Ave From East					Vannah Ave From Southeast					Forest Ave From South					Saunders St From West						
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 12:30 PM																										
12:30 PM	6	11	163	1	181	0	37	3	14	54	4	2	26	1	33	0	133	36	7	176	1	4	2	2	9	453
12:45 PM	12	18	149	0	179	1	43	3	20	67	2	1	28	5	36	0	139	37	2	178	1	5	0	3	9	469
01:00 PM	15	10	157	0	182	0	31	2	16	49	5	0	21	1	27	0	157	38	2	197	0	2	0	1	3	458
01:15 PM	8	18	171	2	199	0	37	4	22	63	3	1	21	1	26	0	140	31	3	174	1	0	2	3	6	468
Total Volume	41	57	640	3	741	1	148	12	72	233	14	4	96	8	122	0	569	142	14	725	3	11	4	9	27	1848
% App. Total	5.5	7.7	86.4	0.4		0.4	63.5	5.2	30.9		11.5	3.3	78.7	6.6		0	78.5	19.6	1.9		11.1	40.7	14.8	33.3		
PHF	.683	.792	.936	.375	.931	.250	.860	.750	.818	.869	.700	.500	.857	.400	.847	.000	.906	.934	.500	.920	.750	.550	.500	.750	.750	.985
Cars	41	57	637	3	738	1	148	12	72	233	14	4	96	8	122	0	567	142	14	723	3	11	4	9	27	1843
% Cars	100	100	99.5	100	99.6	100	100	100	100	100	100	100	100	100	100	0	99.6	100	100	99.7	100	100	100	100	100	99.7
Trucks	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
% Trucks	0	0	0.5	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0.3	0	0	0	0	0	0.3

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Ocean Ave / Saunders St
City/State : Portland, ME
Weather : Clear

File Name : 6846SP12
Site Code : 6846WP12
Start Date : 9/19/2015
Page No : 3



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM			12:45 PM			12:00 PM			12:15 PM			12:00 PM												
+0 mins.	9	19	177	1	206	1	43	3	20	67	7	1	35	0	43	0	131	40	5	176	2	3	1	0	6
+15 mins.	5	13	161	1	180	0	31	2	16	49	5	0	25	1	31	0	133	36	7	176	1	1	3	0	5
+30 mins.	8	12	163	2	185	0	37	4	22	63	4	2	26	1	33	0	139	37	2	178	1	4	2	2	9
+45 mins.	13	8	166	1	188	2	37	1	16	56	2	1	28	5	36	0	157	38	2	197	1	5	0	3	9
Total Volume	35	52	667	5	759	3	148	10	74	235	18	4	114	7	143	0	560	151	16	727	5	13	6	5	29
% App. Total	4.6	6.9	87.9	0.7	1.3	63	4.3	31.5	12.6	2.8	79.7	4.9				0	77	20.8	2.2	17.2	44.8	20.7	17.2		
PHF	.673	.684	.942	.625	.921	.375	.860	.625	.841	.877	.643	.500	.814	.350	.831	.000	.892	.944	.571	.923	.625	.650	.500	.417	.806

Accurate Counts

978-664-2565

File Name : 6846SPI2
 Site Code : 6846WP12
 Start Date : 9/19/2015
 Page No : 5

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Clear

Groups Printed- Cars														
Forest Ave From North					Ocean Ave From East					Vannah Ave From Southeast				
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Rt	Hd Lt	Br Lt	Br Rt	Hd Rt	Left
11:00 AM	11	17	143	2	2	46	3	6	2	3	1	29	2	1
11:15 AM	8	19	156	0	0	38	5	14	4	8	1	15	0	0
11:30 AM	9	19	177	1	2	34	1	12	3	3	1	27	5	0
11:45 AM	5	13	161	1	0	45	1	15	4	1	1	22	4	1
Total	33	68	637	4	4	163	10	47	9	15	4	93	11	2
12:00 PM	8	12	161	2	0	39	1	10	2	7	1	35	2	2
12:15 PM	13	8	165	1	1	35	0	9	5	5	0	25	5	1
12:30 PM	6	11	163	1	0	37	3	14	7	4	2	26	7	1
12:45 PM	12	18	148	0	1	43	3	20	2	2	1	28	2	1
Total	39	49	637	4	2	154	7	53	7	18	4	114	16	5
01:00 PM	15	10	155	0	0	31	2	16	2	5	0	21	2	0
01:15 PM	8	18	171	2	0	37	4	22	3	3	1	21	3	1
01:30 PM	7	11	150	0	2	37	1	16	0	4	1	25	3	0
01:45 PM	7	8	95	0	0	28	2	5	2	0	1	14	2	0
Total	37	47	571	2	2	133	9	59	10	12	3	81	10	1
Grand Total	109	164	1845	10	8	450	26	159	37	45	11	288	37	8
Apprch %	5.1	7.7	86.7	0.5	1.2	70	4	24.7	1.8	12.4	3	79.6	1.8	12.1
Total %	2.1	3.1	35.3	0.2	0.2	8.6	0.5	3	0.7	0.9	0.2	5.5	0.7	0.2
Saunders St From West														
	Left	Br Rt	Thru	Right	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total
11:00 AM	1	0	1	3	2	1	130	30	2	1	1	0	3	433
11:15 AM	0	2	2	0	0	0	124	42	0	0	2	2	0	438
11:30 AM	0	0	0	5	3	2	128	37	5	2	0	1	4	466
11:45 AM	1	1	4	4	4	0	125	21	4	1	4	1	0	421
Total	2	4	7	11	11	3	507	130	11	2	7	4	7	1758
12:00 PM	2	1	3	2	2	1	151	29	2	2	3	1	0	465
12:15 PM	1	3	1	5	1	0	129	40	5	1	1	3	0	442
12:30 PM	1	2	4	1	0	0	132	36	7	1	4	2	2	452
12:45 PM	1	0	5	5	0	0	139	37	2	1	5	0	3	468
Total	5	6	13	16	8	1	551	142	16	5	13	6	5	1827
01:00 PM	0	0	2	1	2	0	157	38	2	0	2	0	1	456
01:15 PM	1	2	0	1	3	0	139	31	3	1	0	2	3	467
01:30 PM	0	1	2	0	3	2	136	30	3	0	2	1	0	428
01:45 PM	2	2	0	2	2	0	103	25	2	0	1	2	2	295
Total	1	5	5	10	10	2	535	124	10	1	5	5	6	1646

Accurate Counts

978-664-2565

File Name : 6846SP12
 Site Code : 6846WP12
 Start Date : 9/19/2015
 Page No : 9

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Clear

Groups Printed- Trucks																							
Forest Ave From North					Ocean Ave From East					Vannah Ave From Southeast					Forest Ave From South					Saunders St From West			
Start Time	Left	Br Lt	Thru	Right	Hd Lt	Hd Rt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Int. Total	
11:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	5
12:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4
12:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
12:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	4	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	9
01:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
01:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	6
Grand Total	0	0	8	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	20
Apprch %	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	
Total %	0	0	40	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	

Accurate Counts

978-664-2565

File Name : 6846SP12
 Site Code : 6846WP12
 Start Date : 9/19/2015
 Page No : 13

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Clear

Groups Printed- Bikes Peds													
Forest Ave From North							Ocean Ave From East						
Start Time	Left	Br Lt	Thru	Right	Peds	Hd Lt	Left	Thru	Right	Peds	Hd Lt	Left	Thru
11:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	1	0	0	0	0	0	0	0	2	0	0
11:45 AM	1	0	2	0	1	0	0	0	0	0	3	0	0
Total	1	0	4	0	1	0	0	0	0	0	7	0	0
12:00 PM	0	0	0	0	2	0	0	0	0	0	2	0	0
12:15 PM	0	0	2	0	1	0	0	0	0	0	3	0	0
12:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	2	0	0	0	0	0	0	0	2	0	0
Total	0	0	5	0	3	0	0	0	0	0	7	0	0
01:00 PM	0	3	1	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	1	1	0	1	0	0	0	0	5	0	0	0
01:30 PM	0	0	3	0	0	0	0	0	0	4	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	4	5	0	1	0	0	0	0	9	0	0	0
Grand Total	1	4	14	0	5	0	0	0	0	23	0	0	0
Apprch %	5.3	21.1	73.7	0	0	0	0	0	0	0	0	0	0
Total %	2.5	10	35	0	0	0	0	0	0	0	0	0	0

Saunders St From West													
Start Time	Left	Thru	Br Rt	Right	Peds	Excl. Total	Incl. Total	Incl. Total					
11:00 AM	0	0	0	0	1	3	1	4					
11:15 AM	0	0	0	0	2	4	0	4					
11:30 AM	0	0	0	0	0	5	2	7					
11:45 AM	0	0	0	0	1	7	3	10					
Total	0	0	0	0	4	19	6	25					
12:00 PM	0	0	2	0	0	6	3	9					
12:15 PM	0	0	0	0	1	5	7	12					
12:30 PM	0	0	0	0	2	3	4	7					
12:45 PM	0	0	0	0	0	4	3	7					
Total	0	0	2	0	3	18	17	35					
01:00 PM	0	0	1	0	0	0	0	5					
01:15 PM	0	0	2	0	0	11	4	15					
01:30 PM	0	0	2	0	0	10	8	18					
01:45 PM	0	0	0	0	0	0	0	0					
Total	0	0	5	0	0	21	17	38					
Grand Total	0	0	7	0	7	58	40	98					
Apprch %	0	0	100	0	0	59.2	40.8						
Total %	0	0	17.5	0	0								

Accurate Counts

978-664-2565

File Name : 6846SP12
 Site Code : 6846WP12
 Start Date : 9/19/2015
 Page No : 14

N/S Street : Forest Avenue
 E/W Street : Ocean Ave / Saunders St
 City/State : Portland, ME
 Weather : Clear

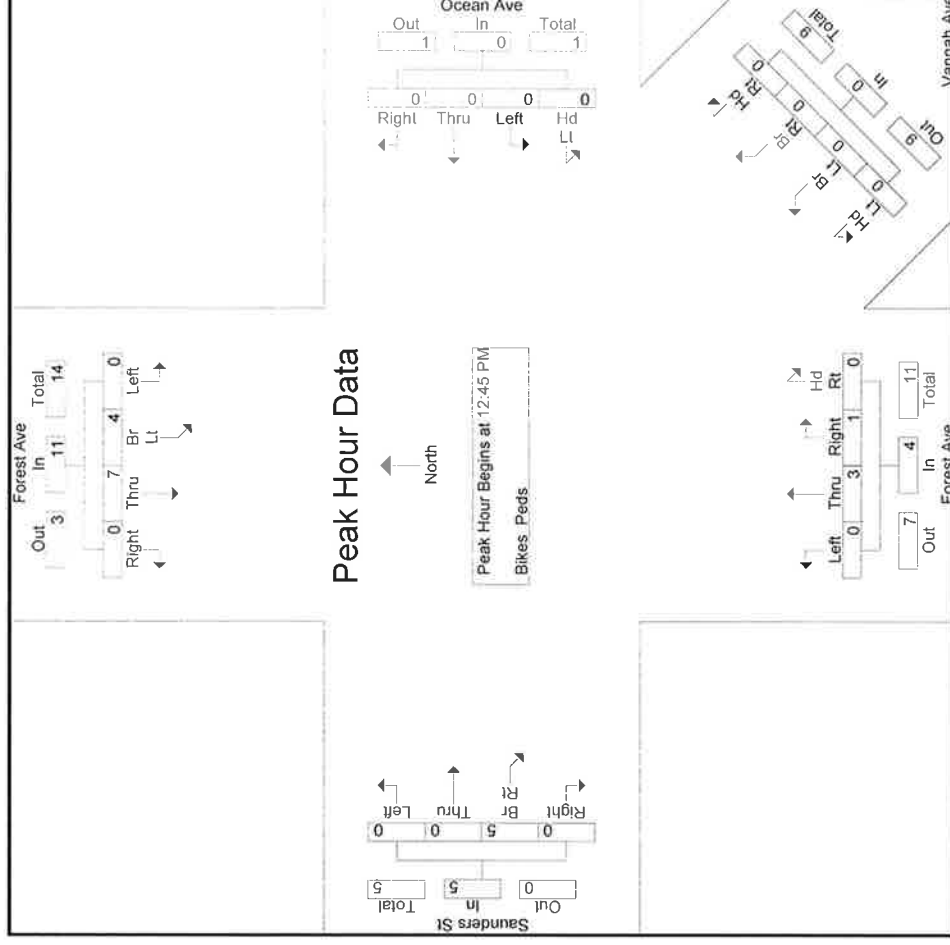
Forest Ave From North						Ocean Ave From East						Vannah Ave From Southeast						Forest Ave From South						Saunders St From West					
Start Time	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	App. Total	Left	Thru	Br Rt	Right	App. Total	Int. Total				
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																													
Peak Hour for Entire Intersection Begins at 12:45 PM																													
12:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3				
01:00 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5					
01:15 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4					
01:30 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	2	0	8					
Total Volume	0	4	7	0	11	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	5	20					
% App. Total	0	36.4	63.6	0		0	0	0	0	0	0	0	0	0	0	75	25	0		0	0	100	0						
PHF	.000	.333	.583	.000	.688	.000	.000	.000	.000	.000	.000	.000	.000	.000	.333	.000	.375	.250	.000	.333	.000	.625	.000	.625					

Accurate Counts

978-664-2565

N/S Street : Forest Avenue
E/W Street : Ocean Ave / Saunders St
City/State : Portland, ME
Weather : Clear

File Name : 6846SP12
Site Code : 6846WP12
Start Date : 9/19/2015
Page No : 15



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:45 PM	11:00 AM	11:30 AM	12:00 PM	12:45 PM
+0 mins.	0	0	2	0	1
+15 mins.	0	3	1	0	3
+30 mins.	0	1	1	0	3
+45 mins.	0	0	3	0	1
Total Volume	0	4	7	0	8
% App. Total	0	36.4	63.6	0	0
PHF	.000	.333	.583	.000	.625

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP13
 Site Code : 68460P13
 Start Date : 9/19/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	26	77	6	17	92	22	15	56	9	2	76	13	411
11:15 AM	16	87	7	19	105	23	16	54	10	6	124	10	477
11:30 AM	15	60	6	24	88	14	11	66	8	2	92	6	392
11:45 AM	18	51	6	10	103	13	6	76	8	2	111	7	411
Total	75	275	25	70	388	72	48	252	35	12	403	36	1691
12:00 PM	23	68	7	15	104	15	10	64	11	3	92	17	429
12:15 PM	31	57	7	13	99	14	9	75	9	2	100	11	427
12:30 PM	14	46	4	11	99	19	4	56	10	4	98	7	372
12:45 PM	14	55	9	8	89	11	20	47	13	6	87	10	369
Total	82	226	27	47	391	59	43	242	43	15	377	45	1597
01:00 PM	26	71	1	14	87	13	12	70	10	6	98	14	422
01:15 PM	15	47	5	11	89	17	7	62	14	6	89	8	370
01:30 PM	15	72	7	10	83	16	9	62	7	5	93	13	392
01:45 PM	18	45	5	8	95	18	11	51	10	6	106	15	388
Total	74	235	18	43	354	64	39	245	41	23	386	50	1572
Grand Total	231	736	70	160	1133	195	130	739	119	50	1166	131	4860
Apprch %	22.3	71	6.8	10.8	76.1	13.1	13.2	74.8	12	3.7	86.6	9.7	
Total %	4.8	15.1	1.4	3.3	23.3	4	2.7	15.2	2.4	1	24	2.7	
Cars	229	732	70	159	1123	195	130	734	119	49	1156	129	4825
% Cars	99.1	99.5	100	99.4	99.1	100	100	99.3	100	98	99.1	98.5	99.3
Trucks	2	4	0	1	10	0	0	5	0	1	10	2	35
% Trucks	0.9	0.5	0	0.6	0.9	0	0	0.7	0	2	0.9	1.5	0.7

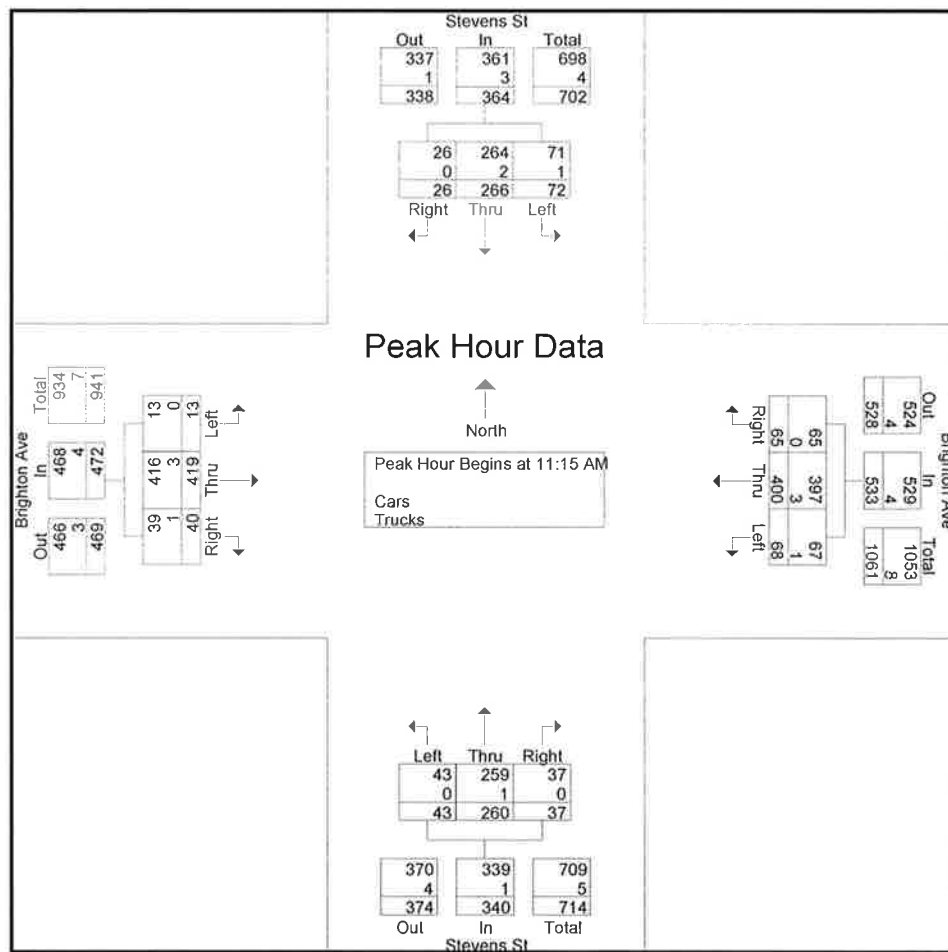
Accurate Counts

978-664-2565

N/S Street : Stevens Street
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP13
Site Code : 68460P13
Start Date : 9/19/2015
Page No : 2

	Stevens St From North				Brighton Ave From East				Stevens St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	16	87	7	110	19	105	23	147	16	54	10	80	6	124	10	140	477
11:30 AM	15	60	6	81	24	88	14	126	11	66	8	85	2	92	6	100	392
11:45 AM	18	51	6	75	10	103	13	126	6	76	8	90	2	111	7	120	411
12:00 PM	23	68	7	98	15	104	15	134	10	64	11	85	3	92	17	112	429
Total Volume	72	266	26	364	68	400	65	533	43	260	37	340	13	419	40	472	1709
% App. Total	19.8	73.1	7.1		12.8	75	12.2		12.6	76.5	10.9		2.8	88.8	8.5		
PHF	.783	.764	.929	.827	.708	.952	.707	.906	.672	.855	.841	.944	.542	.845	.588	.843	.896
Cars	71	264	26	361	67	397	65	529	43	259	37	339	13	416	39	468	1697
% Cars	98.6	99.2	100	99.2	98.5	99.3	100	99.2	100	99.6	100	99.7	100	99.3	97.5	99.2	99.3
Trucks	1	2	0	3	1	3	0	4	0	1	0	1	0	3	1	4	12
% Trucks	1.4	0.8	0	0.8	1.5	0.8	0	0.8	0	0.4	0	0.3	0	0.7	2.5	0.8	0.7



Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP13
 Site Code : 68460P13
 Start Date : 9/19/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	26	77	6	17	92	22	15	56	9	2	75	13	410
11:15 AM	15	87	7	19	104	23	16	54	10	6	123	10	474
11:30 AM	15	60	6	24	87	14	11	66	8	2	92	5	390
11:45 AM	18	50	6	10	102	13	6	76	8	2	109	7	407
Total	74	274	25	70	385	72	48	252	35	12	399	35	1681
12:00 PM	23	67	7	14	104	15	10	63	11	3	92	17	426
12:15 PM	31	57	7	13	97	14	9	74	9	2	99	11	423
12:30 PM	14	46	4	11	98	19	4	56	10	4	96	7	369
12:45 PM	14	54	9	8	88	11	20	46	13	6	87	10	366
Total	82	224	27	46	387	59	43	239	43	15	374	45	1584
01:00 PM	26	71	1	14	87	13	12	70	10	6	98	14	422
01:15 PM	14	47	5	11	88	17	7	62	14	6	88	8	367
01:30 PM	15	72	7	10	82	16	9	62	7	5	92	12	389
01:45 PM	18	44	5	8	94	18	11	49	10	5	105	15	382
Total	73	234	18	43	351	64	39	243	41	22	383	49	1560
Grand Total	229	732	70	159	1123	195	130	734	119	49	1156	129	4825
Apprch %	22.2	71	6.8	10.8	76	13.2	13.2	74.7	12.1	3.7	86.7	9.7	
Total %	4.7	15.2	1.5	3.3	23.3	4	2.7	15.2	2.5	1	24	2.7	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP13
 Site Code : 68460P13
 Start Date : 9/19/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Brighton Ave From East			Stevens St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
11:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	3
11:30 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
11:45 AM	0	1	0	0	1	0	0	0	0	0	2	0	4
Total	1	1	0	0	3	0	0	0	0	0	4	1	10
12:00 PM	0	1	0	1	0	0	0	1	0	0	0	0	3
12:15 PM	0	0	0	0	2	0	0	1	0	0	1	0	4
12:30 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
12:45 PM	0	1	0	0	1	0	0	1	0	0	0	0	3
Total	0	2	0	1	4	0	0	3	0	0	3	0	13
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	1	0	0	0	1	0	0	0	0	0	1	0	3
01:30 PM	0	0	0	0	1	0	0	0	0	0	1	1	3
01:45 PM	0	1	0	0	1	0	0	2	0	1	1	0	6
Total	1	1	0	0	3	0	0	2	0	1	3	1	12
Grand Total	2	4	0	1	10	0	0	5	0	1	10	2	35
Apprch %	33.3	66.7	0	9.1	90.9	0	0	100	0	7.7	76.9	15.4	
Total %	5.7	11.4	0	2.9	28.6	0	0	14.3	0	2.9	28.6	5.7	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP13
 Site Code : 68460P13
 Start Date : 9/19/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Stevens St From North				Brighton Ave From East				Stevens St From South				Brighton Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	1	0	0	4	0	0	0	0	4	1	5
11:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	3
11:30 AM	0	0	0	0	0	0	4	0	0	3	0	0	0	0	0	1	1	7	8
11:45 AM	0	1	0	0	0	4	0	0	2	0	0	1	0	1	0	2	3	8	11
Total	0	2	0	0	0	4	4	0	3	3	0	5	0	3	0	3	8	19	27
12:00 PM	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	5	1	6
12:15 PM	2	1	0	0	0	1	0	1	0	0	0	2	0	0	0	1	4	4	8
12:30 PM	0	4	0	0	0	0	0	2	0	0	0	5	0	0	0	0	7	4	11
12:45 PM	0	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	4	2	6
Total	2	6	0	1	1	1	1	8	0	0	0	10	0	0	0	1	20	11	31
01:00 PM	1	0	0	0	0	0	0	1	0	1	0	3	0	0	0	0	4	2	6
01:15 PM	0	2	0	2	0	0	0	1	0	0	0	3	0	1	0	0	6	3	9
01:30 PM	0	0	0	2	0	0	0	1	0	0	0	0	0	1	0	0	3	1	4
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	3
Total	1	2	0	4	0	0	0	3	0	1	0	6	0	4	1	0	13	9	22
Grand Total	3	10	0	5	1	5	5	11	3	4	0	21	0	7	1	4	41	39	80
Apprch %	23.1	76.9	0		9.1	45.5	45.5		42.9	57.1	0		0	87.5	12.5				
Total %	7.7	25.6	0		2.6	12.8	12.8		7.7	10.3	0		0	17.9	2.6		51.2	48.8	

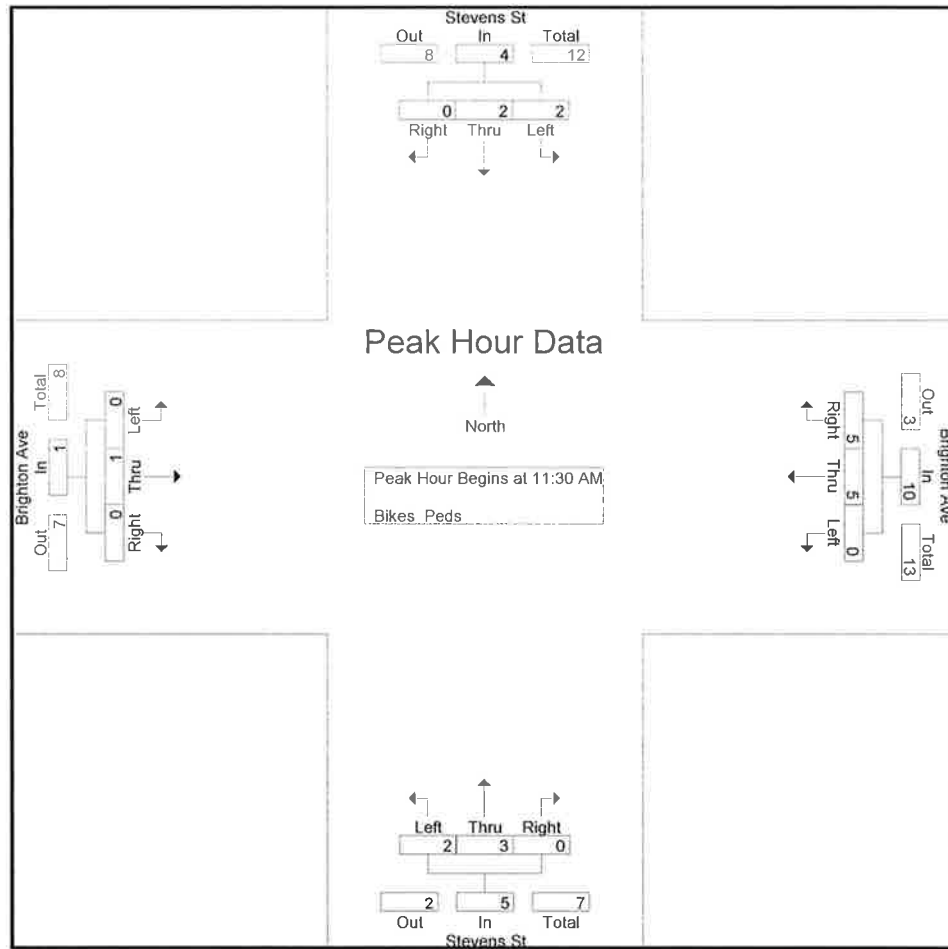
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP13
 Site Code : 68460P13
 Start Date : 9/19/2015
 Page No : 11

	Stevens St From North				Brighton Ave From East				Stevens St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	0	0	0	0	0	0	4	4	0	3	0	3	0	0	0	0	7
11:45 AM	0	1	0	1	0	4	0	4	2	0	0	2	0	1	0	1	8
12:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
12:15 PM	2	1	0	3	0	1	0	1	0	0	0	0	0	0	0	0	4
Total Volume	2	2	0	4	0	5	5	10	2	3	0	5	0	1	0	1	20
% App. Total	50	50	0		0	50	50		40	60	0		0	100	0		
PHF	.250	.500	.000	.333	.000	.313	.313	.625	.250	.250	.000	.417	.000	.250	.000	.250	.625



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:15 PM				11:30 AM				11:00 AM				01:00 PM			
+0 mins.	2	1	0	3	0	0	4	4	1	0	0	1	0	0	0	0
+15 mins.	0	4	0	4	0	4	0	4	0	0	0	0	0	1	0	1
+30 mins.	0	1	0	1	0	0	1	1	0	3	0	3	0	1	0	1
+45 mins.	1	0	0	1	0	1	0	1	2	0	0	2	0	2	1	3
Total Volume	3	6	0	9	0	5	5	10	3	3	0	6	0	4	1	5
% App. Total	33.3	66.7	0		0	50	50		50	50	0		0	80	20	
PHF	.375	.375	.000	.563	.000	.313	.313	.625	.375	.250	.000	.500	.000	.500	.250	.417

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP14
 Site Code : 68460P14
 Start Date : 9/19/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	2	22	14	0	120	4	28	14	0	9	83	21	317
11:15 AM	0	18	7	0	88	5	21	18	0	12	119	28	316
11:30 AM	0	15	10	1	104	5	19	20	2	12	99	29	316
11:45 AM	1	21	12	0	92	2	34	22	1	9	93	28	315
Total	3	76	43	1	404	16	102	74	3	42	394	106	1264
12:00 PM	1	22	16	0	105	0	27	23	1	8	91	21	315
12:15 PM	0	19	12	1	85	3	33	15	0	7	93	30	298
12:30 PM	4	14	12	0	99	6	26	12	1	11	94	22	301
12:45 PM	1	22	10	0	80	4	22	11	0	4	86	23	263
Total	6	77	50	1	369	13	108	61	2	30	364	96	1177
01:00 PM	1	17	5	0	78	3	22	23	1	12	86	20	268
01:15 PM	0	22	7	0	98	2	22	18	1	9	86	25	290
01:30 PM	1	23	6	2	71	2	14	14	2	13	73	35	256
01:45 PM	5	19	7	2	87	1	23	10	2	11	108	26	301
Total	7	81	25	4	334	8	81	65	6	45	353	106	1115
Grand Total	16	234	118	6	1107	37	291	200	11	117	1111	308	3556
Apprch %	4.3	63.6	32.1	0.5	96.3	3.2	58	39.8	2.2	7.6	72.3	20.1	
Total %	0.4	6.6	3.3	0.2	31.1	1	8.2	5.6	0.3	3.3	31.2	8.7	
Cars	16	233	118	6	1098	37	291	200	11	117	1103	306	3536
% Cars	100	99.6	100	100	99.2	100	100	100	100	100	99.3	99.4	99.4
Trucks	0	1	0	0	9	0	0	0	0	0	8	2	20
% Trucks	0	0.4	0	0	0.8	0	0	0	0	0	0.7	0.6	0.6

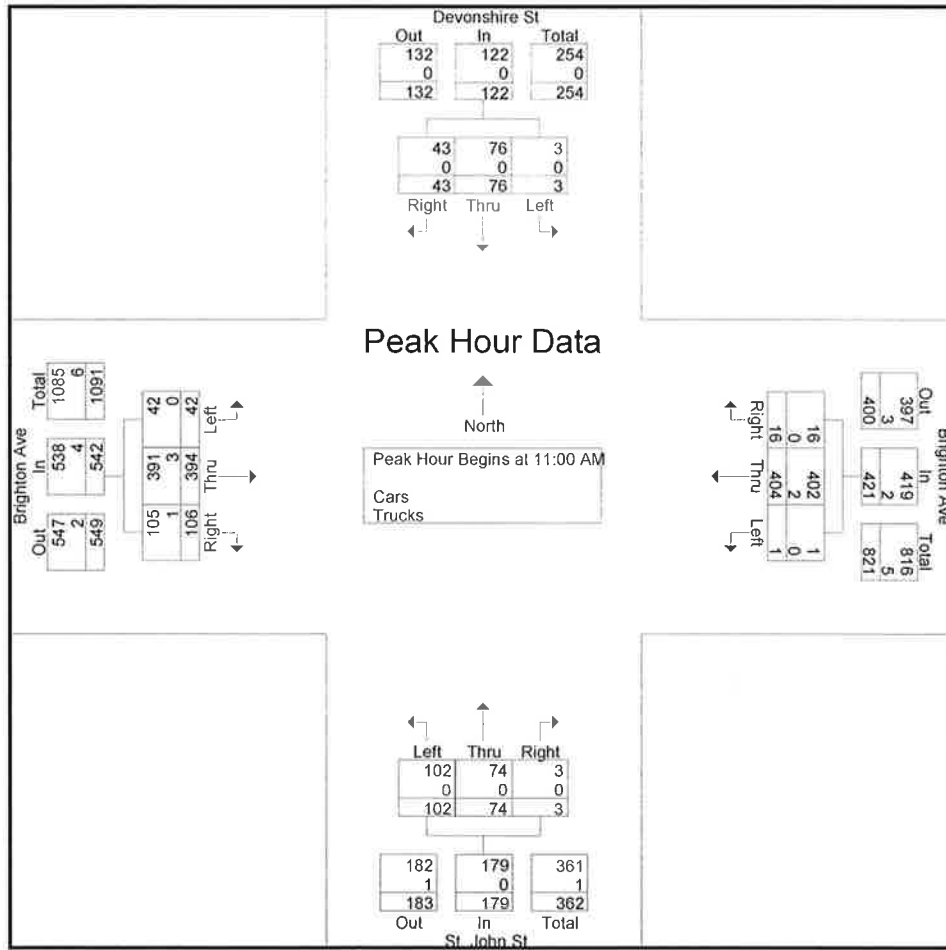
Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP14
 Site Code : 68460P14
 Start Date : 9/19/2015
 Page No : 2

	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	2	22	14	38	0	120	4	124	28	14	0	42	9	83	21	113	317
11:15 AM	0	18	7	25	0	88	5	93	21	18	0	39	12	119	28	159	316
11:30 AM	0	15	10	25	1	104	5	110	19	20	2	41	12	99	29	140	316
11:45 AM	1	21	12	34	0	92	2	94	34	22	1	57	9	93	28	130	315
Total Volume	3	76	43	122	1	404	16	421	102	74	3	179	42	394	106	542	1264
% App. Total	2.5	62.3	35.2		0.2	96	3.8		57	41.3	1.7		7.7	72.7	19.6		
PHF	.375	.864	.768	.803	.250	.842	.800	.849	.750	.841	.375	.785	.875	.828	.914	.852	.997
Cars	3	76	43	122	1	402	16	419	102	74	3	179	42	391	105	538	1258
% Cars	100	100	100	100	100	99.5	100	99.5	100	100	100	100	100	99.2	99.1	99.3	99.5
Trucks	0	0	0	0	0	2	0	2	0	0	0	0	0	3	1	4	6
% Trucks	0	0	0	0	0	0.5	0	0.5	0	0	0	0	0	0.8	0.9	0.7	0.5



Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP14
 Site Code : 68460P14
 Start Date : 9/19/2015
 Page No : 4

Groups Printed- Cars

Start Time	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	2	22	14	0	120	4	28	14	0	9	83	21	317
11:15 AM	0	18	7	0	87	5	21	18	0	12	117	28	313
11:30 AM	0	15	10	1	104	5	19	20	2	12	99	29	316
11:45 AM	1	21	12	0	91	2	34	22	1	9	92	27	312
Total	3	76	43	1	402	16	102	74	3	42	391	105	1258
12:00 PM	1	22	16	0	104	0	27	23	1	8	91	21	314
12:15 PM	0	19	12	1	82	3	33	15	0	7	92	30	294
12:30 PM	4	14	12	0	99	6	26	12	1	11	94	22	301
12:45 PM	1	22	10	0	79	4	22	11	0	4	85	23	261
Total	6	77	50	1	364	13	108	61	2	30	362	96	1170
01:00 PM	1	16	5	0	78	3	22	23	1	12	86	20	267
01:15 PM	0	22	7	0	97	2	22	18	1	9	84	24	286
01:30 PM	1	23	6	2	71	2	14	14	2	13	73	35	256
01:45 PM	5	19	7	2	86	1	23	10	2	11	107	26	299
Total	7	80	25	4	332	8	81	65	6	45	350	105	1108
Grand Total	16	233	118	6	1098	37	291	200	11	117	1103	306	3536
Approch %	4.4	63.5	32.2	0.5	96.2	3.2	58	39.8	2.2	7.7	72.3	20.1	
Total %	0.5	6.6	3.3	0.2	31.1	1	8.2	5.7	0.3	3.3	31.2	8.7	

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP14
 Site Code : 68460P14
 Start Date : 9/19/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Devonshire St From North			Brighton Ave From East			St. John St From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	1	0	0	0	0	0	2	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	1	0	0	0	0	0	1	1	3
Total	0	0	0	0	2	0	0	0	0	0	3	1	6
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	3	0	0	0	0	0	1	0	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
Total	0	0	0	0	5	0	0	0	0	0	2	0	7
01:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
01:15 PM	0	0	0	0	1	0	0	0	0	0	2	1	4
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
Total	0	1	0	0	2	0	0	0	0	0	3	1	7
Grand Total	0	1	0	0	9	0	0	0	0	0	8	2	20
Apprch %	0	100	0	0	100	0	0	0	0	0	80	20	
Total %	0	5	0	0	45	0	0	0	0	0	40	10	

Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP14
 Site Code : 68460P14
 Start Date : 9/19/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	3	0	1	0	3	0	0	0	0	6	1	7
11:15 AM	0	0	1	0	0	2	0	0	0	0	0	1	0	1	0	1	2	4	6
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	1	3	1	4
11:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	0	1	4	5
Total	0	0	1	0	0	4	0	4	0	1	0	6	0	4	0	2	12	10	22
12:00 PM	0	2	0	0	0	2	1	0	0	0	0	0	0	2	0	0	0	7	7
12:15 PM	1	0	0	0	0	1	0	1	0	0	0	1	0	0	0	1	3	2	5
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2
12:45 PM	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	2	3
Total	1	3	0	1	0	4	1	1	0	0	0	3	0	2	0	1	6	11	17
01:00 PM	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	1	3	1	4
01:15 PM	0	3	0	0	0	3	0	0	0	0	0	3	0	1	0	1	4	7	11
01:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	2	1	3
01:45 PM	0	0	0	1	0	0	0	1	0	0	0	4	0	1	1	0	6	2	8
Total	0	3	0	1	0	4	0	3	0	0	0	9	0	3	1	2	15	11	26
Grand Total	1	6	1	2	0	12	1	8	0	1	0	18	0	9	1	5	33	32	65
Apprch %	12.5	75	12.5		0	92.3	7.7		0	100	0		0	90	10				
Total %	3.1	18.8	3.1		0	37.5	3.1		0	3.1	0		0	28.1	3.1		50.8	49.2	

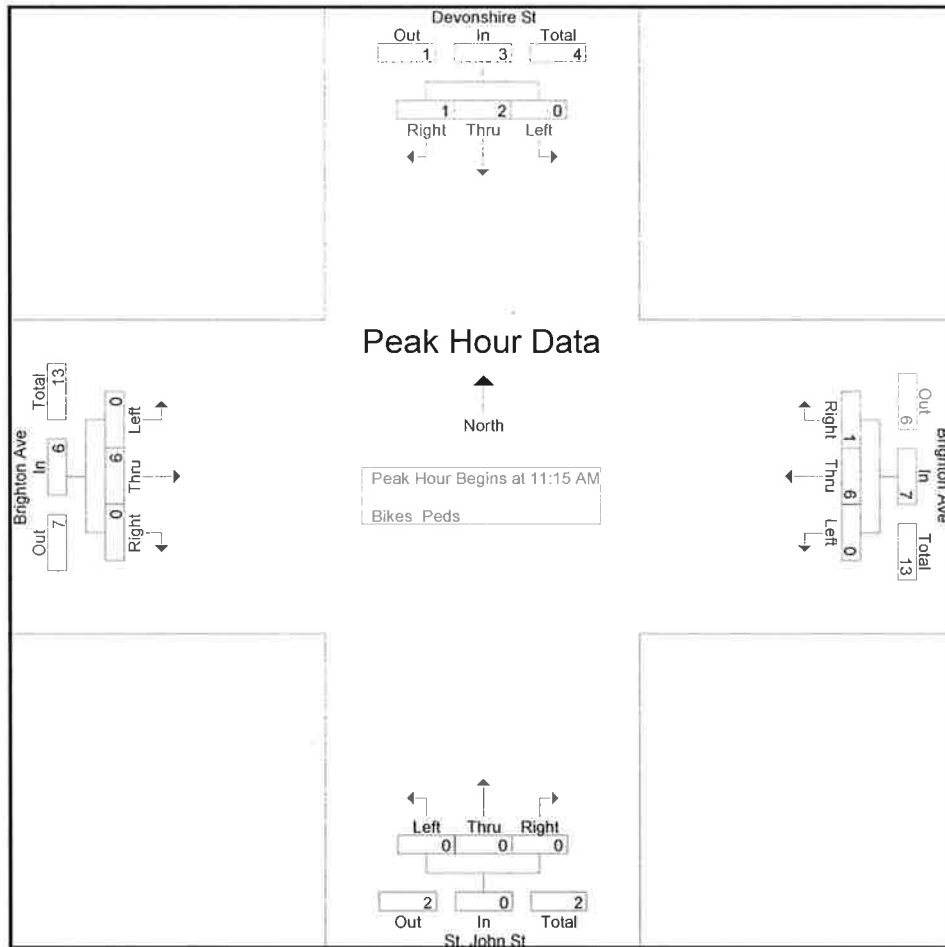
Accurate Counts

978-664-2565

N/S Street : Devonshire St / St John St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP14
 Site Code : 68460P14
 Start Date : 9/19/2015
 Page No : 11

	Devonshire St From North				Brighton Ave From East				St. John St From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	0	0	1	1	0	2	0	2	0	0	0	0	0	1	0	1	4
11:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
12:00 PM	0	2	0	2	0	2	1	3	0	0	0	0	0	2	0	2	7
Total Volume	0	2	1	3	0	6	1	7	0	0	0	0	0	6	0	6	16
% App. Total	0	66.7	33.3		0	85.7	14.3		0	0	0		0	100	0		
PHF	.000	.250	.250	.375	.000	.750	.250	.583	.000	.000	.000	.000	.000	.500	.000	.500	.571



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:00 PM				11:15 AM				11:00 AM				11:15 AM			
+0 mins.	0	2	0	2	0	2	0	2	0	1	0	1	0	1	0	1
+15 mins.	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3
+45 mins.	0	1	0	1	0	2	1	3	0	0	0	0	0	2	0	2
Total Volume	1	3	0	4	0	6	1	7	0	1	0	1	0	6	0	6
% App. Total	25	75	0		0	85.7	14.3		0	100	0		0	100	0	
PHF	.250	.375	.000	.500	.000	.750	.250	.583	.000	.250	.000	.250	.000	.500	.000	.500

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP15
 Site Code : 68460P15
 Start Date : 9/19/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	1	57	51	0	1	2	45	38	0	49	1	35	280
11:15 AM	1	72	54	2	1	0	49	44	0	44	0	41	308
11:30 AM	1	38	56	1	0	0	48	34	1	48	0	32	259
11:45 AM	0	24	37	0	0	0	33	46	0	48	0	49	237
Total	3	191	198	3	2	2	175	162	1	189	1	157	1084
12:00 PM	0	53	53	1	2	0	44	39	1	47	1	46	287
12:15 PM	0	34	51	0	1	0	60	34	1	49	1	40	271
12:30 PM	0	40	34	0	1	0	42	27	2	50	2	38	236
12:45 PM	0	38	44	2	0	0	36	33	0	48	0	38	239
Total	0	165	182	3	4	0	182	133	4	194	4	162	1033
01:00 PM	0	49	43	0	0	1	35	42	0	38	0	33	241
01:15 PM	0	37	46	0	0	0	36	37	1	50	0	33	240
01:30 PM	0	46	53	1	0	0	33	38	0	46	1	45	263
01:45 PM	0	35	45	0	0	0	30	23	2	48	0	41	224
Total	0	167	187	1	0	1	134	140	3	182	1	152	968
Grand Total	3	523	567	7	6	3	491	435	8	565	6	471	3085
Apprch %	0.3	47.8	51.9	43.8	37.5	18.8	52.6	46.6	0.9	54.2	0.6	45.2	
Total %	0.1	17	18.4	0.2	0.2	0.1	15.9	14.1	0.3	18.3	0.2	15.3	
Cars	3	515	566	7	6	3	489	430	8	565	6	471	3069
% Cars	100	98.5	99.8	100	100	100	99.6	98.9	100	100	100	100	99.5
Trucks	0	8	1	0	0	0	2	5	0	0	0	0	16
% Trucks	0	1.5	0.2	0	0	0	0.4	1.1	0	0	0	0	0.5

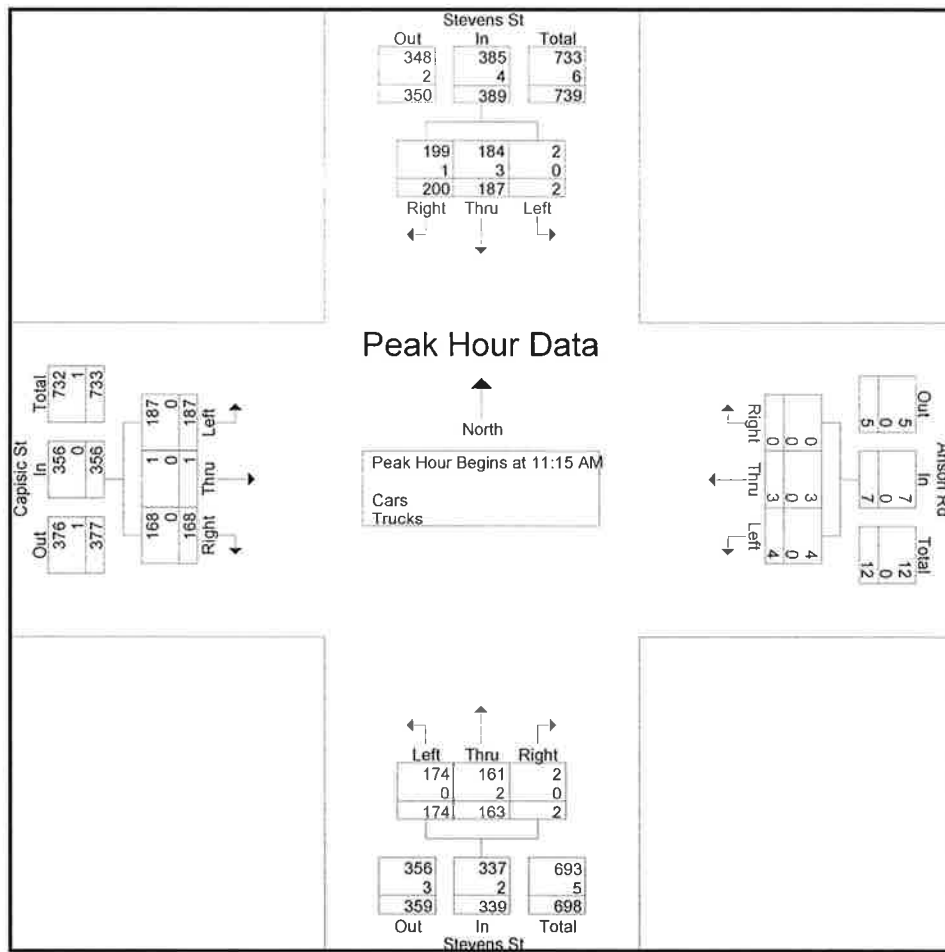
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP15
 Site Code : 68460P15
 Start Date : 9/19/2015
 Page No : 2

	Stevens St From North				Anson Rd From East				Stevens St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	1	72	54	127	2	1	0	3	49	44	0	93	44	0	41	85	308
11:30 AM	1	38	56	95	1	0	0	1	48	34	1	83	48	0	32	80	259
11:45 AM	0	24	37	61	0	0	0	0	33	46	0	79	48	0	49	97	237
12:00 PM	0	53	53	106	1	2	0	3	44	39	1	84	47	1	46	94	287
Total Volume	2	187	200	389	4	3	0	7	174	163	2	339	187	1	168	356	1091
% App. Total	0.5	48.1	51.4		57.1	42.9	0		51.3	48.1	0.6		52.5	0.3	47.2		
PHF	.500	.649	.893	.766	.500	.375	.000	.583	.888	.886	.500	.911	.974	.250	.857	.918	.886
Cars	2	184	199	385	4	3	0	7	174	161	2	337	187	1	168	356	1085
% Cars	100	98.4	99.5	99.0	100	100	0	100	100	98.8	100	99.4	100	100	100	100	99.5
Trucks	0	3	1	4	0	0	0	0	0	2	0	2	0	0	0	0	6
% Trucks	0	1.6	0.5	1.0	0	0	0	0	0	1.2	0	0.6	0	0	0	0	0.5



Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP15
 Site Code : 68460P15
 Start Date : 9/19/2015
 Page No : 4

Groups Printed- Cars

Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	1	56	51	0	1	2	45	38	0	49	1	35	279
11:15 AM	1	72	54	2	1	0	49	44	0	44	0	41	308
11:30 AM	1	37	55	1	0	0	48	34	1	48	0	32	257
11:45 AM	0	24	37	0	0	0	33	45	0	48	0	49	236
Total	3	189	197	3	2	2	175	161	1	189	1	157	1080
12:00 PM	0	51	53	1	2	0	44	38	1	47	1	46	284
12:15 PM	0	34	51	0	1	0	60	34	1	49	1	40	271
12:30 PM	0	40	34	0	1	0	42	27	2	50	2	38	236
12:45 PM	0	38	44	2	0	0	36	32	0	48	0	38	238
Total	0	163	182	3	4	0	182	131	4	194	4	162	1029
01:00 PM	0	48	43	0	0	1	34	42	0	38	0	33	239
01:15 PM	0	37	46	0	0	0	36	37	1	50	0	33	240
01:30 PM	0	45	53	1	0	0	33	38	0	46	1	45	262
01:45 PM	0	33	45	0	0	0	29	21	2	48	0	41	219
Total	0	163	187	1	0	1	132	138	3	182	1	152	960
Grand Total	3	515	566	7	6	3	489	430	8	565	6	471	3069
Apprch %	0.3	47.5	52.2	43.8	37.5	18.8	52.8	46.4	0.9	54.2	0.6	45.2	
Total %	0.1	16.8	18.4	0.2	0.2	0.1	15.9	14	0.3	18.4	0.2	15.3	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP15
 Site Code : 68460P15
 Start Date : 9/19/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Stevens St From North			Anson Rd From East			Stevens St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	2
11:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	2	1	0	0	0	0	1	0	0	0	0	4
12:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	2	0	0	0	0	0	2	0	0	0	0	4
01:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
01:45 PM	0	2	0	0	0	0	1	2	0	0	0	0	5
Total	0	4	0	0	0	0	2	2	0	0	0	0	8
Grand Total	0	8	1	0	0	0	2	5	0	0	0	0	16
Apprch %	0	88.9	11.1	0	0	0	28.6	71.4	0	0	0	0	
Total %	0	50	6.2	0	0	0	12.5	31.2	0	0	0	0	

Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP15
 Site Code : 68460P15
 Start Date : 9/19/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Stevens St From North				Anson Rd From East				Stevens St From South				Capisic St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
11:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
11:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	2	1	0	3	3	4	7
11:45 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	2
Total	0	0	3	0	0	0	0	1	0	1	0	0	2	1	0	4	5	7	12
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Total	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	1	2	2	4
01:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
01:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4	4
Grand Total	0	0	7	1	0	0	0	1	0	1	0	0	2	1	2	5	7	13	20
Apprch %	0	0	100		0	0	0		0	100	0		40	20	40				
Total %	0	0	53.8		0	0	0		0	7.7	0		15.4	7.7	15.4		35	65	

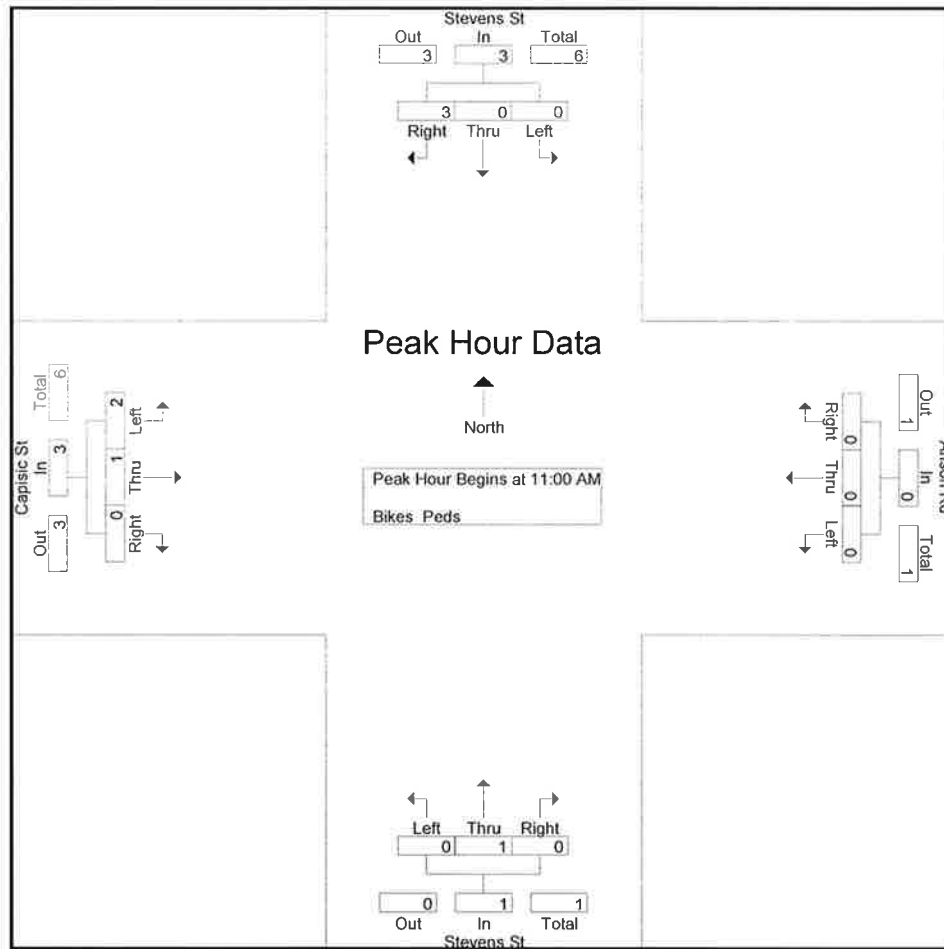
Accurate Counts

978-664-2565

N/S Street : Stevens Street
 E/W Street : Anson Rd / Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP15
 Site Code : 68460P15
 Start Date : 9/19/2015
 Page No : 11

	Stevens St From North				Anson Rd From East				Stevens St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
11:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	2	1	0	3	4
11:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	3	3	0	0	0	0	0	1	0	1	2	1	0	3	7
% App. Total	0	0	100		0	0	0		0	100	0		66.7	33.3	0		
PHF	.000	.000	.750	.750	.000	.000	.000	.000	.000	.250	.000	.250	.250	.250	.000	.250	.438



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:30 PM				11:00 AM				11:00 AM				11:00 AM			
+0 mins.	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	1	1	0	0	0	0	0	0	0	0	2	1	0	3
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	4	4	0	0	0	0	0	1	0	1	2	1	0	3
% App. Total	0	0	100		0	0	0		0	100	0		66.7	33.3	0	
PHF	.000	.000	1.000	1.000	.000	.000	.000	.000	.000	.250	.000	.250	.250	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP16
 Site Code : 68460P16
 Start Date : 9/19/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	51	42	0	11	0	38	0	36	16	194
11:15 AM	0	0	0	49	53	0	20	0	41	0	43	26	232
11:30 AM	1	0	0	52	47	0	25	0	41	0	31	51	248
11:45 AM	2	0	0	36	39	0	19	0	44	0	53	33	226
Total	3	0	0	188	181	0	75	0	164	0	163	126	900
12:00 PM	1	0	0	53	40	0	20	0	52	0	42	24	232
12:15 PM	0	0	0	56	48	0	29	0	48	0	44	25	250
12:30 PM	0	0	0	30	45	0	22	0	42	0	40	26	205
12:45 PM	0	0	0	36	39	0	24	0	50	0	34	35	218
Total	1	0	0	175	172	0	95	0	192	0	160	110	905
01:00 PM	0	0	0	42	34	0	26	0	46	0	29	17	194
01:15 PM	1	0	0	38	40	0	22	0	49	0	33	27	210
01:30 PM	0	0	0	45	40	0	25	0	49	0	43	28	230
01:45 PM	0	1	0	44	31	1	14	0	46	0	42	30	209
Total	1	1	0	169	145	1	87	0	190	0	147	102	843
Grand Total	5	1	0	532	498	1	257	0	546	0	470	338	2648
Apprch %	83.3	16.7	0	51.6	48.3	0.1	32	0	68	0	58.2	41.8	
Total %	0.2	0	0	20.1	18.8	0	9.7	0	20.6	0	17.7	12.8	
Cars	5	1	0	532	495	1	255	0	546	0	470	338	2643
% Cars	100	100	0	100	99.4	100	99.2	0	100	0	100	100	99.8
Trucks	0	0	0	0	3	0	2	0	0	0	0	0	5
% Trucks	0	0	0	0	0.6	0	0.8	0	0	0	0	0	0.2

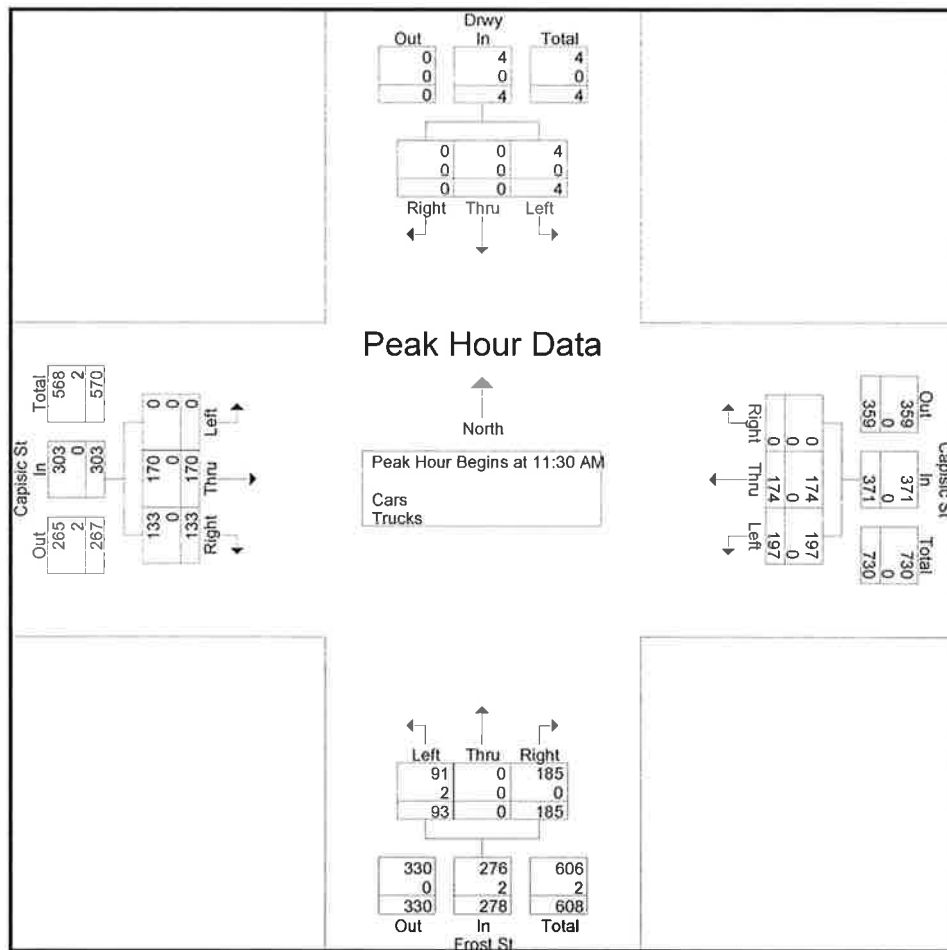
Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP16
 Site Code : 68460P16
 Start Date : 9/19/2015
 Page No : 2

	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	1	0	0	1	52	47	0	99	25	0	41	66	0	31	51	82	248
11:45 AM	2	0	0	2	36	39	0	75	19	0	44	63	0	53	33	86	226
12:00 PM	1	0	0	1	53	40	0	93	20	0	52	72	0	42	24	66	232
12:15 PM	0	0	0	0	56	48	0	104	29	0	48	77	0	44	25	69	250
Total Volume	4	0	0	4	197	174	0	371	93	0	185	278	0	170	133	303	956
% App. Total	100	0	0		53.1	46.9	0		33.5	0	66.5		0	56.1	43.9		
PHF	.500	.000	.000	.500	.879	.906	.000	.892	.802	.000	.889	.903	.000	.802	.652	.881	.956
Cars	4	0	0	4	197	174	0	371	91	0	185	276	0	170	133	303	954
% Cars	100	0	0	100	100	100	0	100	97.8	0	100	99.3	0	100	100	100	99.8
Trucks	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2
% Trucks	0	0	0	0	0	0	0	0	2.2	0	0	0.7	0	0	0	0	0.2



Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP16
 Site Code : 68460P16
 Start Date : 9/19/2015
 Page No : 4

Groups Printed- Cars

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	51	42	0	11	0	38	0	36	16	194
11:15 AM	0	0	0	49	53	0	20	0	41	0	43	26	232
11:30 AM	1	0	0	52	47	0	25	0	41	0	31	51	248
11:45 AM	2	0	0	36	39	0	19	0	44	0	53	33	226
Total	3	0	0	188	181	0	75	0	164	0	163	126	900
12:00 PM	1	0	0	53	40	0	19	0	52	0	42	24	231
12:15 PM	0	0	0	56	48	0	28	0	48	0	44	25	249
12:30 PM	0	0	0	30	45	0	22	0	42	0	40	26	205
12:45 PM	0	0	0	36	38	0	24	0	50	0	34	35	217
Total	1	0	0	175	171	0	93	0	192	0	160	110	902
01:00 PM	0	0	0	42	33	0	26	0	46	0	29	17	193
01:15 PM	1	0	0	38	40	0	22	0	49	0	33	27	210
01:30 PM	0	0	0	45	40	0	25	0	49	0	43	28	230
01:45 PM	0	1	0	44	30	1	14	0	46	0	42	30	208
Total	1	1	0	169	143	1	87	0	190	0	147	102	841
Grand Total	5	1	0	532	495	1	255	0	546	0	470	338	2643
Apprch %	83.3	16.7	0	51.8	48.2	0.1	31.8	0	68.2	0	58.2	41.8	
Total %	0.2	0	0	20.1	18.7	0	9.6	0	20.7	0	17.8	12.8	

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP16
 Site Code : 68460P16
 Start Date : 9/19/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Drwy From North			Capisic St From East			Frost St From South			Capisic St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	0	2	0	0	0	0	0	3
01:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	2	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	3	0	2	0	0	0	0	0	5
Apprch %	0	0	0	0	100	0	100	0	0	0	0	0	
Total %	0	0	0	0	60	0	40	0	0	0	0	0	

Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP16
 Site Code : 68460P16
 Start Date : 9/19/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	4	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
Total	0	0	0	0	1	0	0	0	3	0	0	1	0	0	0	0	1	4	5
12:00 PM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	2
01:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	4	4
Grand Total	1	0	0	0	1	1	0	0	3	0	1	1	0	3	0	0	1	10	11
Apprch %	100	0	0		50	50	0		75	0	25		0	100	0				
Total %	10	0	0		10	10	0		30	0	10		0	30	0		9.1	90.9	

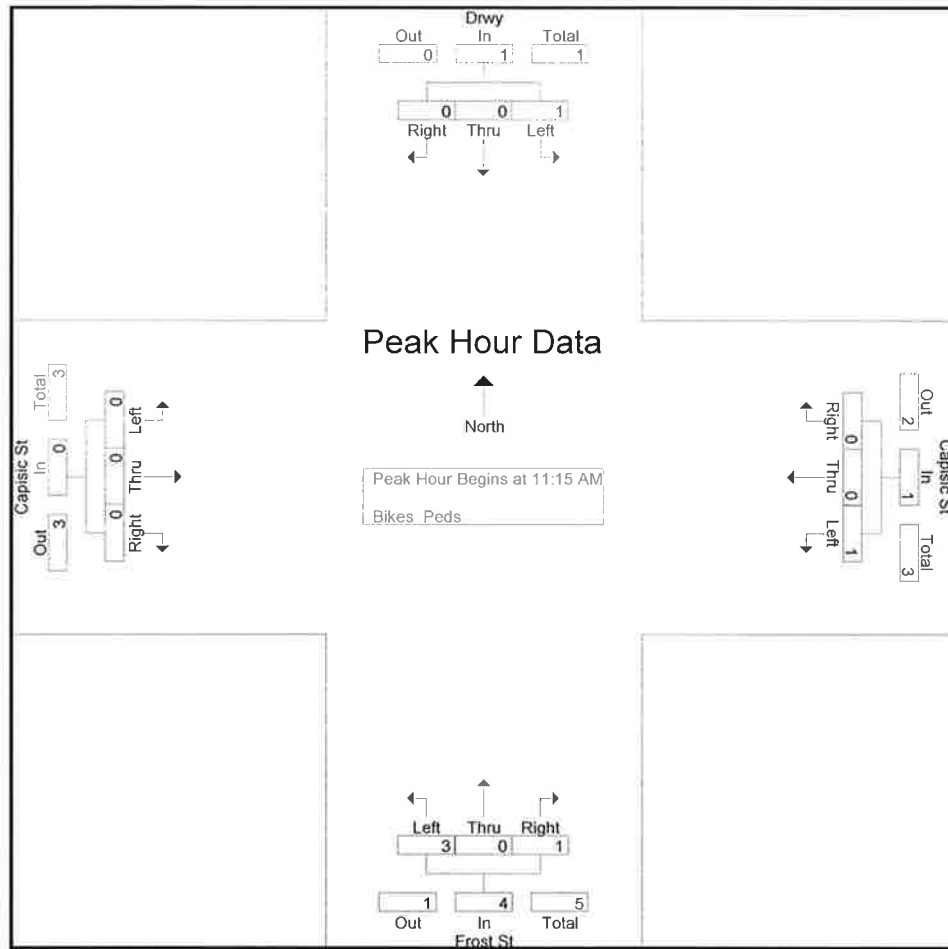
Accurate Counts

978-664-2565

N/S Street : Driveway / Frost Street
 E/W Street : Capisic Street
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP16
 Site Code : 68460P16
 Start Date : 9/19/2015
 Page No : 11

	Drwy From North				Capisic St From East				Frost St From South				Capisic St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	0	0	0	0	1	0	0	1	3	0	0	3	0	0	0	0	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
Total Volume	1	0	0	1	1	0	0	1	3	0	1	4	0	0	0	0	6
% App. Total	100	0	0		100	0	0		75	0	25		0	0	0		
PHF	.250	.000	.000	.250	.250	.000	.000	.250	.250	.000	.250	.333	.000	.000	.000	.000	.375



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:15 AM				11:00 AM				11:15 AM				01:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	3	0	0	3	0	1	0	1
+15 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	2
Total Volume	1	0	0	1	1	0	0	1	3	0	1	4	0	3	0	3
% App. Total	100	0	0		100	0	0		75	0	25		0	100	0	
PHF	.250	.000	.000	.250	.250	.000	.000	.250	.250	.000	.250	.333	.000	.375	.000	.375

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP02
 Site Code : 68460P02
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks

	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	87	100	38	29	43	115	5	89	51	41	20	12	630
11:15 AM	81	104	43	45	53	110	7	116	32	66	31	21	709
11:30 AM	105	105	57	30	45	105	5	95	36	59	36	11	689
11:45 AM	102	99	39	26	52	117	15	75	45	53	25	17	665
Total	375	408	177	130	193	447	32	375	164	219	112	61	2693
12:00 PM	93	119	47	32	48	98	4	80	46	51	32	10	660
12:15 PM	91	96	34	31	53	100	17	64	38	47	25	15	611
12:30 PM	112	119	38	30	42	115	7	101	35	42	30	9	680
12:45 PM	94	109	44	25	45	91	17	84	46	31	32	9	627
Total	390	443	163	118	188	404	45	329	165	171	119	43	2578
01:00 PM	80	78	33	37	40	113	11	95	40	64	31	14	636
01:15 PM	70	110	34	28	34	79	4	104	40	46	38	12	599
01:30 PM	91	118	29	27	26	108	11	74	60	35	37	17	633
01:45 PM	73	94	19	39	41	115	9	94	33	54	34	6	611
Total	314	400	115	131	141	415	35	367	173	199	140	49	2479
Grand Total	1079	1251	455	379	522	1266	112	1071	502	589	371	153	7750
Apprch %	38.7	44.9	16.3	17.5	24.1	58.4	6.6	63.6	29.8	52.9	33.3	13.7	
Total %	13.9	16.1	5.9	4.9	6.7	16.3	1.4	13.8	6.5	7.6	4.8	2	
Cars	1059	1248	453	378	514	1245	111	1066	498	587	365	153	7677
% Cars	98.1	99.8	99.6	99.7	98.5	98.3	99.1	99.5	99.2	99.7	98.4	100	99.1
Trucks	20	3	2	1	8	21	1	5	4	2	6	0	73
% Trucks	1.9	0.2	0.4	0.3	1.5	1.7	0.9	0.5	0.8	0.3	1.6	0	0.9

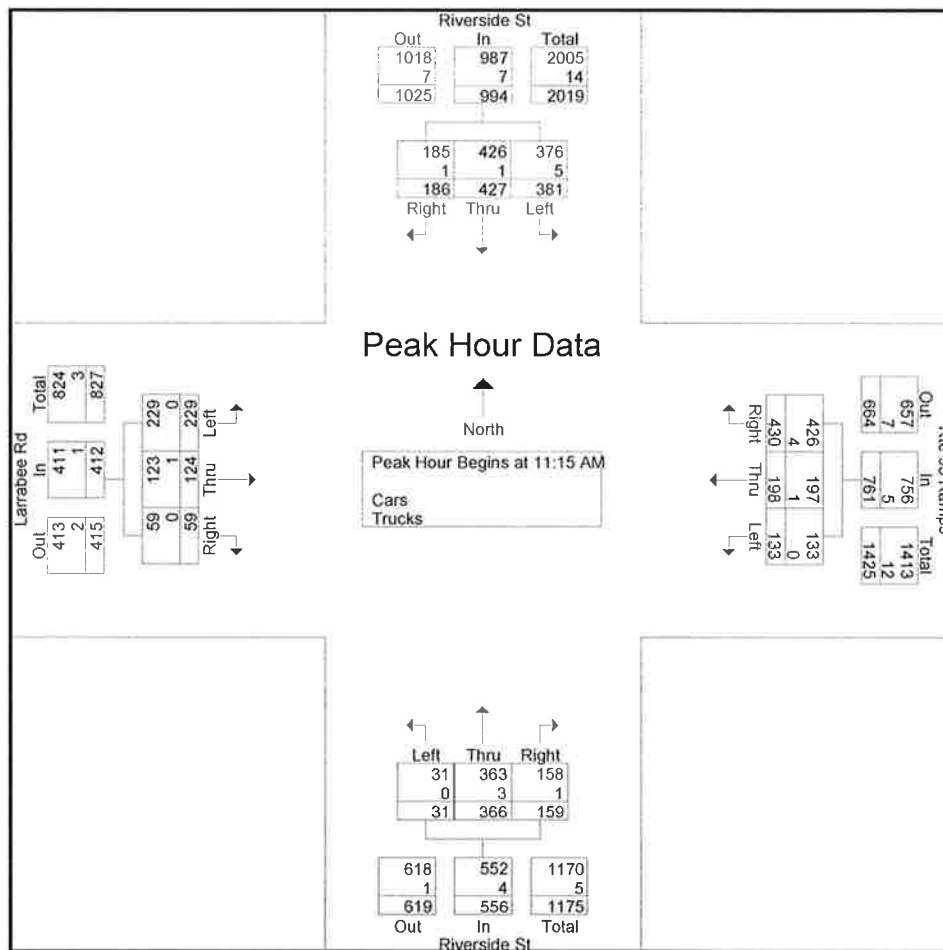
Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP02
 Site Code : 68460P02
 Start Date : 9/26/2015
 Page No : 2

	Riverside St From North				Rte 95 Ramps From East				Riverside St From South				Larrabee Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	81	104	43	228	45	53	110	208	7	116	32	155	66	31	21	118	709
11:30 AM	105	105	57	267	30	45	105	180	5	95	36	136	59	36	11	106	689
11:45 AM	102	99	39	240	26	52	117	195	15	75	45	135	53	25	17	95	665
12:00 PM	93	119	47	259	32	48	98	178	4	80	46	130	51	32	10	93	660
Total Volume	381	427	186	994	133	198	430	761	31	366	159	556	229	124	59	412	2723
% App. Total	38.3	43	18.7		17.5	26	56.5		5.6	65.8	28.6		55.6	30.1	14.3		
PHF	.907	.897	.816	.931	.739	.934	.919	.915	.517	.789	.864	.897	.867	.861	.702	.873	.960
Cars	376	426	185	987	133	197	426	756	31	363	158	552	229	123	59	411	2706
% Cars	98.7	99.8	99.5	99.3	100	99.5	99.1	99.3	100	99.2	99.4	99.3	100	99.2	100	99.8	99.4
Trucks	5	1	1	7	0	1	4	5	0	3	1	4	0	1	0	1	17
% Trucks	1.3	0.2	0.5	0.7	0	0.5	0.9	0.7	0	0.8	0.6	0.7	0	0.8	0	0.2	0.6



Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP02
 Site Code : 68460P02
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	84	100	38	28	42	113	5	89	50	41	19	12	621
11:15 AM	79	103	42	45	52	109	7	114	32	66	30	21	700
11:30 AM	104	105	57	30	45	105	5	95	36	59	36	11	688
11:45 AM	100	99	39	26	52	115	15	75	45	53	25	17	661
Total	367	407	176	129	191	442	32	373	163	219	110	61	2670
12:00 PM	93	119	47	32	48	97	4	79	45	51	32	10	657
12:15 PM	89	95	33	31	52	96	17	64	37	47	24	15	600
12:30 PM	110	119	38	30	41	113	7	101	35	41	29	9	673
12:45 PM	92	109	44	25	44	90	16	82	46	31	32	9	620
Total	384	442	162	118	185	396	44	326	163	170	117	43	2550
01:00 PM	79	77	33	37	40	110	11	95	40	63	31	14	630
01:15 PM	69	110	34	28	33	78	4	104	40	46	38	12	596
01:30 PM	88	118	29	27	25	106	11	74	59	35	37	17	626
01:45 PM	72	94	19	39	40	113	9	94	33	54	32	6	605
Total	308	399	115	131	138	407	35	367	172	198	138	49	2457
Grand Total	1059	1248	453	378	514	1245	111	1066	498	587	365	153	7677
Apprch %	38.4	45.2	16.4	17.7	24.1	58.3	6.6	63.6	29.7	53.1	33	13.8	
Total %	13.8	16.3	5.9	4.9	6.7	16.2	1.4	13.9	6.5	7.6	4.8	2	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP02
 Site Code : 68460P02
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Rte 95 Ramps From East			Riverside St From South			Larrabee Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	3	0	0	1	1	2	0	0	1	0	1	0	9
11:15 AM	2	1	1	0	1	1	0	2	0	0	1	0	9
11:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	2	0	0	0	0	2	0	0	0	0	0	0	4
Total	8	1	1	1	2	5	0	2	1	0	2	0	23
12:00 PM	0	0	0	0	0	1	0	1	1	0	0	0	3
12:15 PM	2	1	1	0	1	4	0	0	1	0	1	0	11
12:30 PM	2	0	0	0	1	2	0	0	0	1	1	0	7
12:45 PM	2	0	0	0	1	1	1	2	0	0	0	0	7
Total	6	1	1	0	3	8	1	3	2	1	2	0	28
01:00 PM	1	1	0	0	0	3	0	0	0	1	0	0	6
01:15 PM	1	0	0	0	1	1	0	0	0	0	0	0	3
01:30 PM	3	0	0	0	1	2	0	0	1	0	0	0	7
01:45 PM	1	0	0	0	1	2	0	0	0	0	2	0	6
Total	6	1	0	0	3	8	0	0	1	1	2	0	22
Grand Total	20	3	2	1	8	21	1	5	4	2	6	0	73
Apprch %	80	12	8	3.3	26.7	70	10	50	40	25	75	0	
Total %	27.4	4.1	2.7	1.4	11	28.8	1.4	6.8	5.5	2.7	8.2	0	

Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP02
 Site Code : 68460P02
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Riverside St From North				Rte 95 Ramps From East				Riverside St From South				Larrabee Rd From West				Exclu Total	Inclu Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	3	1	4
Total	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	2	4	1	5
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	1	2	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	2	4
01:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	2	4
01:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	2	0	0	0	0	1	3	4	3	7
Grand Total	0	0	0	0	0	0	0	2	0	5	0	1	0	0	1	7	10	6	16
Apprch %	0	0	0		0	0	0		0	100	0		0	0	100				
Total %	0	0	0		0	0	0		0	83.3	0		0	0	16.7		62.5	37.5	

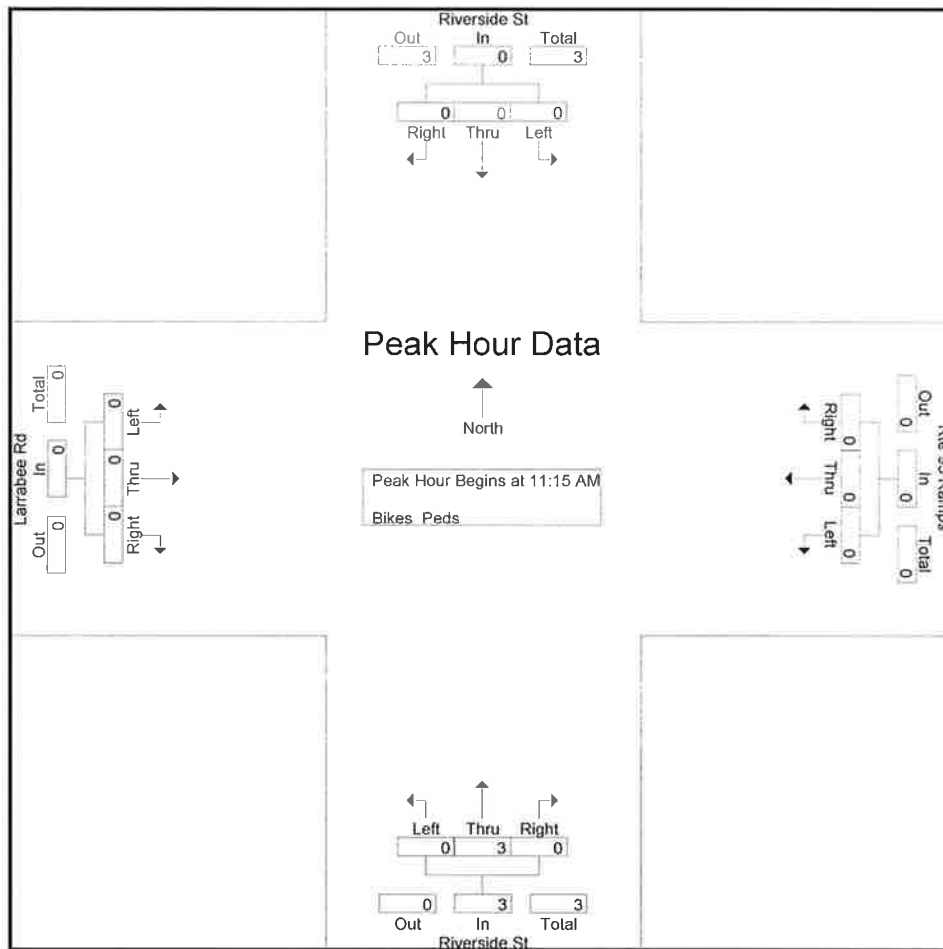
Accurate Counts

978-664-2565

N/S Street : Riverside Street
 E/W Street : Larrabee Rd / Rte 95 Ramps
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP02
 Site Code : 68460P02
 Start Date : 9/26/2015
 Page No : 11

	Riverside St From North				Rte 95 Ramps From East				Riverside St From South				Larrabee Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
% App. Total	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000	.375



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				11:15 AM				12:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	3	0	3	0	0	1	1
% App. Total	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.250	.250

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP04
 Site Code : 68460P04
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks													
Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	102	1	8	1	113	96	1	7	7	14	84	6	440
11:15 AM	96	3	15	1	128	108	1	6	5	13	87	2	465
11:30 AM	103	1	12	1	111	101	7	3	3	11	97	4	454
11:45 AM	105	1	13	3	139	95	2	3	1	11	88	3	464
Total	406	6	48	6	491	400	11	19	16	49	356	15	1823
12:00 PM	103	3	5	4	114	94	4	8	3	11	108	2	459
12:15 PM	104	1	11	1	139	85	4	2	1	11	107	4	470
12:30 PM	114	0	8	0	121	86	3	3	1	12	106	1	455
12:45 PM	87	0	14	1	98	94	0	4	5	15	87	3	408
Total	408	4	38	6	472	359	11	17	10	49	408	10	1792
01:00 PM	83	1	10	0	130	93	3	0	4	13	101	2	440
01:15 PM	107	0	10	0	117	80	1	3	2	13	97	1	431
01:30 PM	102	0	12	0	102	93	2	2	0	16	102	2	433
01:45 PM	106	0	11	0	86	81	2	2	1	5	98	3	395
Total	398	1	43	0	435	347	8	7	7	47	398	8	1699
Grand Total	1212	11	129	12	1398	1106	30	43	33	145	1162	33	5314
Apprch %	89.6	0.8	9.5	0.5	55.6	44	28.3	40.6	31.1	10.8	86.7	2.5	
Total %	22.8	0.2	2.4	0.2	26.3	20.8	0.6	0.8	0.6	2.7	21.9	0.6	
Cars	1205	11	126	12	1389	1101	30	43	33	139	1162	33	5284
% Cars	99.4	100	97.7	100	99.4	99.5	100	100	100	95.9	100	100	99.4
Trucks	7	0	3	0	9	5	0	0	0	6	0	0	30
% Trucks	0.6	0	2.3	0	0.6	0.5	0	0	0	4.1	0	0	0.6

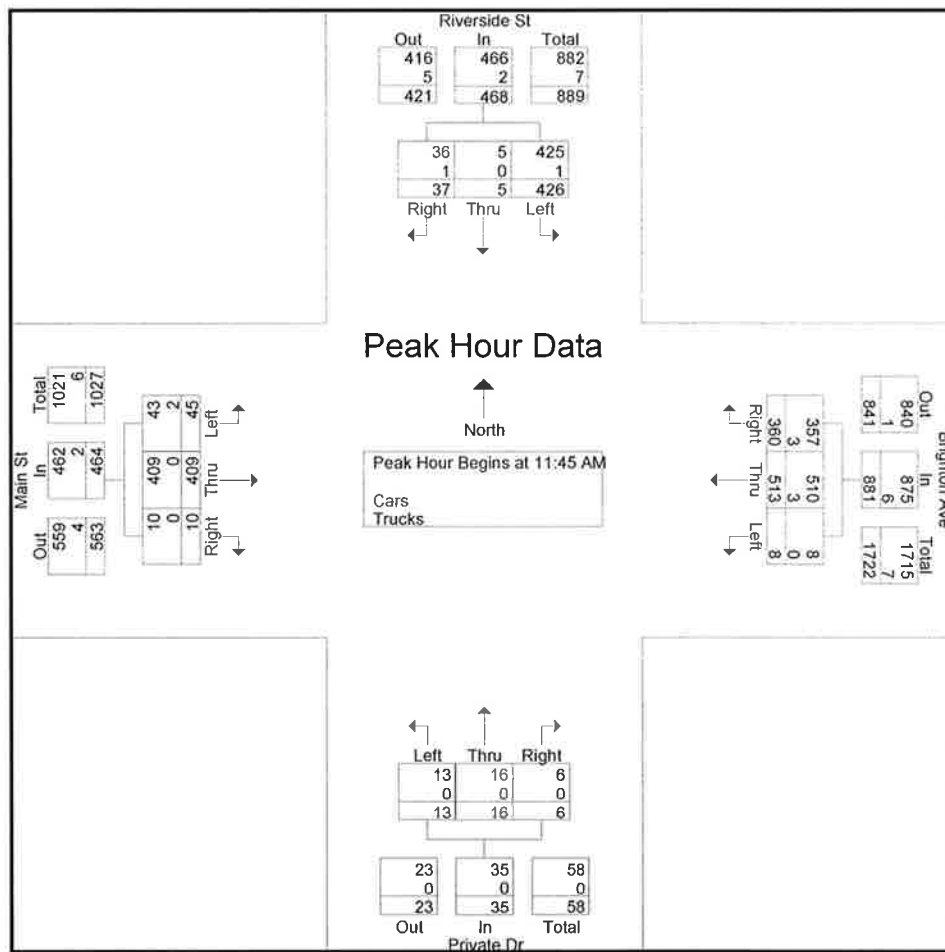
Accurate Counts

978-664-2565

N/S Street : Riverside St / Private Dr
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP04
 Site Code : 68460P04
 Start Date : 9/26/2015
 Page No : 2

	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	105	1	13	119	3	139	95	237	2	3	1	6	11	88	3	102	464
12:00 PM	103	3	5	111	4	114	94	212	4	8	3	15	11	108	2	121	459
12:15 PM	104	1	11	116	1	139	85	225	4	2	1	7	11	107	4	122	470
12:30 PM	114	0	8	122	0	121	86	207	3	3	1	7	12	106	1	119	455
Total Volume	426	5	37	468	8	513	360	881	13	16	6	35	45	409	10	464	1848
% App. Total	91	1.1	7.9		0.9	58.2	40.9		37.1	45.7	17.1		9.7	88.1	2.2		
PHF	.934	.417	.712	.959	.500	.923	.947	.929	.813	.500	.500	.583	.938	.947	.625	.951	.983
Cars	425	5	36	466	8	510	357	875	13	16	6	35	43	409	10	462	1838
% Cars	99.8	100	97.3	99.6	100	99.4	99.2	99.3	100	100	100	100	95.6	100	100	99.6	99.5
Trucks	1	0	1	2	0	3	3	6	0	0	0	0	2	0	0	2	10
% Trucks	0.2	0	2.7	0.4	0	0.6	0.8	0.7	0	0	0	0	4.4	0	0	0.4	0.5



Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP04
 Site Code : 68460P04
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	101	1	7	1	112	95	1	7	7	13	84	6	435
11:15 AM	95	3	15	1	127	108	1	6	5	13	87	2	463
11:30 AM	102	1	12	1	110	101	7	3	3	10	97	4	451
11:45 AM	105	1	13	3	139	95	2	3	1	11	88	3	464
Total	403	6	47	6	488	399	11	19	16	47	356	15	1813
12:00 PM	103	3	5	4	112	93	4	8	3	10	108	2	455
12:15 PM	103	1	11	1	139	85	4	2	1	11	107	4	469
12:30 PM	114	0	7	0	120	84	3	3	1	11	106	1	450
12:45 PM	86	0	14	1	97	93	0	4	5	14	87	3	404
Total	406	4	37	6	468	355	11	17	10	46	408	10	1778
01:00 PM	82	1	10	0	129	93	3	0	4	13	101	2	438
01:15 PM	107	0	10	0	117	80	1	3	2	13	97	1	431
01:30 PM	102	0	12	0	101	93	2	2	0	15	102	2	431
01:45 PM	105	0	10	0	86	81	2	2	1	5	98	3	393
Total	396	1	42	0	433	347	8	7	7	46	398	8	1693
Grand Total	1205	11	126	12	1389	1101	30	43	33	139	1162	33	5284
Apprch %	89.8	0.8	9.4	0.5	55.5	44	28.3	40.6	31.1	10.4	87.1	2.5	
Total %	22.8	0.2	2.4	0.2	26.3	20.8	0.6	0.8	0.6	2.6	22	0.6	

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP04
 Site Code : 68460P04
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks

Start Time	Riverside St From North			Brighton Ave From East			Private Dr From South			Main St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	1	0	1	0	1	1	0	0	0	1	0	0	5
11:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
11:30 AM	1	0	0	0	1	0	0	0	0	1	0	0	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	1	0	3	1	0	0	0	2	0	0	10
12:00 PM	0	0	0	0	2	1	0	0	0	1	0	0	4
12:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	1	0	1	2	0	0	0	1	0	0	5
12:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	4
Total	2	0	1	0	4	4	0	0	0	3	0	0	14
01:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	1	0	0	0	0	1	0	0	2
01:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	2
Total	2	0	1	0	2	0	0	0	0	1	0	0	6
Grand Total	7	0	3	0	9	5	0	0	0	6	0	0	30
Apprch %	70	0	30	0	64.3	35.7	0	0	0	100	0	0	
Total %	23.3	0	10	0	30	16.7	0	0	0	20	0	0	

Accurate Counts

978-664-2565

N/S Street : Riverside St / Private Dr
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP04
 Site Code : 68460P04
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	1	3	1	4
11:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	3
11:45 AM	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	3	1	4
Total	0	0	0	0	0	1	1	9	0	0	0	1	0	0	0	3	13	2	15
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	7	0	7
12:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
12:45 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3	0	3
Total	0	0	0	5	0	0	0	4	0	0	0	2	0	1	0	0	11	1	12
01:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
01:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2
01:45 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Total	0	0	0	3	0	0	2	2	0	0	0	1	0	1	0	0	6	3	9
Grand Total	0	0	0	8	0	1	3	15	0	0	0	4	0	2	0	3	30	6	36
Apprch %	0	0	0		0	25	75		0	0	0		0	100	0				
Total %	0	0	0		0	16.7	50		0	0	0		0	33.3	0		83.3	16.7	

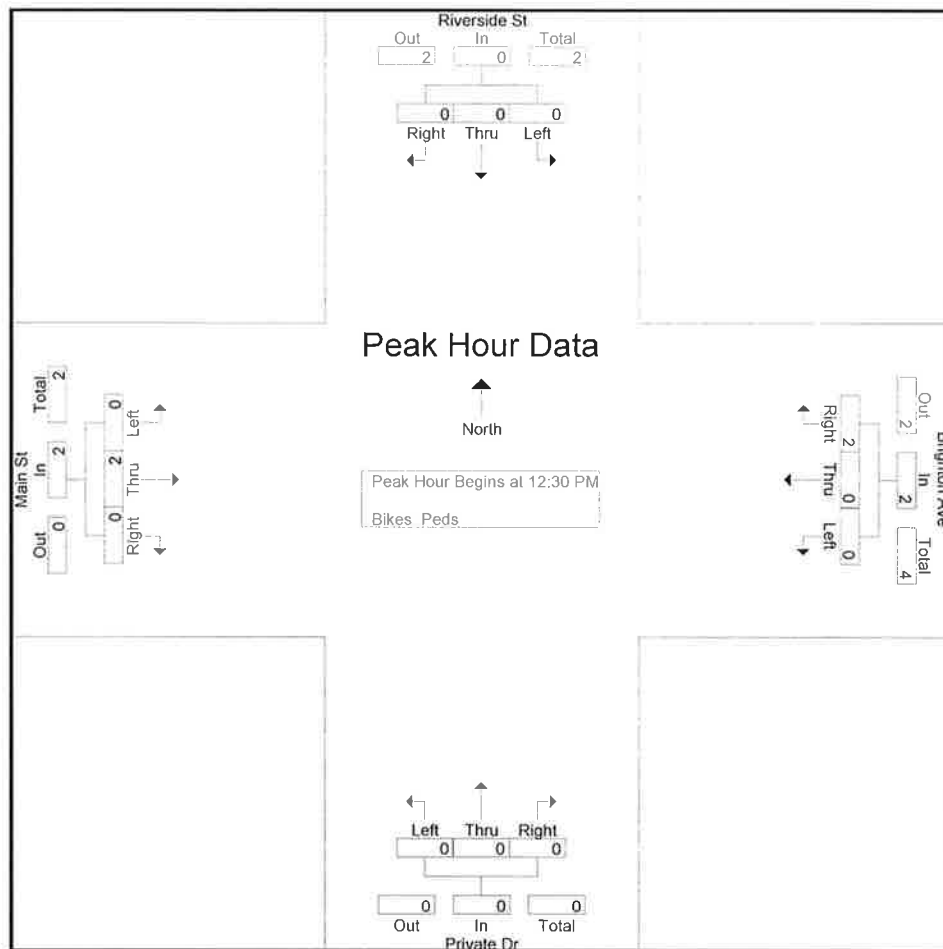
Accurate Counts

978-664-2565

N/S Street : Riverside St / Private DR
 E/W Street : Brighton Ave / Main St
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP04
 Site Code : 68460P04
 Start Date : 9/26/2015
 Page No : 11

	Riverside St From North				Brighton Ave From East				Private Dr From South				Main St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	2	2	0	0	0	0	0	2	0	2	4
% App. Total	0	0	0	0	0	0	100		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.500	.000	.500	.500



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				11:00 AM				12:30 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	1	1	2	0	0	0	0	0	2	0	2
% App. Total	0	0	0	0	0	50	50		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.000	.250	.250	.500	.000	.000	.000	.000	.000	.500	.000	.500

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP06
 Site Code : 68460P06
 Start Date : 9/26/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Rand Rd From East		95 NB Ramp From South		Westbrook Arterial From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
11:00 AM	20	37	66	30	61	46	260
11:15 AM	28	45	63	18	45	48	247
11:30 AM	32	50	74	25	44	54	279
11:45 AM	27	58	57	20	61	77	300
Total	107	190	260	93	211	225	1086
12:00 PM	19	52	51	26	51	66	265
12:15 PM	14	35	53	14	45	71	232
12:30 PM	18	41	53	27	61	77	277
12:45 PM	21	34	47	25	56	78	261
Total	72	162	204	92	213	292	1035
01:00 PM	23	35	53	34	49	76	270
01:15 PM	23	42	44	15	66	79	269
01:30 PM	17	26	55	22	48	59	227
01:45 PM	23	47	56	15	46	60	247
Total	86	150	208	86	209	274	1013
Grand Total	265	502	672	271	633	791	3134
Apprch %	34.6	65.4	71.3	28.7	44.5	55.5	
Total %	8.5	16	21.4	8.6	20.2	25.2	
Cars	262	502	661	263	628	779	3095
% Cars	98.9	100	98.4	97	99.2	98.5	98.8
Trucks	3	0	11	8	5	12	39
% Trucks	1.1	0	1.6	3	0.8	1.5	1.2

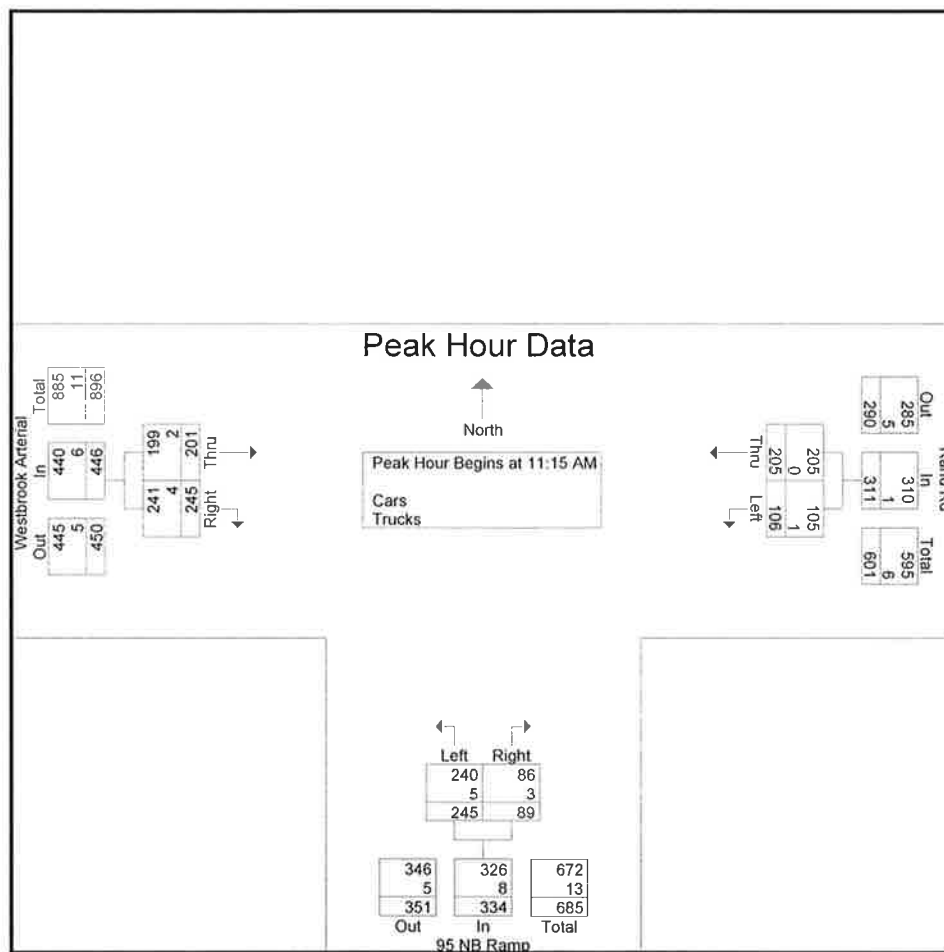
Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
E/W Street : Rand Rd/Westbrook Arterial
City/State : Portland, ME
Weather : Clear

File Name : 6846SP06
Site Code : 68460P06
Start Date : 9/26/2015
Page No : 2

	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:15 AM										
11:15 AM	28	45	73	63	18	81	45	48	93	247
11:30 AM	32	50	82	74	25	99	44	54	98	279
11:45 AM	27	58	85	57	20	77	61	77	138	300
12:00 PM	19	52	71	51	26	77	51	66	117	265
Total Volume	106	205	311	245	89	334	201	245	446	1091
% App. Total	34.1	65.9		73.4	26.6		45.1	54.9		
PHF	.828	.884	.915	.828	.856	.843	.824	.795	.808	.909
Cars	105	205	310	240	86	326	199	241	440	1076
% Cars	99.1	100	99.7	98.0	96.6	97.6	99.0	98.4	98.7	98.6
Trucks	1	0	1	5	3	8	2	4	6	15
% Trucks	0.9	0	0.3	2.0	3.4	2.4	1.0	1.6	1.3	1.4



Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP06
 Site Code : 68460P06
 Start Date : 9/26/2015
 Page No : 4

Groups Printed- Cars

	Rand Rd From East		95 NB Ramp From South		Westbrook Arterial From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
11:00 AM	20	37	63	28	61	44	253
11:15 AM	28	45	60	18	45	47	243
11:30 AM	32	50	73	25	44	54	278
11:45 AM	27	58	56	18	59	75	293
Total	107	190	252	89	209	220	1067
12:00 PM	18	52	51	25	51	65	262
12:15 PM	14	35	53	14	45	69	230
12:30 PM	17	41	52	27	61	75	273
12:45 PM	21	34	47	25	56	78	261
Total	70	162	203	91	213	287	1026
01:00 PM	23	35	53	33	48	76	268
01:15 PM	23	42	43	15	65	79	267
01:30 PM	17	26	55	21	47	58	224
01:45 PM	22	47	55	14	46	59	243
Total	85	150	206	83	206	272	1002
Grand Total	262	502	661	263	628	779	3095
Apprch %	34.3	65.7	71.5	28.5	44.6	55.4	
Total %	8.5	16.2	21.4	8.5	20.3	25.2	

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP06
 Site Code : 68460P06
 Start Date : 9/26/2015
 Page No : 7

Groups Printed- Trucks							
Start Time	Rand Rd From East	Thru	95 NB Ramp From South		Westbrook Arterial From West		Int. Total
	Left		Left	Right	Thru	Right	
11:00 AM	0	0	3	2	0	2	7
11:15 AM	0	0	3	0	0	1	4
11:30 AM	0	0	1	0	0	0	1
11:45 AM	0	0	1	2	2	2	7
Total	0	0	8	4	2	5	19
12:00 PM	1	0	0	1	0	1	3
12:15 PM	0	0	0	0	0	2	2
12:30 PM	1	0	1	0	0	2	4
12:45 PM	0	0	0	0	0	0	0
Total	2	0	1	1	0	5	9
01:00 PM	0	0	0	1	1	0	2
01:15 PM	0	0	1	0	1	0	2
01:30 PM	0	0	0	1	1	1	3
01:45 PM	1	0	1	1	0	1	4
Total	1	0	2	3	3	2	11
Grand Total	3	0	11	8	5	12	39
Apprch %	100	0	57.9	42.1	29.4	70.6	
Total %	7.7	0	28.2	20.5	12.8	30.8	

Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP06
 Site Code : 68460P06
 Start Date : 9/26/2015
 Page No : 10

Groups Printed- Bikes Peds												
Start Time	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	1	0	0	0	1	1
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	1	0	0	0	1	1
Apprch %	0	0		0	0		100	0				
Total %	0	0		0	0		100	0		0	100	

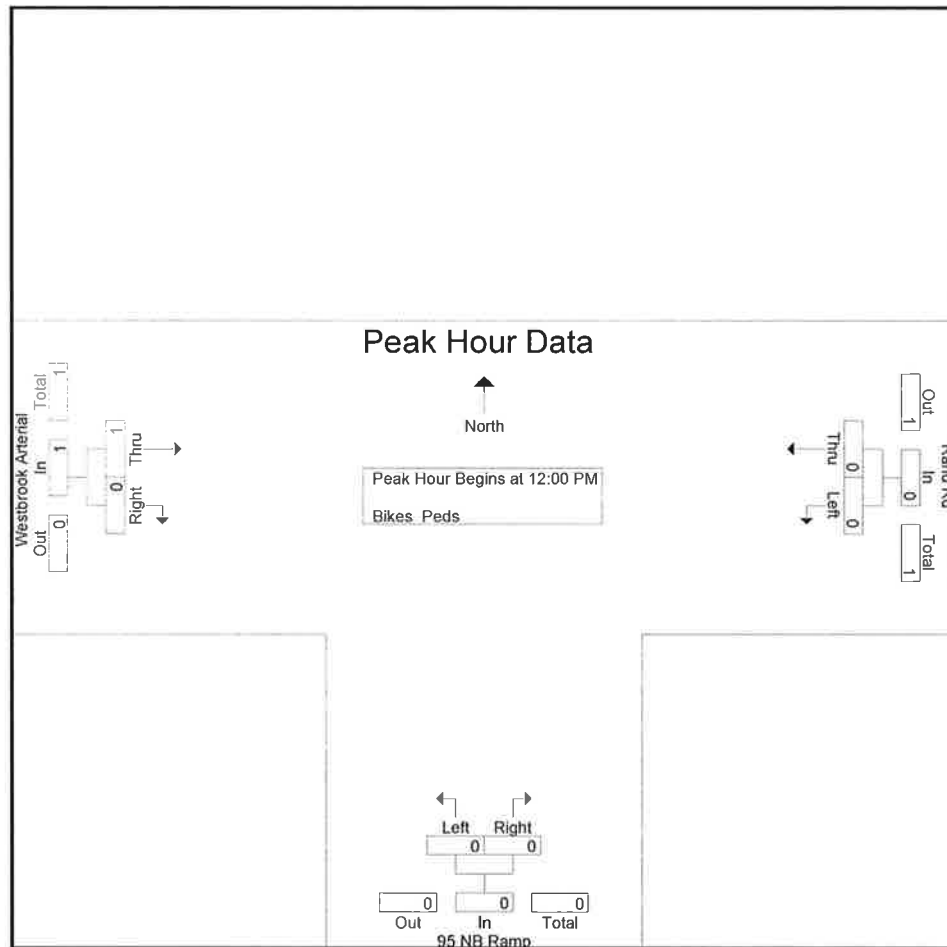
Accurate Counts

978-664-2565

N/S Street : Route 95 NB Ramp
 E/W Street : Rand Rd/Westbrook Arterial
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP06
 Site Code : 68460P06
 Start Date : 9/26/2015
 Page No : 11

	Rand Rd From East			95 NB Ramp From South			Westbrook Arterial From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			12:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0		0	0		100	0	

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP07
 Site Code : 68460P07
 Start Date : 9/19/2015
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	3	1	0	47	167	0	12	3	47	0	146	11	437
11:15 AM	5	1	1	54	178	3	12	2	63	1	161	14	495
11:30 AM	2	1	1	41	162	2	13	1	54	0	147	12	436
11:45 AM	1	1	1	43	170	8	13	2	53	0	209	5	506
Total	11	4	3	185	677	13	50	8	217	1	663	42	1874
12:00 PM	4	2	2	49	198	1	15	0	51	0	196	12	530
12:15 PM	2	0	1	47	143	0	15	1	50	0	158	11	428
12:30 PM	3	1	0	42	163	0	14	7	52	0	147	3	432
12:45 PM	4	0	1	40	169	2	11	2	41	0	152	9	431
Total	13	3	4	178	673	3	55	10	194	0	653	35	1821
01:00 PM	8	0	1	35	147	3	11	1	56	0	130	7	399
01:15 PM	1	1	0	39	164	6	8	0	61	1	138	15	434
01:30 PM	6	0	1	33	165	2	12	2	59	1	159	9	449
01:45 PM	4	0	1	44	135	1	7	2	69	2	152	8	425
Total	19	1	3	151	611	12	38	5	245	4	579	39	1707
Grand Total	43	8	10	514	1961	28	143	23	656	5	1895	116	5402
Apprch %	70.5	13.1	16.4	20.5	78.3	1.1	17.4	2.8	79.8	0.2	94	5.8	
Total %	0.8	0.1	0.2	9.5	36.3	0.5	2.6	0.4	12.1	0.1	35.1	2.1	
Cars	43	8	10	511	1949	28	142	23	651	5	1886	115	5371
% Cars	100	100	100	99.4	99.4	100	99.3	100	99.2	100	99.5	99.1	99.4
Trucks	0	0	0	3	12	0	1	0	5	0	9	1	31
% Trucks	0	0	0	0.6	0.6	0	0.7	0	0.8	0	0.5	0.9	0.6

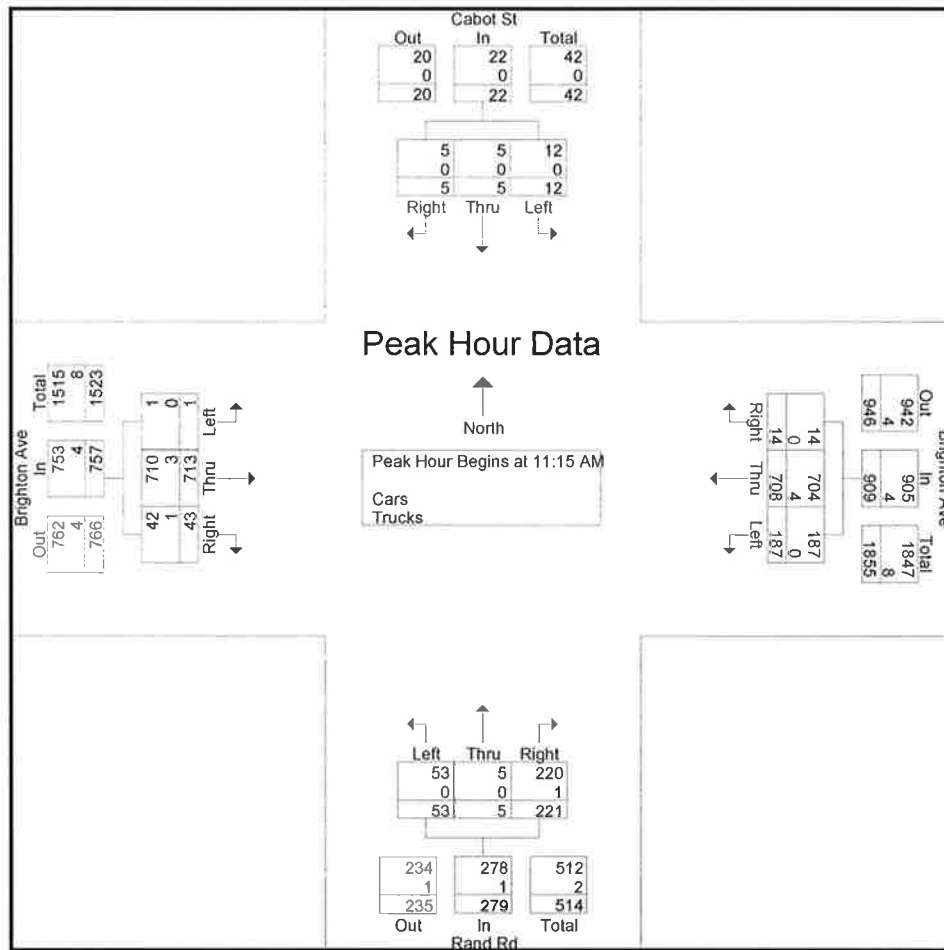
Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP07
 Site Code : 68460P07
 Start Date : 9/19/2015
 Page No : 2

Cabot St From North					Brighton Ave From East				Rand Rd From South				Brighton Ave From West				Int. Total	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 11:15 AM																		
11:15 AM	5	1	1	7	54	178	3	235	12	2	63	77	1	161	14	176	495	
11:30 AM	2	1	1	4	41	162	2	205	13	1	54	68	0	147	12	159	436	
11:45 AM	1	1	1	3	43	170	8	221	13	2	53	68	0	209	5	214	506	
12:00 PM	4	2	2	8	49	198	1	248	15	0	51	66	0	196	12	208	530	
Total Volume	12	5	5	22	187	708	14	909	53	5	221	279	1	713	43	757	1967	
% App. Total	54.5	22.7	22.7		20.6	77.9	1.5		19	1.8	79.2		0.1	94.2	5.7			
PHF	.600	.625	.625	.688	.866	.894	.438	.916	.883	.625	.877	.906	.250	.853	.768	.884	.928	
Cars	12	5	5	22	187	704	14	905	53	5	220	278	1	710	42	753	1958	
% Cars	100	100	100	100	100	99.4	100	99.6	100	100	99.5	99.6	100	99.6	97.7	99.5	99.5	
Trucks	0	0	0	0	0	4	0	4	0	0	1	1	0	3	1	4	9	
% Trucks	0	0	0	0	0	0.6	0	0.4	0	0	0.5	0.4	0	0.4	2.3	0.5	0.5	



Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP07
Site Code : 68460P07
Start Date : 9/19/2015
Page No : 4

Groups Printed- Cars

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	3	1	0	47	165	0	11	3	47	0	145	11	433
11:15 AM	5	1	1	54	178	3	12	2	63	1	161	13	494
11:30 AM	2	1	1	41	160	2	13	1	53	0	145	12	431
11:45 AM	1	1	1	43	168	8	13	2	53	0	209	5	504
Total	11	4	3	185	671	13	49	8	216	1	660	41	1862
12:00 PM	4	2	2	49	198	1	15	0	51	0	195	12	529
12:15 PM	2	0	1	47	142	0	15	1	50	0	158	11	427
12:30 PM	3	1	0	41	162	0	14	7	52	0	146	3	429
12:45 PM	4	0	1	40	168	2	11	2	41	0	152	9	430
Total	13	3	4	177	670	3	55	10	194	0	651	35	1815
01:00 PM	8	0	1	35	146	3	11	1	54	0	129	7	395
01:15 PM	1	1	0	38	163	6	8	0	60	1	137	15	430
01:30 PM	6	0	1	33	164	2	12	2	58	1	157	9	445
01:45 PM	4	0	1	43	135	1	7	2	69	2	152	8	424
Total	19	1	3	149	608	12	38	5	241	4	575	39	1694
Grand Total	43	8	10	511	1949	28	142	23	651	5	1886	115	5371
Apprch %	70.5	13.1	16.4	20.5	78.3	1.1	17.4	2.8	79.8	0.2	94	5.7	
Total %	0.8	0.1	0.2	9.5	36.3	0.5	2.6	0.4	12.1	0.1	35.1	2.1	

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP07
Site Code : 68460P07
Start Date : 9/19/2015
Page No : 7

Groups Printed- Trucks

Start Time	Cabot St From North			Brighton Ave From East			Rand Rd From South			Brighton Ave From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	0	0	0	2	0	1	0	0	0	1	0	4
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
11:30 AM	0	0	0	0	2	0	0	0	1	0	2	0	5
11:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	0	0	0	0	6	0	1	0	1	0	3	1	12
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
12:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	1	1	0	0	0	0	0	1	0	3
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	1	3	0	0	0	0	0	2	0	6
01:00 PM	0	0	0	0	1	0	0	0	2	0	1	0	4
01:15 PM	0	0	0	1	1	0	0	0	1	0	1	0	4
01:30 PM	0	0	0	0	1	0	0	0	1	0	2	0	4
01:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	2	3	0	0	0	4	0	4	0	13
Grand Total	0	0	0	3	12	0	1	0	5	0	9	1	31
Apprch %	0	0	0	20	80	0	16.7	0	83.3	0	90	10	
Total %	0	0	0	9.7	38.7	0	3.2	0	16.1	0	29	3.2	

Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP07
 Site Code : 68460P07
 Start Date : 9/19/2015
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Cabot St From North				Brighton Ave From East				Rand Rd From South				Brighton Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
11:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	1	0	2	0	0	0	0	1	1	0	1	0	0	2	4	6
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
01:15 PM	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	2	2	4	6
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	2	3
01:45 PM	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	2	3	3	6
Total	0	0	0	0	1	3	0	0	0	0	2	1	0	3	0	6	7	9	16
Grand Total	0	0	0	1	1	5	0	0	0	0	3	3	0	5	0	6	10	14	24
Apprch %	0	0	0		16.7	83.3	0		0	0	100		0	100	0				
Total %	0	0	0		7.1	35.7	0		0	0	21.4		0	35.7	0		41.7	58.3	

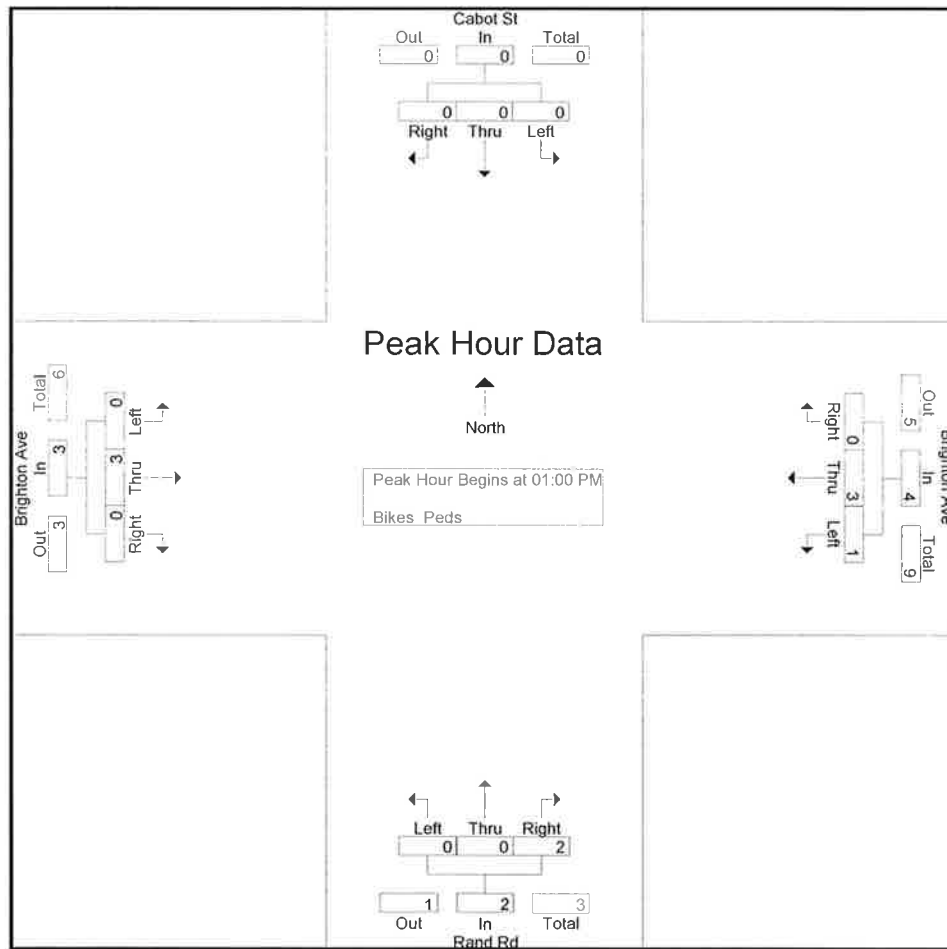
Accurate Counts

978-664-2565

N/S Street : Cabot St / Rand Road
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP07
 Site Code : 68460P07
 Start Date : 9/19/2015
 Page No : 11

Cabot St From North					Brighton Ave From East				Rand Rd From South				Brighton Ave From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0	4
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
01:45 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
Total Volume	0	0	0	0	1	3	0	4	0	0	2	2	0	3	0	3	9
% App. Total	0	0	0		25	75	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.250	.375	.000	.500	.000	.000	.250	.250	.000	.375	.000	.375	.563



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM				01:00 PM				12:30 PM				01:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	1	1	0	2	0	0	2	2	0	1	0	1
Total Volume	0	0	0	0	1	3	0	4	0	0	2	2	0	3	0	3
% App. Total	0	0	0		25	75	0		0	0	100		0	100	0	
PHF	.000	.000	.000	.000	.250	.375	.000	.500	.000	.000	.250	.250	.000	.375	.000	.375

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP08
Site Code : 68460P08
Start Date : 9/26/2015
Page No : 1

Groups Printed- Cars - Trucks

Groups: Limited Access Trucks																		
Start Time	Kent St From North			Brighton Ave From East			Capisic St From South			Hillcrest Ave From Southwest			Brighton Ave From West			Int. Total		
	Left	Thru	Br Rt	Right	Left	Br Lt	Thru	Right	Hd Lt	Left	Br Lt	Br Rt	Hd Rt	Left	Thru		Right	Hd Rt
11:00 AM	4	0	0	3	1	0	167	0	0	38	2	0	0	0	162	51	0	429
11:15 AM	3	1	0	5	2	0	189	1	0	39	1	2	1	0	146	46	0	437
11:30 AM	3	3	0	3	0	0	182	3	0	49	1	0	0	0	148	41	0	435
11:45 AM	2	2	0	2	1	0	209	0	0	26	1	1	1	0	162	50	0	459
Total	12	6	0	13	4	0	747	4	0	152	5	3	2	0	618	188	0	1760
12:00 PM	2	2	0	3	1	0	172	0	0	59	3	1	0	0	158	43	0	447
12:15 PM	2	2	0	3	2	0	168	2	1	55	3	1	0	0	178	64	0	483
12:30 PM	7	4	0	2	3	0	146	2	0	54	3	2	0	0	167	55	0	445
12:45 PM	4	3	0	3	1	0	136	3	0	53	2	0	0	0	163	55	0	424
Total	15	11	0	11	7	0	622	7	1	221	11	4	0	0	666	217	0	1799
01:00 PM	6	2	1	1	0	0	148	3	0	52	3	4	1	0	157	53	0	431
01:15 PM	3	1	0	7	1	1	163	0	1	38	2	0	0	0	176	60	0	457
01:30 PM	2	4	0	2	0	0	133	0	0	54	1	1	0	0	169	52	0	419
01:45 PM	6	3	0	2	0	0	158	3	0	47	2	1	0	0	150	55	0	430
Total	17	10	1	12	1	1	602	6	1	191	8	6	1	0	652	220	0	1737
Grand Total	44	27	1	36	12	1	1971	17	2	564	24	13	3	0	1936	625	0	5296
Approch %	40.7	25	0.9	33.3	0.6	0	98.5	0.8	0.3	93.5	4	2.2	37.5	0	75.2	24.3	0	0
Total %	0.8	0.5	0	0.7	0.2	0	37.2	0.3	0	10.6	0.5	0.2	0.1	0	0.1	0.3	0	0
Cars	44	27	1	36	12	1	1959	17	2	561	24	13	3	0	1918	625	0	5263
% Cars	100	100	100	100	100	100	99.4	100	100	99.5	100	100	100	100	99.1	100	0	99.4
Trucks	0	0	0	0	0	0	12	0	0	3	0	0	0	0	18	0	0	33
% Trucks	0	0	0	0	0	0	0.6	0	0	0.5	0	0	0	0	0.9	0	0	0.6

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP08
Site Code : 68460P08
Start Date : 9/26/2015
Page No : 2

Kent St From North										Brighton Ave From East					Capisc St From South					Hillcrest Ave From Southwest					Brighton Ave From West				
Start Time	Left	Thru	Br Rt	Right	App Total	Left	Br Lt	Thru	Right	Left	Hd Lt	Thru	Right	App Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App Total	Left	Thru	Right	Hd Rt	App Total	Int Total				
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																													
Peak Hour for Entire Intersection Begins at 11:45 AM																													
11:45 AM	2	2	0	2	6	1	0	209	0	210	0	26	1	1	28	1	0	0	0	1	2	162	50	0	214	459			
12:00 PM	2	2	0	3	7	1	0	172	0	173	0	59	3	1	63	0	0	0	0	0	3	158	43	0	204	447			
12:15 PM	2	2	0	3	7	2	0	168	2	172	1	55	3	1	60	0	0	0	0	0	2	178	64	0	244	483			
12:30 PM	7	4	0	2	13	3	0	146	2	151	0	54	3	2	59	0	0	0	0	0	0	167	55	0	222	445			
Total Volume	13	10	0	10	33	7	0	695	4	706	1	194	10	5	210	1	0	0	0	1	7	665	212	0	884	1834			
% App. Total	39.4	30.3	0	30.3		1	0	98.4	0.6		0.5	92.4	4.8	2.4		100	0	0	0		0.8	75.2	24	0					
PHF	.464	.625	.000	.833	.635	.583	.000	.831	.500	.840	.250	.822	.833	.625	.833	.250	.000	.000	.000	.250	.583	.934	.828	.000	.906	.949			
Cars	13	10	0	10	33	7	0	689	4	700	1	193	10	5	209	1	0	0	0	1	7	658	212	0	877	1820			
% Cars	100	100	0	100	100	100	0	99.1	100	99.2	100	99.5	100	100	99.5	100	0	0	0	100	100	98.9	100	0	99.2	99.2			
Trucks	0	0	0	0	0	0	0	6	0	6	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	14			
% Trucks	0	0	0	0	0	0	0	0.9	0	0.8	0	0.5	0	0	0.5	0	0	0	0	0	0	1.1	0	0	0.8	0.8			

File Name : 6846SP08
Site Code : 68460P08
Start Date : 9/26/2015
Page No : 3

Brighton Ave

Out: 676, 7, 683
In: 700, 6, 706
Total: 1376, 13, 1389

Right: 4, 0, 4
Thru: 689, 6, 695
Br: 0, 0, 0
Left: 7, 0, 7

Peak Hour Begins at 11:45 AM

Cars
Trucks

Kent St

Out: 21, 0, 21
In: 33, 0, 33
Total: 54, 0, 54

Right: 10, 0, 10
Br: 0, 0, 0
Thru: 10, 0, 10
Left: 13, 0, 13

Peak Hour Data

North

Peak Hour Begins at 11:45 AM

Cars
Trucks

Brighton Ave

Out: 900, 893, 1793
In: 7, 877, 884
Total: 1784, 14, 1798

Right: 0, 212, 212
Thru: 0, 7, 7
Left: 7, 658, 665

Canter St

Out: 229, 0, 229
In: 209, 1, 210
Total: 438, 1, 439

Right: 5, 10, 15
Thru: 0, 1, 1
Left: 193, 194, 197

	12:30 PM				11:15 AM				12:00 PM				11:00 AM				12:15 PM								
+0 mins.	7	4	0	2	13	2	0	189	1	192	0	59	3	1	63	0	1	0	1	2	178	64	0	244	
+15 mins.	4	3	0	3	10	0	0	182	3	185	1	55	3	1	60	1	0	0	1	0	167	55	0	222	
+30 mins.	6	2	1	1	10	1	0	209	0	210	0	54	3	2	59	0	0	1	1	0	163	55	0	218	
+45 mins.	3	1	0	7	11	1	0	172	0	173	0	53	2	0	55	1	0	0	1	0	157	53	0	210	
Total Volume	20	10	1	13	44	4	0	752	4	760	1	221	11	4	237	2	0	1	1	4	2	665	227	0	894
% App. Total	45.5	22.7	2.3	29.5		0.5	0	98.9	0.5		0.4	93.2	4.6	1.7		50	0	25	25		0.2	74.4	25.4	0	
PHF	714	625	250	464	846	500	000	900	333	905	250	936	917	500	940	500	000	250	250	1 000	250	934	887	000	916

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP08
Site Code : 68460P08
Start Date : 9/26/2015
Page No : 5

Groups Printed- Cars

Start Time	Kent St From North				Brighton Ave From East				Capisic St From South				Hillcrest Ave From Southwest				Brighton Ave From West				Int. Total
	Left	Thru	Br Rt	Right	Left	Br Lt	Thru	Right	Hd Lt	Left	Thru	Right	Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	
11:00 AM	4	0	0	3	1	0	166	0	0	38	2	0	0	0	1	0	0	160	51	0	426
11:15 AM	3	1	0	5	2	0	189	1	0	39	1	2	1	0	0	0	1	143	46	0	434
11:30 AM	3	3	0	3	0	0	181	3	0	49	1	0	0	0	0	1	1	147	41	0	433
11:45 AM	2	2	0	2	1	0	208	0	0	26	1	1	1	0	0	0	2	159	50	0	455
Total	12	6	0	13	4	0	744	4	0	152	5	3	2	0	1	1	4	609	188	0	1748
12:00 PM	2	2	0	3	1	0	169	0	0	59	3	1	0	0	0	0	3	157	43	0	443
12:15 PM	2	2	0	3	2	0	167	2	1	55	3	1	0	0	0	0	2	176	64	0	480
12:30 PM	7	4	0	2	3	0	145	2	0	53	3	2	0	0	0	0	0	166	55	0	442
12:45 PM	4	3	0	3	1	0	135	3	0	51	2	0	0	0	0	1	0	162	55	0	420
Total	15	11	0	11	7	0	616	7	1	218	11	4	0	0	0	1	5	661	217	0	1785
01:00 PM	6	2	1	1	0	0	147	3	0	52	3	4	1	0	0	0	0	157	53	0	430
01:15 PM	3	1	0	7	1	1	163	0	1	38	2	0	0	0	0	2	2	175	60	0	456
01:30 PM	2	4	0	2	0	0	131	0	0	54	1	1	0	0	0	0	1	168	52	0	416
01:45 PM	6	3	0	2	0	0	158	3	0	47	2	1	0	0	0	0	3	148	55	0	428
Total	17	10	1	12	1	1	599	6	1	191	8	6	1	0	0	2	6	648	220	0	1730
Grand Total	44	27	1	36	12	1	1959	17	2	561	24	13	3	0	1	4	15	1918	625	0	5263
Apprch %	40.7	25	0.9	33.3	0.6	0.1	98.5	0.9	0.3	93.5	4	2.2	37.5	0	12.5	50	0.6	75	24.4	0	
Total %	0.8	0.5	0	0.7	0.2	0	37.2	0.3	0	10.7	0.5	0.2	0.1	0	0	0.1	0.3	36.4	11.9	0	

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP08
 Site Code : 68460P08
 Start Date : 9/26/2015
 Page No : 9

Groups Printed- Trucks

Start Time	Kent St From North					Brighton Ave From East					Capisic St From South					Hillcrest Ave From Southwest					Brighton Ave From West					Int. Total
	Left	Thru	Br Rt	Right		Left	Br Lt	Thru	Right		Left	Hd Lt	Thru	Right		Hd Lt	Br Lt	Br Rt	Hd Rt		Left	Thru	Right	Hd Rt		
11:00 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0		0	2	0	0		3
11:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	3	0	0		3
11:30 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0		0	1	0	0		2
11:45 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0		0	3	0	0		4
Total	0	0	0	0		0	0	3	0		0	0	0	0		0	0	0	0		0	9	0	0		12
12:00 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	0	0		0	1	0	0		4
12:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0		0	2	0	0		3
12:30 PM	0	0	0	0		0	0	1	0		1	0	0	0		0	0	0	0		0	1	0	0		3
12:45 PM	0	0	0	0		0	0	1	0		2	0	0	0		0	0	0	0		0	1	0	0		4
Total	0	0	0	0		0	0	6	0		3	0	0	0		0	0	0	0		0	5	0	0		14
01:00 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0		1
01:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0		1
01:30 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	0		0	1	0	0		3
01:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	2	0	0		2
Total	0	0	0	0		0	0	3	0		0	0	0	0		0	0	0	0		0	4	0	0		7
Grand Total	0	0	0	0		0	0	12	0		3	0	0	0		0	0	0	0		0	18	0	0		33
Apprch %	0	0	0	0		0	0	100	0		100	0	0	0		0	0	0	0		0	100	0	0		
Total %	0	0	0	0		0	0	36.4	0		9.1	0	0	0		0	0	0	0		0	54.5	0	0		

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP08
Site Code : 68460P08
Start Date : 9/26/2015
Page No : 13

Groups Printed- Bikes Peds

		Kent St From North					Brighton Ave From East					Capisic St From South					Hillcrest Ave From Southwest					Brighton Ave From West							
Start Time		Left	Thru	Br Rt	Right	Peds	Left	Br Lt	Thru	Right	Peds	Hd Lt	Br Lt	Br Rt	Hd Rt	Peds	Left	Thru	Right	Hd Rt	Peds	Excls Total	India Total	Int Total					
11:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1					
11:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
11:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
11:45 AM		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	2					
Total		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	3	3					
12:00 PM		0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	2	3					
12:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1					
12:30 PM		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1					
12:45 PM		0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	1	3					
Total		0	1	0	1	0	0	0	1	0	2	0	0	0	0	1	0	1	0	0	0	3	5	8					
01:00 PM		0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2					
01:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
01:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2					
01:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1					
Total		0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	1	0	0	0	5	5					
Grand Total		0	1	0	1	0	0	0	4	0	2	0	0	0	0	0	0	3	3	0	0	3	13	16					
Approch %		0	50	0	50		0	0	100	0		0	0	0	0		0	50	50	0									
Total %		0	7.7	0	7.7		0	0	30.8	0		0	0	0	0		0	23.1	23.1	0		18.8	81.2						

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP08
 Site Code : 68460P08
 Start Date : 9/26/2015
 Page No : 14

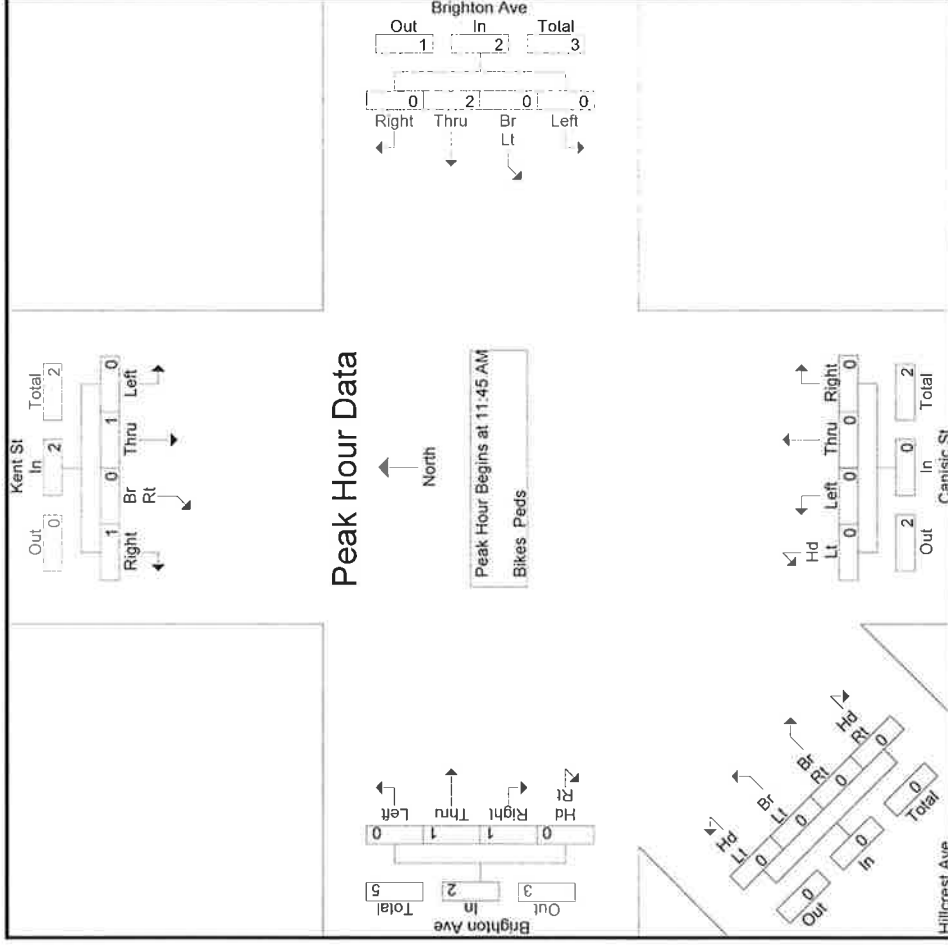
	Kent St From North					Brighton Ave From East					Capisic St From South					Hillcrest Ave From Southwest					Brighton Ave From West					
Start Time	Left	Thru	Br Rt	Right	App. Total	Left	Br Lt	Thru	Right	App. Total	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 11:45 AM																										
11:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
12:00 PM	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	6
% App. Total	0	50	0	50		0	0	100	0		0	0	0	0	0	0	0	0	0	0	0	50	50	0		
PHF	.000	.250	.000	.250	.500	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.500	.750	

Accurate Counts

978-664-2565

N/S Street : Kent St / Capisic St
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP08
 Site Code : 68460P08
 Start Date : 9/26/2015
 Page No : 15



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:45 AM			11:15 AM			12:00 PM			11:00 AM			01:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0
+45 mins.	0	1	0	1	0	0	1	0	0	1	0	0	0	1	1
Total Volume	0	1	1	2	0	2	0	2	0	1	0	0	2	1	3
% App. Total	0	50	0	50	0	100	0	0	0	100	0	0	66.7	33.3	0
PHF	.000	.250	.000	.250	.000	.500	.000	.000	.250	.000	.000	.000	.250	.250	.375

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP09
Site Code : 68460P09
Start Date : 9/19/2015
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West				
	Hd Lt	Left	Thru	Right		Hd Lt	Br Lt	Br Rt	Hd Rt		Left	Thru	Right	Hd Rt		Left	Thru	Br Rt	Right		Left	Br Lt	Thru	Right	Int. Total
11:00 AM	1	5	6	5		1	3	34	2		1	102	5	4		8	7	2	7		4	59	89	5	350
11:15 AM	2	3	5	3		1	2	53	1		3	99	2	0		7	6	4	5		3	46	100	2	347
11:30 AM	1	3	8	8		0	5	66	1		3	113	5	1		6	6	4	6		4	42	109	4	395
11:45 AM	1	3	5	7		1	4	31	1		3	89	4	1		2	2	3	4		2	50	103	9	325
Total	5	14	24	23		3	14	184	5		10	403	16	6		23	21	13	22		13	197	401	20	1417
12:00 PM	1	2	8	10		2	2	50	3		7	114	2	2		9	4	4	6		3	49	116	10	404
12:15 PM	2	2	5	5		4	12	42	0		4	101	0	0		7	5	3	10		0	45	95	5	347
12:30 PM	1	3	5	1		1	11	38	0		5	101	1	0		8	3	3	4		0	50	94	5	334
12:45 PM	1	4	7	2		2	5	56	0		4	102	3	0		12	1	5	7		0	39	83	5	338
Total	5	11	25	18		9	30	186	3		20	418	6	2		36	13	15	27		3	183	388	25	1423
01:00 PM	0	2	3	6		4	10	41	0		1	94	0	1		5	6	5	10		2	38	90	8	326
01:15 PM	0	3	5	9		2	3	33	0		6	74	0	1		8	1	3	8		0	46	86	2	290
01:30 PM	0	0	2	1		1	8	48	0		3	88	2	1		3	4	3	5		2	56	110	3	340
01:45 PM	1	1	8	11		2	6	54	0		3	86	0	1		6	2	2	10		0	56	107	2	358
Total	1	6	18	27		9	27	176	0		13	342	2	4		22	13	13	33		4	196	393	15	1314
Grand Total	11	31	67	68		21	71	546	8		43	1163	24	12		81	47	41	82		20	576	1182	60	4154
Approch %	6.2	17.5	37.9	38.4		3.3	11	84.5	1.2		3.5	93.6	1.9	1		32.3	18.7	16.3	32.7		1.1	31.3	64.3	3.3	
Total %	0.3	0.7	1.6	1.6		0.5	1.7	13.1	0.2		1	28	0.6	0.3		1.9	1.1	1	2		0.5	13.9	28.5	1.4	
Cars	11	31	67	68		21	71	542	8		43	1154	24	12		81	47	41	82		20	574	1170	60	4127
% Cars	100	100	100	100		100	100	99.3	100		100	99.2	100	100		100	100	100	100		100	99.7	99	100	99.4
Trucks	0	0	0	0		0	0	4	0		0	9	0	0		0	0	0	0		0	2	12	0	27
% Trucks	0	0	0	0		0	0	0.7	0		0	0.8	0	0		0	0	0	0		0	0.3	1	0	0.6

Accurate Counts

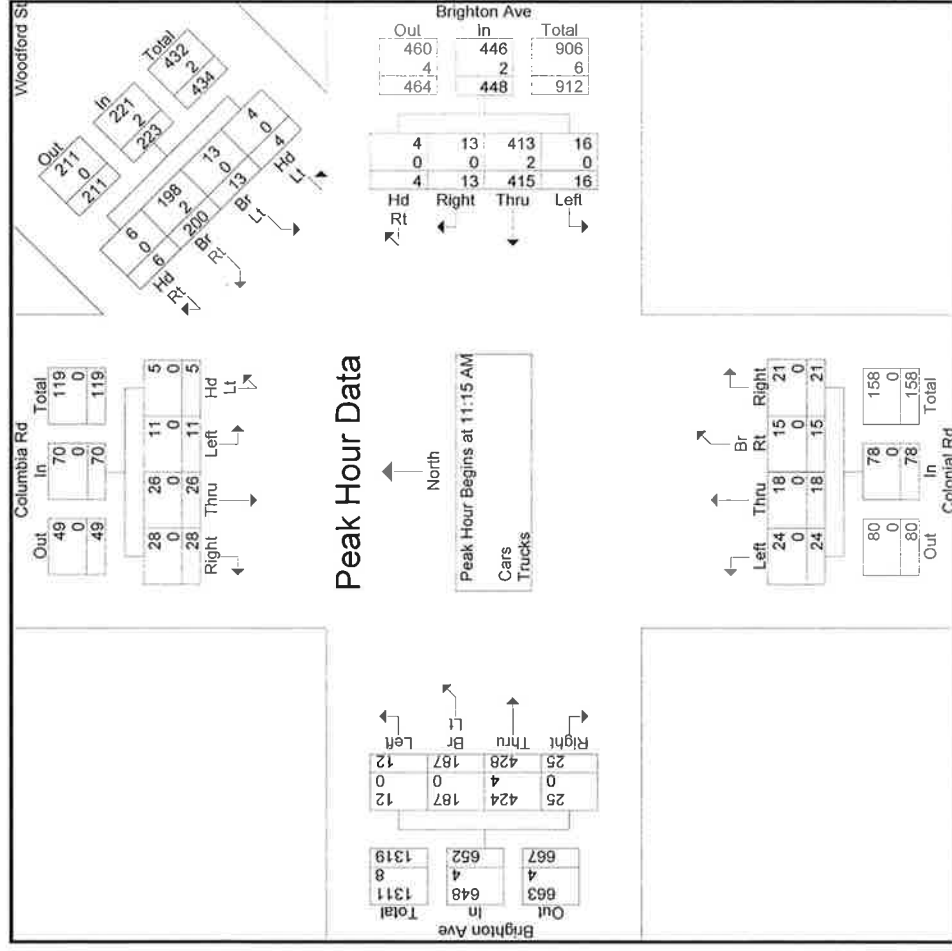
978-664-2565

N/S Street : Woodford St / Colonial Rd
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

File Name : 6846SP09
 Site Code : 68460P09
 Start Date : 9/19/2015
 Page No : 2

Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West						
Start Time	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Left	Br Lt	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 11:15 AM																										
11:15 AM	2	3	5	3	13	1	2	53	1	57	3	99	2	0	104	7	6	4	5	22	3	46	100	2	151	347
11:30 AM	1	3	8	8	20	0	5	66	1	72	3	113	5	1	122	6	6	4	6	22	4	42	109	4	159	395
11:45 AM	1	3	5	7	16	1	4	31	1	37	3	89	4	1	97	2	2	3	4	11	2	50	103	9	164	325
12:00 PM	1	2	8	10	21	2	2	50	3	57	7	114	2	2	125	9	4	4	6	23	3	49	116	10	178	404
Total Volume	5	11	26	28	70	4	13	200	6	223	16	415	13	4	448	24	18	15	21	78	12	187	428	25	652	1471
% App. Total	7.1	15.7	37.1	40		1.8	5.8	89.7	2.7		3.6	92.6	2.9	0.9		30.8	23.1	19.2	26.9		1.8	28.7	65.6	3.8		
PHF	.625	.917	.813	.700	.833	.500	.650	.758	.500	.774	.571	.910	.650	.500	.896	.667	.750	.938	.875	.848	.750	.935	.922	.625	.916	.910
Cars	5	11	26	28	70	4	13	198	6	221	16	413	13	4	446	24	18	15	21	78	12	187	424	25	648	1463
% Cars	100	100	100	100	100	100	100	99.0	100	99.1	100	99.5	100	100	99.6	100	100	100	100	100	100	100	99.1	100	99.4	99.5
Trucks	0	0	0	0	0	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	0	0	4	0	4	8
% Trucks	0	0	0	0	0	0	0	1.0	0	0.9	0	0.5	0	0	0.4	0	0	0	0	0	0	0	0.9	0	0.6	0.5

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear



Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP09
Site Code : 68460P09
Start Date : 9/19/2015
Page No : 5

Groups Printed- Cars

Start Time	Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West				
	Hd Lt	Left	Thru	Right		Hd Lt	Br Lt	Br Rt	Hd Rt	Left	Thru	Right	Hd Rt	Left	Thru	Br Rt	Right	Left	Br Lt	Thru	Right	Int. Total			
11:00 AM	1	5	6	5		1	3	34	2	1	102	5	4	8	7	2	7	4	59	88	5	349			
11:15 AM	2	3	5	3		1	2	53	1	3	98	2	0	7	6	4	5	3	46	100	2	346			
11:30 AM	1	3	8	8		0	5	65	1	3	113	5	1	6	6	4	6	4	42	106	4	391			
11:45 AM	1	3	5	7		1	4	30	1	3	88	4	1	2	2	3	4	2	50	103	9	323			
Total	5	14	24	23		3	14	182	5	10	401	16	6	23	21	13	22	13	197	397	20	1409			
12:00 PM	1	2	8	10		2	2	50	3	7	114	2	2	9	4	4	6	3	49	115	10	403			
12:15 PM	2	2	5	5		4	12	42	0	4	99	0	0	7	5	3	10	0	45	95	5	345			
12:30 PM	1	3	5	1		1	11	37	0	5	100	1	0	8	3	3	4	0	50	93	5	331			
12:45 PM	1	4	7	2		2	5	56	0	4	101	3	0	12	1	5	7	0	39	83	5	337			
Total	5	11	25	18		9	30	185	3	20	414	6	2	36	13	15	27	3	183	386	25	1416			
01:00 PM	0	2	3	6		4	10	41	0	1	94	0	1	5	6	5	10	2	36	90	8	324			
01:15 PM	0	3	5	9		2	3	32	0	6	73	0	1	8	1	3	8	0	46	84	2	286			
01:30 PM	0	0	2	1		1	8	48	0	3	87	2	1	3	4	3	5	2	56	106	3	335			
01:45 PM	1	1	8	11		2	6	54	0	3	85	0	1	6	2	2	10	0	56	107	2	357			
Total	1	6	18	27		9	27	175	0	13	339	2	4	22	13	13	33	4	194	387	15	1302			
Grand Total	11	31	67	68		21	71	542	8	43	1154	24	12	81	47	41	82	20	574	1170	60	4127			
Approch %	6.2	17.5	37.9	38.4		3.3	11.1	84.4	1.2	3.5	93.6	1.9	1	32.3	18.7	16.3	32.7	1.1	31.5	64.1	3.3				
Total %	0.3	0.8	1.6	1.6		0.5	1.7	13.1	0.2	1	28	0.6	0.3	2	1.1	1	2	0.5	13.9	28.3	1.5				

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP09
Site Code : 68460P09
Start Date : 9/19/2015
Page No : 9

Groups Printed- Trucks

Start Time	Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West				
	Hd Lt	Left	Thru	Right		Hd Lt	Br Lt	Br Rt	Hd Rt		Left	Thru	Right	Hd Rt		Left	Thru	Br Rt	Right		Left	Br Lt	Thru	Right	Int. Total
11:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	1
11:15 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0		0	0	0	0	1
11:30 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0		0	0	3	0	4
11:45 AM	0	0	0	0		0	0	1	0		0	1	0	0		0	0	0	0		0	0	0	0	2
Total	0	0	0	0		0	0	2	0		0	2	0	0		0	0	0	0		0	0	4	0	8
12:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	1
12:15 PM	0	0	0	0		0	0	0	0		0	2	0	0		0	0	0	0		0	0	0	0	2
12:30 PM	0	0	0	0		0	0	1	0		0	1	0	0		0	0	0	0		0	0	1	0	3
12:45 PM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0		0	0	0	0	1
Total	0	0	0	0		0	0	1	0		0	4	0	0		0	0	0	0		0	0	2	0	7
01:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	2	0	0	2
01:15 PM	0	0	0	0		0	0	1	0		0	1	0	0		0	0	0	0		0	0	2	0	4
01:30 PM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0		0	0	4	0	5
01:45 PM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0		0	0	0	0	1
Total	0	0	0	0		0	0	1	0		0	3	0	0		0	0	0	0		0	2	6	0	12
Grand Total	0	0	0	0		0	0	4	0		0	9	0	0		0	0	0	0		0	2	12	0	27
Apprch %	0	0	0	0		0	0	100	0		0	100	0	0		0	0	0	0		0	14.3	85.7	0	0
Total %	0	0	0	0		0	0	14.8	0		0	33.3	0	0		0	0	0	0		0	7.4	44.4	0	0

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP09
Site Code : 68460P09
Start Date : 9/19/2015
Page No : 13

Groups Printed- Bikes Peds

Groups: Limited-Lanes Ties																													
Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West									
Start Time	Hd Lt	Left	Thru	Right	Peds	Hd Lt	Br Lt	Br Rt	Hd Rt	Peds	Left	Thru	Br Rt	Right	Peds	Left	Br Lt	Thru	Right	Peds	Left	Br Lt	Thru	Right	Peds	Exch Total	Indiv Total	Int Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	2	0	0	0	0	0	3	2	5	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	1	4	5	
11:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	1	3	
11:45 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0	0	0	0	2	8	1	9	
Total	0	0	0	0	2	0	0	0	0	2	1	0	0	0	8	0	0	0	5	0	0	0	2	0	2	14	8	22	
12:00 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	3	
12:15 PM	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	4	
12:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	2	3	5	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9	0	9	
Total	0	0	0	1	1	0	1	0	0	1	1	2	0	0	12	0	0	0	1	0	0	0	0	0	1	15	6	21	
01:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	7	0	7	
01:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	9	1	10	
01:30 PM	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	0	0	0	1	2	0	0	0	3	0	4	7	11	
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
Total	0	0	0	0	1	1	1	0	0	3	0	0	0	0	14	0	0	0	1	2	0	0	0	4	0	20	9	29	
Grand Total	0	0	0	1	4	1	2	0	0	6	2	2	0	0	34	0	0	0	1	8	0	0	0	6	0	5	49	23	72
Approch %	0	0	0	100		33.3	66.7	0	0		50	50	0	0			0	0	11.1	88.9		0	0	100	0				
Total %	0	0	0	4.3		4.3	8.7	0	0		8.7	8.7	0	0			0	0	4.3	34.8		0	0	26.1	0	68.1	31.9		

Accurate Counts

978-664-2565

N/S Street : Woodford St / Colonial Rd
 E/W Street : Brighton Avenue
 City/State : Portland, ME
 Weather : Clear

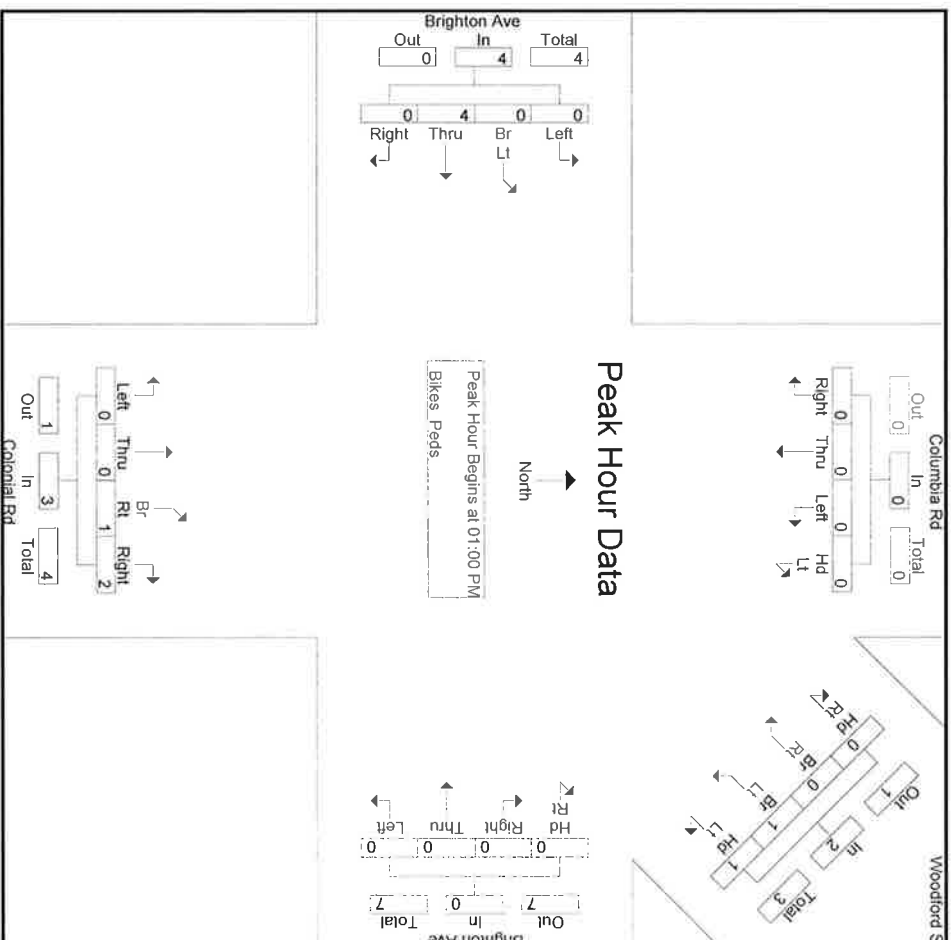
File Name : 6846SP09
 Site Code : 68460P09
 Start Date : 9/19/2015
 Page No : 14

	Columbia Rd From North					Woodford St From Northeast					Brighton Ave From East					Colonial Rd From South					Brighton Ave From West					
Start Time	Hd Lt	Left	Thru	Right	App. Total	Hd Lt	Br Lt	Br Rt	Hd Rt	App. Total	Left	Thru	Right	Hd Rt	App. Total	Left	Thru	Br Rt	Right	App. Total	Left	Br Lt	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 01:00 PM																										
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	2	3	0	0	3	0	3	7
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	1	2	3	0	0	4	0	4	9
% App. Total	0	0	0	0	0	50	50	0	0	0	0	0	0	0	0	0	0	33.3	66.7	250	250	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.250	.250	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250	.000	.000	.333	.000	.333	.321

Accurate Counts 978-664-2565

N/S Street : Woodford St/ Colonial Rd
E/W Street : Brighton Avenue
City/State : Portland, ME
Weather : Clear

File Name : 6846SP09
Site Code : 68460P09
Start Date : 9/19/2015
Page No : 15



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:15 AM	12:30 PM	11:30 AM	11:00 AM	01:00 PM
+0 mins.	0	0	0	0	0
+15 mins.	0	0	0	0	0
+30 mins.	0	0	0	0	0
+45 mins.	0	0	0	0	0
Total Volume	0	0	1	0	0
% App. Total	0	0	33.3	0	0
PHF	.000	.000	.667	.000	.000

30TH HIGHEST HOUR ADJUSTMENT DATA

2014
Weekly Group Mean Factors
Average: 2011, 2012, 2013

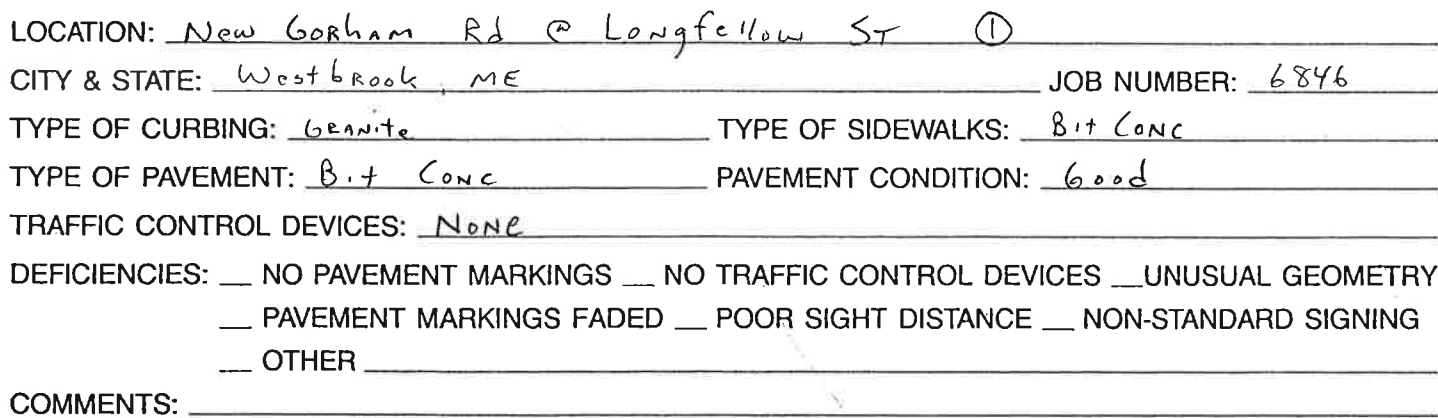
Month	Start Date	Dates	Month Week #	Urban Group I	Arterial Group II	Recreational Group III	Group I + II	Group II + III	Group I + III	Year Week #
Dec	29		1	1.00	1.12	1.38	1.06	1.25	1.19	1
Jan	05		2	1.09	1.21	1.53	1.15	1.37	1.31	2
	12		3	1.08	1.22	1.53	1.15	1.38	1.31	3
	19		4	1.06	1.20	1.50	1.13	1.35	1.28	4
	26		5	1.09	1.24	1.57	1.17	1.41	1.33	5
Feb	02		1	1.01	1.13	1.41	1.07	1.27	1.21	6
	09		2	0.99	1.11	1.39	1.05	1.25	1.19	7
	16		3	1.01	1.07	1.31	1.04	1.19	1.16	8
	23		4	1.07	1.20	1.48	1.14	1.34	1.28	9
Mar	02		1	1.01	1.12	1.37	1.07	1.25	1.19	10
	09		2	0.99	1.10	1.34	1.05	1.22	1.17	11
	16		3	1.03	1.17	1.38	1.10	1.28	1.21	12
	23		4	1.00	1.12	1.32	1.06	1.22	1.16	13
	30		5	0.96	1.08	1.27	1.02	1.18	1.12	14
Apr	06		1	0.97	1.08	1.25	1.03	1.17	1.11	15
	13		2	0.97	1.05	1.11	1.01	1.08	1.04	16
	20		3	0.96	1.06	1.18	1.01	1.12	1.07	17
	27		4	0.92	1.03	1.12	0.98	1.08	1.02	18
May	04		1	0.92	1.00	1.09	0.96	1.05	1.01	19
	11		2	0.92	0.98	1.04	0.95	1.01	0.98	20
	18		3	0.91	0.95	0.96	0.93	0.96	0.94	21
	25		4	0.89	0.94	0.95	0.92	0.95	0.92	22
Jun	01		1	0.89	0.94	0.94	0.92	0.94	0.92	23
	08		2	0.90	0.91	0.90	0.91	0.91	0.90	24
	15		3	0.89	0.89	0.82	0.89	0.86	0.86	25
	22		4	0.90	0.87	0.77	0.89	0.82	0.84	26
	29		5	0.86 (1)	0.79	0.67	0.83	0.73	0.77	27
Jul	06		1	0.88 (3)	0.83	0.71	0.86	0.77	0.80	27
	13		2	0.88 (4)	0.81	0.68	0.85	0.75	0.78	29
	20		3	0.89 (5)	0.80	0.67	0.85	0.74	0.78	30
	27		4	0.87 (2)	0.78	0.64	0.83	0.71	0.76	31
Aug	03		1	0.89 (5)	0.77	0.64	0.83	0.71	0.77	32
	10		2	0.89	0.78	0.66	0.84	0.72	0.78	33
	17		3	0.89	0.80	0.68	0.85	0.74	0.79	34
	24		4	0.89	0.84	0.76	0.87	0.80	0.83	35
	31		5	0.89	0.89	0.87	0.89	0.88	0.88	36
Sep	07		1	0.91	0.91	0.90	0.91	0.91	0.91	37
	14		2	0.91	0.91	0.94	0.91	0.93	0.93	38
	21		3	0.92	0.91	0.96	0.92	0.94	0.94	39
	28		4	0.90	0.87	0.98	0.89	0.93	0.94	40
Oct	05		1	0.92	0.90	0.98	0.91	0.94	0.95	41
	12		2	0.93	0.95	1.04	0.94	1.00	0.99	42
	19		3	0.95	0.99	1.11	0.97	1.05	1.03	43
	26		4	0.96	1.06	1.22	1.01	1.14	1.09	44
Nov	02		1	0.96	1.03	1.22	1.00	1.13	1.09	45
	09		2	0.96	1.02	1.22	0.99	1.12	1.09	46
	16		3	0.98	1.03	1.24	1.01	1.14	1.11	47
	23		4	0.98	1.06	1.27	1.02	1.17	1.13	48
	30		5	0.97	1.09	1.29	1.03	1.19	1.13	49
Dec	07		1	0.99	1.10	1.32	1.05	1.21	1.16	50
	14		2	1.00	1.11	1.36	1.06	1.24	1.18	51
	21		3	1.13	1.20	1.47	1.17	1.34	1.30	52

me 0.92

$$\frac{0.92}{0.89} \approx 1.0337$$

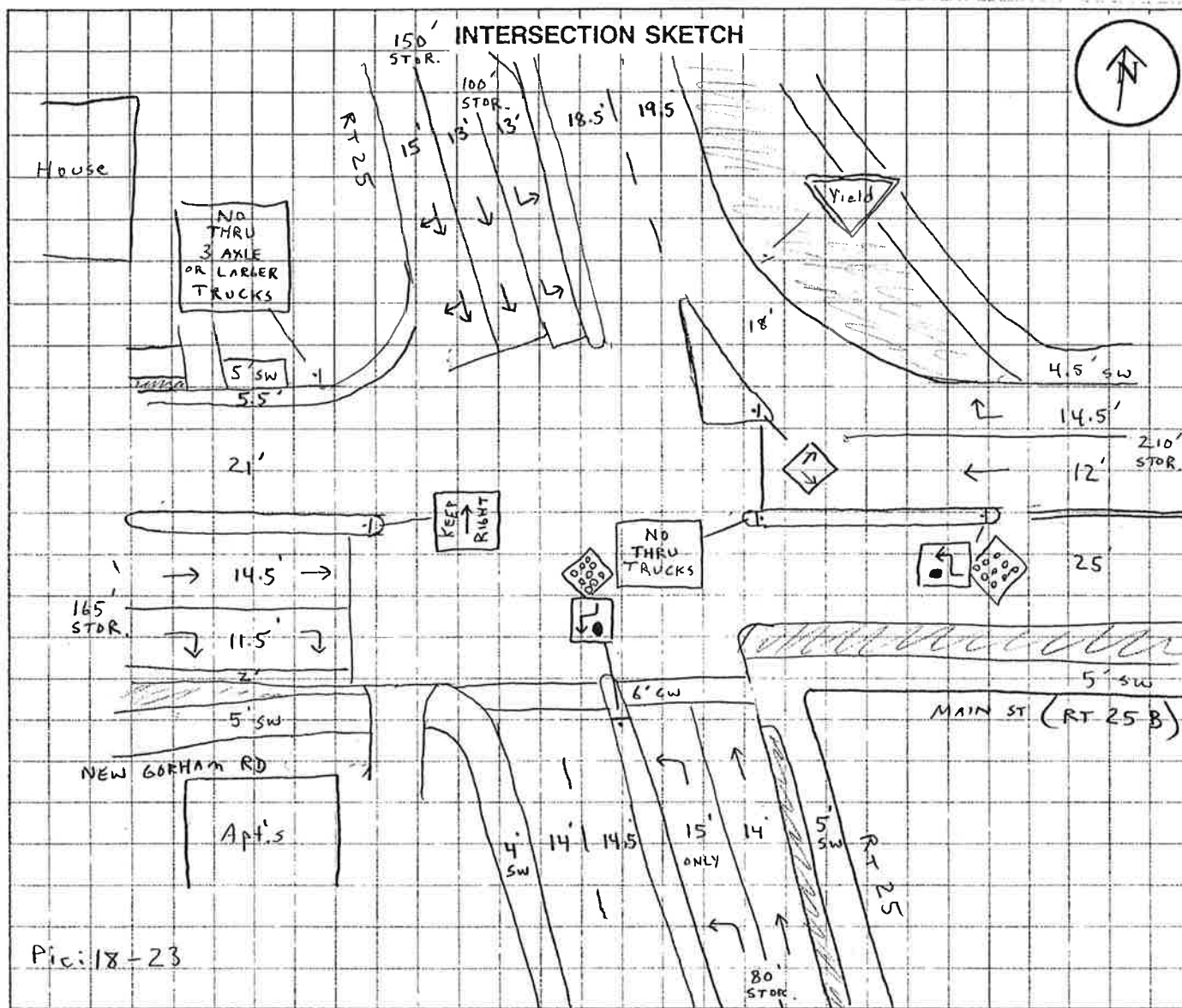
Say 3.4% adjustment

FIELD INTERSECTION INVENTORY SHEETS



CHECKLIST:

- | | | | | | |
|--------------------|-------------------------|----------------------|----------------------------|------------------------|--------------------------|
| __ Width | __ Offsets | __ Pavement Markings | __ Stopping Sight Distance | __ Illumination | __ Pedestrians |
| __ Curbing | __ Lane Line | __ Bus Stops | __ Passing Sight Distance | __ Approach Speeds | __ Land Use |
| __ Shoulders | __ Sidewalks | __ Loading Zones | __ Horizontal Alignment | __ Speed Limits | __ Catch Basins/Drainage |
| __ Radii | __ Parking Restrictions | __ School Zones | __ Vertical Alignment | __ Weight Limits | __ Utility Poles |
| __ Approach Angles | __ Signing | __ Traffic Signal | __ Lateral Obstructions | __ Pavement Conditions | __ Hydrants |



LOCATION: Rt 25 @ Rt 25 B / New Gorham Rd (2)

CITY & STATE: Westbrook, ME JOB NUMBER: 6846

TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc

TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good

TRAFFIC CONTROL DEVICES: Signalized

DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER

COMMENTS:

CHECKLIST:

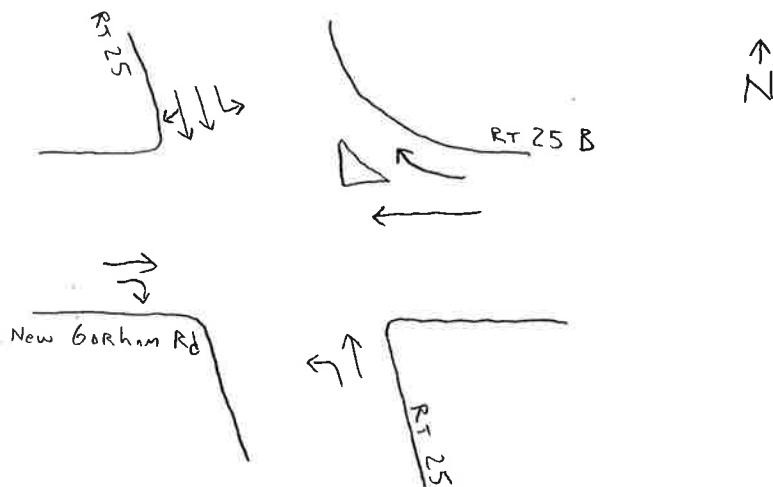
- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

Signal Timing and Phasing Sheet

Intersection: Rt 25 @ Rt 25 B / New Gorham City/Town: Westbrook, ME

Date: 10/26/15 11:15 am

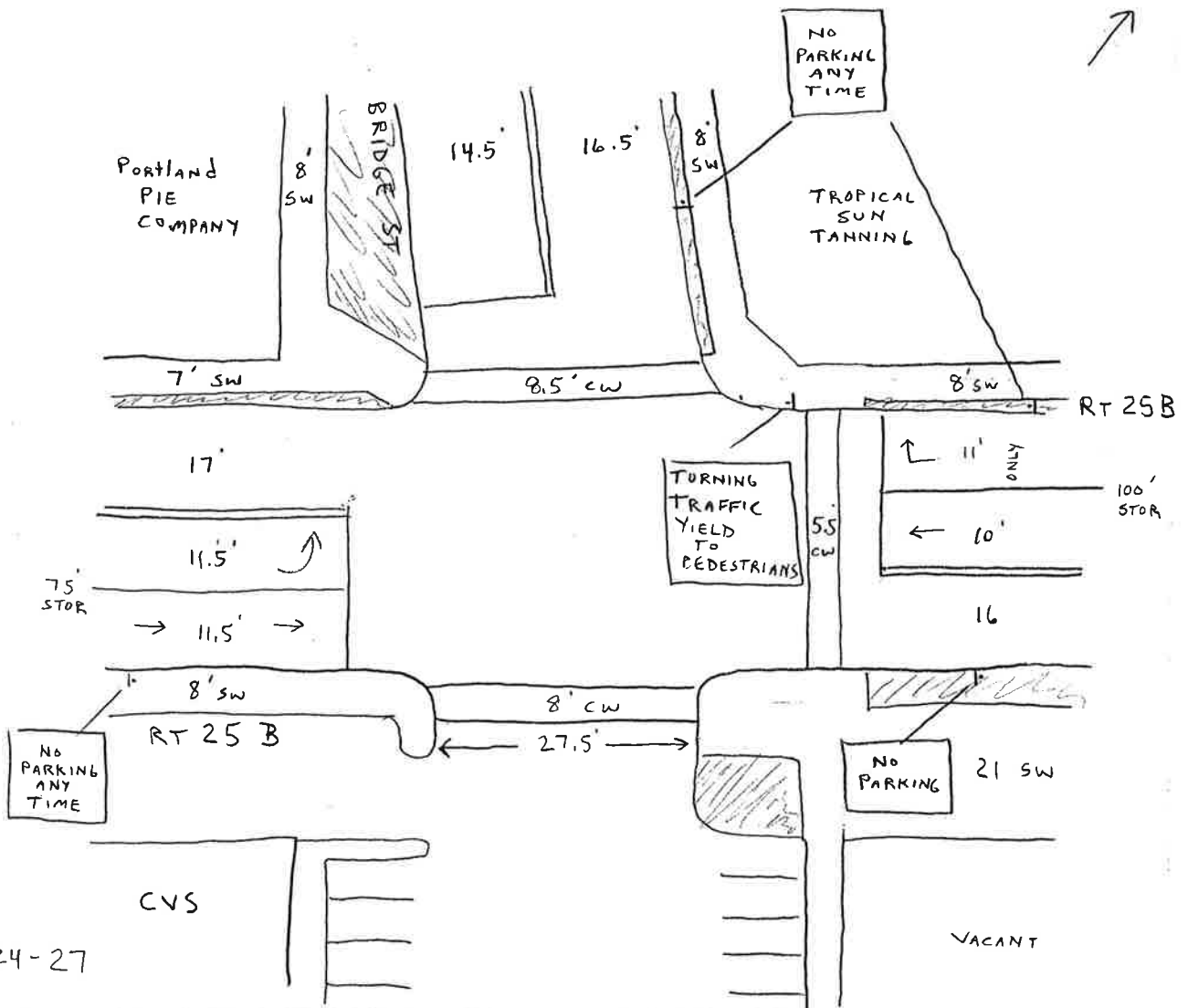
Job No: 6846



PHASE	1			ADV.			2					
Phase Diagrams												
Signal Head Sketch	PED - WHEN CALLED 07 sec of walk 14 sec blinking dont 											
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	08	03	1:09	07	03	→	40	03	22			
Trial 2	18	03	1:58	11	03	→	40	03	18			
Trial 3	21	03	1:52	17	03	→	38	03	25			
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
 Pedestrian Control: yes ✓ no

Comments: All red 02 sec after phase 1
" " 02 " " ADV.
" " 02 " " Phase 2



PIC: 24-27

LOCATION RT 25 B @ Bridge St (3)
CITY & STATE: Westbrook, ME JOB NUMBER: 6846
TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
TRAFFIC CONTROL DEVICES: Signalized
DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants

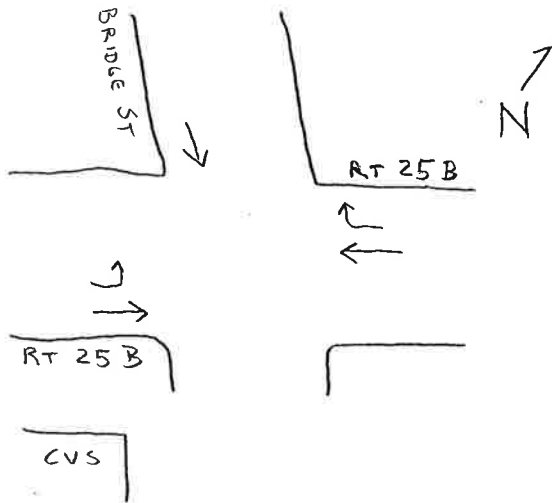
Signal Timing and Phasing Sheet

Intersection: RT 25 B @ BRIDGE ST

City/Town: Westbrook, ME

Date: 10/26/15 12:30 pm

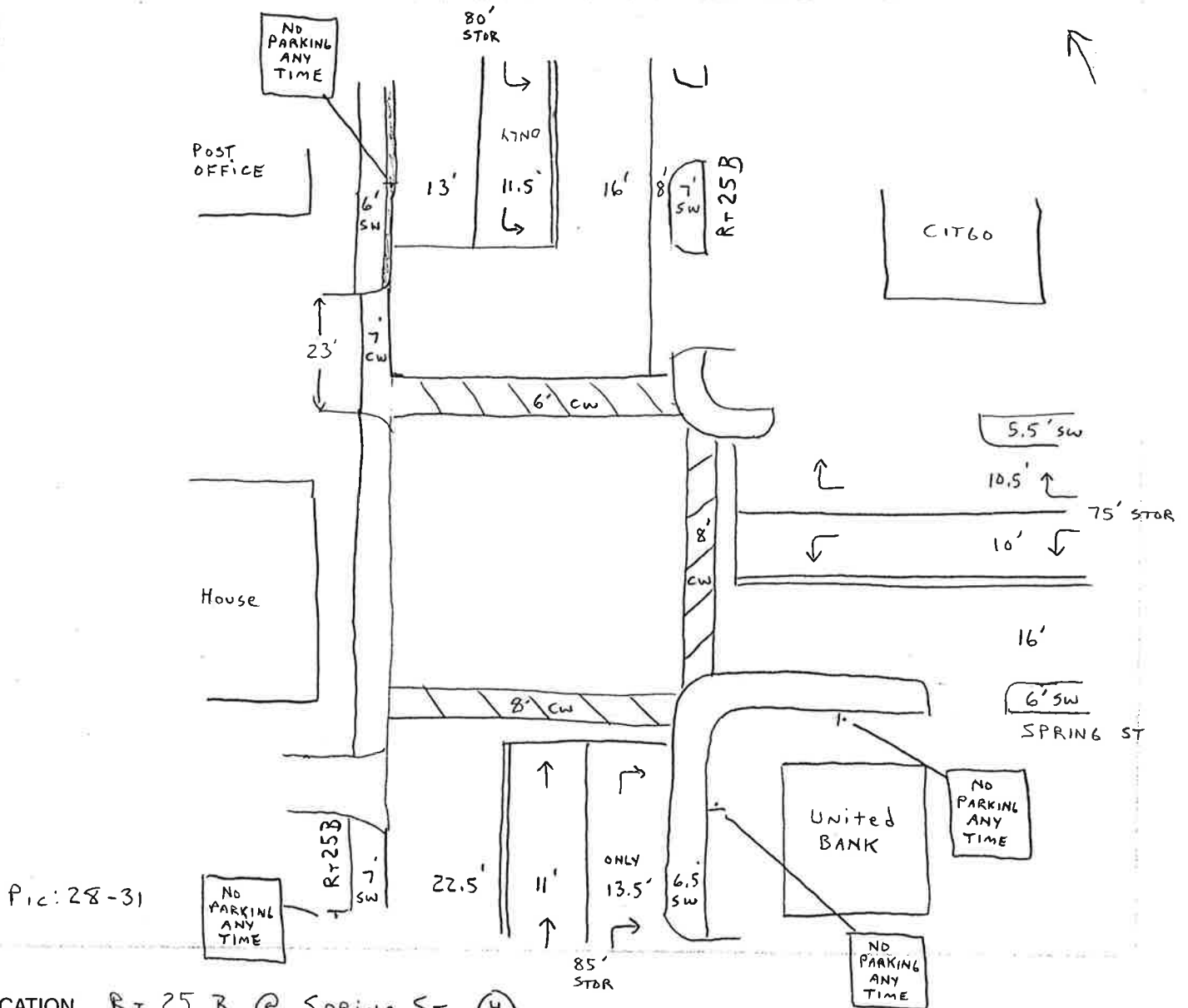
Job No: 6846



PHASE	ADV			1			2			PED		
	when called											
Phase Diagrams												
Signal Head Sketch										when called after phase 1		
										WALK BLINK DONT		
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	19	03	→	25	03	17	16	03	1:24	08	10	
Trial 2	12	03	→	51	03	26	25	03	1:50	08	10	
Trial 3	25	03	→	48	03	57	45	03	1:57	08	10	
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: all red 02 sec after advance
 " " 02 " " Phase 1
 " " 02 " " " 2



LOCATION RT 25 B @ Spring St (4)

CITY & STATE: Westbrook, ME

JOB NUMBER: 6846

TYPE OF CURBING: Granite

TYPE OF SIDEWALKS: B + Conc

TYPE OF PAVEMENT: B + Conc

PAVEMENT CONDITION: Good

TRAFFIC CONTROL DEVICES: Signalized

DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS _____

CHECKLIST

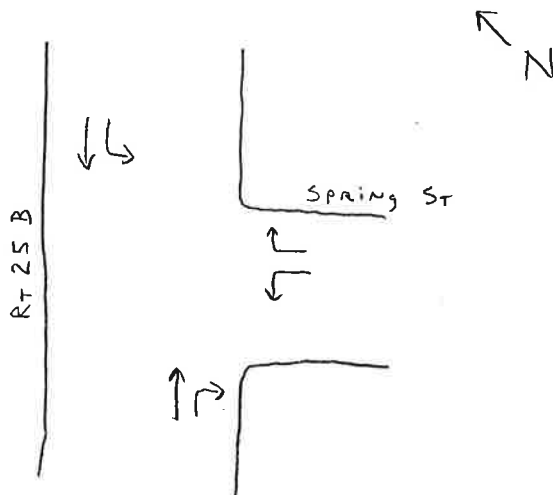
☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants

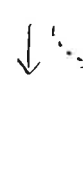
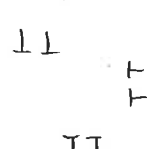
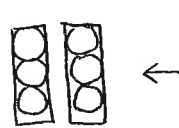
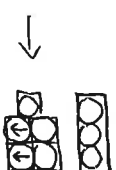
Signal Timing and Phasing Sheet

 Intersection: RT 25 B @ Spring St

 City/Town: Westbrook, ME

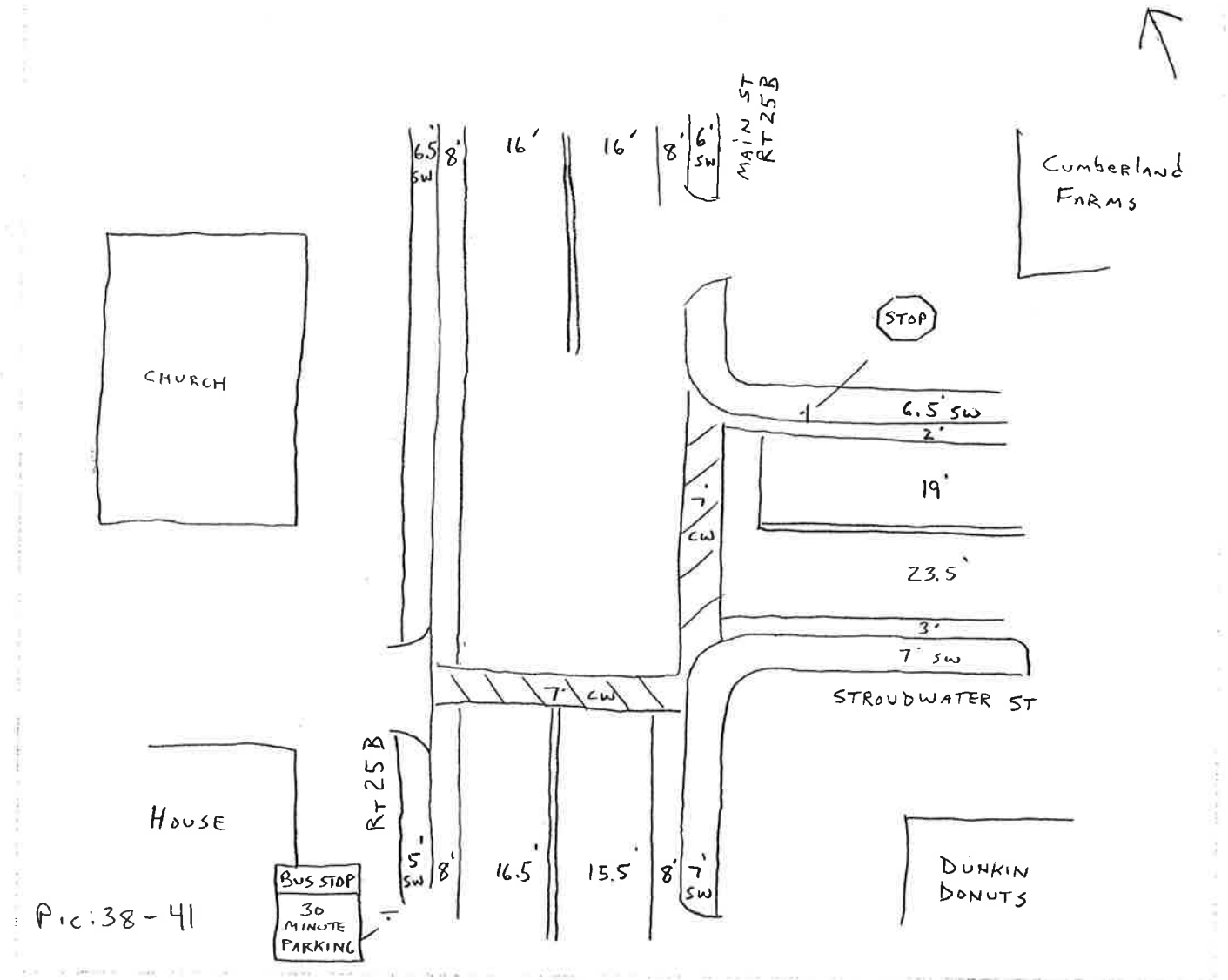
 Date: 10/26/15 1:15 PM

 Job No: 6846


PHASE	1			ADV. / IAG			2			PED		
Phase Diagrams				When called						When called AFTER phase 2 		
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	WALK	Blinking DONT	R
Trial 1	22	03	51	12	03	→	1:07	03	17	05	09	
Trial 2	07	03	35	06	03	TO Phase 1	1:15	03	14	05	09	
Trial 3	07	03	1:11	09	03	TO Phase 2	1:33	03	14	05	09	
Total												
Average												

 Type of Signal: Fixed Semi-Actuated Fully Actuated
 Pedestrian Control: yes ✓ no

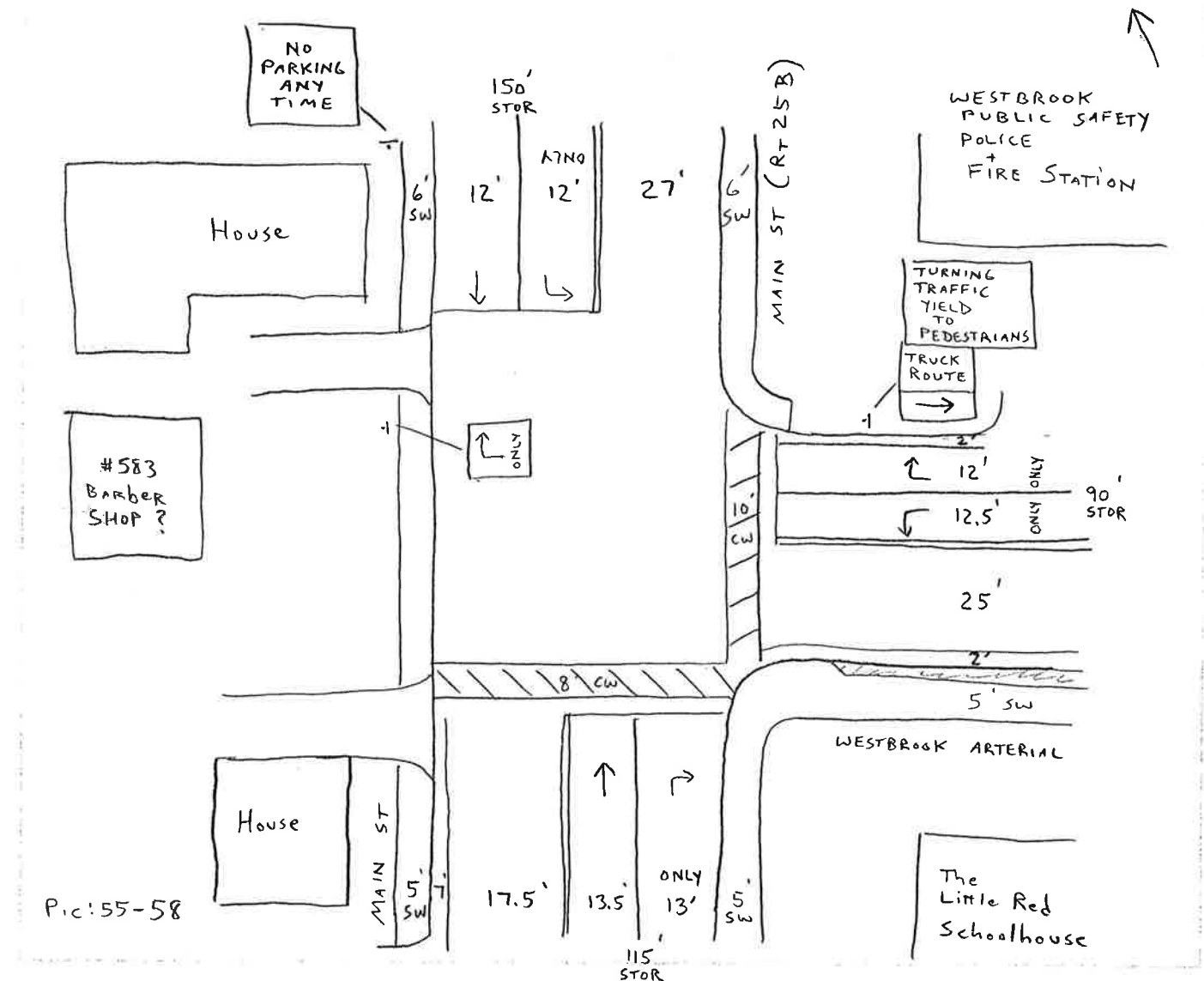
 Comments: All red 01 sec after phase 1
" " 01 " " " 2



LOCATION Rt 25B @ Stroudwater St (5)
 CITY & STATE: Westbrook, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: None
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |



LOCATION MAIN ST (RT 25B) @ Westbrook Arterial (6)
 CITY & STATE: Westbrook, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants

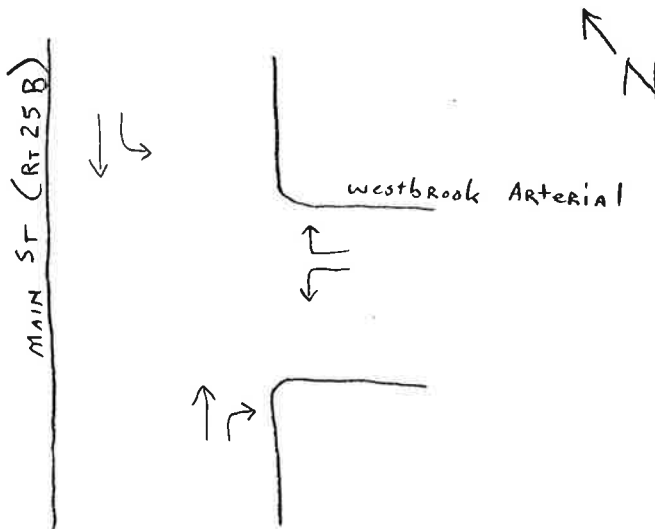
Signal Timing and Phasing Sheet

Intersection: MAIN ST (RT 25 B) @ Westbrook
Arterial

City/Town: Westbrook, ME

Date: 11/9/15 2:30 PM

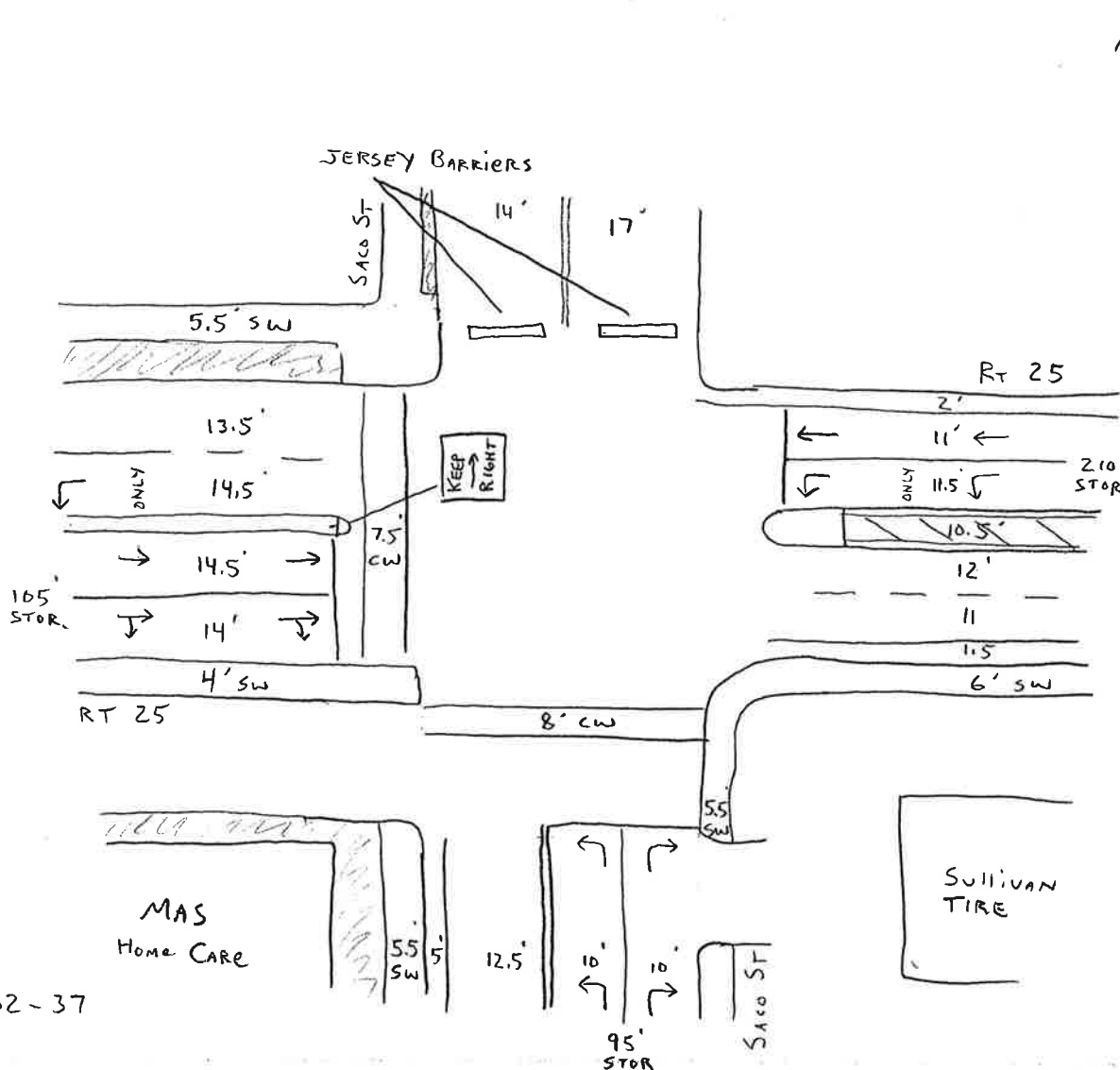
Job No: 6846



PHASE	1			ADV / LAG			2					
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	08	03	1:41	16	03	→	38	03	28			
Trial 2	14	03	1:09	18	03	→	24	03	TO ADV			
Trial 3	13	03	1:40	16	03	→	25	03	24			
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: All red 01 sec after phase 1
" " 01 " " " 2



Pic: 32-37

LOCATION Saco St @ Rt 25 (7)
 CITY & STATE: Westbrook, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |



Transportation Engineers & Planners

10 New England Business Center Drive
Suite 314
Andover, MA 01810-1066
Phone 978-474-8800
Fax 978-688-6508

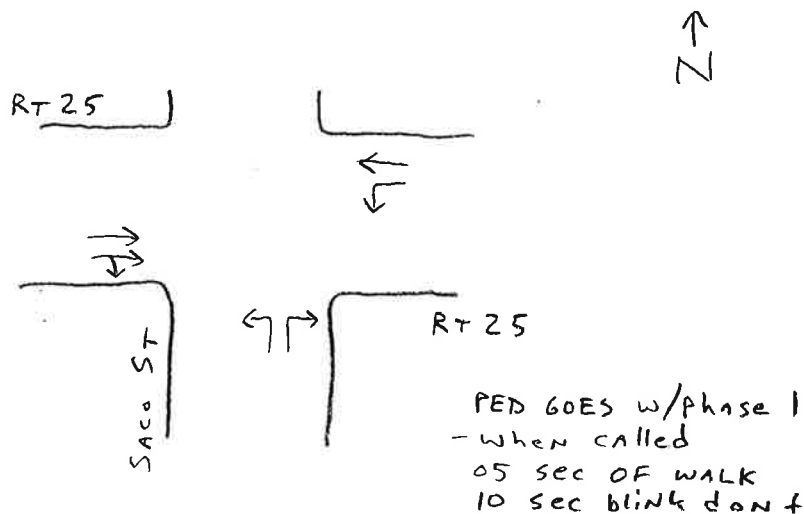
Signal Timing and Phasing Sheet

Intersection: RT 25 @ Saco St

City/Town: Westbrook, ME

Date: 10/26/15 2:30 pm

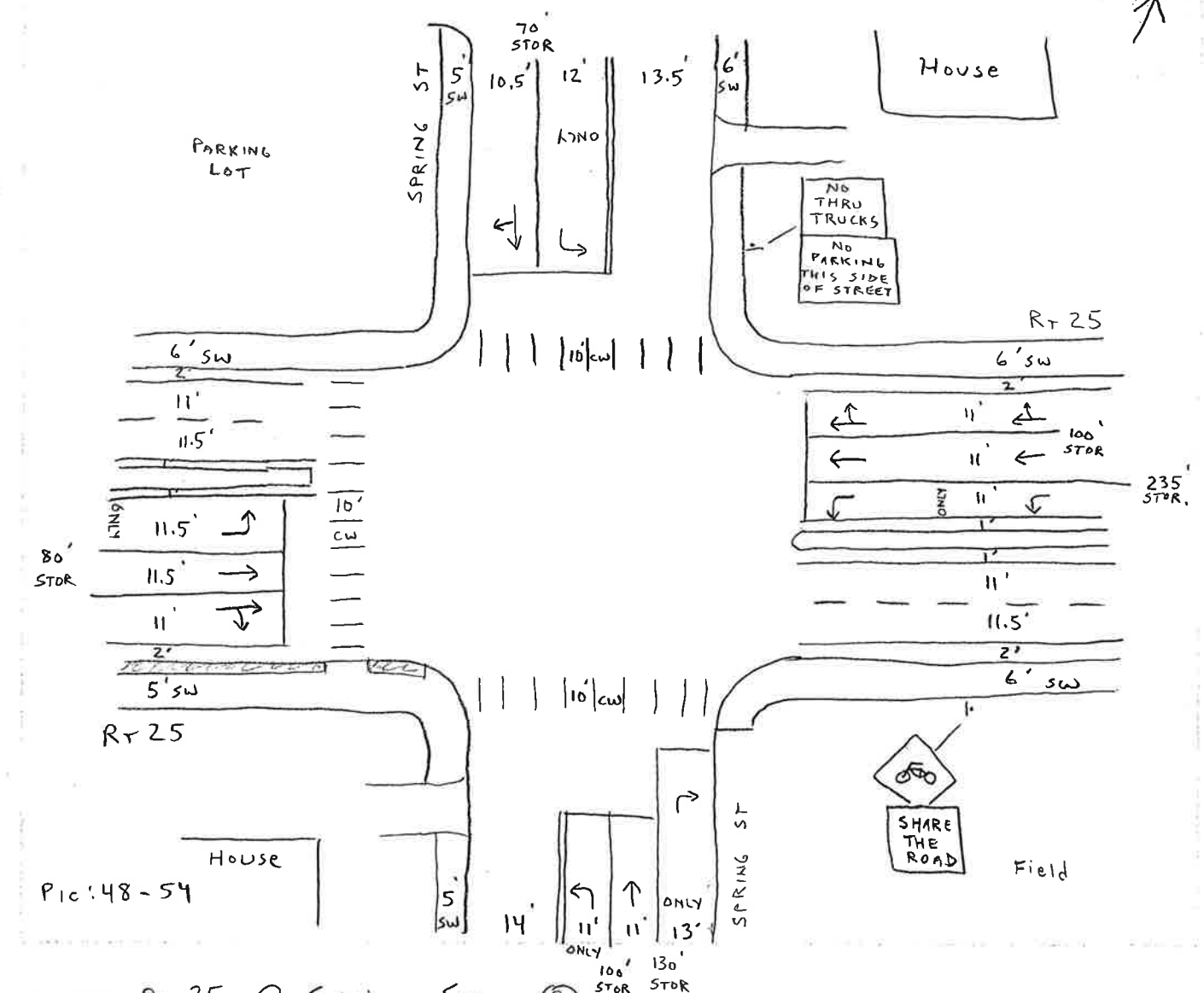
Job No: 6846



PHASE	ADV			1			2					
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	23	03	→	51	03	29	18	03	:56			
Trial 2	18	03	→	47	03	30	17	03	1:16			
Trial 3	23	03	→	47	03	32	18	03	1:23			
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: All red 09 sec after phase 1
" " 02 " " " 2



LOCATION Rt 25 @ Spring St (8)

CITY & STATE: Westbrook, ME JOB NUMBER: 6846

TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc

TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good

TRAFFIC CONTROL DEVICES: Signalized

DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

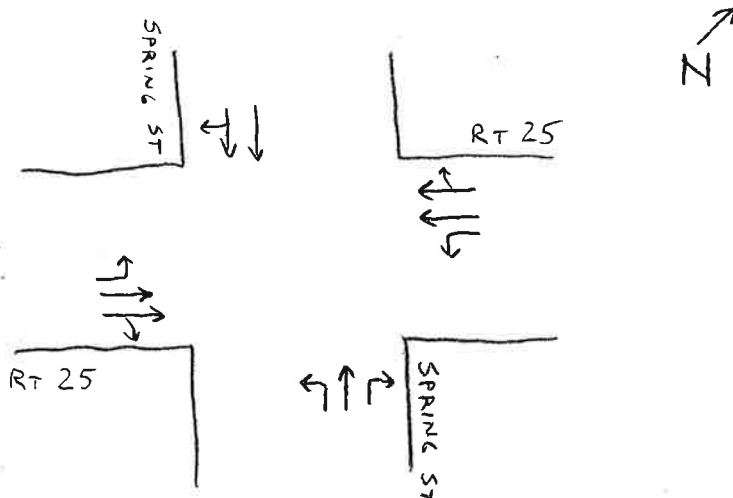
Signal Timing and Phasing Sheet

Intersection: RT 25 @ Spring St

City/Town: Westbrook, ME

Date: 11/9/15 1:30 pm

Job No: 6846

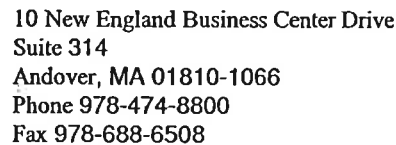


Pg 1 of 2

PHASE	ADV 1			ADV 2			1			ADV 3		
Phase Diagrams												
Signal Head Sketch							PED when called 05 sec of walk 15 sec blinking don't					
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	08	03	→	01	03	TO Phase 1	12	03	1:01			
Trial 2	07	03	TO Phase 1	13	03	→	16	03	48			
Trial 3	11	03	TO ADV 2	14	03	→	15	03	45			
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: All red 02 sec after phase 1
" " 02 " " " 2

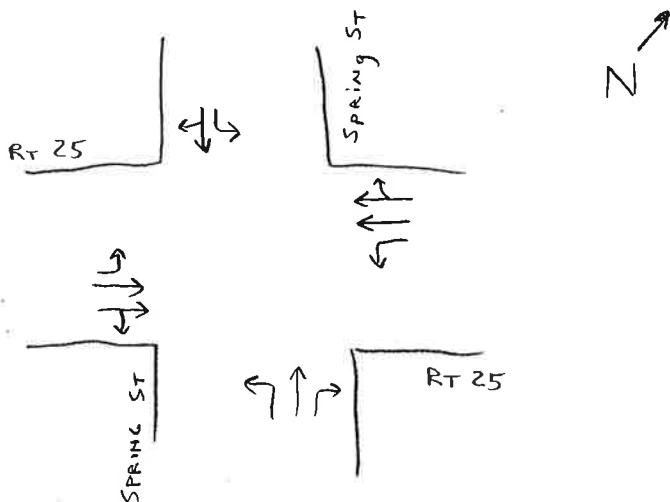


Intersection: Rt 25 @ Spring St

City/Town: Westbrook ME

Date: 11/9/15 1:30 pm

Job No: 6846



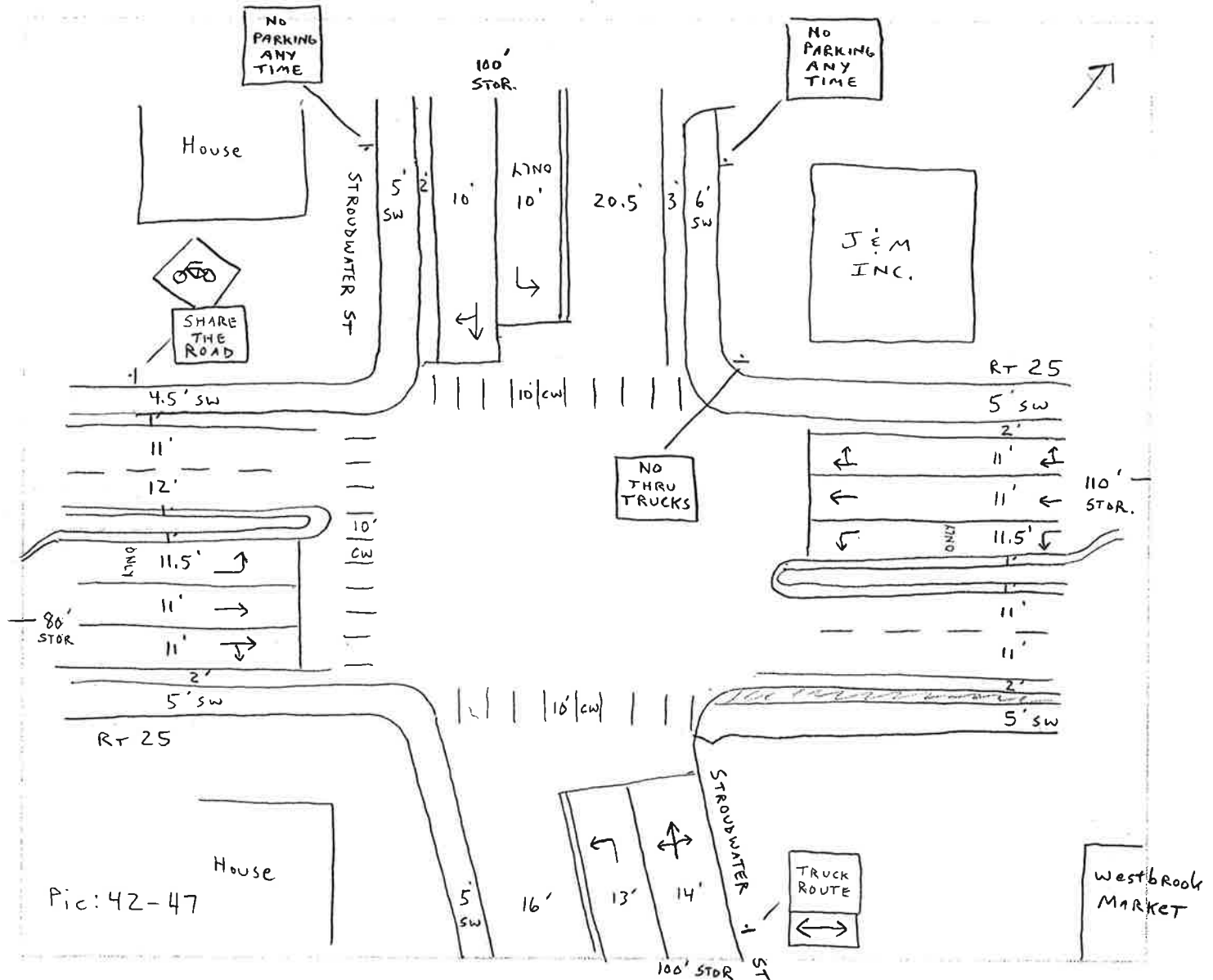
PED
when called
05 sec of walk
10 sec blink dont

Pg 2 of 2

[illegible]

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: _____



LOCATION RT 25 @ Stroudwater St (9)
CITY & STATE: Westbrook, ME JOB NUMBER: 6846
TYPE OF CURBING: Granite TYPE OF SIDEWALKS: B.t Conc
TYPE OF PAVEMENT: B.t Conc PAVEMENT CONDITION: Good
TRAFFIC CONTROL DEVICES: Signalized
DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants

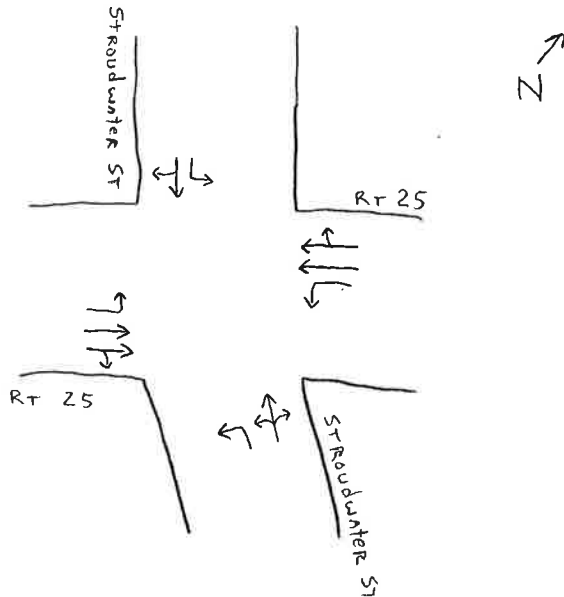
Signal Timing and Phasing Sheet

Intersection: RT 25 @ Stroud Water St

City/Town: Westbrook, ME

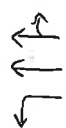
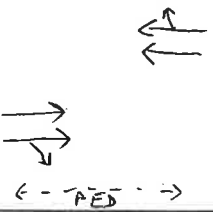
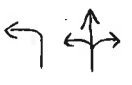
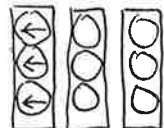
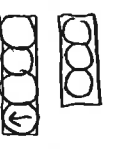
Date: 11/9/15 11:10 AM

Job No: 6846



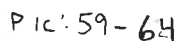
PED
when called
05 sec of walk
12 sec blink dont

3		
↑	↓	
...	...	
PED	PED - WHEN called	
	05 sec walk	
	15 sec blink dont	
G	Y	R
13	03	54
07	03	1:15
18	03	1:04

PHASE	ADVANCE 1			ADVANCE 2			1			2		
	when called			when called			← PED →					
Phase Diagrams												
Signal Head Sketch							PED - WHEN called 05 sec of walk 15 sec blink dont					
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	06	04					32	03	38	13	03	1:03
Trial 2	05	03	Phase 1	09	03		28	03	26	13	03	1:04
Trial 3	06	03					34	03	31	11	03	1:06
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: all red 02 sec after phase 1
02 " " " 2
02 " " " 3

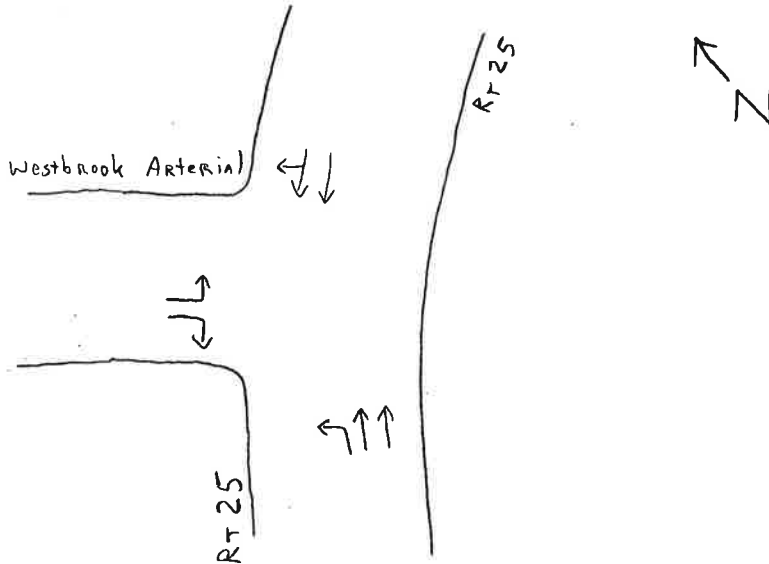


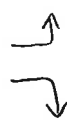
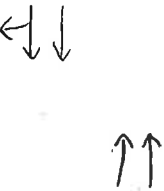
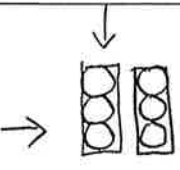
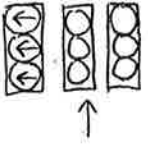
___ Width	___ Offsets	___ Pavement Markings	___ Stopping Sight Distance	___ Illumination	___ Pedestrians
___ Curbing	___ Lane Line	___ Bus Stops	___ Passing Sight Distance	___ Approach Speeds	___ Land Use
___ Shoulders	___ Sidewalks	___ Loading Zones	___ Horizontal Alignment	___ Speed Limits	___ Catch Basins/Drainage
___ Radii	___ Parking Restrictions	___ School Zones	___ Vertical Alignment	___ Weight Limits	___ Utility Poles
___ Approach Angles	___ Signing	___ Traffic Signal	___ Lateral Obstructions	___ Pavement Conditions	___ Hydrants

Signal Timing and Phasing Sheet

Intersection: RT 25 @ Westbrook Arterial City/Town: Westbrook, ME

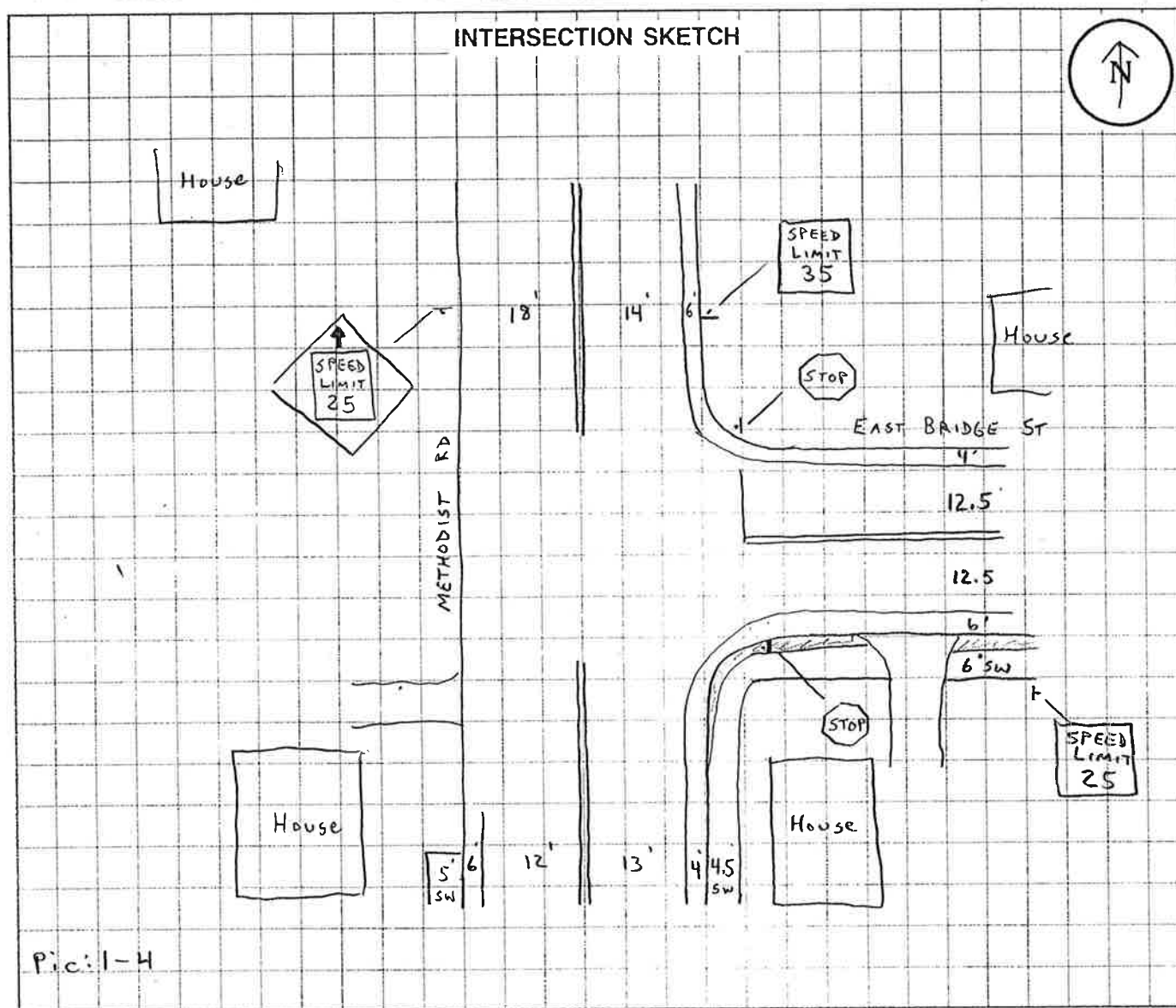
Date: 11/9/15 3:20 pm Job No: 6846



PHASE	1			ADV. / LAG			2					
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	08	03	34	20	03	→	20	03	Adv.			
Trial 2	12	03	1:14	16	03	→	18	03	14			
Trial 3	12	03	1:12	22	03	→	23	03	16			
Total												
Average												

Type of Signal: Fixed _____ Semi-Actuated _____ Fully Actuated _____
Pedestrian Control: yes _____ no ☒

Comments: All Red 02 sec after phase 1
" " 02 " " " 2



LOCATION: Bridge St @ East Bridge St (11)

CITY & STATE: Westbrook, ME JOB NUMBER: 6846

TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc

TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good

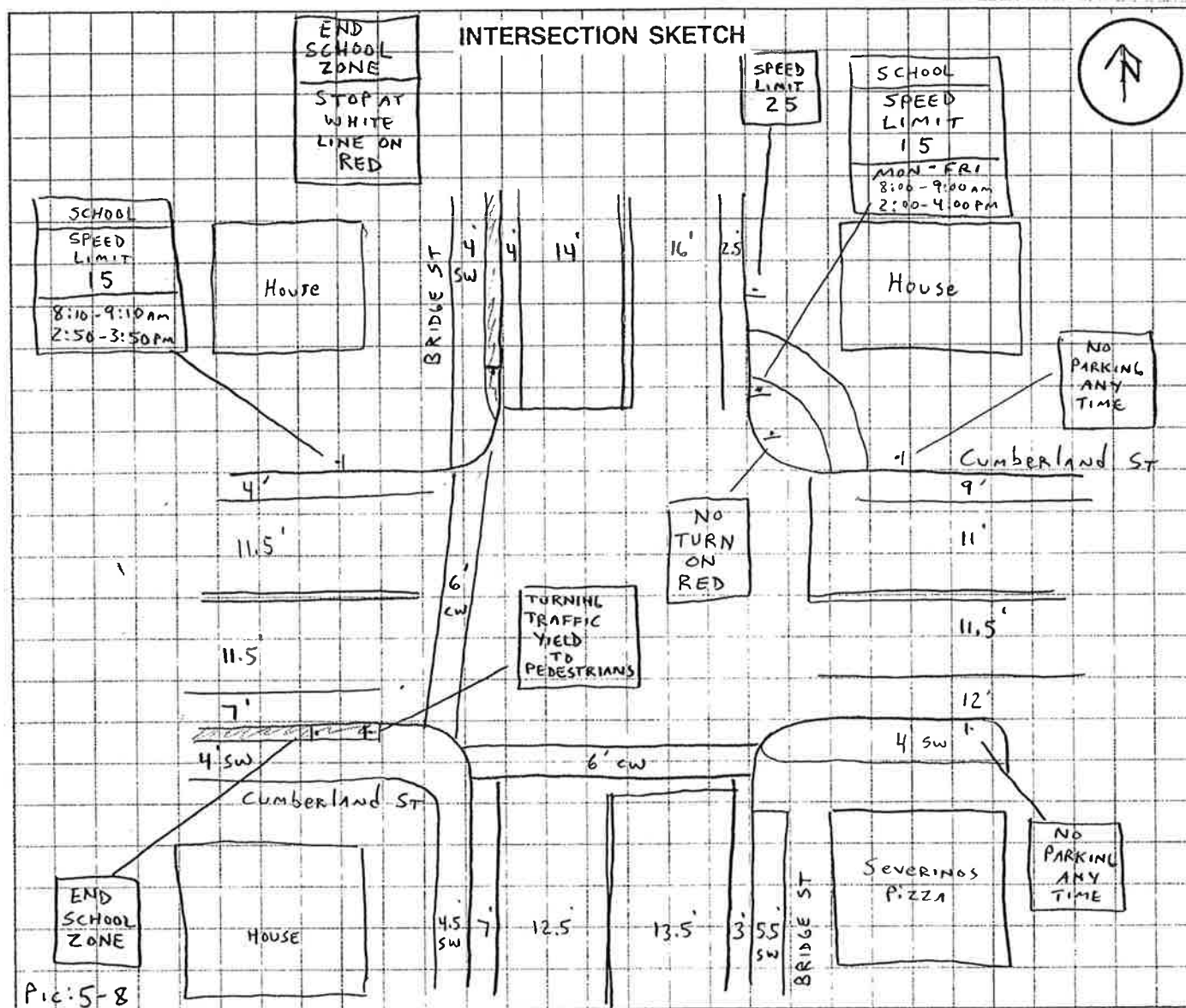
TRAFFIC CONTROL DEVICES: None

DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS: _____

CHECKLIST:

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |



LOCATION: Cumberland St @ Bridge St (12)

CITY & STATE: Westbrook, ME JOB NUMBER: 6846

TYPE OF CURBING: Bit Conc TYPE OF SIDEWALKS: Bit Conc

TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good

TRAFFIC CONTROL DEVICES: Signalized

DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS: _____

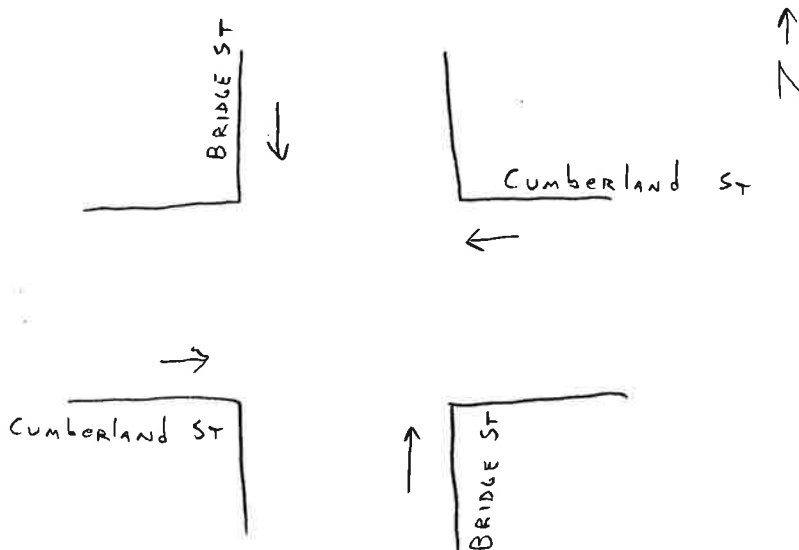
CHECKLIST:

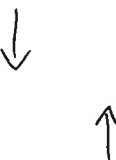
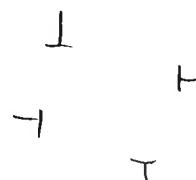
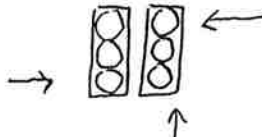
- | | | | | | |
|-------------------|------------------------|---------------------|---------------------------|-----------------------|-------------------------|
| — Width | — Offsets | — Pavement Markings | — Stopping Sight Distance | — Illumination | — Pedestrians |
| — Curbing | — Lane Line | — Bus Stops | — Passing Sight Distance | — Approach Speeds | — Land Use |
| — Shoulders | — Sidewalks | — Loading Zones | — Horizontal Alignment | — Speed Limits | — Catch Basins/Drainage |
| — Radii | — Parking Restrictions | — School Zones | — Vertical Alignment | — Weight Limits | — Utility Poles |
| — Approach Angles | — Signing | — Traffic Signal | — Lateral Obstructions | — Pavement Conditions | — Hydrants |

Signal Timing and Phasing Sheet

Intersection: Cumberland ST @ BRIDGE ST City/Town: Westbrook, ME

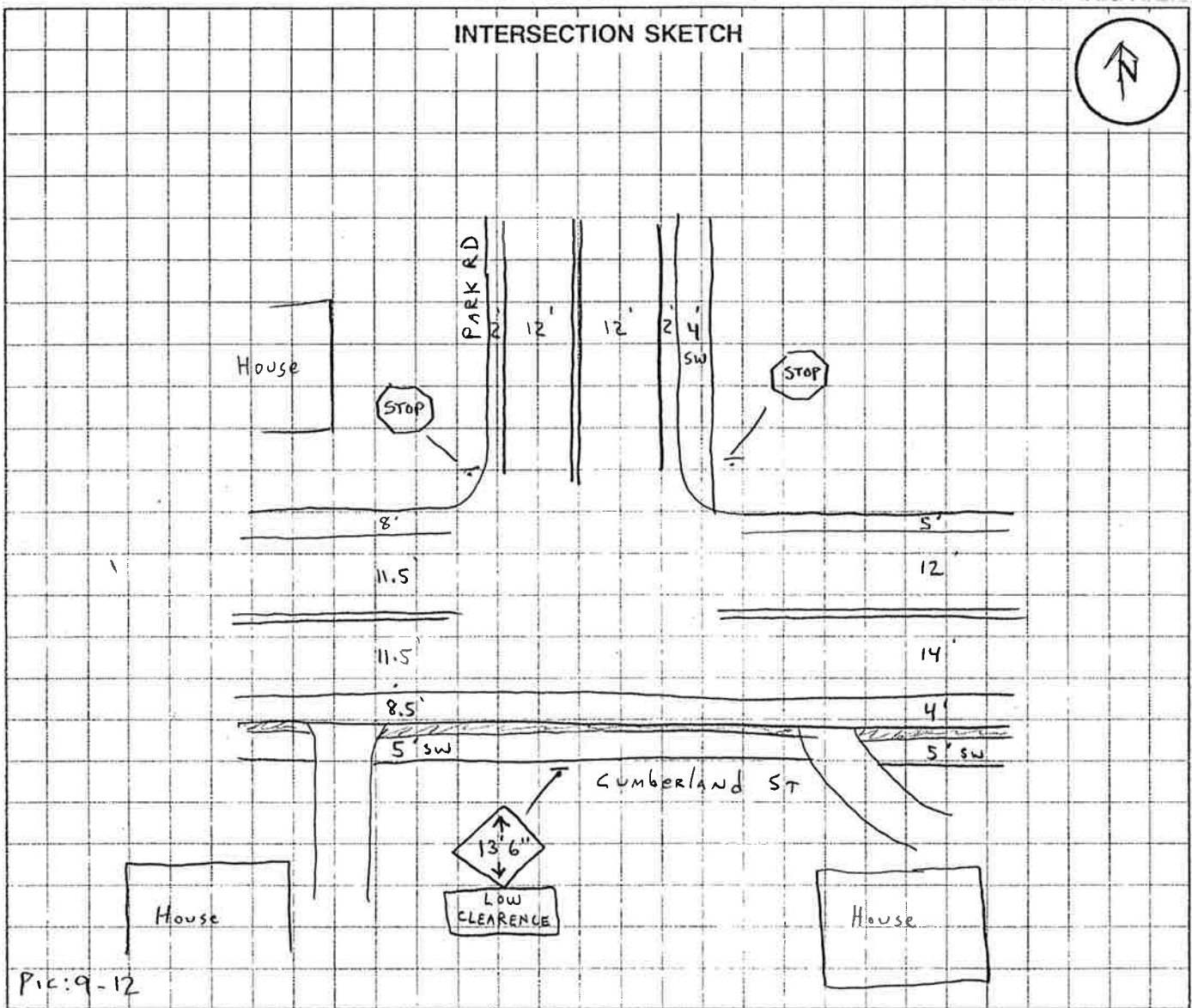
Date: 10/21/15 1:45 PM

Job No: 6846


PHASE	1			2			PED					
Phase Diagrams												
Signal Head Sketch							When called After phase 1					
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	17	03	36	10	03	34	05	12				
Trial 2	24	03	34	26	03	38	05	12				
Trial 3	22	03	24	25	03	40	05	12				
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: All red 01
01



LOCATION: Cumberland St @ Park Rd (13)

CITY & STATE: Westbrook, ME JOB NUMBER: 6846

TYPE OF CURBING: Bit Conc TYPE OF SIDEWALKS: Bit Conc

TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good

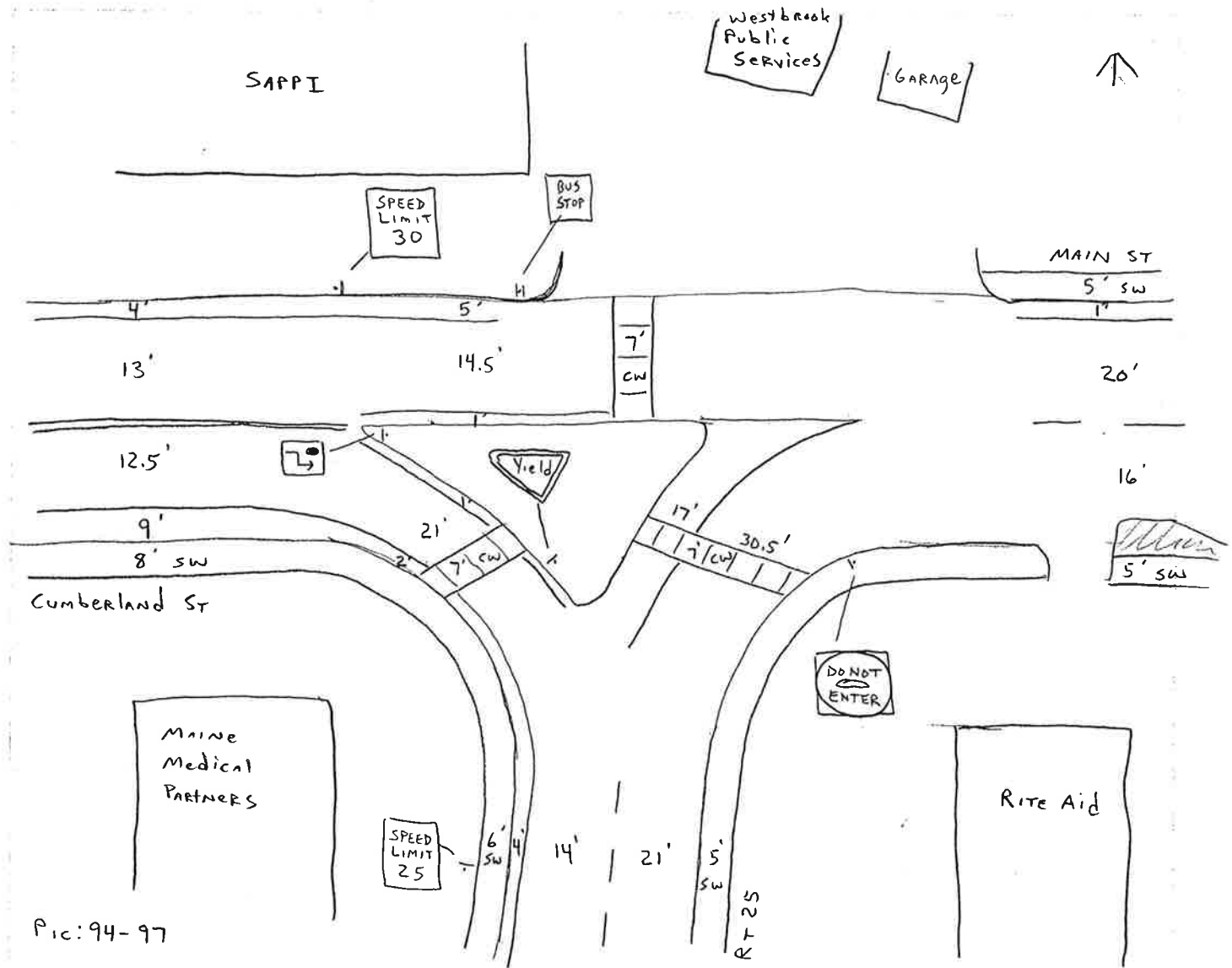
TRAFFIC CONTROL DEVICES: None

DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS: _____

CHECKLIST:

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |



Pic: 94-97

LOCATION MAIN ST @ CUMBERLAND ST (14)

CITY & STATE: Westbrook, ME JOB NUMBER: 6846

TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Conc / Bit Conc.

TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good

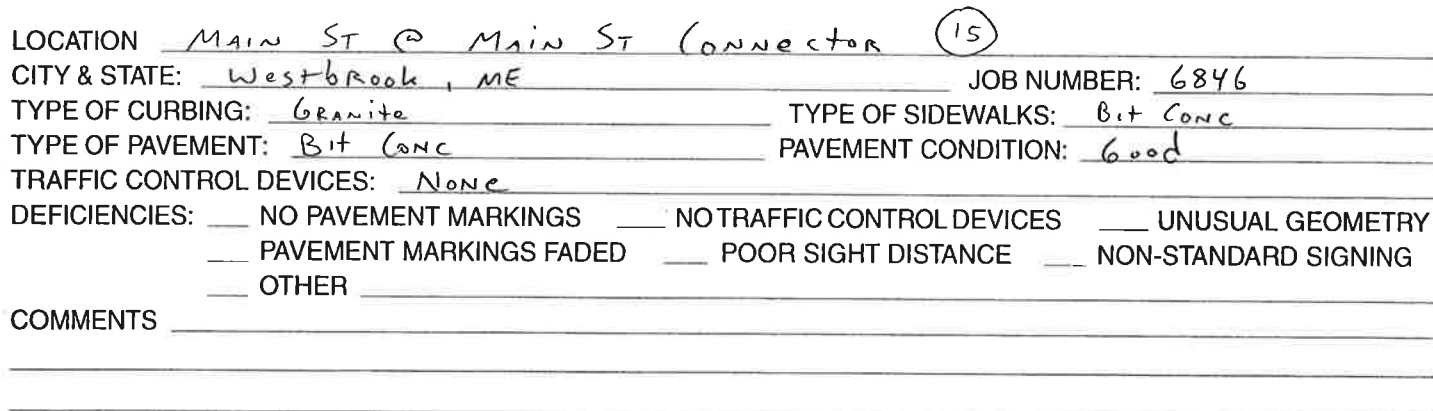
TRAFFIC CONTROL DEVICES: NONE

DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

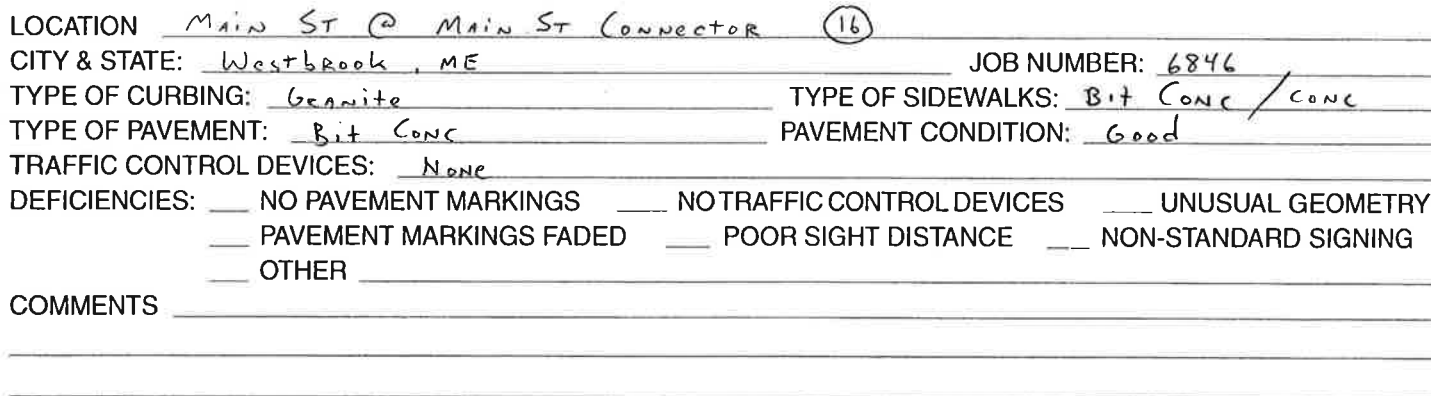
COMMENTS _____

CHECKLIST

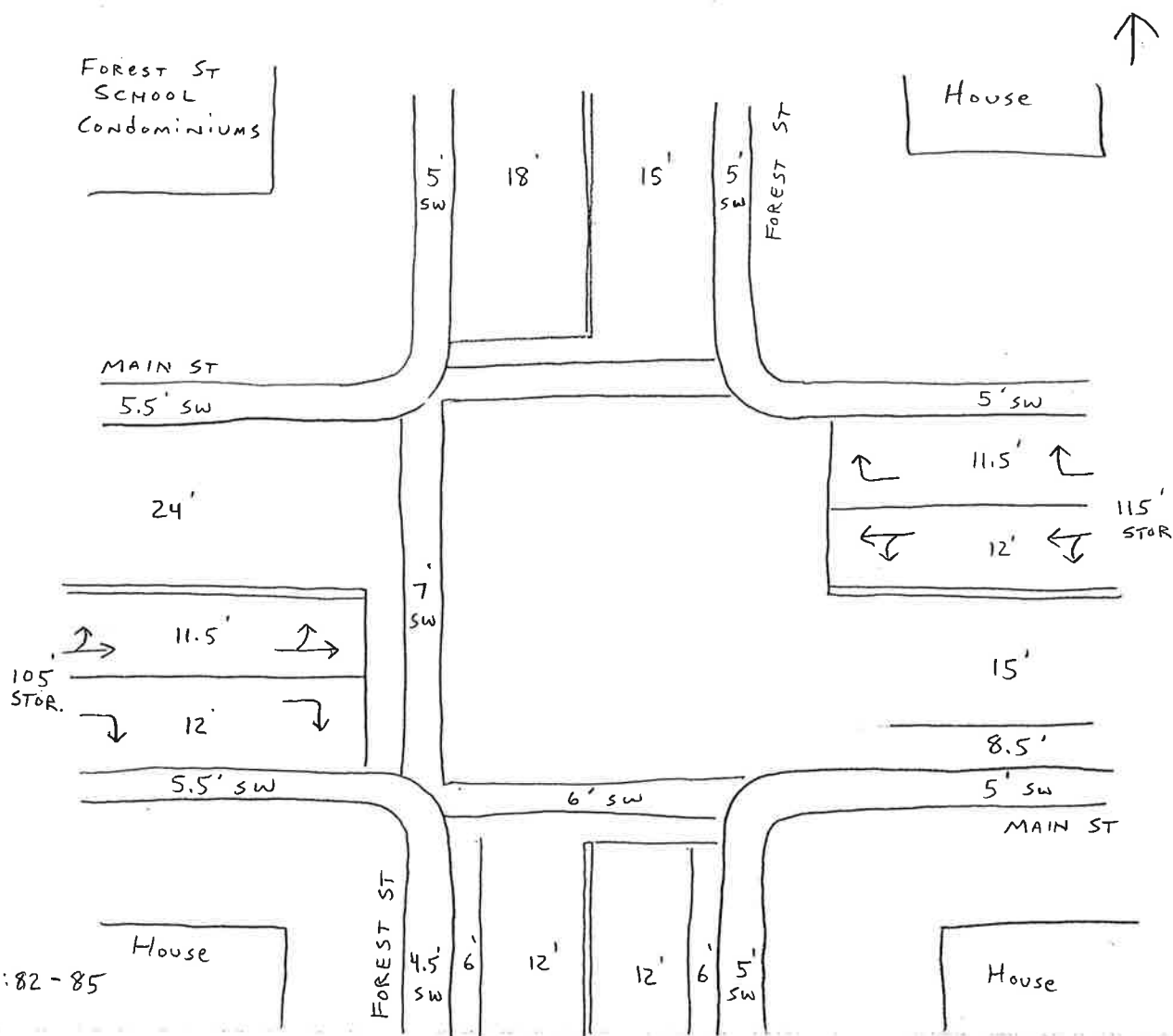
- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |



___ Width	___ Offsets	___ Pavement Markings	___ Stopping Sight Distance	___ Illumination	___ Pedestrians
___ Curbing	___ Lane Line	___ Bus Stops	___ Passing Sight Distance	___ Approach Speeds	___ Land Use
___ Shoulders	___ Sidewalks	___ Loading Zones	___ Horizontal Alignment	___ Speed Limits	___ Catch Basins/Drainage
___ Radii	___ Parking Restrictions	___ School Zones	___ Vertical Alignment	___ Weight Limits	___ Utility Poles
___ Approach Angles	___ Signing	___ Traffic Signal	___ Lateral Obstructions	___ Pavement Conditions	___ Hydrants



___ Width	___ Offsets	___ Pavement Markings	___ Stopping Sight Distance	___ Illumination	___ Pedestrians
___ Curbing	___ Lane Line	___ Bus Stops	___ Passing Sight Distance	___ Approach Speeds	___ Land Use
___ Shoulders	___ Sidewalks	___ Loading Zones	___ Horizontal Alignment	___ Speed Limits	___ Catch Basins/Drainage
___ Radii	___ Parking Restrictions	___ School Zones	___ Vertical Alignment	___ Weight Limits	___ Utility Poles
___ Approach Angles	___ Signing	___ Traffic Signal	___ Lateral Obstructions	___ Pavement Conditions	___ Hydrants



LOCATION Main St @ Forest St (16)
 CITY & STATE: Westbrook, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants

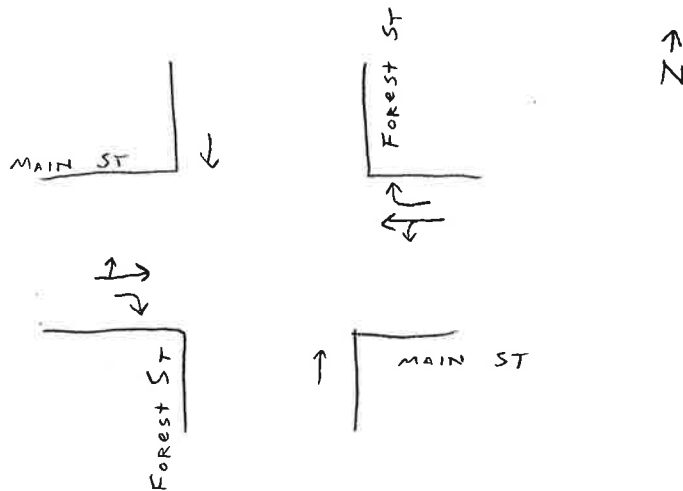
Signal Timing and Phasing Sheet

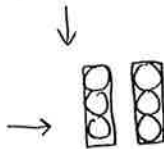
Intersection: MAIN ST @ FOREST ST

City/Town: Westbrook, ME

Date: 11/10/15 9:00 am

Job No: 6846



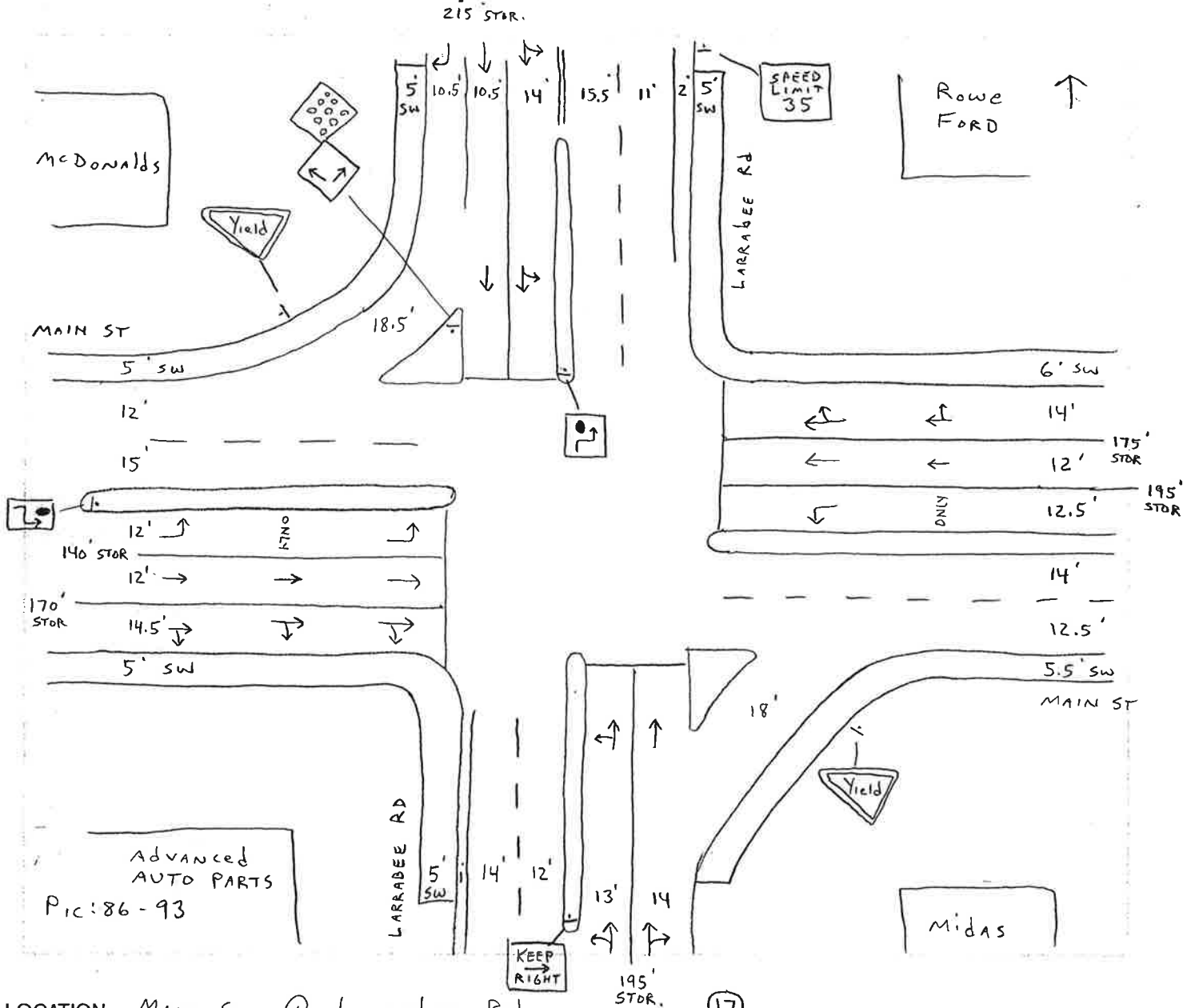
PHASE	1			2			PED					
Phase Diagrams	 			 			  					
Signal Head Sketch							When called after phase 2					
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	07	04	30	1:03	04	:12	06	08				
Trial 2	07	04	23	36	04	:10						
Trial 3	10	04	27	:43	04	17						
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated

Pedestrian Control: yes ✓ no

Comments: All red 01 sec after phase 1

" " 01 " " " 2



LOCATION MAIN ST @ LARRABEE RD (17)

CITY & STATE: Westbrook, ME JOB NUMBER: 6846

TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc

TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good

TRAFFIC CONTROL DEVICES: Signalized

DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

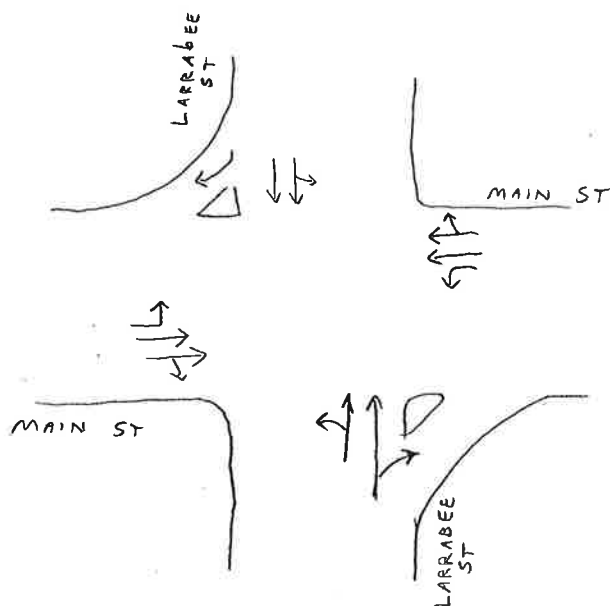
Signal Timing and Phasing Sheet

Intersection: MAIN ST @ LARRABEE RD

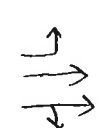
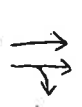
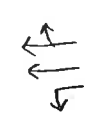
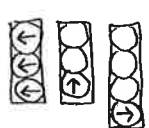
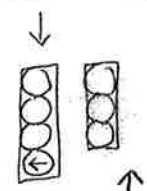
City/Town: Westbrook, ME

Date: 11/10/15 8:15 am

Job No: 6846

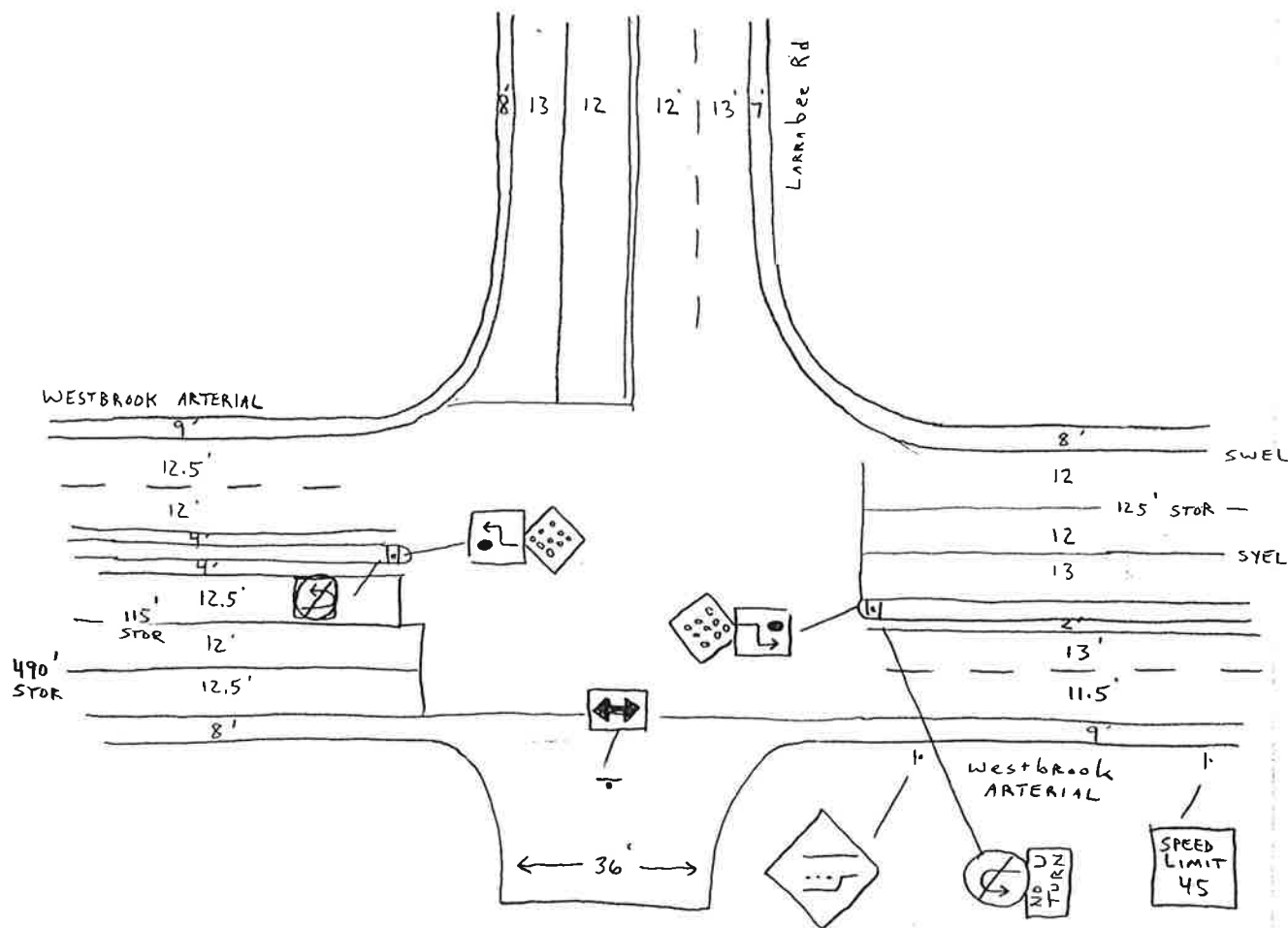


3		
↑↑		
G	Y	R
13	03	1:40
08	03	1:36
11	03	1:32

PHASE	ADV			1			L & G when called			2		
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	33	03	→	30	03	44	14	03	To Phase 2	12	03	1:35
Trial 2	33	03	→	19	03	→	13	03	40	10	03	1:36
Trial 3	33	03	→	04	03	→	20	03	30	15	03	1:32
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes no ✓

Comments: All Red 2.5 sec after phase 1
" " 2.5 " " " 2
" " 2.5 " " " 3



Pic: 110 - 115

LOCATION Westbrook Arterial @ Larrabee Rd (18)
CITY & STATE: Westbrook, ME JOB NUMBER: 6846
TYPE OF CURBING: Granite around medians only TYPE OF SIDEWALKS: None
TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
TRAFFIC CONTROL DEVICES: Signalized
DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants



Transportation Engineers & Planners

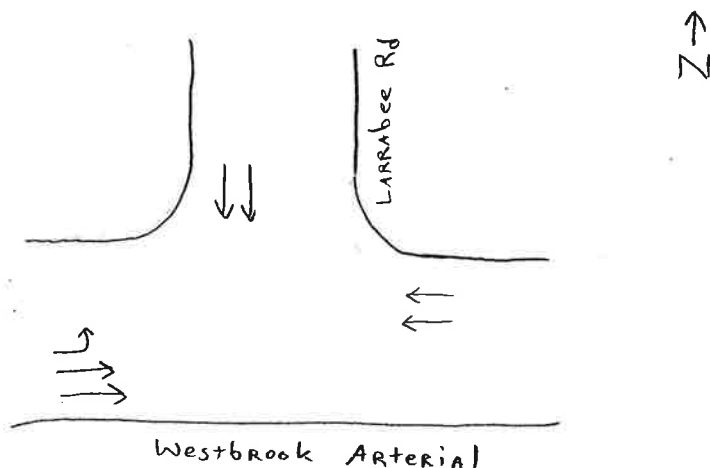
10 New England Business Center Drive
Suite 314
Andover, MA 01810-1066
Phone 978-474-8800
Fax 978-688-6508

Signal Timing and Phasing Sheet

Intersection: Westbrook Arterial @ Larrabee Rd City/Town: Westbrook

Date: 11/10/15 1:30 pm

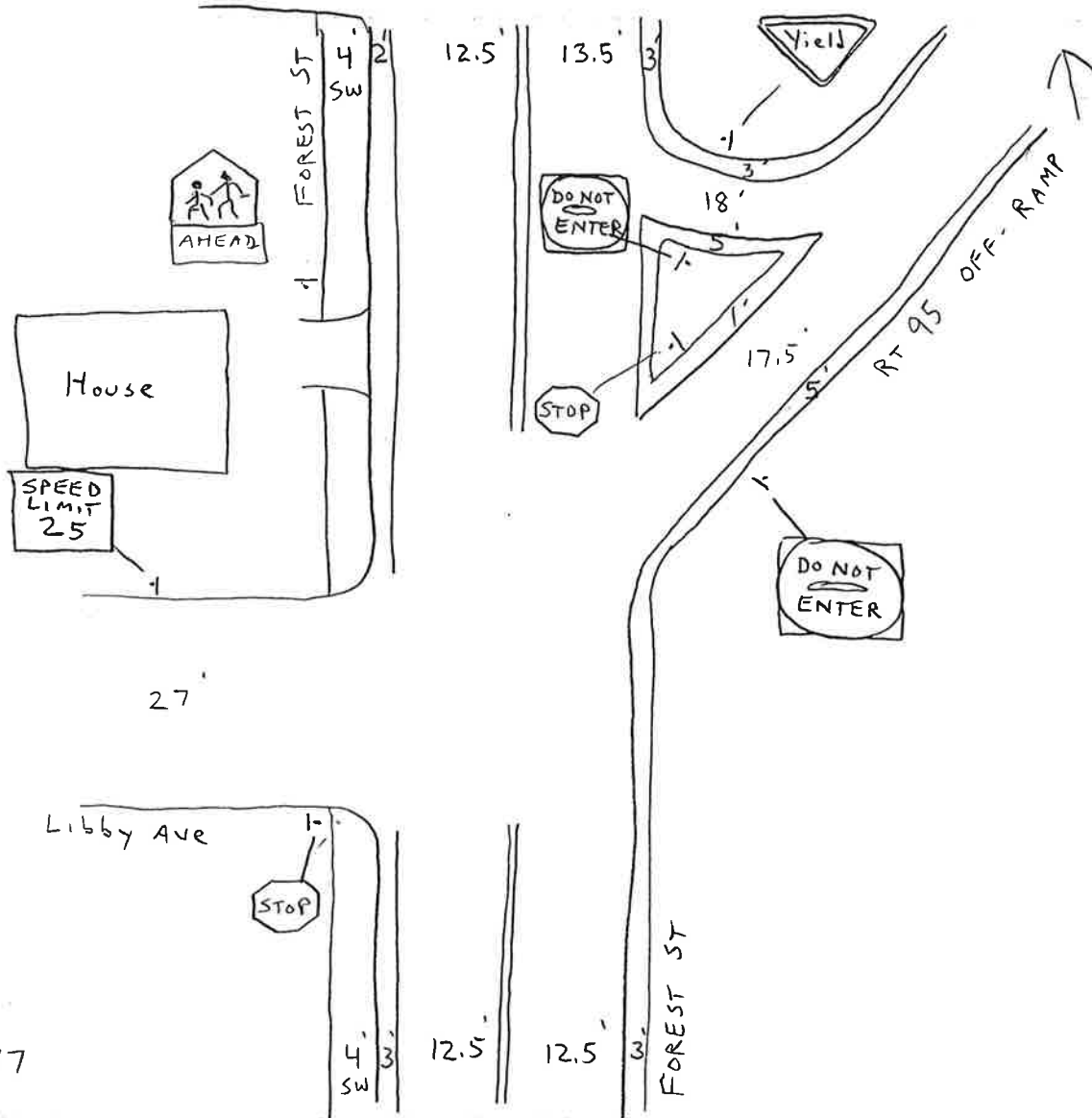
Job No: 6846



PHASE	1			ADV			2					
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	10	03	1:23	10	03	→	17	03	to Adv			
Trial 2	08	03	1:13	13	03	→	24	03	22			
Trial 3	20	03	1:45	17	03	→	14	03	14			
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes no ✓

Comments: All red 02 sec after phase 1
" " 02 " " " 2

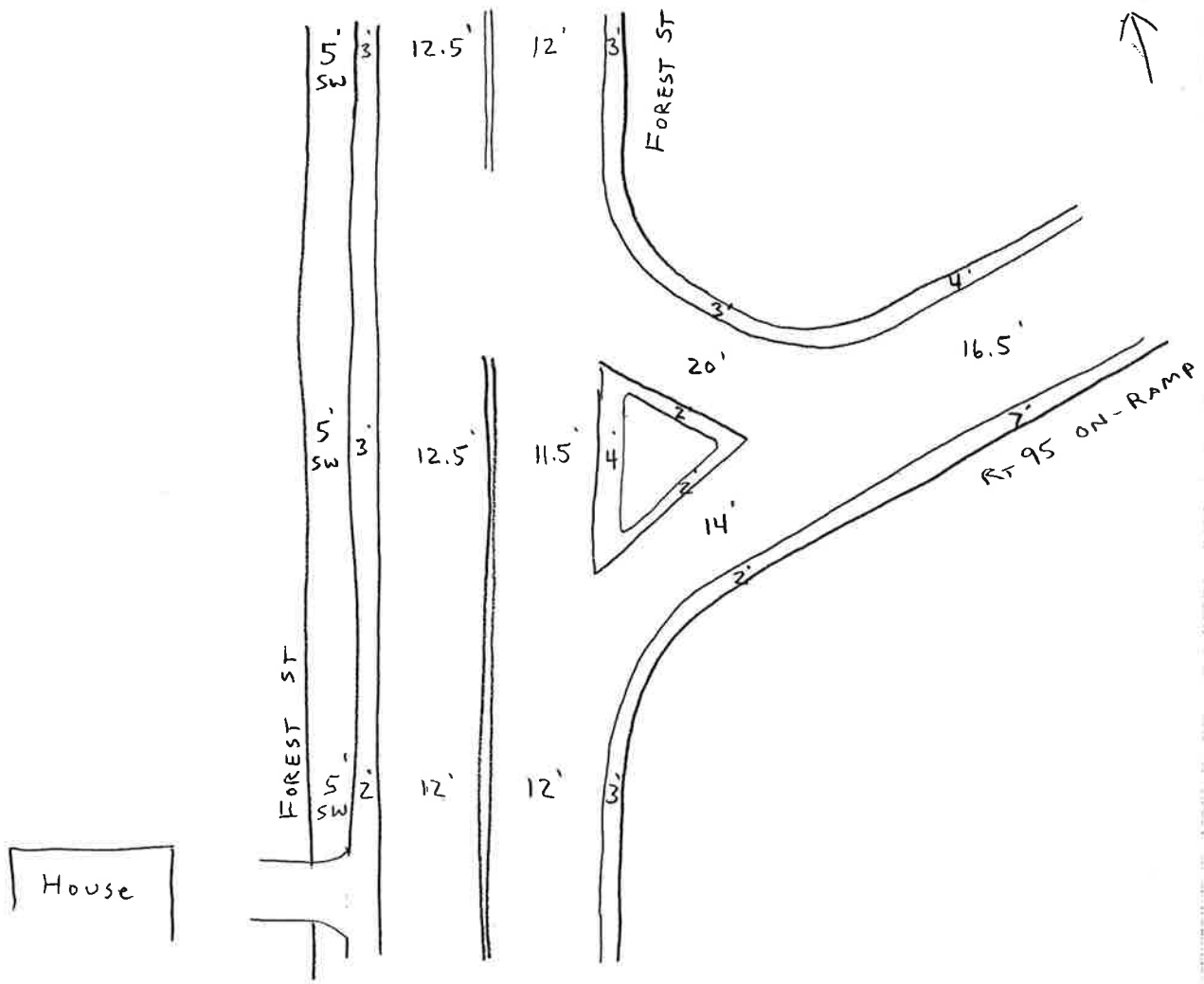


Pic 73-77

LOCATION Forest St @ Rt 95 off-ramp (19)
CITY & STATE: Westbrook, ME JOB NUMBER: 6846
TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
TRAFFIC CONTROL DEVICES: None
DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants

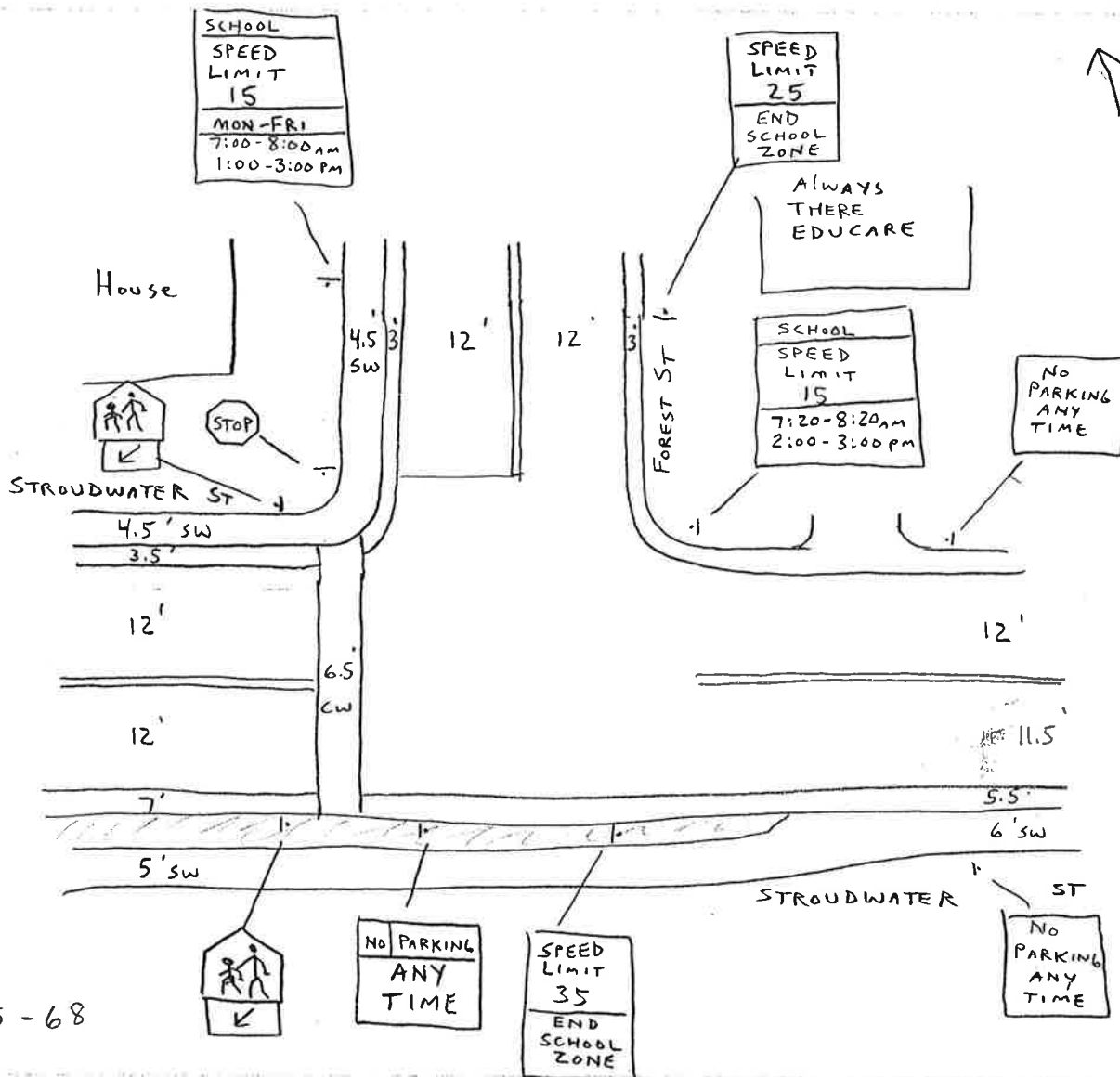


PIC: 69-72

LOCATION Forest St @ Rt 95 ON-RAMP (20)
 CITY & STATE: Westbrook, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: None
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants

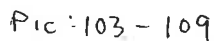


Pic: 65-68

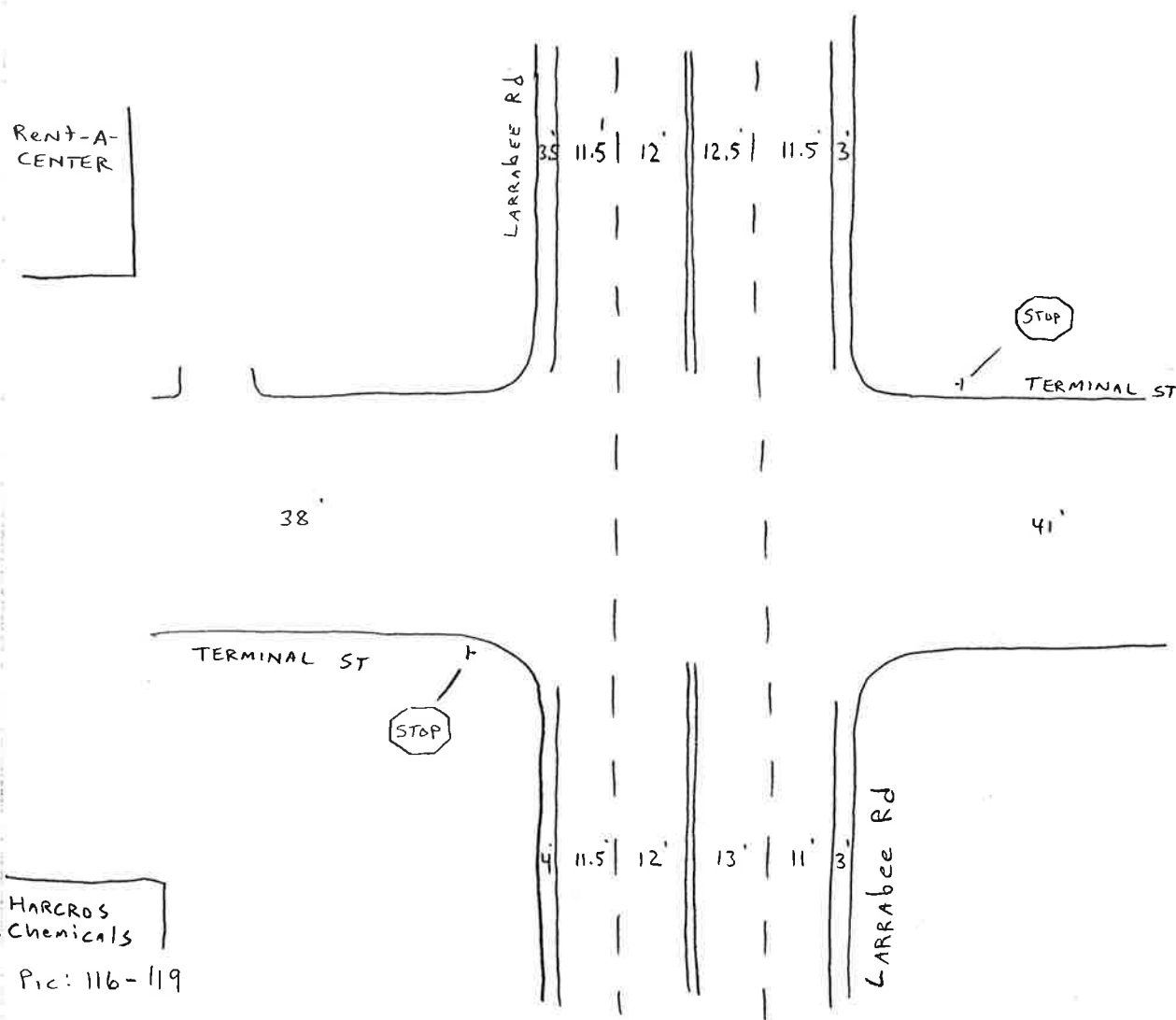
LOCATION Stroudwater St @ Forest St (21)
 CITY & STATE: Westbrook, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: None
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |



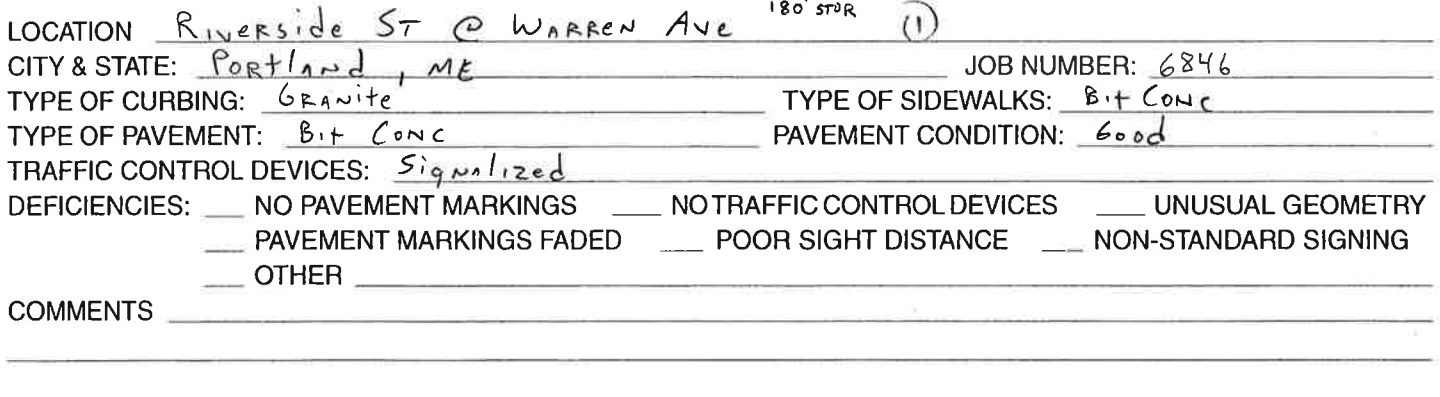
___ Width	___ Offsets	___ Pavement Markings	___ Stopping Sight Distance	___ Illumination	___ Pedestrians
___ Curbing	___ Lane Line	___ Bus Stops	___ Passing Sight Distance	___ Approach Speeds	___ Land Use
___ Shoulders	___ Sidewalks	___ Loading Zones	___ Horizontal Alignment	___ Speed Limits	___ Catch Basins/Drainage
___ Radii	___ Parking Restrictions	___ School Zones	___ Vertical Alignment	___ Weight Limits	___ Utility Poles
___ Approach Angles	___ Signing	___ Traffic Signal	___ Lateral Obstructions	___ Pavement Conditions	___ Hydrants



LOCATION Larrabee Rd @ Terminal St (23)
CITY & STATE: Westbrook, ME JOB NUMBER: 6846
TYPE OF CURBING: _____ TYPE OF SIDEWALKS: _____
TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
TRAFFIC CONTROL DEVICES: None
DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants



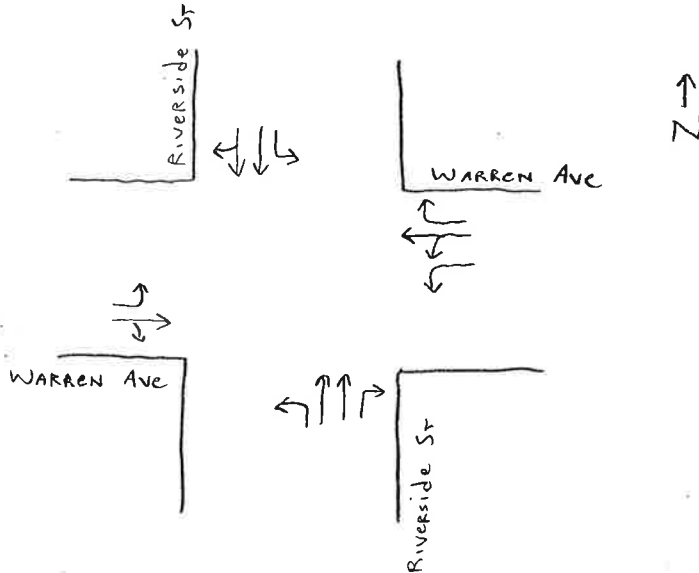
___ Width	___ Offsets	___ Pavement Markings	___ Stopping Sight Distance	___ Illumination	___ Pedestrians
___ Curbing	___ Lane Line	___ Bus Stops	___ Passing Sight Distance	___ Approach Speeds	___ Land Use
___ Shoulders	___ Sidewalks	___ Loading Zones	___ Horizontal Alignment	___ Speed Limits	___ Catch Basins/Drainage
___ Radii	___ Parking Restrictions	___ School Zones	___ Vertical Alignment	___ Weight Limits	___ Utility Poles
___ Approach Angles	___ Signing	___ Traffic Signal	___ Lateral Obstructions	___ Pavement Conditions	___ Hydrants

Signal Timing and Phasing Sheet

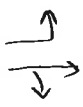
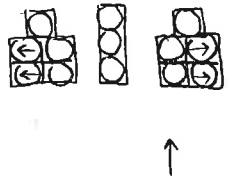
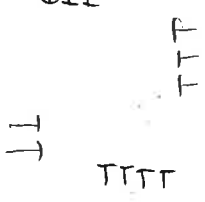
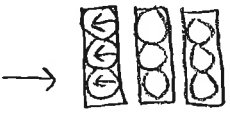
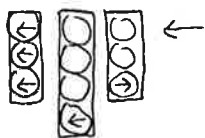
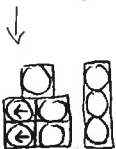
Intersection: Riverside St @ Warren Ave City/Town: Portland, ME

Date: 11/17/15 11:45 AM

Job No: 6846



Pg 1 of 2

PHASE	1			2						PED		
Phase Diagrams												
Signal Head Sketch										When called AFTER PHASE 3		
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	21	3.5	1:15	30	3.5	1:29				04	22	
Trial 2	25	3.5	1:13	35	3.5	1:25				04	22	
Trial 3	25	3.5	1:12	35	3.5	1:22				04	22	
Total												
Average												

Type of Signal: Fixed ☒ Semi-Actuated ☐ Fully Actuated ☐
Pedestrian Control: yes ☒ no ☐

Comments: _____

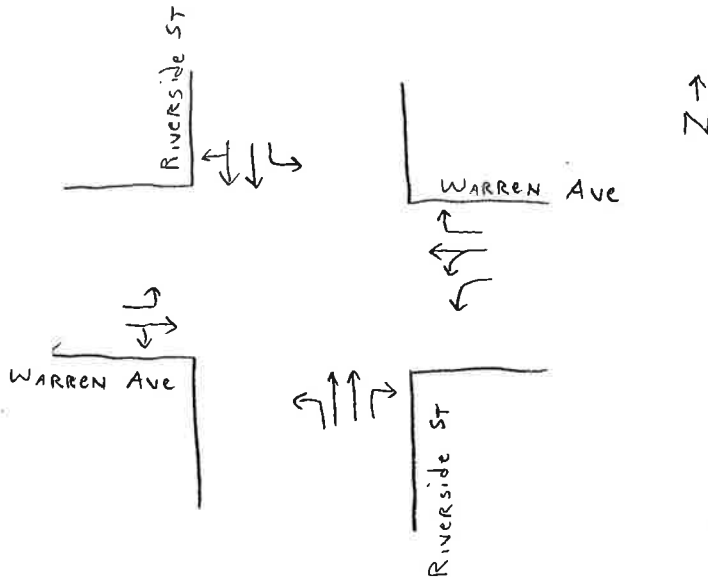
Signal Timing and Phasing Sheet

Intersection: Riverside St @ WARREN Ave

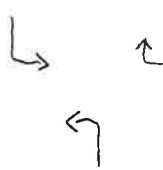
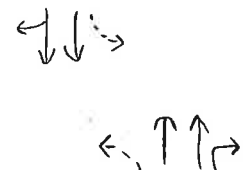
City/Town: Portland, ME

Date: 11/17/15 11:45 am

Job No: 6846

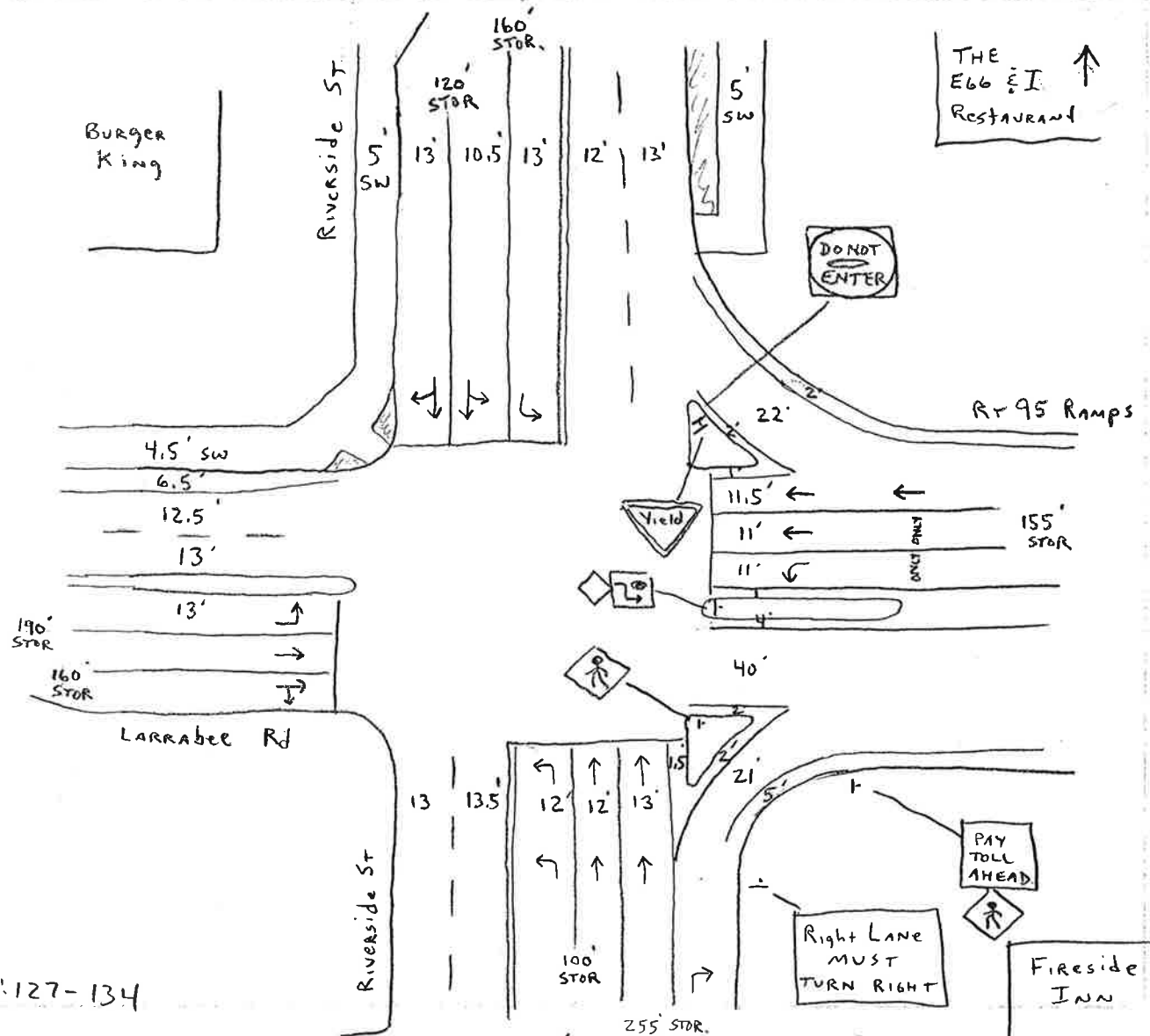


Pg 2 of 2

PHASE	ADV						3					
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	10	3.5					18	3.5	1:05			
Trial 2	10	3.5					15	3.5	1:06			
Trial 3	10	3.5					15	3.5	1:15			
Total												
Average												

Type of Signal: Fixed ☐ Semi-Actuated ☐ Fully Actuated ☐
Pedestrian Control: yes ☒ no ☐

Comments: _____



Pic: 127-134

LOCATION Riverside St @ Larrabee Rd / Rt 95 Ramps 2
 CITY & STATE: Portland, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS _____

CHECKLIST

☐ Width	☐ Offsets	☐ Pavement Markings	☐ Stopping Sight Distance	☐ Illumination	☐ Pedestrians
☐ Curbing	☐ Lane Line	☐ Bus Stops	☐ Passing Sight Distance	☐ Approach Speeds	☐ Land Use
☐ Shoulders	☐ Sidewalks	☐ Loading Zones	☐ Horizontal Alignment	☐ Speed Limits	☐ Catch Basins/Drainage
☐ Radii	☐ Parking Restrictions	☐ School Zones	☐ Vertical Alignment	☐ Weight Limits	☐ Utility Poles
☐ Approach Angles	☐ Signing	☐ Traffic Signal	☐ Lateral Obstructions	☐ Pavement Conditions	☐ Hydrants



Transportation Engineers & Planners

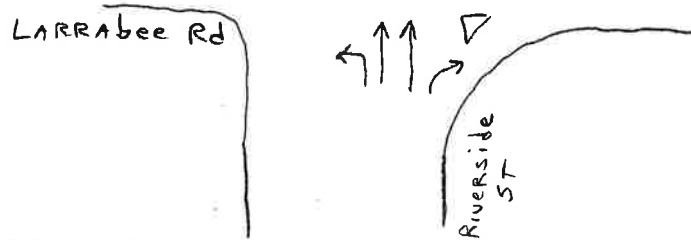
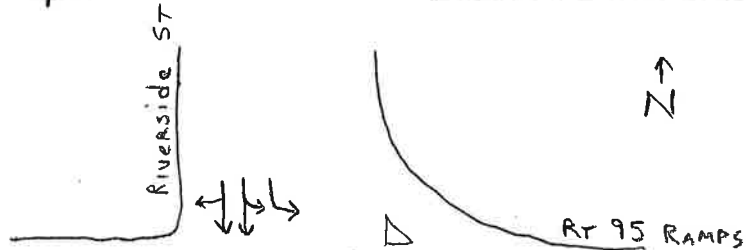
10 New England Business Center Drive
Suite 314
Andover, MA 01810-1066
Phone 978-474-8800
Fax 978-688-6508

Signal Timing and Phasing Sheet

Intersection: Riverside ST @ LARRABEE Rd City/Town: Portland, ME

Date: 11/17/15 2:30 pm

Job No: 6846



Pg 1 of 1

PHASE	1			2								
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	30	3.5	1:08	11	3.5	1:26						
Trial 2	28	3.5	1:03	11	3.5	1:25						
Trial 3	32	3.5	1:03	17	3.5	1:20						
Total												
Average												

Type of Signal: Fixed _____ Semi-Actuated _____ Fully Actuated _____

Pedestrian Control: yes _____ no ☒

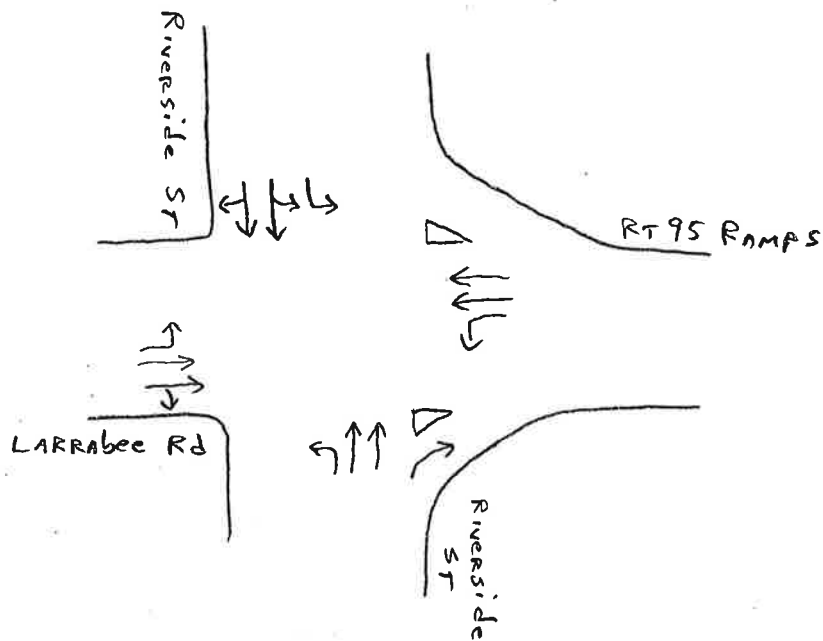
Comments: all red 2.5 sec after phase 1
" " 2.5 " " " 2
" " 2.5 " " " 3

Signal Timing and Phasing Sheet

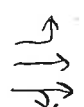
Intersection: Riverside St @ LARRABEE Rd City/Town: Portland, ME

Date: 11/17/15 2:30 pm

Job No: 6846

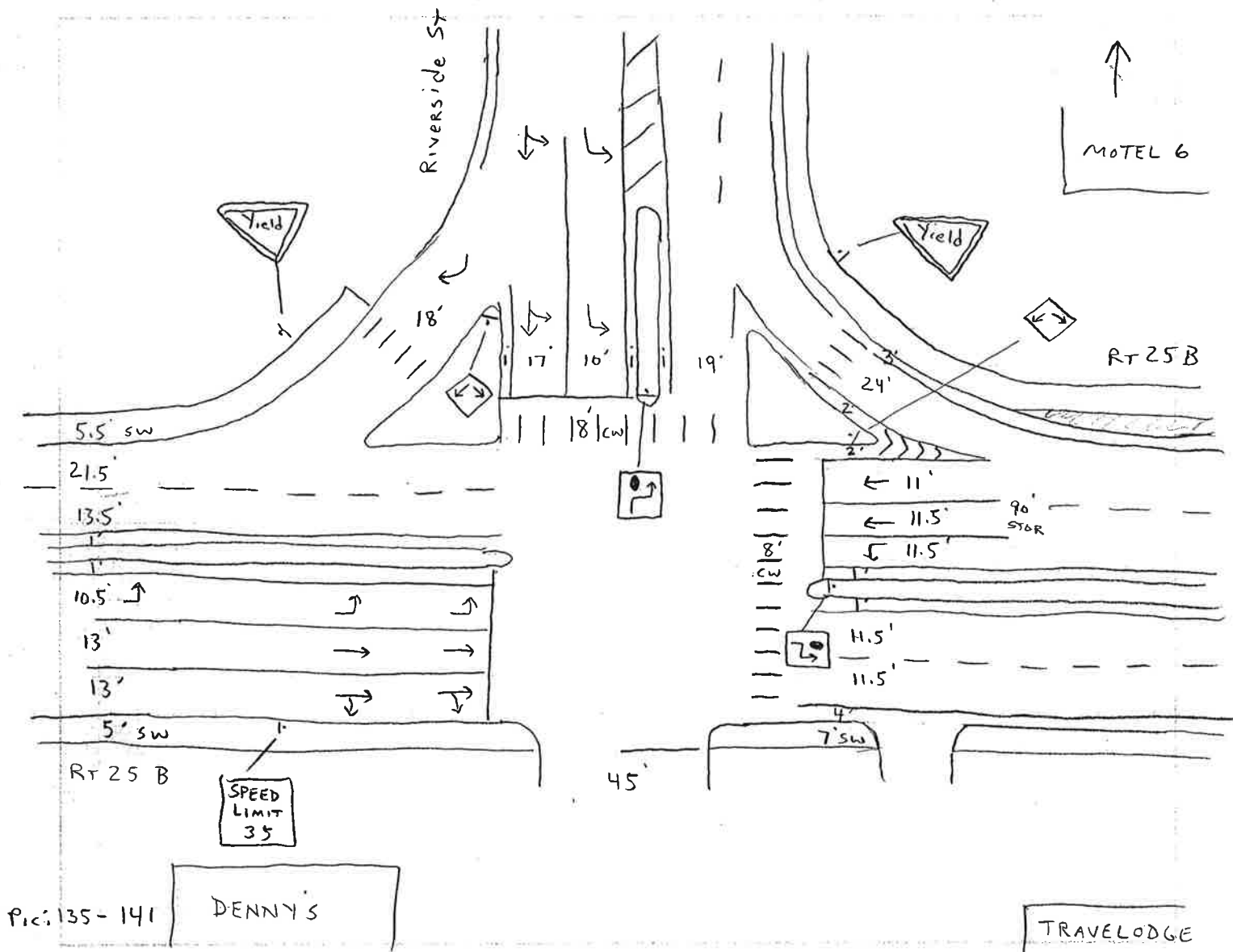


Pg 2 of 2

PHASE	ADV 1			ADV 2			ADV 3			3		
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	12	3.5	→	02	03	→	→	→	→	15	3.5	58
Trial 2	14	3.5	→	→	→	→	→	→	→	15	3.5	1:02
Trial 3	13	3.5	→	01	03	→	→	→	→	15	3.5	55
Total							04	03	Phase 3			
Average												

Type of Signal: Fixed ☐ Semi-Actuated ☐ Fully Actuated ☐
Pedestrian Control: yes ☐ no ☒

Comments: _____



LOCATION RT 25 B @ Riverside St (4)
 CITY & STATE: Portland, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

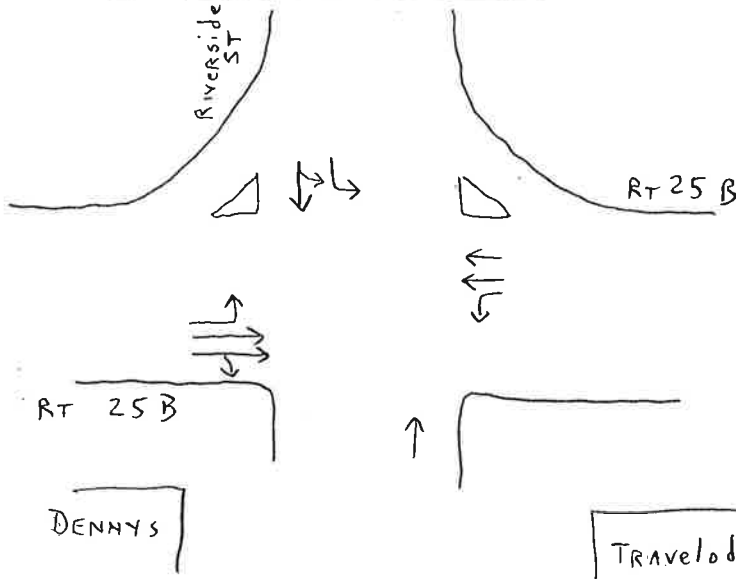
Signal Timing and Phasing Sheet

Intersection: RT 25 B @ Riverside ST

City/Town: Portland, ME

Date: 11/23/15 10:00 AM

Job No: 6846



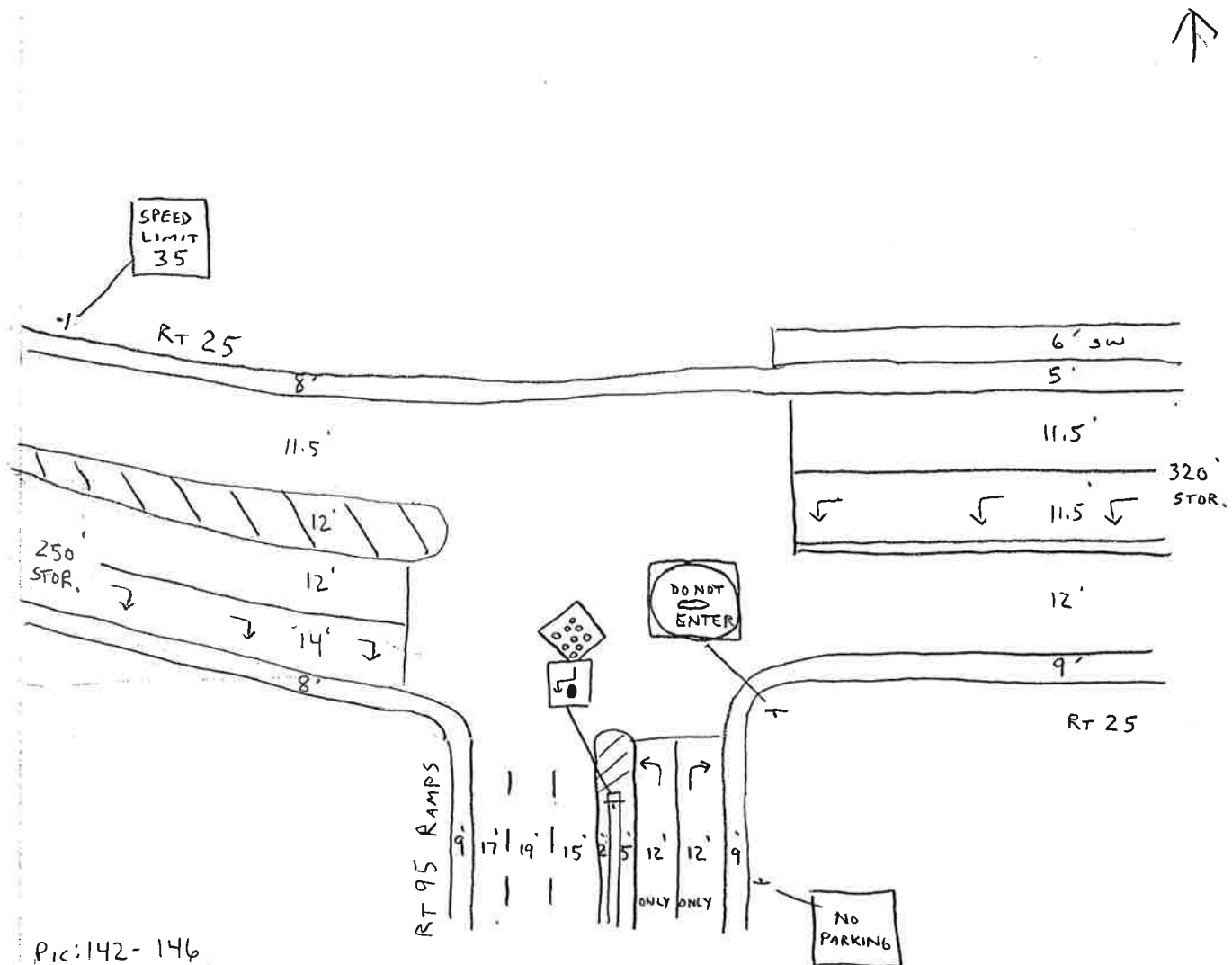
↑
N

3		
G	Y	R
23	3.5	1:08
20	3.5	1:08
21	3.5	1:02

PHASE	ADV			1			LAG			2		
	when called						when called			when called		
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	06	03	→	25	3.5	→	12	3.5	18	06	03	6:36
Trial 2	06	03	→	50	3.5	→	12	3.5	29	06	03	4:50
Trial 3	06	03	"	40	3.5	→	12	3.5	38	max 10	03	Phase 3
Total												
Average												

Type of Signal: Fixed yes ☒ Semi-Actuated no ☐ Fully Actuated no ☐

Comments: All red 2.5 sec after phase 1
" " 2.5 " " " 2
" " 2.5 " " " 3



Pic: 142-146

LOCATION RT 25 @ RT 95 Ramps (6)
 CITY & STATE: Portland, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

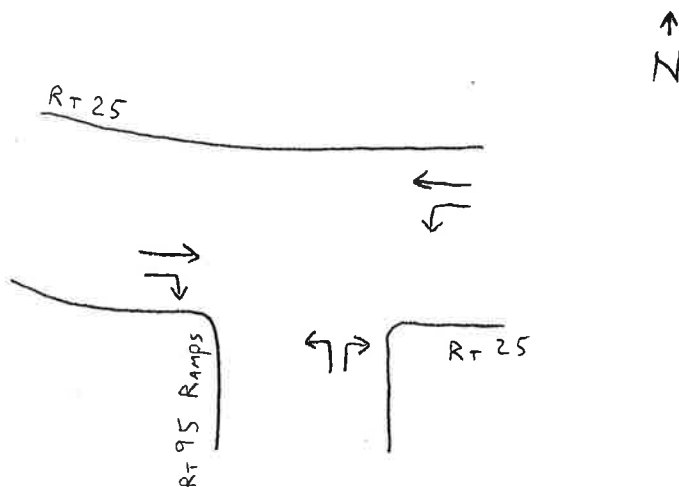
Signal Timing and Phasing Sheet

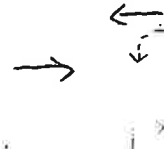
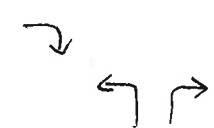
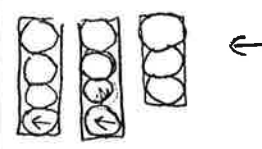
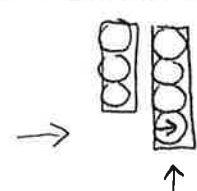
Intersection: RT 25 @ RT 95 Ramps

City/Town: Portland, ME

Date: 11/23/15 11:15 AM

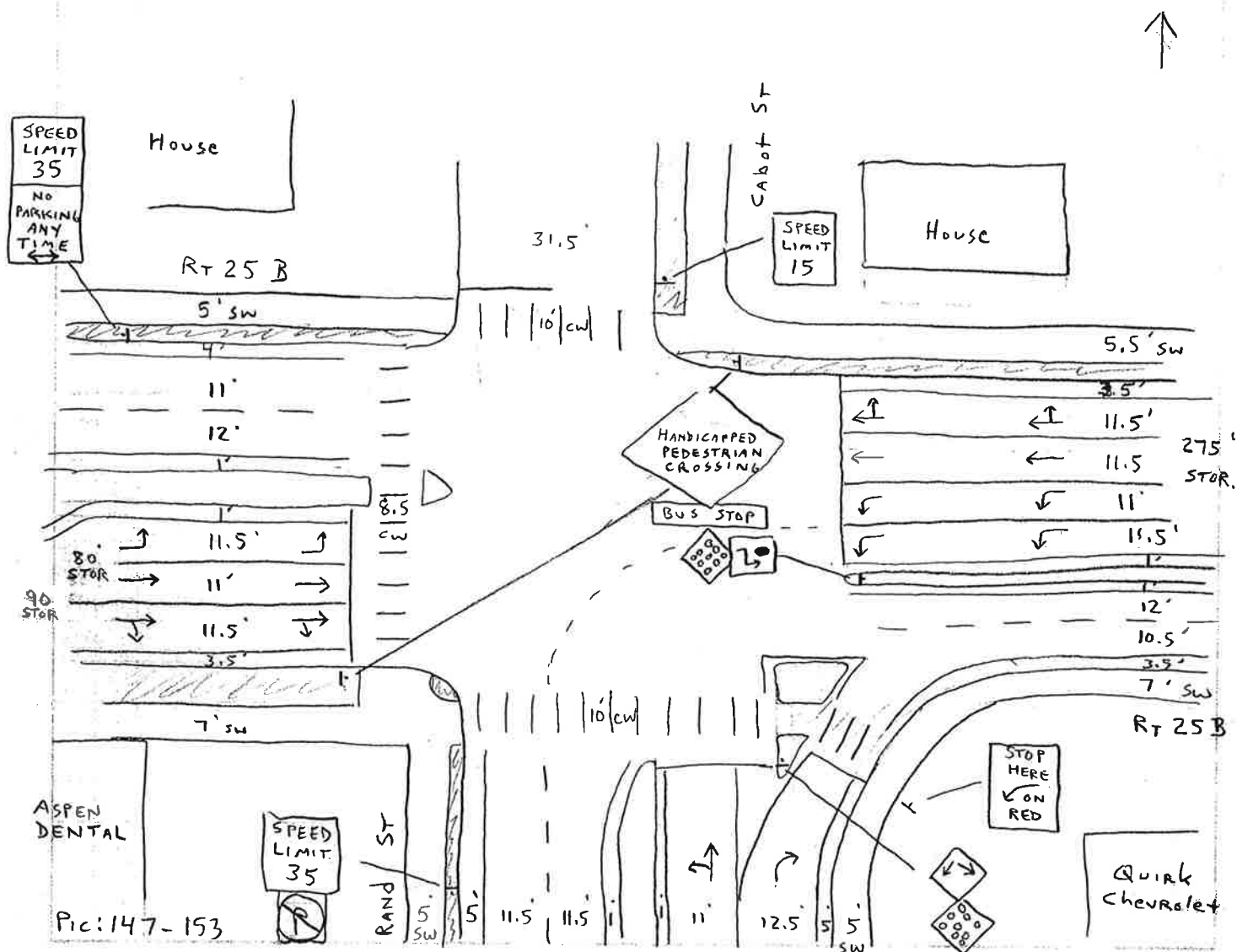
Job No: 6846



PHASE	ADV			1			2					
	When Called											
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	19	03	→	12	3.5	18	08	03	43			
Trial 2	14	03	→	15	3.5	26	08	03	31			
Trial 3	08	03	→	18	03	TO ADV	11	03	21			
Total												
Average												

Type of Signal: Fixed ☐ Semi-Actuated ☐ Fully Actuated ☐
Pedestrian Control: yes ☐ no ☒

Comments: All red 02 sec after phase 1
" " 02 " " " 2



LOCATION Rt 25 B @ Rand St / Cabot St (7)
CITY & STATE: Portland, ME JOB NUMBER: 6846
TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
TRAFFIC CONTROL DEVICES: Signalized
DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
COMMENTS _____

CHECKLIST

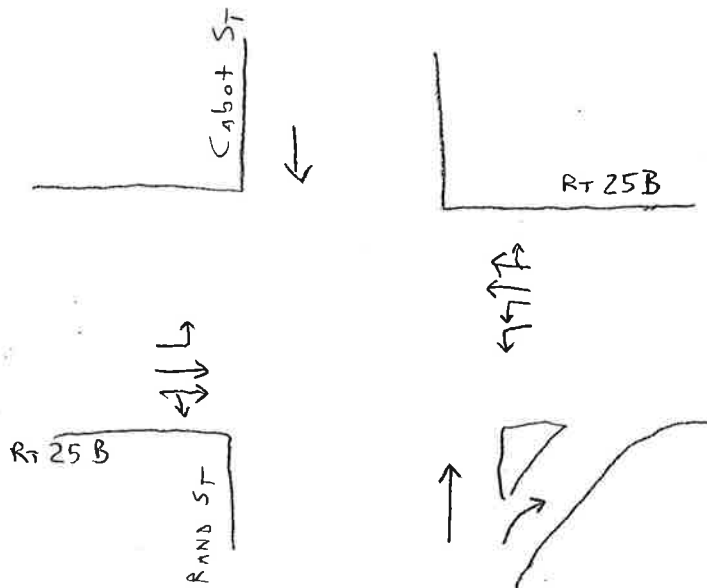
- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

Signal Timing and Phasing Sheet

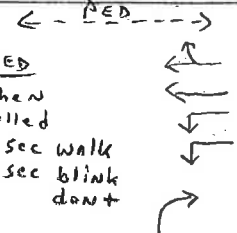
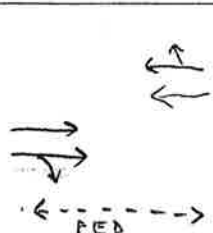
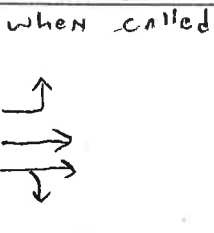
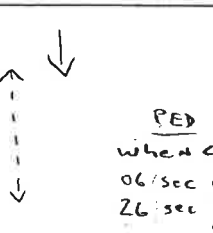
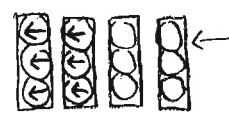
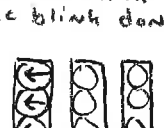
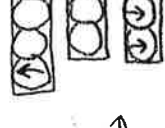
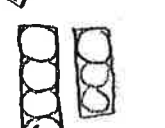
Intersection: RT 25 B @ RAND ST / Cabot ST City/Town: Portland

Date: 11/23/15

Job No: 6846

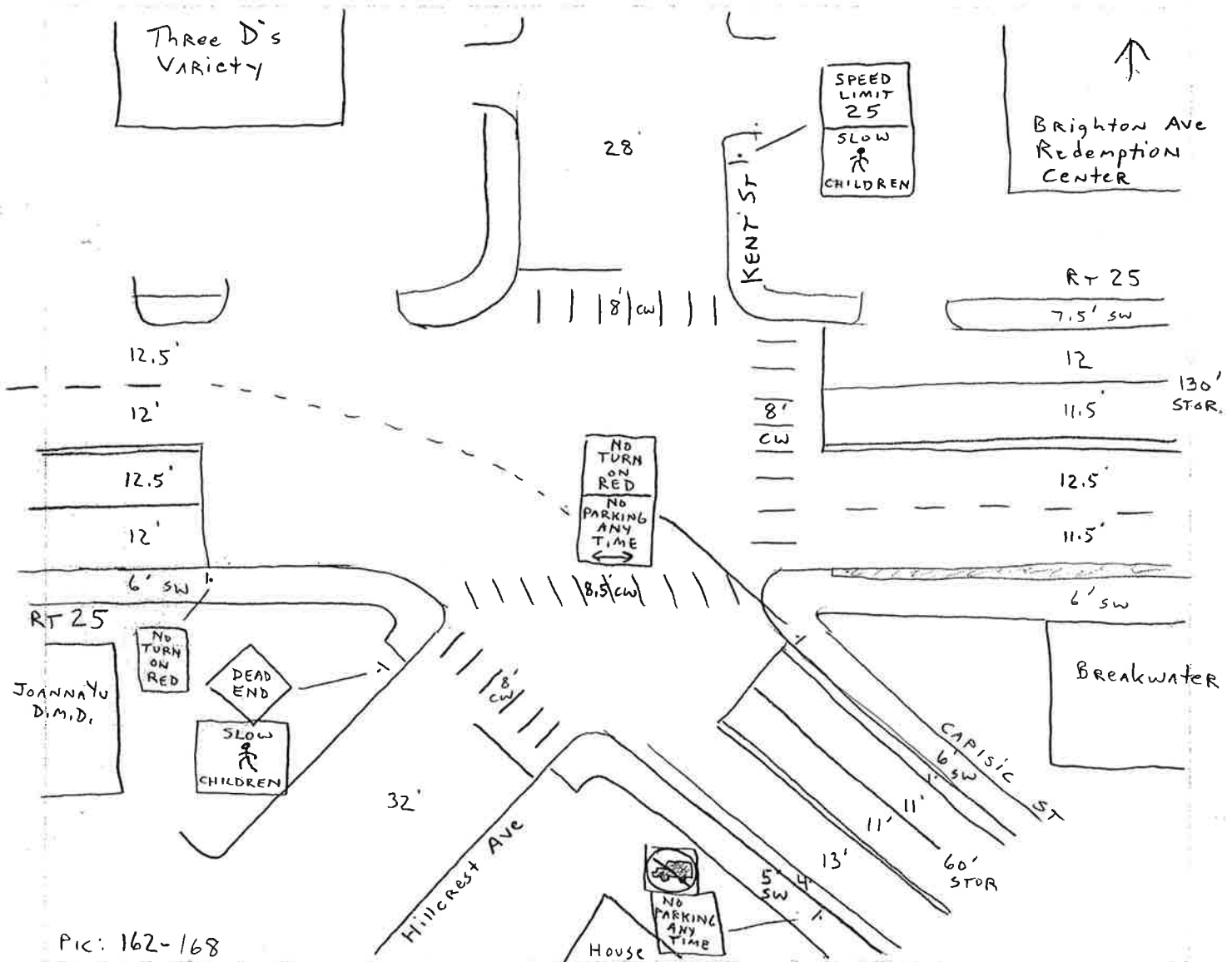


3		
G	Y	R
19	3.5	1:06
24	3.5	1:12
09	3.5	1:41

PHASE	ADU (when called)			1			L 16			2		
Phase Diagrams	 ← - PED - - - - -> PED When called 10 sec walk 13 sec blink don't			 ← - PED - - - - ->			 when called			 PED when called 06 sec of walk 26 sec blink don't		
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	16	3.5	→	33	3.5	24	07	3.5	To Phase 2	10	3.5	3:06
Trial 2	15	3.5	To Phase 1	1:10	3.5	46				10	3.5	3:07
Trial 3	22	3.5	→	26	3.5	18				05	3.5	3:11
Total												
Average												

Type of Signal: Fixed ☒ Semi-Actuated ☐ Fully Actuated ☐
Pedestrian Control: yes ☒ no ☐

Comments: All Red 2.5 sec after phase 1
" " 2.5 " " " 2
" " 2.5 " " " 3



PIC: 162-168

LOCATION RT 25 @ Capisic St / Kent St / Hillcrest Ave ⑧
 CITY & STATE: Portland, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

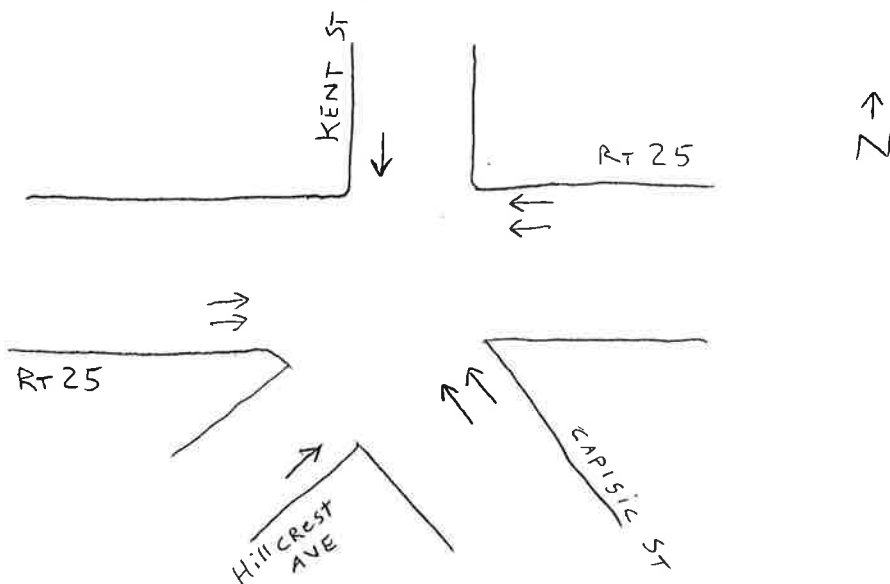
- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

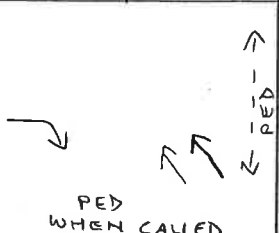
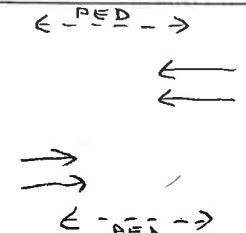
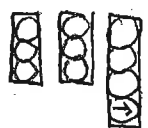
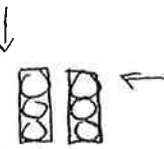
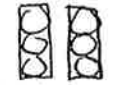
Signal Timing and Phasing Sheet

 Intersection: Rt 25 @ Capisic St

 City/Town: Portland, ME

 Date: 11/23/15 3:45 pm

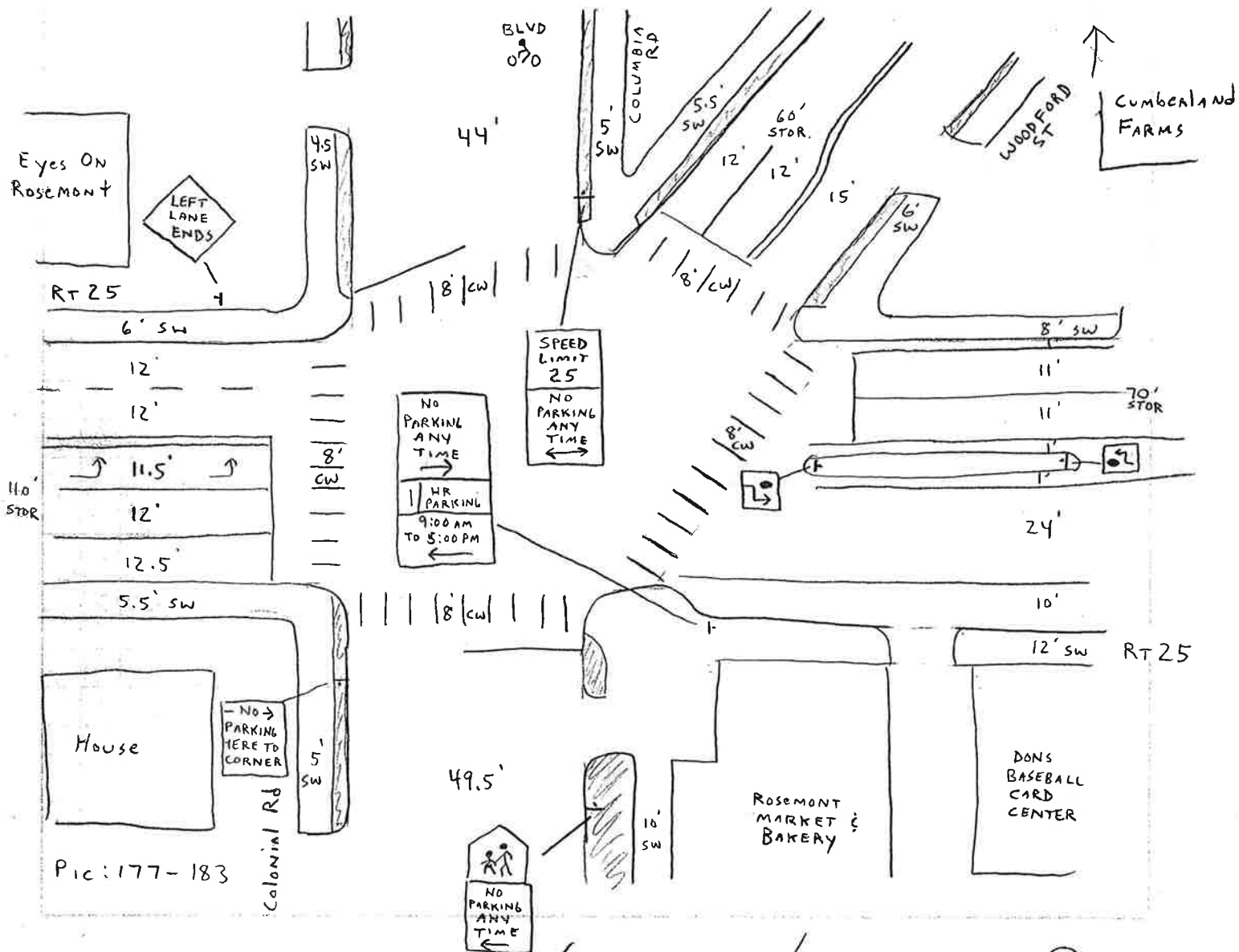
 Job No: 6846


PHASE							2			3		
Phase Diagrams												
Signal Head Sketch	06 SEC OF WALK 13 SEC BLINK DONT 						When called 06 SEC OF WALK 13 SEC BLINK DONT 					
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	37	3.5	1:24				1:06	3.5	35	04	3.5	1:49
Trial 2	11	3.5	1:56				1:18	3.5	23	08	3.5	5:48
Trial 3	25	3.5	1:31				1:32	3.5	29	10	3.5	3:47
Total												
Average												

 Type of Signal: Fixed ☐ Semi-Actuated ☐ Fully Actuated ☐
 Pedestrian Control: yes ☒ no ☐

 Comments: All Red 2.5 sec After phase 1

" " 3.5 " " " 2
 " " 3.5 " " " 3



LOCATION Rt 25 @ Woodford St / Colonial Rd / Columbia Rd (9)
CITY & STATE: Portland, ME JOB NUMBER: 6846
TYPE OF CURBING: Granite TYPE OF SIDEWALKS: conc / Bit Conc.
TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
TRAFFIC CONTROL DEVICES: Signalized
DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

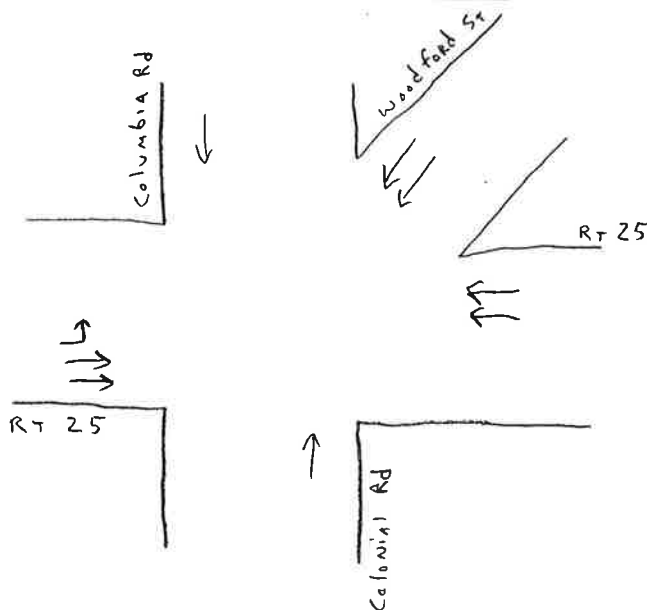
Signal Timing and Phasing Sheet

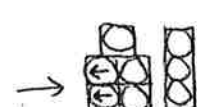
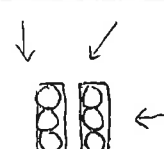
Intersection: RT 25 @ Woodford St

City/Town: Portland, ME

Date: 11/24/15 11:30 am

Job No: 6846

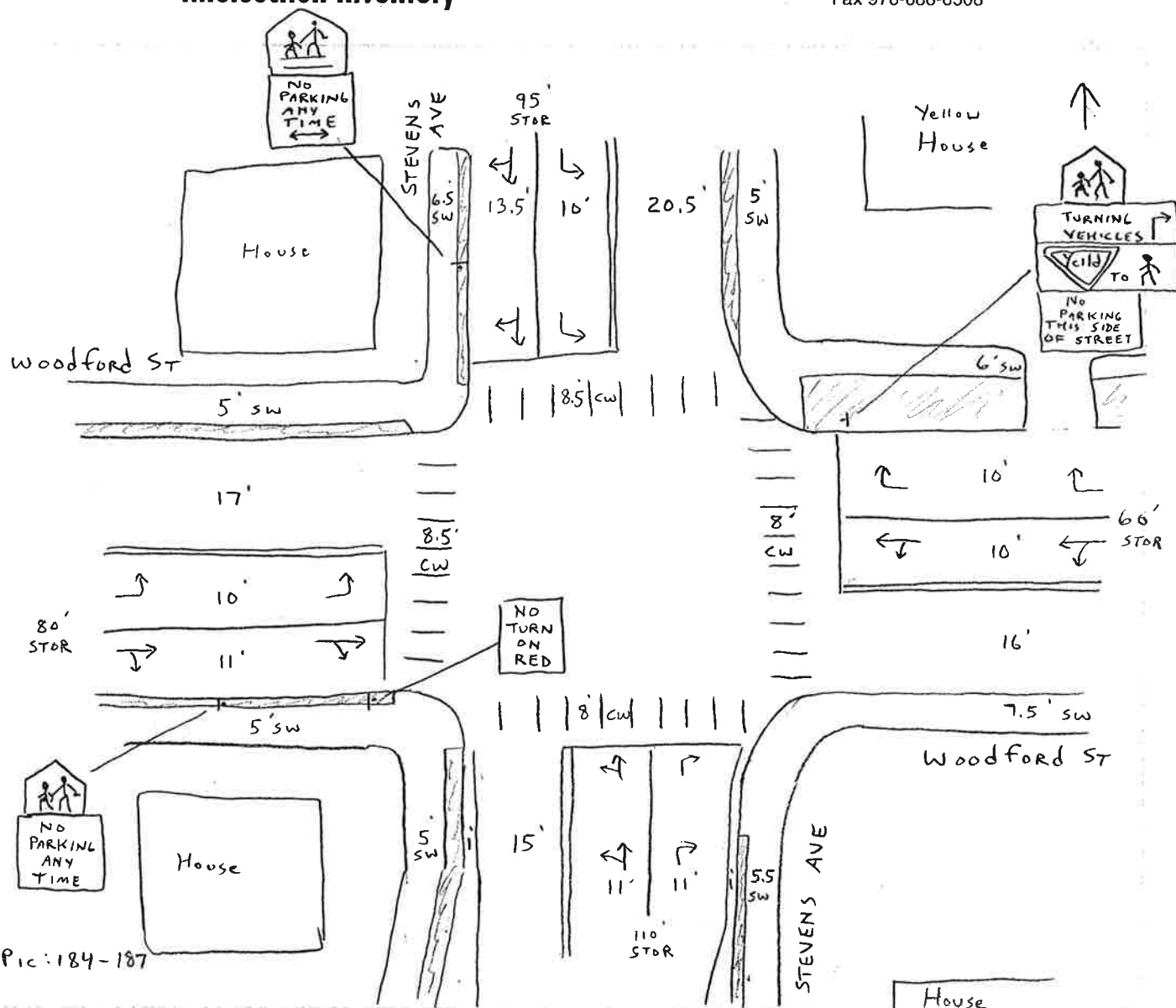


PHASE	ADV			1			2			3		
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	12	03	→	39	03	48	16	03	1:21	10	03	1:54
Trial 2	25	03	→	40	03	45	16	03	1:20	11	03	1:42
Trial 3	18	03	→	40	03	46	16	03	1:21	17	03	1:29
Total												
Average												

Type of Signal: Fixed yes ☒ Semi-Actuated no ☐ Fully Actuated Exclusive Red Phase

Comments: All Red 03 sec after phase 1
" " 03 " " " 2
" " 03 " " " 3

- When called
 - After phase 3
 06 sec of walk
 18 sec blink don't



LOCATION Steven St @ Woodford St (10)
CITY & STATE: Portland, ME JOB NUMBER: 6846
TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Conc
TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
TRAFFIC CONTROL DEVICES: Signalized
DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

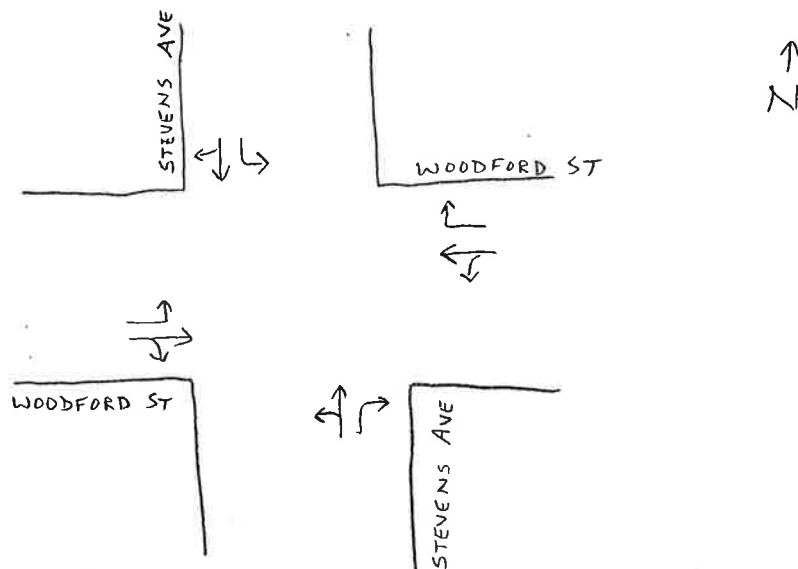
Signal Timing and Phasing Sheet

Intersection: STEVENS AVE @ Woodford ST

City/Town: Portland, ME

Date: 11/24/15 1:30 pm

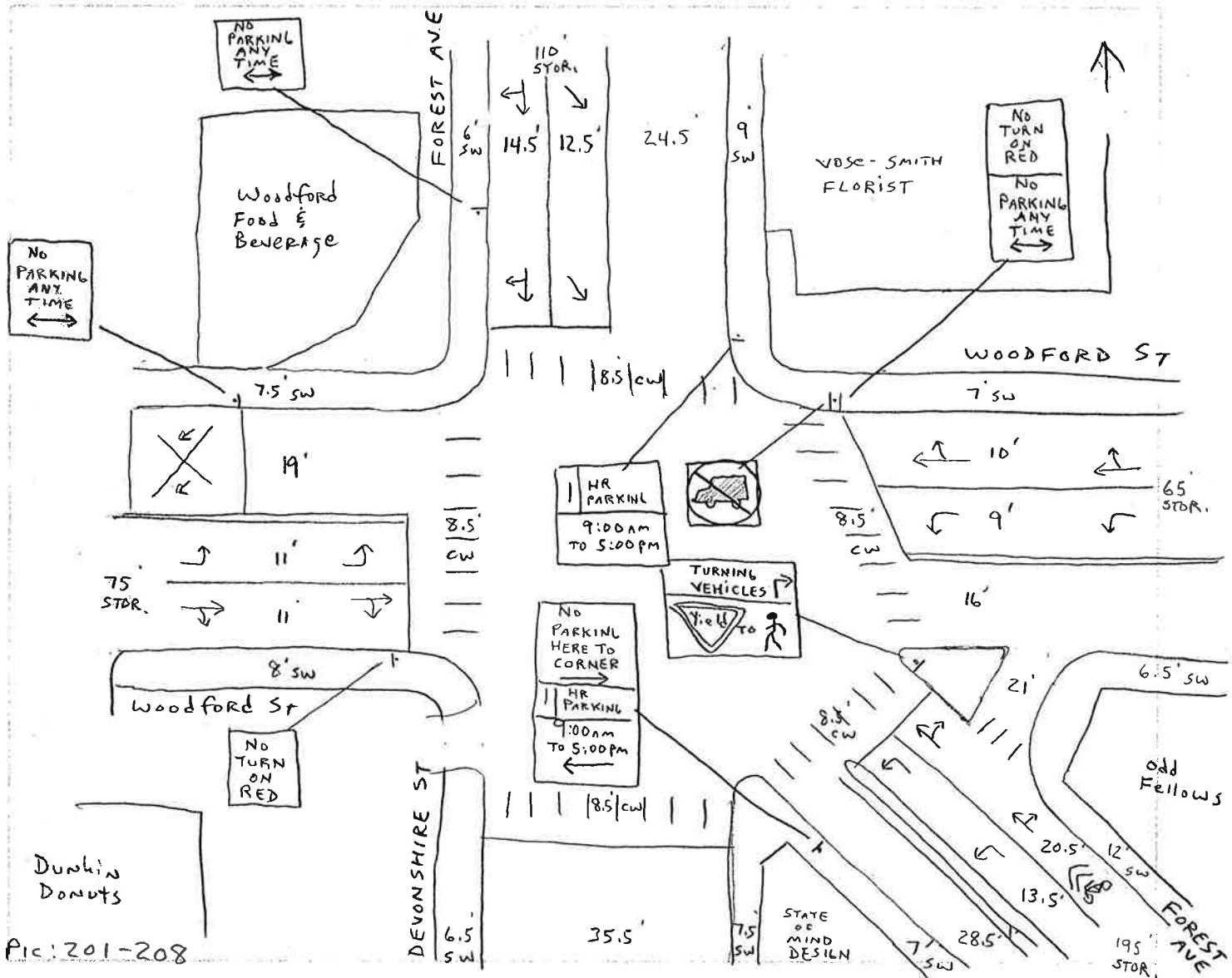
Job No: 6846



PHASE	ADV.			1			2			PED		
Phase Diagrams	- when called - 											
Signal Head Sketch										When called AFTER PHASE 2 WALK Blink DON'T		
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	10	03	→	34	03	35	30	03	49	04	17	
Trial 2	10	03	→	35	03	35	30	03	53	04	17	
Trial 3	08	03	→	35	03	1:00	30	03	53	04	17	
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: All red 01 sec after phase 1
" " 01 " " 2



LOCATION Forest Ave @ Woodford St (11)
 CITY & STATE: Portland, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____
 COMMENTS _____

CHECKLIST

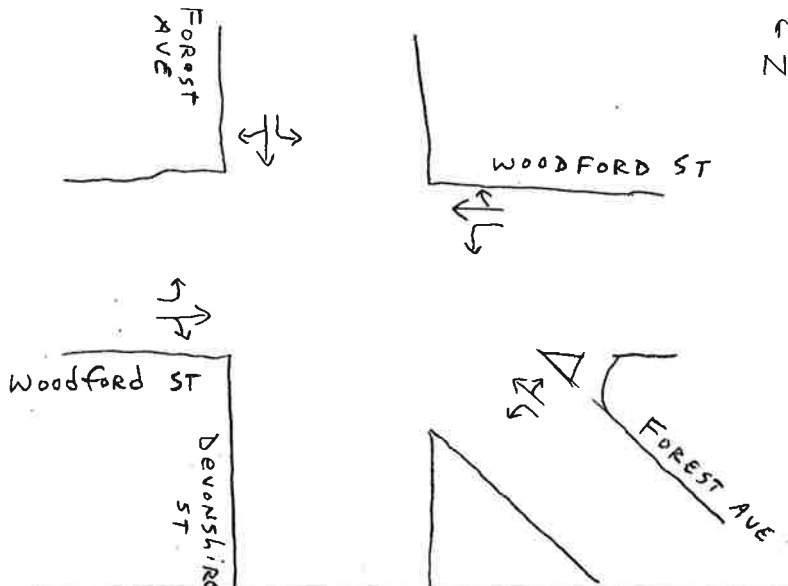
- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

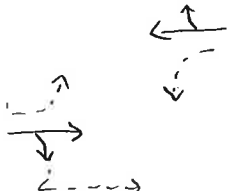
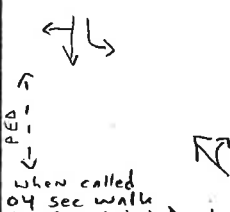
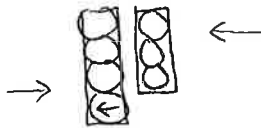
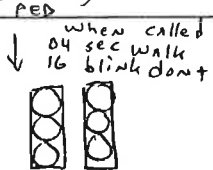
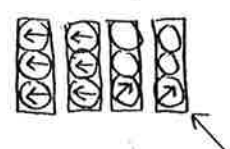
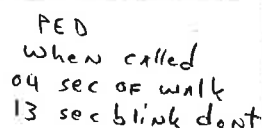
Signal Timing and Phasing Sheet

Intersection: Forest Ave @ Woodford St

City/Town: Portland, ME

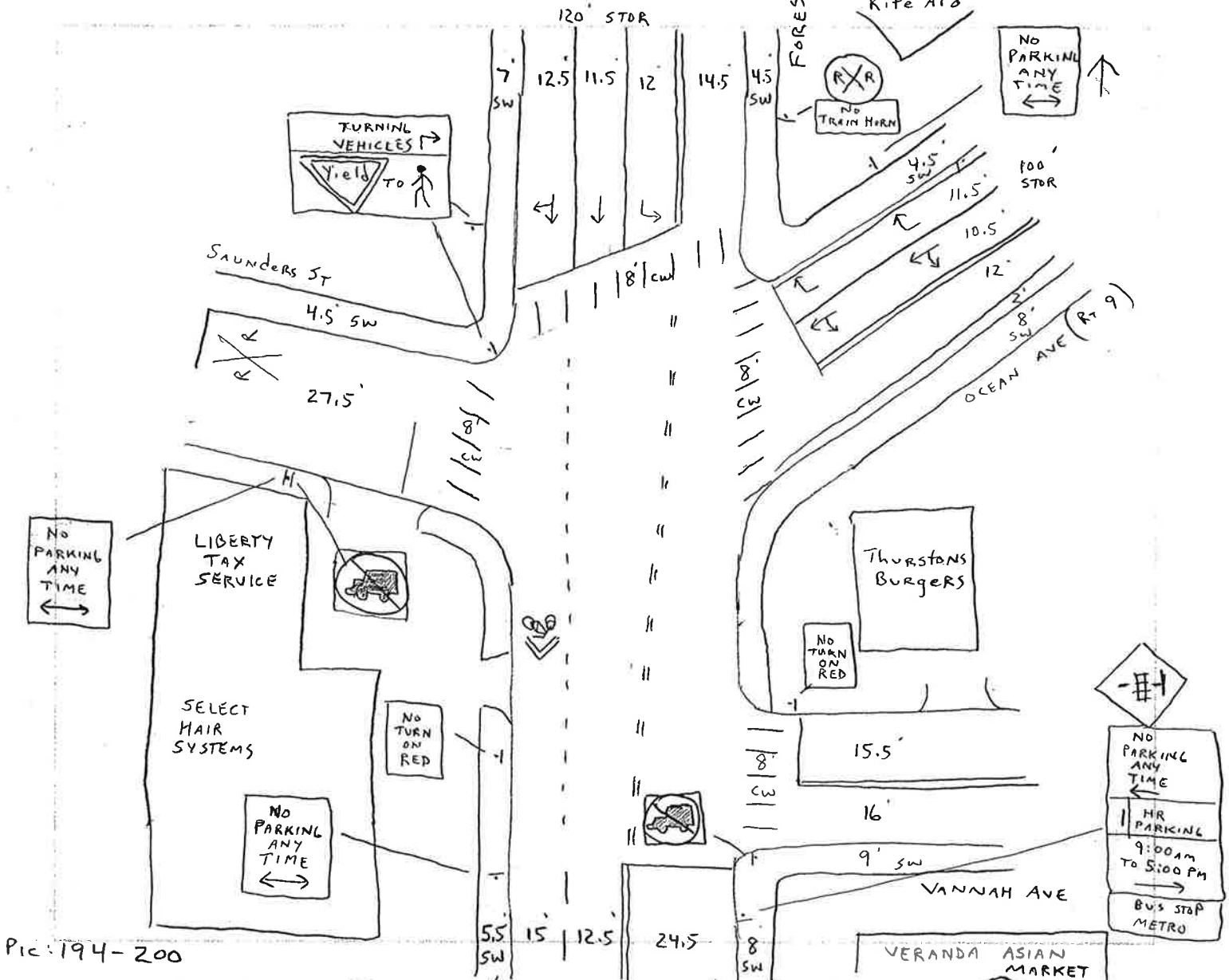
Date: 12/7/15 12:15 pm

Job No: 6846


PHASE	ADV			1			ADV			2		
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	08	04	→	16	04	1:27	58	04	→	16	04	34
Trial 2	08	04	→	20	04	1:22	1:00	04	→	16	04	1:02
Trial 3	08	04	→	17	04	1:25	36	04	→	14	04	32
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

Comments: " Red 02 sec after phase 1
" " 02 " " " 2



Pic: 194-200

LOCATION Forest Ave @ RT 9 / Saunders St / Vannah Ave (12)
 CITY & STATE: Portland, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Conc / Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS _____

CHECKLIST

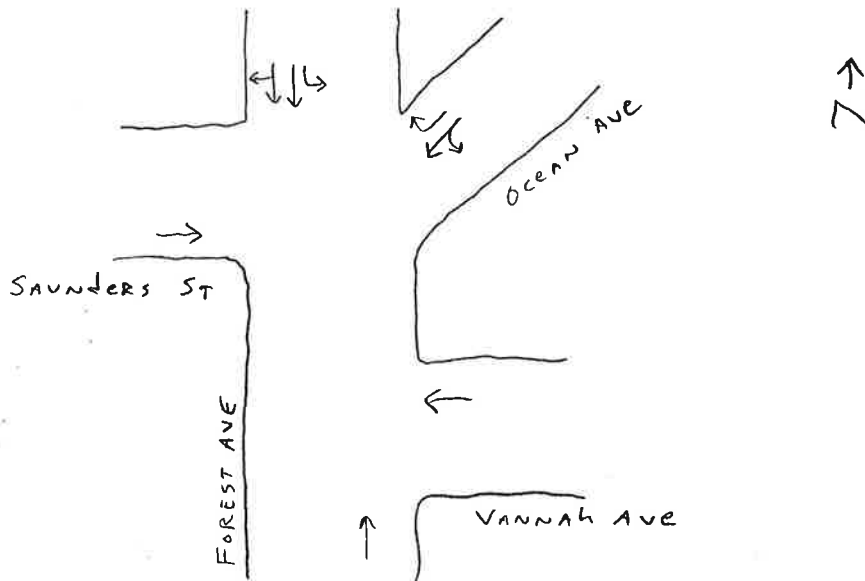
- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

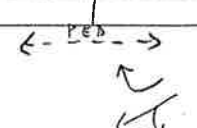
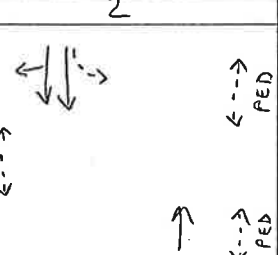
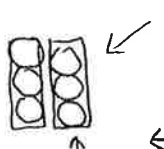
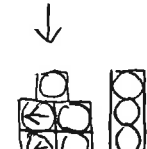
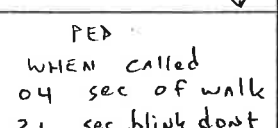
Signal Timing and Phasing Sheet

Intersection: Forest Ave @ Ocean Ave / Saunders City/Town: Portland, ME
ST

Date: 12/7/15 10:30 AM

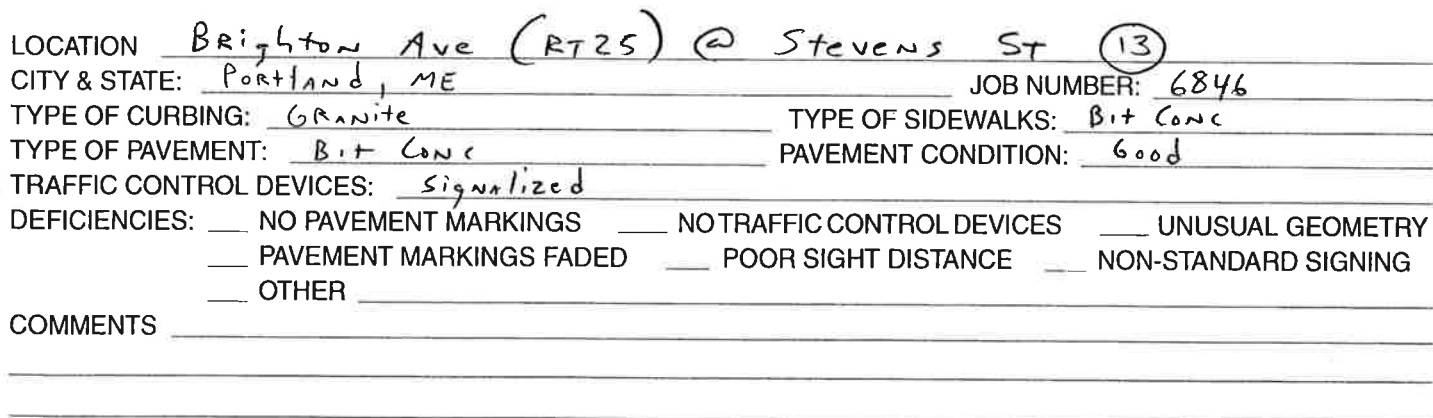
Job No: 6846



PHASE	1			2			3					
Phase Diagrams	 PED when called 04 sec of walk 15 sec blink dont			 ADV when called								
Signal Head Sketch							 PED WHEN called 04 sec of walk 21 sec blink dont					
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	15	04	1:16	07	04	TO PHASE 2	52	04	44	19	04	1:15
Trial 2	13	04	1:18	07	04	→	41	04	37	20	04	1:20
Trial 3	20	04	1:18	07	04	TO PHASE 2	59	04	51	10	04	1:26
Total												
Average												

Type of Signal: Fixed ☒ Semi-Actuated ☐ Fully Actuated ☐
Pedestrian Control: yes ☒ no ☐

Comments: All Red 02 sec after phase 1
" " 02 " " " 2
" " ? " " " 3



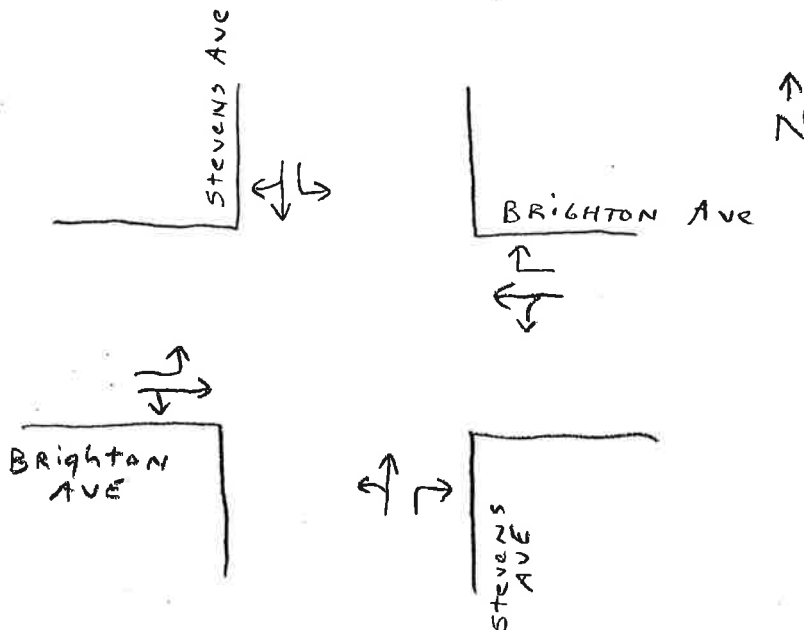
___ Width	___ Offsets	___ Pavement Markings	___ Stopping Sight Distance	___ Illumination	___ Pedestrians
___ Curbing	___ Lane Line	___ Bus Stops	___ Passing Sight Distance	___ Approach Speeds	___ Land Use
___ Shoulders	___ Sidewalks	___ Loading Zones	___ Horizontal Alignment	___ Speed Limits	___ Catch Basins/Drainage
___ Radii	___ Parking Restrictions	___ School Zones	___ Vertical Alignment	___ Weight Limits	___ Utility Poles
___ Approach Angles	___ Signing	___ Traffic Signal	___ Lateral Obstructions	___ Pavement Conditions	___ Hydrants

Signal Timing and Phasing Sheet

Intersection: Stevens Ave @ Brighton Ave City/Town: Portland, ME

Date: 11/24/15 2:30 pm

Job No: 6846



1 of 2

PHASE	ABV 1						1			PED		
Phase Diagrams												
Signal Head Sketch							06 12					
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	07	03	—	—	—	—	27	03	59			
Trial 2	07	03	—	—	—	—	27	03	59			
Trial 3	07	03	—	—	—	—	27	03	59			
Total												
Average												

Type of Signal: Fixed Semi-Actuated Fully Actuated
Pedestrian Control: yes ✓ no

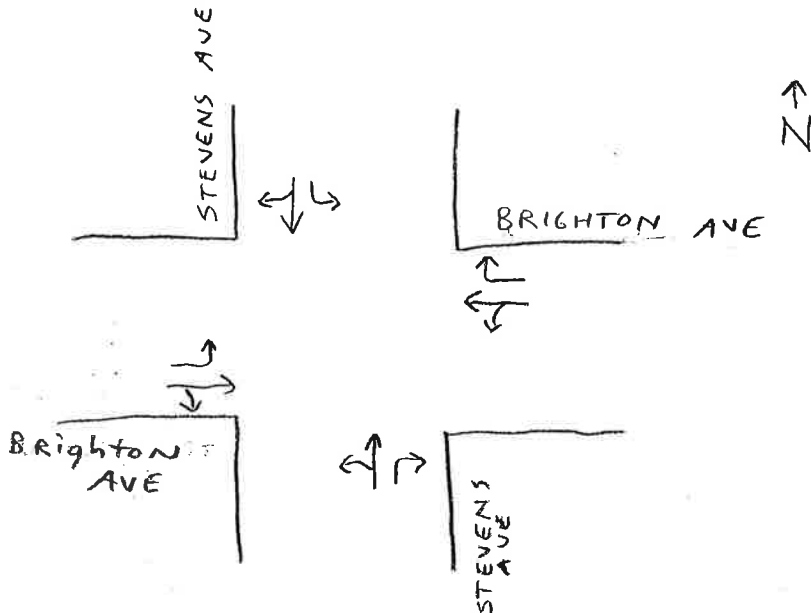
Comments: All Red 2.5 sec after phase 1
" " 2.5 " " " 2

Signal Timing and Phasing Sheet

Intersection: STEVENS AVE @ BRIGHTON AVE City/Town: Portland, ME

Date: 11/24/15 2:30 pm

Job No: 6846

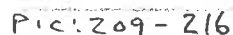


Pg 2 of 2

PHASE	ADV 1			ADV 2						2		
Phase Diagrams												
Signal Head Sketch	PED 06 12											
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1				08	03					42	3.5	47
Trial 2	07	03	PHASE 2	08	03					38	3.5	40
Trial 3	06	03								46	3.5	47
Total												
Average												

Type of Signal: Fixed ☐ Semi-Actuated ☐ Fully Actuated ☐
Pedestrian Control: yes ☐ no ☐

Comments: _____

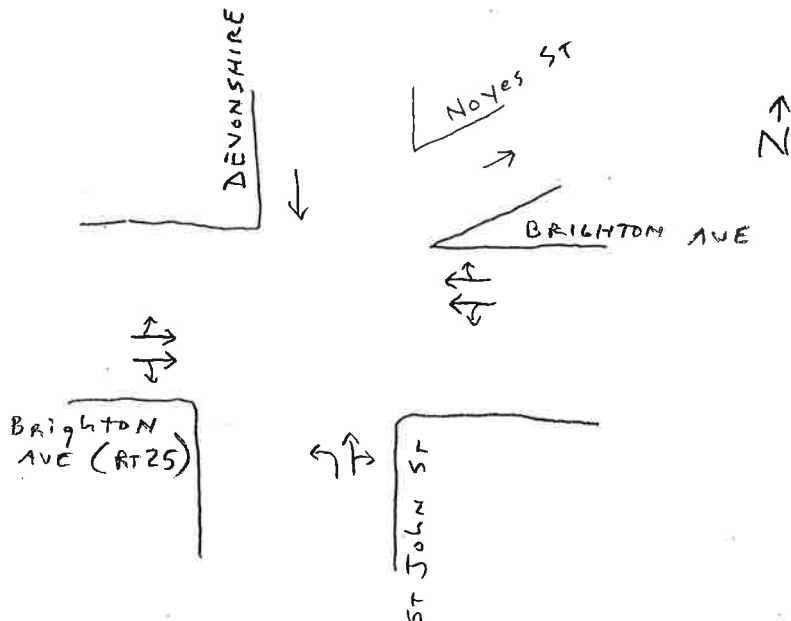


CHECKLIST

- | | | | | | |
|---------------------|--------------------------|-----------------------|-----------------------------|-------------------------|---------------------------|
| ___ Width | ___ Offsets | ___ Pavement Markings | ___ Stopping Sight Distance | ___ Illumination | ___ Pedestrians |
| ___ Curbing | ___ Lane Line | ___ Bus Stops | ___ Passing Sight Distance | ___ Approach Speeds | ___ Land Use |
| ___ Shoulders | ___ Sidewalks | ___ Loading Zones | ___ Horizontal Alignment | ___ Speed Limits | ___ Catch Basins/Drainage |
| ___ Radii | ___ Parking Restrictions | ___ School Zones | ___ Vertical Alignment | ___ Weight Limits | ___ Utility Poles |
| ___ Approach Angles | ___ Signing | ___ Traffic Signal | ___ Lateral Obstructions | ___ Pavement Conditions | ___ Hydrants |

Signal Timing and Phasing Sheet

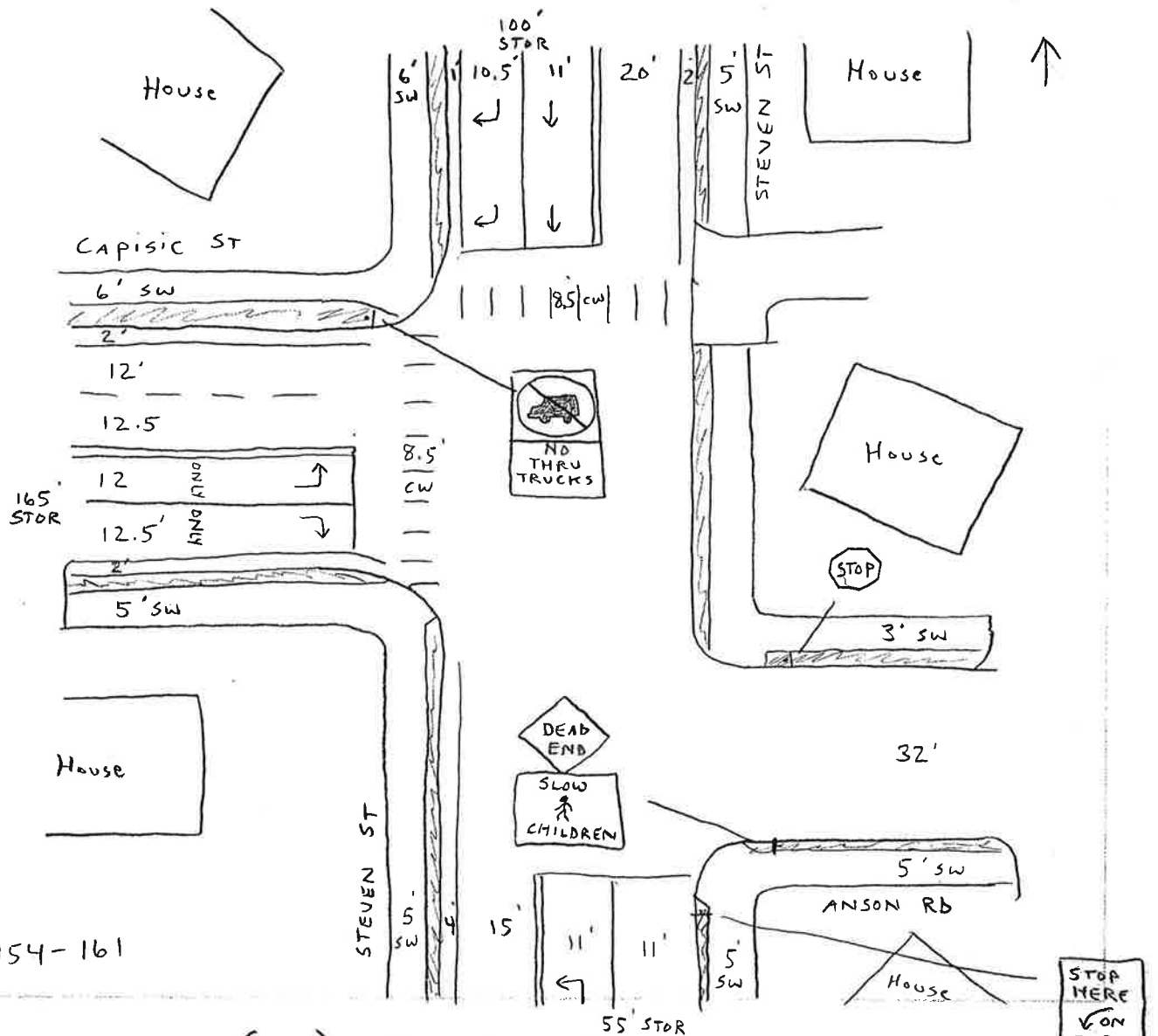
Intersection: RT 25 @ Devonshire / St John City/Town: Portland
Date: 12/7/15 2:00 pm Job No: 6846



PHASE	ADV.			1			2					
Phase Diagrams												
Signal Head Sketch												
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	07	3.5	→	26	3.5	58	50	3.5	46			
Trial 2	07	3.5	→	26	3.5	59	50	3.5	46			
Trial 3	08	3.5	→	27	3.5	59	50	3.5	46			
Total												
Average												

Type of Signal: Fixed yes ☒ Semi-Actuated no ☐ Fully Actuated ☐
Pedestrian Control: yes ☒ no ☐

Comments: All Red 02 Sec after phase 1
" " " " " 2



Pic: 154-161

LOCATION Steven St (Rt 9) @ Capisic St (15)
 CITY & STATE: Portland, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: Signalized
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS _____

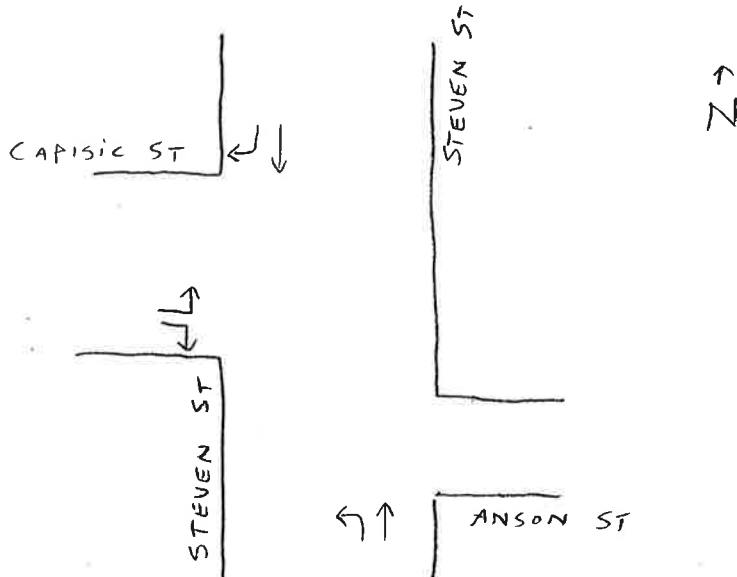
CHECKLIST

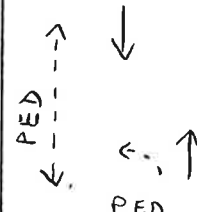
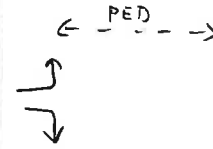
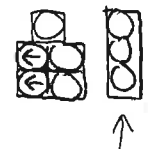
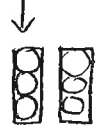
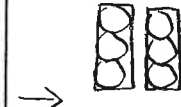
- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

Signal Timing and Phasing Sheet

Intersection: STEVEN ST @ CAPSIC ST City/Town: Portland

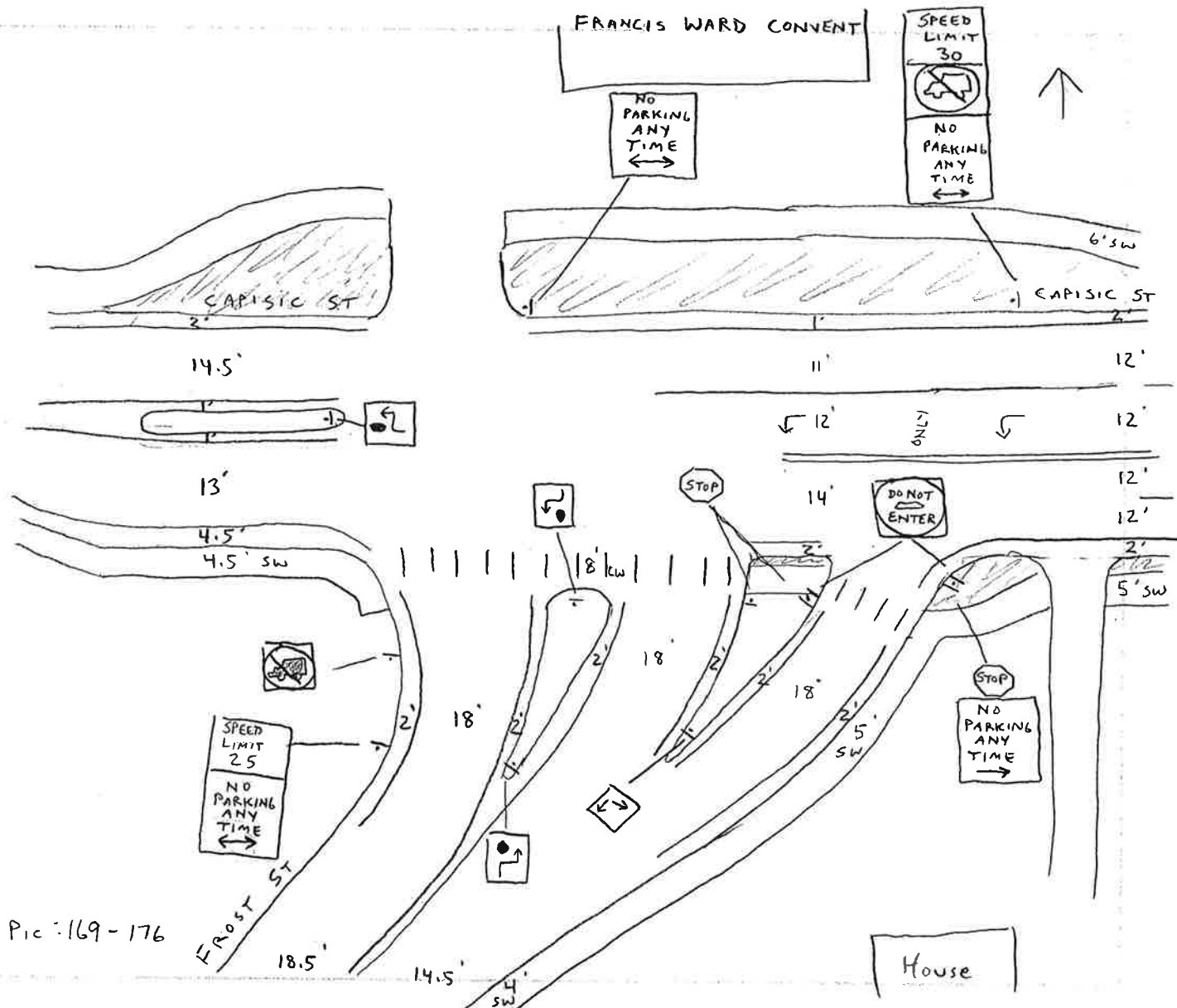
Date: 11/23/15 3:15 pm Job No: 6846



PHASE	ADV			1			2					
Phase Diagrams	When called 											
Signal Head Sketch				07 sec OF walk 19 sec blink dont 			07 sec OF walk 10 sec blink dont 					
TIMING	G	Y	R	G	Y	R	G	Y	R	G	Y	R
Trial 1	09	03	→	32	03	25	17	03	52			
Trial 2	15	03	→	28	03	30	17	03	53			
Trial 3	09	03	→	32	03	22	18	03	40			
Total												
Average												

Type of Signal: Fixed ☐ Semi-Actuated ☐ Fully Actuated ☐
Pedestrian Control: yes ☒ no ☐

Comments: all red 2.5 sec after phase 1
" " 02 " " " 2



Pic: 169-176

LOCATION Capisic St @ Frost St (16)
 CITY & STATE: Portland, ME JOB NUMBER: 6846
 TYPE OF CURBING: Granite TYPE OF SIDEWALKS: Bit Conc
 TYPE OF PAVEMENT: Bit Conc PAVEMENT CONDITION: Good
 TRAFFIC CONTROL DEVICES: None
 DEFICIENCIES: ☐ NO PAVEMENT MARKINGS ☐ NO TRAFFIC CONTROL DEVICES ☐ UNUSUAL GEOMETRY
☐ PAVEMENT MARKINGS FADED ☐ POOR SIGHT DISTANCE ☐ NON-STANDARD SIGNING
☐ OTHER _____

COMMENTS _____

CHECKLIST

- | | | | | | |
|--|---|--|--|--|--|
| ☐ Width | ☐ Offsets | ☐ Pavement Markings | ☐ Stopping Sight Distance | ☐ Illumination | ☐ Pedestrians |
| ☐ Curbing | ☐ Lane Line | ☐ Bus Stops | ☐ Passing Sight Distance | ☐ Approach Speeds | ☐ Land Use |
| ☐ Shoulders | ☐ Sidewalks | ☐ Loading Zones | ☐ Horizontal Alignment | ☐ Speed Limits | ☐ Catch Basins/Drainage |
| ☐ Radii | ☐ Parking Restrictions | ☐ School Zones | ☐ Vertical Alignment | ☐ Weight Limits | ☐ Utility Poles |
| ☐ Approach Angles | ☐ Signing | ☐ Traffic Signal | ☐ Lateral Obstructions | ☐ Pavement Conditions | ☐ Hydrants |

Technical Appendix (Volume II)

Dirigo Plaza Mixed-Use Commercial Development
Westbrook Arterial, Larrabee Road and Main Street

Westbrook, ME

Prepared for:

J & J Gove Development, LLC
Hampton Falls, New Hampshire

TECHNICAL APPENDIX (VOLUMES I & II)

AUTOMATIC TRAFFIC RECORDER COUNTS
MANUAL TURNING MOVEMENT COUNTS
30TH HIGHEST HOUR ADJUSTMENT DATA
PUBLIC TRANSPORTATION SCHEDULES
FIELD INTERSECTION INVENTORY SHEETS
VEHICLE TRAVEL SPEED DATA
MAINE DOT ACCIDENT PRINTOUTS
BACKGROUND DEVELOPMENT NETWORKS
TRIP-GENERATION CALCULATIONS
CAPACITY ANALYSIS WORKSHEETS
TRAFFIC SIGNAL WARRANT ANALYSIS

TECHNICAL APPENDIX (VOLUME II)

PUBLIC TRANSPORTATION SCHEDULES
VEHICLE TRAVEL SPEED DATA
MAINE DOT ACCIDENT PRINTOUTS
BACKGROUND DEVELOPMENT NETWORKS
TRIP-GENERATION CALCULATIONS
CAPACITY ANALYSIS WORKSHEETS
TRAFFIC SIGNAL WARRANT ANALYSIS

PUBLIC TRANSPORTATION SCHEDULES

METRO

Greater Portland Transit District

gpmetrobus.com | 207-774-0351

Schedule Changes: Effective Beginning January 11, 2015

4 Westbrook

Brighton Avenue

Schedule Changes: Effective Beginning January 11, 2015

OUTBOUND				INBOUND				Arrives
Departs	Westbrook Pulse (Elm St.)	Rosemont Corner (Elm St.)	Hanna- ford (Elm St.)	IXEX Quincy (Elm St.)	Hanna- ford (Elm St.)	Rosemont Corner (Elm St.)	Shaw's (Elm St.)	
5:45 M	5:32	5:37	5:55	5:55	M	6:10	6:30	6:30
5:45 M	5:52	5:57	6:15	6:15	B	6:30	6:45	6:45
6:15 M	6:25	6:30	6:55	6:55	B	7:15	7:20	7:45
6:45 M	6:55	7:00	7:25	7:25	B	7:45	7:50	8:15
7:15 B	7:25	7:30	7:55	7:55	M	8:05	8:20	8:45
7:45 M	7:55	8:00	8:25	8:25	B	8:45	8:50	9:15
8:15 B	8:25	8:30	8:55	8:55	M	9:05	9:15	9:45
8:45 M	8:55	9:00	9:25	9:25	B	9:45	9:50	10:15
9:15 M	9:25	9:30	9:55	9:55	B	10:15	10:20	10:45
9:45 B	9:55	10:00	10:25	10:25	M	10:35	10:45	11:15
10:15 M	10:25	10:30	10:55	10:55	B	11:15	11:20	11:45
10:45 B	10:55	11:00	11:25	11:25	M	11:35	11:45	12:15
11:15 M	11:25	11:30	11:55	11:55	B	12:15	12:20	12:45
11:45 B	11:55	12:00	12:25	12:25	M	12:35	12:45	13:15
12:15 M	12:25	12:30	12:55	12:55	B	1:15	1:20	1:45
12:45 B	12:55	1:00	1:25	1:25	M	1:35	1:45	2:15
1:15 M	1:25	1:30	1:55	1:55	B	2:15	2:20	2:45
1:45 B	1:55	2:00	2:25	2:25	M	2:35	2:45	3:15
2:15 M	2:25	2:30	2:55	2:55	B	3:15	3:20	3:45
2:45 B	2:55	3:00	3:25	3:25	M	3:35	3:45	4:15
3:15 M	3:25	3:30	3:55	3:55	B	4:15	4:20	4:45
3:45 B	3:55	4:00	4:25	4:25	M	4:35	4:45	5:15
4:15 M	4:25	4:30	4:55	4:55	B	5:15	5:20	5:45
4:45 B	4:55	5:00	5:25	5:25	M	5:35	5:45	6:15
5:15 M	5:25	5:30	5:55	5:55	B	6:15	6:20	6:45
5:45 B	5:55	6:00	6:25	6:25	M	6:30	6:40	7:05
6:15 M	6:25	6:30	6:55	6:55	B	7:05	7:10	7:35
6:45 B	6:55	7:00	7:25	7:25	M	7:35	7:40	7:55
7:15 M	7:25	7:30	7:55	7:55	B	8:05	8:10	8:25
7:45 B	7:55	8:00	8:25	8:25	M	8:35	8:40	9:10
8:15 M	8:25	8:30	8:55	8:55	B	9:00	9:10	9:30
8:45 B	8:55	9:00	9:25	9:25	M	9:35	9:40	10:10
9:15 M	9:25	9:30	9:55	9:55	B	10:00	10:10	10:30
9:45 B	9:55	10:00	10:25	10:25	M	10:35	10:40	11:10
10:15 M	10:25	10:30	10:55	10:55	B	11:10	11:20	11:45

M - Main Street B - Brown Street

All Monday-Friday trips run to and from Westbrook via Brighton Avenue.

Trips that provide service to IDEX stop first at Westbrook Pointe Apartments.

Schedule subject to change.

Schedules, route map and information. ▶

BEFORE YOU RIDE GUIDE

METRO's eight routes travel throughout the Greater Portland area with service to Portland, Westbrook, Falmouth and the Maine Mall area of South Portland. There are hundreds of bus stops located throughout our service area. All buses have bike racks and are wheelchair accessible (weight limits vary and are posted on buses).



Look for a METRO bus stop.

It's a good idea to arrive five minutes before the bus is due to arrive. Look for the route number on the sign. The same number will be displayed on the bus. Use a hand motion to signal the bus driver to stop. Pull the cord when you are near your destination. Deposit exact fare into the fare box and/or show bus operator acceptable fare.

The METRO PULSE,

located next to the Elm Street Garage, between Congress and Cumberland Ave. in Portland, is a convenient place to wait for the next bus and purchase Regional Monthly Passes and TenRide tickets.



METRO buses #2-#7 stop here (M-SA).

Routes #1 and #8 stop along Congress Street.

Regional Monthly Passes (for travel on METRO and South Portland Bus Service) and TenRide Tickets available along this route at the METRO Pulse - Elm Street in Portland, Westbrook City Hall, Shaw's (Riverside) and Hannaford (Westbrook).

For fare information, visit www.gpmetrobus.com or call 207-774-0351.

Weekend Schedules

4 Westbrook

Brighton Avenue and Woodford Street

M4

OUTBOUND				INBOUND				Arrives
Departs	Westbrook Pulse (Elm St.)	Rosemont Corner (Elm St.)	Hanna- ford (Elm St.)	IXEX Quincy (Elm St.)	Hanna- ford (Elm St.)	Rosemont Corner (Elm St.)	Shaw's (Elm St.)	
5:45 M	5:37	5:42	5:57	5:57	M	6:10	6:30	6:45
6:15 B	6:25	6:30	6:45	6:45	M	7:00	7:15	7:30
6:45 M	6:57	7:02	7:17	7:17	M	7:30	7:45	8:00
7:15 B	7:25	7:30	7:45	7:45	M	8:00	8:15	8:30
7:45 M	7:57	8:02	8:17	8:17	M	8:30	8:45	9:00
8:15 B	8:25	8:30	8:45	8:45	M	9:00	9:15	9:30
8:45 M	8:57	9:02	9:17	9:17	M	9:30	9:45	10:00
9:15 B	9:25	9:30	9:45	9:45	M	10:00	10:15	10:30
9:45 M	9:57	10:02	10:17	10:17	M	10:30	10:45	11:00
10:15 B	10:25	10:30	10:45	10:45	M	11:00	11:15	11:30
10:45 M	10:57	11:02	11:17	11:17	M	11:30	11:45	12:00
11:15 B	11:25	11:30	11:45	11:45	M	12:00	12:15	12:30
11:45 M	11:57	12:02	12:17	12:17	M	12:30	12:45	13:00
12:15 B	12:25	12:30	12:45	12:45	M	13:00	13:15	13:30
12:45 M	12:57	13:02	13:17	13:17	M	13:30	13:45	14:00
1:15 B	1:25	1:30	1:45	1:45	M	15:00	15:15	15:30
1:45 M	1:57	2:02	2:17	2:17	M	2:30	2:45	2:55
2:15 B	2:25	2:30	2:45	2:45	M	3:00	3:15	3:30
2:45 M	2:57	3:02	3:17	3:17	M	3:30	3:45	4:00
3:15 B	3:25	3:30	3:45	3:45	M	4:00	4:15	4:30
3:45 M	3:57	4:02	4:17	4:17	M	4:30	4:45	5:00
4:15 B	4:25	4:30	4:45	4:45	M	5:00	5:15	5:30
4:45 M	4:57	5:02	5:17	5:17	M	5:30	5:45	6:00
5:15 B	5:25	5:30	5:45	5:45	M	6:00	6:15	6:30
5:45 M	5:57	6:02	6:17	6:17	M	6:30	6:45	7:00
6:15 B	6:25	6:30	6:45	6:45	M	7:00	7:15	7:30
6:45 M	6:57	7:02	7:17	7:17	M	7:30	7:45	8:00
7:15 B	7:25	7:30	7:45	7:45	M	8:00	8:15	8:30
7:45 M	7:57	8:02	8:17	8:17	M	8:30	8:45	9:00
8:15 B	8:25	8:30	8:45	8:45	M	9:00	9:15	9:30
8:45 M	8:57	9:02	9:17	9:17	M	9:30	9:45	10:00
9:15 B	9:25	9:30	9:45	9:45	M	10:00	10:15	10:30
9:45 M	9:57	10:02	10:17	10:17	M	10:30	10:45	11:00
10:15 B	10:25	10:30	10:45	10:45	M	11:00	11:15	11:30
10:45 M	10:57	11:02	11:17	11:17	M	11:30	11:45	12:00

Westbrook Woodford Street

M4

OUTBOUND				INBOUND				Arrives
Departs	Westbrook Pulse (Elm St.)	Rosemont Corner (Elm St.)	Hanna- ford (Elm St.)	IXEX Quincy (Elm St.)	Hanna- ford (Elm St.)	Rosemont Corner (Elm St.)	Shaw's (Elm St.)	
9:40 M	9:47	9:52	10:00	10:00	M	10:17	10:25	10:45
10:45 M	10:52	10:57	11:05	11:05	M	11:17	11:25	11:45
11:45 M	11:52	11:57	12:05	12:05	M	12:15	12:25	12:50
12:50 M	12:57	13:02	13:10	13:10	M	13:15	13:25	13:50
3:00 M	3:07	3:12	3:20	3:20	M	3:30	3:40	4:05
4:05 M	4:12	4:17	4:25	4:25	M	4:35	4:45	5:15
5:15 M	5:22	5:27	5:35	5:35	M	5:45	5:55	6:15

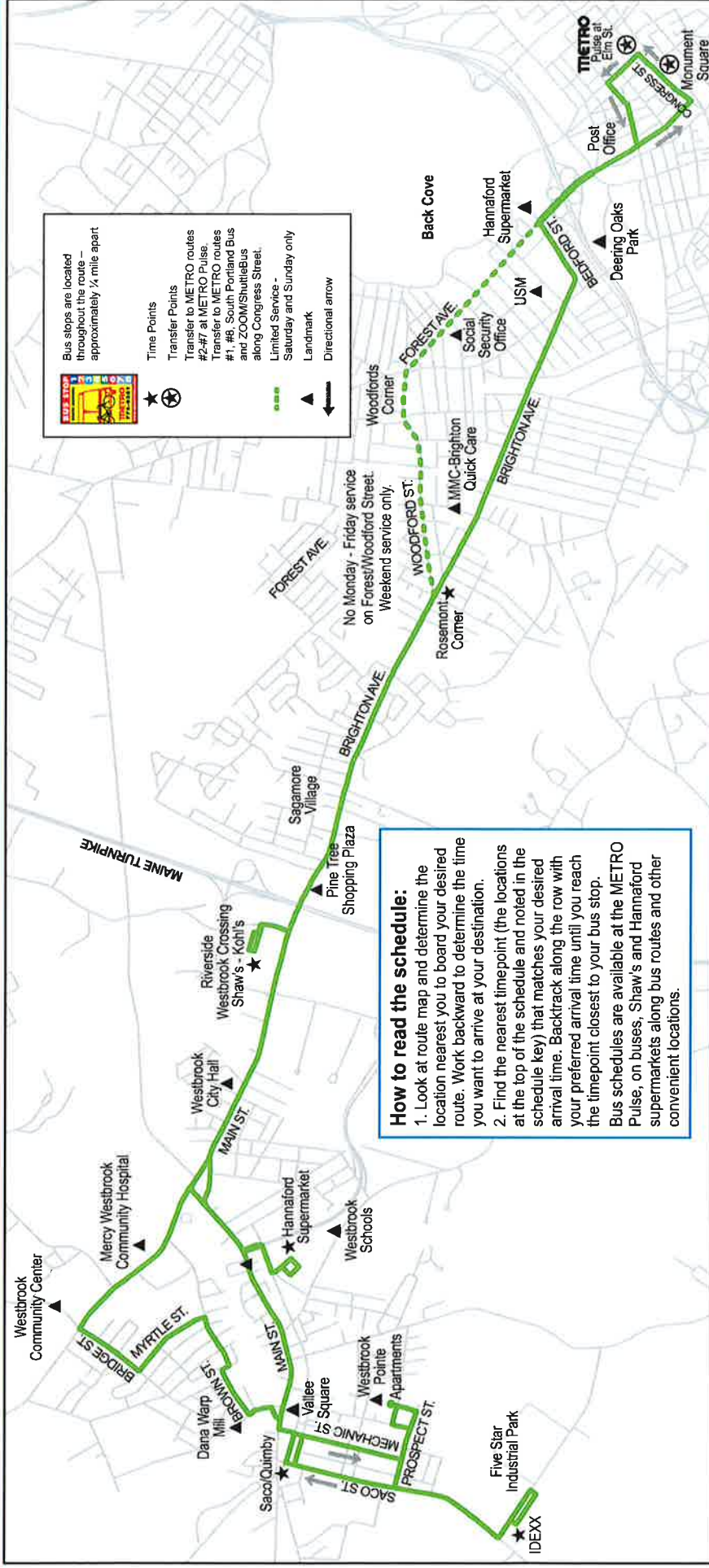
M - Main Street B - Brown Street

Saturday trips alternate between Woodford St. and Brighton Ave. to and from Rosemont Corner. Sunday all trips use Woodford Street.

Schedule Changes: Effective Beginning January 11, 2015

To determine specific route, check the letter(s) next to the time against the key at the bottom of the schedule. Routes marked (M) travel via Main Street and those marked (B) travel via Brown Street in Westbrook.

METRO Route #4



A Quick Glimpse at METRO Route #4 Outbound to Westbrook

Route #4 Outbound departs METRO Pulse (Elm Street) heading toward Forest Avenue via Oxford and Portland Streets with continued service to Westbrook via Bedford Street and Brighton Ave (M-F). Routes travel into Westbrook with service indicated on schedule. Trips that provide service to IDEXX stop at Westbrook Pointe Apartments first.

Inbound to Portland

Route #4 Inbound provides service from Westbrook locations to Portland, via Brighton Avenue and Bedford Monday - Friday or via Brighton or Woodford Streets Sa/Su, with routes indicated on schedule.

NEW — Route 4 Service Changes Effective January 11, 2015:

- **New Schedule Times - Monday – Friday and Saturday**
- **Easier-to-read schedules with new time points.**
- **Commuter schedules better coordinate with arrival times into Portland/return to Westbrook.**
- **Outbound service to Shaw's changed.**

Please see schedules for specific inbound and outbound route information.

METRO Route #4 (M4) Highlights

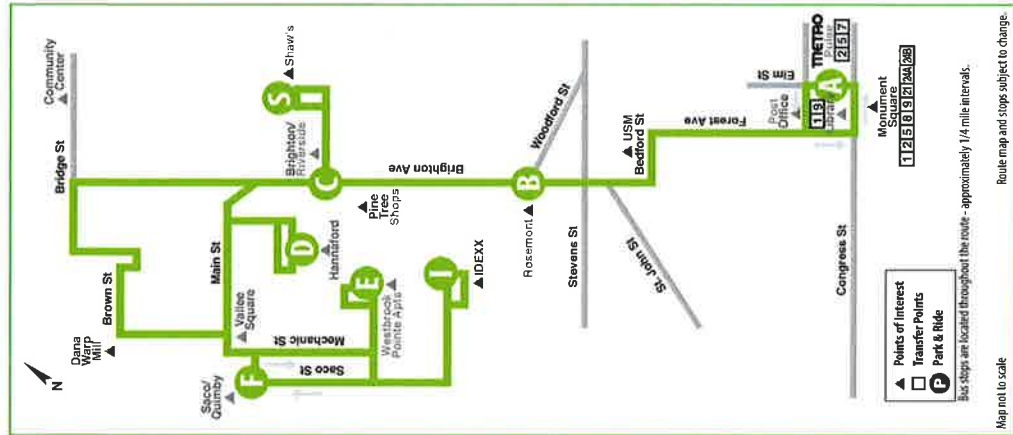
Post Office (Portland), Deering Oaks Park, Portland Housing Authority, USM, Maine Medical Center - Brighton Campus, Woodford Congregational Church, Rosemont Corner, Breakwater School, Hall School, Pine Tree Shopping center, Sagamore Village, Barron Center, Shaw's/Kohl's-Riverside Crossing, Westbrook City Hall, Westbrook Housing, Westbrook Community Center, Hannaford Supermarket, Police Department, Public Works, Mercy/Westbrook Community Hospital, Dana Warp Mill, Westbrook Pointe Apartments, IDEXX, Five Star Industrial Park and many more locations.

METRO ROUTE 4 Westbrook BRIGHTON AVENUE

METRO ROUTE 4 Westbrook BRIGHTON AVENUE

MONDAY THROUGH FRIDAY					
OUTBOUND TO WESTBROOK			INBOUND TO DOWNTOWN PORTLAND		
METRO Pulse Elm St	Rosemont Corner	Brighton Riverside	Hannaford Shaw's	Saco Quimby	METRO Pulse Elm St
A	B	C	D	F	A
5:10	5:17	5:22		6:15	6:15
5:45	5:55	6:00		6:45	6:45
6:15	6:20	6:25		7:15	7:30
6:45	6:55	7:00		7:45	8:15
7:15	7:25	7:30		8:15	8:45
7:45	7:55	8:00		8:45	9:15
8:15	8:25	8:30		9:15	9:45
8:45	8:55	9:00		9:45	10:15
9:15	9:25	9:30		10:15	10:45
9:45	9:55	10:00		10:45	11:15
10:15	10:25	10:30		11:15	11:45
10:45	10:55	11:00		11:45	12:15
11:15	11:25	11:30		12:15	12:45
11:45	11:55	12:00		12:45	1:15
12:15	12:25	12:30		1:15	1:45
12:45	12:55	1:00		1:45	2:15
1:15	1:25	1:30		2:15	2:45
1:45	1:55	2:00		2:45	3:15
2:15	2:25	2:30		3:15	3:45
2:45	2:55	3:00		3:45	4:15
3:15	3:25	3:30		4:15	4:45
3:45	3:55	4:00		4:45	5:15
4:15	4:25	4:30		5:15	5:45
4:45	4:55	5:00		5:45	6:15
5:15	5:25	5:30		6:15	6:45
5:45	5:55	6:00		6:45	7:15
6:15	6:25	6:30		7:15	7:45
6:45	6:55	7:00		7:45	8:15
7:20	7:30	7:35		8:15	8:45
8:25	8:35	8:40		8:45	9:15
9:30	9:40	9:45		9:15	9:45
10:45	10:55	11:00		9:45	10:15
				10:15	10:45
				10:45	11:15
				11:15	11:45

MONDAY THROUGH FRIDAY					
OUTBOUND TO WESTBROOK			INBOUND TO DOWNTOWN PORTLAND		
METRO Pulse Elm St	Rosemont Corner	Brighton Riverside	Hannaford Shaw's	Saco Quimby	METRO Pulse Elm St
A	B	C	D	F	A
5:10	5:17	5:22		6:15	6:15
5:45	5:55	6:00		6:45	6:45
6:15	6:20	6:25		7:15	7:30
6:45	6:55	7:00		7:45	8:15
7:15	7:25	7:30		8:15	8:45
7:45	7:55	8:00		8:45	9:15
8:15	8:25	8:30		9:15	9:45
8:45	8:55	9:00		9:45	10:15
9:15	9:25	9:30		10:15	10:45
9:45	9:55	10:00		10:45	11:15
10:15	10:25	10:30		11:15	11:45
10:45	10:55	11:00		11:45	12:15
11:15	11:25	11:30		12:15	12:45
11:45	11:55	12:00		12:45	1:15
12:15	12:25	12:30		1:15	1:45
12:45	12:55	1:00		1:45	2:15
1:15	1:25	1:30		2:15	2:45
1:45	1:55	2:00		2:45	3:15
2:15	2:25	2:30		3:15	3:45
2:45	2:55	3:00		3:45	4:15
3:15	3:25	3:30		4:15	4:45
3:45	3:55	4:00		4:45	5:15
4:15	4:25	4:30		5:15	5:45
4:45	4:55	5:00		5:45	6:15
5:15	5:25	5:30		6:15	6:45
5:45	5:55	6:00		6:45	7:15
6:15	6:25	6:30		7:15	7:45
6:45	6:55	7:00		7:45	8:15
7:20	7:30	7:35		8:15	8:45
8:25	8:35	8:40		8:45	9:15
9:30	9:40	9:45		9:15	9:45
10:45	10:55	11:00		9:45	10:15
				10:15	10:45
				10:45	11:15
				11:15	11:45



SATURDAY					
OUTBOUND TO WESTBROOK			INBOUND TO DOWNTOWN PORTLAND		
METRO Pulse Elm St	Rosemont Corner	Brighton Riverside	Hannaford Shaw's	Saco Quimby	METRO Pulse Elm St
A	B	C	D	F	A
5:45	5:55	6:00		6:15	6:15
6:15	6:25	6:30		6:45	6:45
6:45	6:55	7:00		7:15	7:15
7:15	7:25	7:30		7:45	7:45
7:45	7:55	8:00		8:15	8:15
8:15	8:25	8:30		8:45	8:45
8:45	8:55	9:00		9:15	9:15
9:15	9:25	9:30		9:45	9:45
9:45	9:55	10:00		10:15	10:15
10:15	10:25	10:30		10:45	10:45
10:45	10:55	11:00		11:15	11:15
11:15	11:25	11:30		11:45	11:45
11:45	11:55	12:00		12:15	12:15
12:15	12:25	12:30		12:45	12:45
12:45	12:55	1:00		1:15	1:15
1:15	1:25	1:30		1:45	1:45
1:45	1:55	2:00		2:15	2:15
2:15	2:25	2:30		2:45	2:45
2:45	2:55	3:00		3:15	3:15
3:15	3:25	3:30		3:45	3:45
3:45	3:55	4:00		4:15	4:15
4:15	4:25	4:30		4:45	4:45
4:45	4:55	5:00		5:15	5:15
5:15	5:25	5:30		5:45	5:45
5:45	5:55	6:00		6:15	6:15
6:15	6:25	6:30		6:45	6:45
6:45	6:55	7:00		7:15	7:15
7:20	7:30	7:35		7:45	7:45
8:25	8:35	8:40		8:45	8:45
9:30	9:40	9:45		9:15	9:15
10:45	10:55	11:00		9:45	10:15
				10:15	10:45
				10:45	11:15
				11:15	11:45

SUNDAY					
OUTBOUND TO WESTBROOK			INBOUND TO DOWNTOWN PORTLAND		
METRO Pulse Elm St	Rosemont Corner	Brighton Riverside	Hannaford Shaw's	Saco Quimby	METRO Pulse Elm St
A	B	C	D	F	A
8:15	8:25	8:30		8:45	8:45
9:00	9:10	9:15		9:35	9:35
9:45	9:55	10:00		10:20	10:20
10:30	10:40	10:45		11:05	11:05
11:15	11:25	11:30		11:55	11:55
12:00	12:10	12:15		12:35	12:35
12:45	12:55	1:00		1:25	1:25
1:30	1:40	1:45		1:55	1:55
2:15	2:25	2:30		2:45	2:45
3:00	3:10	3:15		3:35	3:35
3:45	3:55	4:00		4:20	4:20
4:30	4:40	4:45		4:55	4:55
5:15	5:25	5:30		5:50	5:50
6:00	6:10	6:15		6:35	6:35
6:45	6:55	7:00		7:15	7:15

SATURDAY					
OUTBOUND TO WESTBROOK			INBOUND TO DOWNTOWN PORTLAND		
METRO Pulse Elm St	Rosemont Corner	Brighton Riverside	Hannaford Shaw's	Saco Quimby	METRO Pulse Elm St
A	B	C	D	F	A
5:45	5:55	6:00		6:15	6:15
6:15	6:25	6:30		6:45	6:45
6:45	6:55	7:00		7:15	7:15
7:15	7:25	7:30		7:45	7:45
7:45	7:55	8:00		8:15	8:15
8:15	8:25	8:30		8:45	8:45
8:45	8:55	9:00		9:15	9:15
9:15	9:25	9:30		9:45	9:45
9:45	9:55	10:00		10:15	10:15
10:15	10:25	10:30		10:45	10:45
10:45	10:55	11:00		11:15	11:15
11:15	11:25	11:30		11:45	11:45
11:45	11:55	12:00		12:15	12:15
12:15	12:25	12:30		12:45	12:45
12:45	12:55	1:00		1:15	1:15
1:15	1:25	1:30		1:45	1:45
1:45	1:55	2:00		2:15	2:15
2:15	2:25	2:30		2:45	2:45
2:45	2:55	3:00		3:15	3:15
3:15	3:25	3:30		3:45	3:45
3:45	3:55	4:00		4:15	4:15
4:15	4:25	4:30		4:45	4:45
4:45	4:55	5:00		5:15	5:15
5:15	5:25	5:30		5:45	5:45
5:45	5:55	6:00		6:15	6:15
6:15	6:25	6:30		6:45	6:45
6:45	6:55	7:00		7:15	7:15
7:20	7:30	7:35		7:45	7:45
8:25	8:35	8:40		8:45	8:45
9:30	9:40	9:45		9:15	9:15
10:45	10:55	11:00		9:45	10:15
				10:15	10:45
				10:45	11:15
				11:15	11:45

SUNDAY					
OUTBOUND TO WESTBROOK			INBOUND TO DOWNTOWN PORTLAND		
METRO Pulse Elm St	Rosemont Corner	Brighton Riverside	Hannaford Shaw's	Saco Quimby	METRO Pulse Elm St
A	B	C	D	F	A
8:15	8:25	8:30		8:45	8:45
9:00	9:10	9:15		9:35	9:35
9:45	9:55	10:00		10:20	10:20
10:30	10:40	10:45		11:05	11:05
11:15	11:25	11:30		11:55	11:55
12:00	12:10	12:15		12:35	12:35
12:45	12:55	1:00		1:25	1:25
1:30	1:40	1:45		1:55	1:55
2:15	2:25	2:30		2:45	2:45
3:00	3:10	3:15		3:35	3:35
3:45	3:55	4:00		4:20	4:20
4:30	4:40	4:45		4:55	4:55
5:15	5:25	5:30		5:50	5:50
6:00	6:10	6:15		6:35	6:35
6:45	6:55	7:00		7:15	7:15

M - Route travels via Main St in Westbrook.
B - Route travels via Brown St in Westbrook.
All transfers for Westbrook Pointe Apartments on the outbound trip.

Map not to scale.
Bus stops are located throughout the route - approximately 1/4 mile intervals.
Route map and stops subject to change.

VEHICLE TRAVEL SPEED DATA

Accurate Counts 978-664-2565

Location : Main Street EB
 Location : West of Riverside Street
 City/State: Westbrook, ME
 EB

6846SPDEBC

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/01/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	19	36	38
01:00	0	0	0	5	10	4	0	0	0	0	0	0	0	0	13	37	41
02:00	0	0	2	2	6	2	1	0	0	0	0	0	0	0	13	37	41
03:00	0	0	0	1	7	6	1	1	0	0	0	0	0	0	16	39	45
04:00	0	1	5	5	14	20	6	0	0	0	0	0	0	0	51	39	42
05:00	0	0	3	13	35	39	8	2	1	0	0	0	0	0	101	39	43
06:00	3	3	5	30	99	110	42	10	1	0	0	0	0	0	303	40	44
07:00	3	6	13	62	185	212	51	11	1	0	0	0	0	0	544	39	43
08:00	10	9	26	97	184	138	43	13	1	1	0	0	0	0	522	39	43
09:00	1	5	27	109	178	92	24	0	2	0	0	0	0	0	438	37	40
10:00	3	5	51	159	192	85	16	3	0	0	0	0	0	0	514	36	39
11:00	9	14	70	149	156	85	19	2	1	0	0	0	0	0	505	36	39
12 PM	5	21	55	187	220	107	20	3	1	0	0	0	0	0	619	36	39
13:00	5	9	30	132	217	113	26	2	5	0	0	0	0	0	539	37	41
14:00	6	7	33	115	211	110	36	4	1	0	0	0	0	0	523	38	42
15:00	2	13	27	134	183	126	35	17	0	0	0	0	0	0	537	38	43
16:00	10	15	50	144	198	110	30	5	2	0	0	0	0	0	564	37	41
17:00	3	10	44	142	216	138	30	7	1	1	0	0	0	0	592	38	41
18:00	1	5	38	140	167	88	15	2	1	0	0	0	0	0	457	37	39
19:00	0	6	20	84	115	71	19	1	0	0	0	1	0	0	317	38	41
20:00	0	2	8	59	67	42	11	1	0	0	0	0	0	0	190	38	41
21:00	0	0	2	23	50	44	14	4	0	0	0	0	0	0	137	39	43
22:00	0	0	2	14	30	18	9	0	0	0	0	0	0	1	74	39	42
23:00	0	1	0	4	17	9	1	0	0	0	0	0	0	0	32	37	39
Total	61	132	511	1813	2764	1771	458	88	18	2	0	1	0	1	7620		
Percent	0.8%	1.7%	6.7%	23.8%	36.3%	23.2%	6.0%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	11:00	10:00	10:00	07:00	07:00	08:00	09:00	08:00					07:00		
Vol.	10	14	70	159	192	212	51	13	2	1					544		
PM Peak	16:00	12:00	12:00	12:00	12:00	17:00	14:00	15:00	13:00	17:00		19:00			12:00		
Vol.	10	21	55	187	220	138	36	17	5	1		1		1	619		

Accurate Counts 978-664-2565

Location : Main Street EB
 Location : West of Riverside Street
 City/State: Westbrook, ME
 EB

6846SPDEBC

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	85th Percent	95th Percent
10/02/15	15	20	25	30	35	40	45	50	55	60	65	70	75	79	Percent	Percent
01:00	0	0	1	3	12	5	0	0	0	0	0	0	0	0	36	38
02:00	0	0	1	3	2	3	2	0	0	0	0	0	0	0	37	39
03:00	0	0	1	2	4	3	2	0	0	0	0	0	0	0	40	43
04:00	0	0	1	2	9	2	1	0	0	0	0	0	0	0	36	41
05:00	0	2	0	5	5	13	6	0	1	0	0	0	0	0	41	44
06:00	1	1	3	13	42	34	13	0	0	0	0	0	0	0	107	42
07:00	15	0	8	26	97	102	43	7	1	1	0	0	0	0	300	44
08:00	1	8	13	84	207	162	55	13	2	0	0	0	0	0	545	43
09:00	2	20	35	152	184	117	30	4	2	0	0	0	0	0	546	41
10:00	6	12	28	120	162	113	34	3	0	0	0	0	0	0	478	41
11:00	8	10	47	151	193	94	20	4	0	0	0	0	0	0	527	39
12 PM	4	24	56	156	184	95	34	3	0	0	1	0	0	0	557	41
13:00	14	21	64	204	223	105	22	3	0	0	0	0	0	0	656	39
14:00	8	18	67	181	191	93	15	2	0	0	0	0	0	0	575	39
15:00	6	15	59	133	195	99	24	5	2	0	0	0	0	0	538	40
16:00	9	16	54	127	182	115	27	3	1	0	0	0	0	0	534	40
17:00	3	18	66	170	191	114	26	9	1	1	0	0	0	0	599	41
18:00	4	14	52	172	222	100	28	5	0	0	0	0	0	0	597	40
19:00	0	6	44	145	167	95	19	1	0	0	0	0	0	0	477	39
20:00	0	2	15	94	116	72	18	3	1	0	0	0	0	0	321	41
21:00	0	0	13	51	84	53	7	3	0	0	0	0	0	0	211	39
22:00	0	0	7	22	60	33	6	2	3	0	0	0	0	0	133	43
23:00	0	0	0	13	42	42	17	1	0	0	0	0	0	0	115	43
Total	81	187	637	2037	2800	1684	454	73	14	2	1	0	0	0	62	39
Percent	1.0%	2.3%	8.0%	25.6%	35.1%	21.1%	5.7%	0.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	7970	
AM Peak	06:00	11:00	11:00	11:00	07:00	07:00	07:00	07:00	07:00	06:00	11:00				11:00	
Vol.	15	24	56	156	207	162	55	13	2	1	1				557	
PM Peak	12:00	12:00	13:00	12:00	12:00	15:00	17:00	16:00	21:00	16:00					12:00	
Vol.	14	21	67	204	223	115	28	9	3	1					656	

Accurate Counts 978-664-2565

Location : Main Street EB
 Location : West of Riverside Street
 City/State: Westbrook, ME
 EB

6846SPDEBC

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	75	76	799	85th Percent	95th Percent
10/03/15	15	20	25	30	35	40	45	50	55	60	65	70	75	799	0	0	32	43
01:00	0	2	1	2	12	9	2	1	0	0	0	0	0	0	0	0	33	40
02:00	0	0	0	3	4	7	1	0	1	0	0	0	0	0	0	0	33	40
03:00	0	0	0	2	4	4	4	0	1	0	0	0	0	0	0	0	16	51
04:00	0	2	0	4	8	7	7	0	0	0	0	0	0	0	0	0	11	39
05:00	2	2	2	11	12	16	3	2	0	0	0	0	0	0	0	0	28	47
06:00	0	2	2	19	36	64	27	2	0	0	0	0	0	0	0	0	50	44
07:00	1	3	13	43	50	66	24	6	0	1	0	0	0	0	0	0	152	43
08:00	0	2	20	56	102	81	24	5	1	0	1	0	0	0	0	0	207	44
09:00	0	3	30	120	171	81	30	2	2	0	0	0	0	0	0	0	292	43
10:00	0	5	41	149	200	92	21	6	0	0	0	0	0	0	0	0	439	42
11:00	7	19	41	171	214	82	21	5	0	1	0	0	0	0	0	0	514	40
12 PM	3	22	73	148	192	90	16	5	0	0	0	0	0	0	0	0	561	39
13:00	0	13	73	191	160	85	14	4	2	0	0	0	0	0	0	0	549	36
14:00	0	5	45	128	183	99	21	1	1	1	0	0	0	0	0	0	542	39
15:00	2	1	44	134	184	93	23	4	1	1	0	0	0	0	0	0	484	37
16:00	1	5	49	134	165	78	19	3	0	0	0	0	0	0	0	0	486	37
17:00	0	5	33	130	162	91	28	3	1	0	0	0	0	0	0	0	454	37
18:00	0	3	21	101	133	80	34	2	1	0	0	0	0	0	0	0	453	38
19:00	2	2	26	83	118	71	11	5	1	0	0	0	0	0	0	0	375	38
20:00	1	1	6	45	87	49	12	4	1	0	0	0	0	0	0	0	319	37
21:00	1	1	7	23	55	39	11	1	0	0	0	0	0	0	0	0	206	38
22:00	0	0	6	20	59	28	7	3	0	0	0	0	0	0	0	0	138	42
23:00	0	0	1	11	20	23	8	0	0	0	0	0	0	0	0	0	123	38
Total	20	99	534	1734	2352	1341	366	65	12	3	1	0	0	0	0	0	6527	43
Percent	0.3%	1.5%	8.2%	26.6%	36.0%	20.5%	5.6%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
AM Peak	11:00	11:00	10:00	11:00	11:00	10:00	09:00	07:00	09:00	07:00	08:00						11:00	
Vol.	7	19	41	171	214	92	30	6	2	1	1						561	
PM Peak	12:00	12:00	12:00	13:00	12:00	14:00	18:00	12:00	13:00	14:00							12:00	
Vol.	3	22	73	191	192	99	34	5	2	1							549	
Grand Total	162	418	1682	5584	7916	4796	1278	226	44	7	2	1	0	0	1	1	22117	
Percent	0.7%	1.9%	7.6%	25.2%	35.8%	21.7%	5.8%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		

Statistics	10 MPH Pace Speed :	26-35 MPH
	Number in Pace :	13500
	Percent in Pace :	61.0%
	Number of Vehicles > 30 MPH :	14271
	Percent of Vehicles > 30 MPH :	64.5%
	Mean Speed(Average) :	32 MPH

Accurate Counts 978-664-2565

Location : Main Street WB
City/State: West of Riverside Street
Westbrook, ME
WB

6846SPDWBC

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	85th Percent	95th Percent
10/01/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	37	40
01:00	0	0	3	4	12	16	1	1	0	0	0	0	0	0	24	41
02:00	0	1	4	8	10	6	0	1	0	0	0	0	0	0	30	39
03:00	0	0	1	3	5	3	0	0	0	0	0	0	0	0	12	39
04:00	1	2	4	14	12	5	1	1	0	0	0	0	0	0	40	40
05:00	0	5	7	28	30	13	3	0	0	0	0	0	0	0	86	39
06:00	5	11	30	38	53	37	15	1	0	0	0	0	0	0	190	42
07:00	0	13	75	77	130	73	28	3	0	0	0	0	0	0	399	41
08:00	2	27	68	89	149	79	10	3	0	0	0	0	0	0	427	39
09:00	2	33	79	74	155	67	9	1	0	0	0	0	0	0	420	39
10:00	0	34	90	130	187	64	8	0	0	0	0	0	0	1	514	38
11:00	4	40	110	163	226	58	9	2	0	0	0	0	0	0	612	38
12 PM	2	38	172	179	197	72	14	1	0	0	0	0	0	0	675	38
13:00	2	42	136	155	210	75	18	0	0	0	0	0	0	0	638	39
14:00	3	31	120	140	220	114	13	0	1	0	0	0	0	0	642	39
15:00	0	27	105	195	275	109	18	4	0	0	0	0	0	0	733	39
16:00	8	43	171	272	249	63	17	0	0	0	0	0	0	0	823	38
17:00	31	67	172	233	228	64	11	2	0	0	0	0	0	1	809	37
18:00	1	28	112	131	210	64	15	2	0	0	0	0	0	0	563	39
19:00	0	19	83	79	202	80	9	1	0	1	0	0	0	0	474	39
20:00	0	15	43	83	150	58	8	1	0	0	0	0	0	0	358	39
21:00	0	5	36	39	105	53	5	3	0	0	0	0	0	0	246	39
22:00	0	3	13	21	62	24	4	1	0	0	0	0	0	0	128	39
23:00	0	1	7	21	46	26	2	0	0	0	0	0	0	0	103	39
Total	61	485	1642	2182	3133	1228	220	28	1	1	0	0	0	2	8983	
Percent	0.7%	5.4%	18.3%	24.3%	34.9%	13.7%	2.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
AM Peak	06:00	11:00	11:00	11:00	11:00	08:00	07:00	07:00						10:00	11:00	
Vol.	5	40	110	163	226	79	28	3						1	612	
PM Peak	17:00	17:00	12:00	16:00	15:00	14:00	13:00	15:00	14:00	19:00				17:00	16:00	
Vol.	31	67	172	272	275	114	18	4	1	1				1	823	

Accurate Counts 978-664-2565

Location : Main Street WB
 Location : West of Riverside Street
 City/State: Westbrook, ME
 WB

6846SPDWBC

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	75	76	Total	85th Percent	95th Percent
10/02/15	15	20	25	30	35	40	45	50	55	60	65	70	75	75	999	49	36	38
01:00	0	0	1	9	29	10	0	0	1	0	0	0	0	0	0	33	38	43
02:00	0	2	1	6	5	7	2	0	0	0	0	0	0	0	0	23	38	42
03:00	0	0	2	4	8	1	0	0	0	0	0	0	0	0	0	15	34	36
04:00	3	1	2	8	11	4	2	0	0	0	0	0	0	0	0	31	36	41
05:00	2	6	13	12	29	10	0	0	0	0	0	0	0	0	0	72	34	38
06:00	2	12	31	23	52	40	6	1	0	0	0	0	0	0	0	167	37	39
07:00	1	18	70	64	121	95	24	6	0	0	0	0	0	0	0	399	38	42
08:00	1	17	59	95	191	84	15	2	0	0	0	0	0	0	0	464	36	39
09:00	6	29	82	106	136	70	17	1	0	0	0	0	0	0	0	447	36	39
10:00	2	34	110	134	176	67	15	0	0	0	0	0	0	0	0	538	35	39
11:00	4	30	123	118	200	93	13	2	1	0	0	0	0	0	0	584	36	39
12 PM	1	47	188	204	205	84	6	4	0	0	0	0	0	0	0	739	34	38
13:00	0	35	200	196	188	63	12	0	0	0	0	0	0	0	0	694	34	38
14:00	3	32	164	202	235	71	8	1	0	0	0	0	0	0	0	716	34	38
15:00	5	48	145	256	238	98	8	1	0	1	0	0	0	0	0	800	34	38
16:00	14	41	172	265	243	62	11	2	0	0	0	0	0	0	0	810	34	37
17:00	0	27	180	189	234	106	12	2	0	0	0	0	0	0	0	750	35	38
18:00	2	28	114	129	188	66	11	1	0	0	0	0	0	0	0	539	34	38
19:00	0	25	115	110	175	59	5	0	0	0	0	0	0	0	0	489	34	38
20:00	0	16	76	75	133	48	5	2	1	0	0	0	0	0	0	356	35	38
21:00	0	7	35	54	134	66	8	0	0	0	0	0	0	0	0	304	37	39
22:00	0	6	15	37	90	39	8	0	0	0	0	0	0	0	0	195	37	39
23:00	0	1	13	23	77	29	4	0	0	1	0	0	0	0	0	148	37	39
Total	46	462	1915	2325	3111	1279	194	25	3	2	0	0	0	0	0	9362		
Percent	0.5%	4.9%	20.5%	24.8%	33.2%	13.7%	2.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	11:00	10:00	11:00	07:00	07:00	07:00	01:00							11:00		
Vol.	6	34	123	134	200	95	24	6	1							584		
PM Peak	16:00	15:00	13:00	16:00	16:00	17:00	13:00	12:00	20:00	15:00						16:00		
Vol.	14	48	200	265	243	106	12	4	1	1						810		

Location : Main Street WB
 Location : West of Riverside Street
 City/State: Westbrook, ME
 WB

Accurate Counts 978-664-2565

6846SPDWBC

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/03/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	87	38	41
01:00	0	1	4	10	39	27	5	1	0	0	0	0	0	0	68	37	39
02:00	0	0	7	12	25	8	3	0	0	0	0	0	0	0	51	37	40
03:00	0	1	3	8	7	3	2	1	0	0	0	0	0	0	25	38	44
04:00	1	1	6	9	9	2	0	0	0	0	0	0	0	0	28	33	36
05:00	0	2	4	7	21	11	0	0	0	0	0	0	0	0	45	36	38
06:00	0	8	9	12	21	12	2	1	0	0	0	0	0	0	65	37	39
07:00	2	14	34	29	55	45	8	3	1	0	0	0	0	0	191	38	41
08:00	0	14	73	41	105	52	10	1	1	0	0	0	0	0	297	36	39
09:00	1	16	78	74	151	72	9	1	0	0	0	0	0	0	402	36	39
10:00	1	24	100	111	174	68	9	3	1	0	0	0	0	0	491	35	39
11:00	2	36	131	137	217	74	8	0	0	0	0	0	0	0	605	34	38
12 PM	0	39	166	164	200	60	11	0	0	0	0	0	0	0	640	34	38
13:00	0	55	152	148	217	61	7	1	0	0	1	0	0	0	642	34	38
14:00	0	39	155	132	186	75	10	3	1	0	0	0	0	0	601	34	38
15:00	0	30	124	111	196	78	9	2	0	0	0	0	0	0	550	35	38
16:00	1	31	113	98	168	90	12	4	0	1	0	0	0	0	518	36	39
17:00	0	31	93	112	181	75	13	1	0	0	0	0	0	0	506	35	39
18:00	0	10	93	78	165	60	15	4	0	0	0	0	0	0	425	36	39
19:00	1	19	74	103	140	45	3	1	0	0	0	0	0	0	386	34	38
20:00	0	20	66	55	123	45	7	0	0	0	0	0	0	0	316	35	39
21:00	0	5	38	35	102	45	7	0	0	0	0	0	0	0	232	36	39
22:00	0	14	21	32	77	40	1	2	0	0	0	0	0	0	187	36	39
23:00	0	5	15	27	79	39	3	0	1	0	0	0	0	0	169	37	39
Total	9	416	1561	1552	2694	1102	157	29	5	1	1	0	0	0	7527		
Percent	0.1%	5.5%	20.7%	20.6%	35.8%	14.6%	2.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	11:00	11:00	11:00	11:00	08:00	07:00	07:00						11:00		
Vol.	2	36	131	137	217	74	10	3	1						605		
PM Peak	16:00	13:00	12:00	12:00	13:00	16:00	18:00	16:00	14:00	16:00	13:00				13:00		
Vol.	1	55	166	164	217	90	15	4	1	1	1				642		
Grand Total	116	1363	5118	6059	8938	3609	571	82	9	4	1	0	0	2	25872		
Percent	0.4%	5.3%	19.8%	23.4%	34.5%	13.9%	2.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

Statistics	10 MPH Pace Speed :	26-35 MPH
	Number in Pace :	14997
	Percent in Pace :	58.0%
	Number of Vehicles > 30 MPH :	13216
	Percent of Vehicles > 30 MPH :	51.1%
	Mean Speed(Average) :	30 MPH

Accurate Counts 978-664-2565

Location : Larrabee Road NB
 Location : North of Westbrook Arterial
 City/State: Westbrook, ME
 NB

6846SPDNBA

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/01/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	6	38	39
01:00	2	0	0	2	2	2	0	0	0	0	0	0	0	0	8	37	39
02:00	0	0	0	4	4	0	0	1	1	1	0	0	0	0	11	51	57
03:00	0	0	0	3	5	2	0	0	0	0	0	0	0	0	11	35	38
04:00	0	0	1	5	9	8	1	0	0	0	0	0	0	0	24	38	39
05:00	0	3	8	6	33	15	4	1	0	0	0	0	0	0	70	38	41
06:00	0	2	2	13	58	73	9	1	0	0	0	0	0	0	158	39	41
07:00	0	5	2	21	151	200	27	2	0	0	0	0	0	0	408	39	41
08:00	0	3	4	21	101	168	34	4	1	0	0	0	0	0	336	39	43
09:00	0	1	5	9	117	141	24	5	0	0	0	0	0	0	302	39	42
10:00	4	2	5	21	137	142	26	3	0	1	0	0	0	0	341	39	42
11:00	1	1	4	19	138	150	33	4	0	0	0	0	0	0	350	39	42
12 PM	0	3	13	15	122	174	38	3	1	0	0	0	0	0	369	39	43
13:00	0	3	4	18	115	139	35	2	0	0	0	0	0	0	316	39	43
14:00	2	3	7	23	125	146	19	2	1	1	0	0	0	0	329	39	41
15:00	0	1	3	11	136	171	37	1	1	1	0	0	0	0	362	39	42
16:00	1	6	5	23	140	190	40	4	0	0	0	0	0	0	406	39	42
17:00	1	6	5	13	120	181	40	0	0	0	0	0	0	0	366	39	42
18:00	1	4	3	15	91	86	15	1	0	0	0	0	0	0	216	39	41
19:00	1	1	3	12	64	50	8	0	0	0	0	0	0	0	139	38	40
20:00	0	1	1	12	30	24	3	0	0	0	0	0	0	0	71	38	39
21:00	0	0	1	3	28	15	2	0	0	0	0	0	0	0	49	38	39
22:00	0	0	0	4	16	4	0	0	0	0	0	0	0	0	24	35	38
23:00	0	1	1	2	8	1	1	0	0	0	0	0	0	0	14	34	41
Total	13	46	78	275	1752	2086	393	34	5	4	0	0	0	0	4686		
Percent	0.3%	1.0%	1.7%	5.9%	37.4%	44.5%	8.4%	0.7%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	07:00	05:00	07:00	07:00	07:00	08:00	09:00	02:00	02:00					07:00		
Vol.	4	5	8	21	151	200	34	5	1	1					408		
PM Peak	14:00	16:00	12:00	14:00	16:00	16:00	17:00	16:00	12:00	14:00					16:00		
Vol.	2	6	13	23	140	190	40	4	1	1					406		

Accurate Counts 978-664-2565

Location : Larrabee Road NB
City/State: Westbrook, ME
NB

6846SPDNBA

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	85th Percent	95th Percent
10/02/15	0	1	1	3	2	2	3	8	5	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	20	38
01:00	0	0	0	1	1	1	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	33
02:00	0	0	0	0	3	3	3	3	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9	39
03:00	0	0	0	0	1	1	7	7	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10	37
04:00	0	1	1	0	4	4	4	4	5	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	15	38
05:00	1	6	6	6	6	6	6	26	16	16	6	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	67	38
06:00	0	2	2	6	10	10	69	82	82	82	8	8	8	1	1	0	0	0	0	0	0	0	0	0	0	0	178	38
07:00	0	5	5	9	39	39	126	188	188	188	27	27	27	3	3	0	0	0	0	0	0	0	0	0	0	0	397	39
08:00	0	2	2	6	31	31	162	140	140	140	32	32	32	4	4	2	2	0	0	0	0	0	0	0	0	0	379	39
09:00	1	5	5	10	30	30	123	129	129	129	22	22	22	3	3	0	0	0	0	0	0	0	0	0	0	0	323	39
10:00	0	6	6	6	27	27	124	150	150	150	21	21	21	2	2	0	0	0	0	0	0	0	0	0	0	0	336	39
11:00	1	3	3	5	27	27	106	155	155	155	25	25	25	0	0	0	0	0	0	0	0	0	0	0	0	0	322	39
12 PM	0	3	3	6	41	41	154	183	183	183	28	28	28	3	3	0	0	0	0	0	0	0	0	0	0	0	418	39
13:00	0	0	0	5	23	23	142	150	150	150	27	27	27	1	1	0	0	0	0	0	0	0	0	0	0	0	348	39
14:00	0	3	3	8	15	15	156	175	175	175	33	33	33	4	4	0	0	0	0	0	0	0	0	0	0	0	394	39
15:00	5	3	3	7	17	17	137	186	186	186	36	36	36	5	5	0	0	0	0	0	0	0	0	0	0	0	396	39
16:00	1	6	6	7	19	19	118	180	180	180	43	43	43	3	3	0	0	0	0	0	0	0	0	0	0	0	377	39
17:00	1	2	2	7	5	5	109	159	159	159	37	37	37	2	2	0	0	0	0	0	0	0	0	0	0	0	322	39
18:00	0	3	3	7	16	16	92	83	83	83	21	21	21	1	1	0	0	0	0	0	0	0	0	0	0	0	223	39
19:00	0	4	4	0	14	14	73	43	43	43	3	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	138	38
20:00	0	3	3	0	6	6	61	41	41	41	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	114	38
21:00	0	2	2	2	17	17	37	14	14	14	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	77	37
22:00	0	0	0	0	7	7	23	11	11	11	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	43	37
23:00	0	0	0	0	1	1	10	6	6	6	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	19	39
Total	10	60	60	101	362	362	1875	2104	2104	2104	384	384	384	34	34	2	2	0	0	0	0	0	0	0	0	0	4932	42
Percent	0.2%	1.2%	1.2%	2.0%	7.3%	7.3%	38.0%	42.7%	42.7%	42.7%	7.8%	7.8%	7.8%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	07:00	
AM Peak	05:00	05:00	05:00	09:00	07:00	07:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	397	
Vol.	1	6	6	10	39	39	162	188	188	188	32	32	32	4	4	2	2	0	0	0	0	0	0	0	0	0	12:00	
PM Peak	15:00	16:00	16:00	14:00	12:00	12:00	14:00	15:00	15:00	15:00	16:00	16:00	16:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	418	
Vol.	5	6	6	8	41	41	156	186	186	186	43	43	43	5	5	5	5	5	5	5	5	5	5	5	5	5	418	

Accurate Counts 978-664-2565

Location : Larabee Road NB
 City/State: Westbrook, ME
 NB

6846SPDNBA

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/03/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	20	38	45
01:00	0	0	0	3	10	6	0	1	0	0	0	0	0	0	11	38	42
02:00	0	0	0	2	4	0	1	0	0	0	0	0	0	0	7	34	43
03:00	0	0	0	1	3	3	0	0	0	0	0	0	0	0	7	38	39
04:00	0	0	0	3	4	4	1	0	0	0	0	0	0	0	12	38	41
05:00	0	0	0	2	12	4	0	0	0	0	0	0	0	0	18	36	38
06:00	0	0	0	13	31	27	4	0	0	0	0	0	0	0	75	38	40
07:00	0	0	4	8	40	44	10	2	0	0	0	0	0	0	108	39	43
08:00	1	2	4	3	82	88	12	4	0	0	0	0	0	0	196	39	42
09:00	2	2	0	6	83	122	23	6	0	0	0	0	0	0	244	39	43
10:00	1	1	2	15	98	150	32	4	0	0	0	0	0	0	303	39	43
11:00	1	0	3	11	130	181	31	1	2	0	0	0	0	0	360	39	42
12 PM	0	1	3	6	132	166	30	2	0	0	0	0	0	0	340	39	42
13:00	0	1	1	14	108	163	23	1	1	0	0	0	0	0	312	39	42
14:00	0	2	2	9	82	148	21	1	0	0	0	0	0	0	265	39	42
15:00	0	1	3	6	92	138	25	2	0	0	0	0	0	0	267	39	42
16:00	0	0	0	10	59	123	21	0	2	0	0	0	0	0	215	39	42
17:00	0	1	1	15	67	101	14	4	0	0	0	0	0	0	203	39	42
18:00	0	1	1	4	56	60	21	2	0	0	0	0	0	0	145	40	43
19:00	0	1	1	17	56	40	7	0	0	0	0	0	0	0	122	38	40
20:00	3	0	1	9	41	29	4	0	0	0	0	0	0	0	87	38	39
21:00	0	0	1	10	35	19	2	0	0	0	0	0	0	0	67	37	39
22:00	0	0	0	4	29	7	1	0	0	0	0	0	0	0	41	36	39
23:00	0	2	0	4	17	7	1	0	0	0	0	0	0	0	31	37	39
Total	9	16	27	175	1276	1633	285	30	5	0	0	0	0	0	3456		
Percent	0.3%	0.5%	0.8%	5.1%	36.9%	47.3%	8.2%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	08:00	07:00	10:00	11:00	11:00	10:00	09:00	11:00						11:00		
Vol.	2	2	4	15	130	181	32	6	2						360		
PM Peak	20:00	14:00	12:00	19:00	12:00	12:00	12:00	17:00	16:00						12:00		
Vol.	3	2	3	17	132	166	30	4	2						340		
Grand Total	32	122	206	812	4903	5823	1062	98	12	4	0	0	0	0	13074		
Percent	0.2%	0.9%	1.6%	6.2%	37.5%	44.5%	8.1%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			

Statistics

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 10726

Percent in Pace : 82.0%

Number of Vehicles > 35 MPH : 6999

Percent of Vehicles > 35 MPH : 53.5%

Mean Speed(Average) : 36 MPH

Accurate Counts 978-664-2565

Location : Larrabee Road SB
 Location : North of Westbrook Arterial
 City/State: Westbrook, ME
 SB

6846SPDSBA

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/01/15	0	0	0	3	4	3	0	0	0	0	0	0	0	0	10	37	39
01:00	0	0	0	2	7	3	0	0	0	0	0	0	0	0	12	37	39
02:00	1	0	0	1	3	1	0	0	0	0	0	0	0	0	6	35	38
03:00	0	0	0	1	2	2	0	1	0	0	0	0	0	0	6	45	48
04:00	0	0	1	4	5	4	0	0	0	0	0	0	0	0	14	37	39
05:00	1	0	3	9	8	10	0	0	0	0	0	0	0	0	31	37	39
06:00	0	1	2	12	50	35	6	0	0	0	0	0	0	0	106	38	40
07:00	1	2	10	25	83	81	16	0	0	1	0	0	0	0	219	39	41
08:00	0	3	8	41	74	79	18	1	0	0	0	0	0	0	224	39	42
09:00	1	4	5	47	108	66	10	1	0	0	0	0	0	0	242	38	39
10:00	2	3	14	68	144	67	12	3	0	0	0	0	0	0	313	37	39
11:00	0	4	13	48	154	96	18	2	0	0	0	0	0	0	335	38	40
12 PM	0	6	10	86	175	109	24	3	0	0	0	0	0	0	413	38	41
13:00	1	4	13	51	175	91	17	2	0	0	0	0	0	0	354	38	40
14:00	0	8	11	51	156	97	14	1	0	0	0	0	0	0	338	38	39
15:00	2	4	8	86	212	97	15	2	0	0	0	0	0	0	426	37	39
16:00	28	28	30	134	245	124	17	3	0	1	0	0	0	0	610	37	39
17:00	15	22	42	148	264	118	30	2	0	0	0	0	0	0	641	37	39
18:00	1	2	4	37	126	72	15	0	1	0	0	0	0	0	258	38	41
19:00	0	3	6	31	92	52	8	1	0	0	0	0	0	0	193	38	39
20:00	0	1	3	21	60	44	12	0	0	0	0	0	0	0	141	38	42
21:00	0	0	2	6	28	35	5	0	0	0	0	0	0	0	76	39	41
22:00	0	0	0	5	25	20	3	0	0	0	0	0	0	0	53	38	40
23:00	1	0	0	4	15	8	2	0	0	0	0	0	0	0	30	38	41
Total	54	95	185	921	2215	1314	242	22	1	2	0	0	0	0	5051		
Percent	1.1%	1.9%	3.7%	18.2%	43.9%	26.0%	4.8%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	10:00	10:00	11:00	11:00	08:00	10:00		07:00					11:00		
Vol.	2	4	14	68	154	96	18	3		1					335		
PM Peak	16:00	16:00	17:00	17:00	17:00	16:00	17:00	12:00	18:00	16:00					17:00		
Vol.	28	28	42	148	264	124	30	3	1	1					641		

Location : Larrabee Road SB
 Location : North of Westbrook Arterial
 City/State: Westbrook, ME
 SB

Accurate Counts 978-664-2565

6846SPDSBA

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	85th Percent	95th Percent
10/02/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	
01:00	0	1	0	2	7	2	1	0	0	0	0	0	0	0	13	41
02:00	0	1	0	3	1	1	0	0	0	0	0	0	0	0	6	35
03:00	0	0	1	3	0	5	0	0	0	0	0	0	0	0	9	38
04:00	0	0	1	1	6	0	0	0	0	0	0	0	0	0	8	34
05:00	1	3	2	7	3	7	1	0	0	0	0	0	0	0	20	40
06:00	0	4	3	8	25	10	2	0	0	0	0	0	0	0	52	37
07:00	0	3	0	16	56	37	9	0	0	0	0	0	0	0	122	38
08:00	2	3	12	33	104	73	11	2	0	0	0	0	0	0	238	38
09:00	1	3	10	58	122	59	13	2	0	0	0	0	0	0	269	37
10:00	0	5	18	57	132	83	12	0	0	1	0	0	0	0	308	38
11:00	0	1	22	70	165	78	8	1	0	0	0	0	0	0	345	37
12 PM	0	1	16	85	213	116	16	0	0	0	0	0	0	0	447	37
13:00	0	7	13	65	200	89	27	2	0	0	0	0	0	0	403	38
14:00	0	7	20	73	153	121	19	1	0	0	0	0	0	0	394	40
15:00	3	5	34	74	230	101	18	1	0	0	0	0	0	0	466	37
16:00	4	22	29	108	249	134	16	2	0	0	0	0	0	0	564	39
17:00	9	19	39	104	219	119	13	2	0	1	0	0	0	0	525	37
18:00	0	4	6	40	119	88	14	1	0	0	0	0	0	0	272	38
19:00	0	2	3	40	81	58	14	2	0	0	0	0	0	0	200	38
20:00	0	5	1	16	73	42	5	0	0	0	0	0	0	0	142	38
21:00	1	3	1	14	31	32	11	0	0	0	0	0	0	0	93	39
22:00	0	1	0	8	25	23	2	2	0	0	0	0	0	0	61	38
23:00	0	0	0	5	21	12	0	0	0	0	0	0	0	0	38	37
Total	21	100	241	926	2361	1356	228	18	1	2	0	0	0	0	5254	
Percent	0.4%	1.9%	4.6%	17.6%	44.9%	25.8%	4.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
AM Peak	08:00	10:00	11:00	11:00	11:00	10:00	09:00	07:00	10:00	09:00					11:00	
Vol.	2	5	22	70	165	83	16	2	1	1					345	
PM Peak	17:00	16:00	17:00	16:00	16:00	16:00	13:00	13:00		17:00					16:00	
Vol.	9	22	39	108	249	134	27	2		1					564	

Accurate Counts 978-664-2565

Location : Larrabee Road SB
Location : North of Westbrook Arterial
City/State: Westbrook, ME
SB

6846SPDSBA

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/03/15	0	0	1	4	11	7	1	0	0	0	0	0	0	0	24	38	39
01:00	0	1	1	2	10	2	0	0	0	0	0	0	0	0	16	34	37
02:00	0	0	0	3	4	5	2	0	0	0	0	0	0	0	14	39	43
03:00	0	0	0	1	4	1	0	0	0	0	0	0	0	0	6	35	38
04:00	0	0	0	1	5	1	0	0	0	0	0	0	0	0	7	34	38
05:00	0	1	2	6	6	5	0	0	0	0	0	0	0	0	20	37	39
06:00	0	0	1	2	14	7	0	0	0	0	0	0	0	0	24	37	39
07:00	0	1	1	17	32	35	5	0	0	0	0	0	0	0	91	38	40
08:00	0	7	6	10	65	35	8	1	0	0	0	0	0	0	132	38	41
09:00	1	2	2	29	100	55	13	0	0	1	0	0	0	0	203	38	41
10:00	0	8	10	33	147	95	18	0	0	0	0	0	0	0	311	38	40
11:00	0	0	2	46	163	89	19	3	0	0	0	0	0	0	304	38	41
12 PM	2	2	9	58	138	101	15	0	0	0	0	0	0	0	324	38	39
13:00	0	5	7	32	143	115	10	3	1	0	0	0	0	0	328	38	40
14:00	0	3	3	41	110	90	10	0	0	0	0	0	0	0	306	38	39
15:00	0	2	5	26	133	83	14	3	0	0	0	0	0	0	258	38	39
16:00	0	0	1	39	102	79	20	1	0	2	0	0	0	0	260	38	41
17:00	1	2	4	22	88	35	10	4	0	0	0	0	0	0	250	39	42
18:00	0	1	3	18	71	45	5	0	0	0	0	0	0	0	163	38	42
19:00	0	1	2	12	39	26	5	0	0	1	0	0	0	0	143	38	39
20:00	0	1	0	10	28	24	4	1	0	0	0	0	0	0	83	38	40
21:00	0	2	1	10	33	19	2	0	1	0	0	0	0	0	71	39	43
22:00	0	0	2	9	33	14	3	0	0	0	0	0	0	0	65	37	39
23:00	0	0	1	1	8	14	3	0	0	0	0	0	0	0	27	39	42
Total	4	39	64	469	1599	1054	179	16	2	4	0	0	0	0	3430		
Percent	0.1%	1.1%	1.9%	13.7%	46.6%	30.7%	5.2%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	10:00	11:00	10:00	10:00	11:00	11:00		09:00					10:00		
Vol.	1	8	10	46	147	95	19	3		1					311		
PM Peak	12:00	13:00	12:00	13:00	12:00	14:00	17:00	18:00	13:00	17:00					13:00		
Vol.	2	5	9	58	163	115	20	4	1	2					328		
Grand Total	79	234	490	2316	6175	3724	649	56	4	8	0	0	0	0	13735		
Percent	0.6%	1.7%	3.6%	16.9%	45.0%	27.1%	4.7%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%			

Statistics	10 MPH Pace Speed :	31-40 MPH
	Number in Pace :	9899
	Percent in Pace :	72.1%
	Number of Vehicles > 35 MPH :	4441
	Percent of Vehicles > 35 MPH :	32.3%
	Mean Speed(Average) :	33 MPH

Location : Westbrook Arterial
 Location : East of Larrabee Road
 City/State: Westbrook, ME
 EB

Accurate Counts 978-664-2565

6846SPDB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/01/15	15	20	25	30	35	40	45	50	55	60	65	70	75	799	26	54	59
01:00	0	0	0	0	0	4	6	7	6	2	1	0	0	0	22	48	49
02:00	0	0	0	0	0	3	5	7	1	0	0	0	0	0	22	52	54
03:00	0	0	0	0	0	3	6	7	5	0	1	0	0	0	22	52	58
04:00	0	0	0	0	0	5	8	10	3	2	1	0	0	0	29	58	54
05:00	0	0	0	0	3	9	20	21	13	1	1	0	0	0	68	51	54
06:00	0	1	0	0	1	7	31	49	50	5	2	0	0	0	146	53	54
07:00	4	0	0	1	7	36	103	174	83	25	1	8	0	0	442	53	57
08:00	5	1	2	11	55	118	245	263	162	43	5	1	0	2	913	52	55
09:00	4	1	6	14	25	86	179	176	131	35	8	1	1	0	667	52	56
10:00	3	2	0	0	14	38	110	169	123	43	8	0	0	2	512	53	57
11:00	1	0	0	0	5	40	130	157	93	25	1	6	0	0	458	53	56
12 PM	4	1	0	1	18	57	154	158	104	22	1	1	0	0	521	52	54
13:00	2	1	3	2	9	42	127	177	112	29	10	0	0	0	514	53	57
14:00	1	2	0	5	11	29	115	158	118	34	11	0	0	0	484	53	58
15:00	2	1	0	0	28	50	122	191	112	34	2	3	0	0	545	53	56
16:00	4	0	0	1	7	60	151	199	133	38	6	4	0	0	603	53	57
17:00	3	3	0	7	14	76	177	210	107	30	2	0	1	0	630	52	55
18:00	2	0	1	6	36	74	153	215	128	27	4	3	0	3	652	52	55
19:00	1	0	0	2	3	33	116	152	58	16	3	0	0	0	384	51	54
20:00	0	0	0	1	12	28	68	98	50	12	0	0	0	0	270	52	54
21:00	0	0	0	0	3	29	65	61	34	3	0	0	0	0	195	51	54
22:00	0	1	0	0	1	11	37	37	21	1	0	0	0	0	109	51	53
23:00	0	0	0	0	1	4	18	27	25	4	1	0	0	0	80	53	56
Total	38	14	12	51	258	851	2151	2736	1681	434	69	27	2	7	8331	53	56
Percent	0.5%	0.2%	0.1%	0.6%	3.1%	10.2%	25.8%	32.8%	20.2%	5.2%	0.8%	0.3%	0.0%	0.1%			
AM Peak	07:00	09:00	08:00	08:00	07:00	07:00	07:00	07:00	07:00	07:00	08:00	06:00	08:00	07:00	07:00		
Vol.	5	2	6	14	55	118	245	263	162	43	8	8	1	2	913		
PM Peak	15:00	16:00	12:00	16:00	17:00	16:00	16:00	17:00	15:00	15:00	13:00	15:00	16:00	17:00	17:00		
Vol.	4	3	3	7	36	76	177	215	133	38	11	4	1	3	652		

Location : Westbrook Arterial
 Location : East of Larrabee Road
 City/State: Westbrook, ME
 EB

6846SPDB

Accurate Counts 978-664-2565

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10:02/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	39	52	60
01:00	0	0	0	2	0	2	9	17	7	0	2	0	0	0	26	52	56
02:00	0	0	0	0	0	4	11	4	4	2	0	0	0	0	23	51	54
03:00	0	0	0	0	0	4	8	6	4	0	1	0	0	0	31	52	56
04:00	0	0	0	0	0	5	8	11	5	2	0	0	0	0	59	53	56
05:00	0	0	0	1	1	5	10	19	19	4	0	0	0	0	142	52	55
06:00	1	0	0	0	1	8	38	57	29	7	1	0	0	0	425	52	56
07:00	2	0	0	0	16	28	117	156	79	20	4	1	1	1	878	51	55
08:00	2	1	0	4	11	87	181	213	121	37	6	1	0	0	628	51	55
09:00	4	0	0	0	7	46	112	156	118	39	4	0	0	0	487	53	57
10:00	4	0	0	3	9	65	119	152	79	28	3	1	0	2	465	52	56
11:00	2	0	0	2	17	81	120	136	77	39	6	0	0	0	480	53	57
12 PM	1	2	10	6	11	77	119	181	91	31	3	0	1	0	533	52	56
13:00	1	0	0	3	10	42	148	168	77	31	7	1	0	0	488	52	57
14:00	3	1	4	9	31	62	120	163	108	24	6	1	0	0	532	52	55
15:00	3	4	3	11	28	65	185	204	108	32	2	2	0	0	647	52	55
16:00	7	2	4	6	20	68	177	223	128	27	4	0	0	0	666	52	54
17:00	6	1	3	1	17	83	182	183	116	37	2	0	0	0	631	52	56
18:00	3	1	0	1	3	45	119	149	72	21	5	0	0	0	419	52	56
19:00	0	1	1	1	3	24	63	104	42	8	0	0	0	1	248	51	54
20:00	0	0	0	0	3	22	71	86	28	6	1	1	0	0	218	50	54
21:00	0	0	0	0	2	22	30	58	28	7	2	0	0	1	150	52	56
22:00	1	0	0	0	4	13	24	41	23	6	2	0	1	1	116	53	57
23:00	0	0	0	0	1	8	16	14	6	5	2	0	0	0	52	54	59
Total	42	13	36	70	243	1005	2214	2768	1464	438	71	9	3	7	8383		
Percent	0.5%	0.2%	0.4%	0.8%	2.9%	12.0%	26.4%	33.0%	17.5%	5.2%	0.8%	0.1%	0.0%	0.1%			
AM Peak	09:00	08:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	09:00	08:00	06:00	06:00	10:00	07:00		
Vol.	4	1	9	20	48	139	227	267	121	39	8	1	1	2	878		
PM Peak	16:00	15:00	12:00	15:00	14:00	17:00	15:00	16:00	16:00	17:00	13:00	15:00	12:00	19:00	16:00		
Vol.	7	4	10	11	31	83	185	223	128	37	7	2	1	1	666		

Location : Westbrook Arterial
 Location : East of Larrabee Road
 City/State: Westbrook, ME
 EB

6846SPDB

Accurate Counts 978-664-2565

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/03/15	15	20	25	30	35	40	45	50	55	60	65	70	75	80	25	50	63
01:00	0	0	0	0	1	6	13	7	5	0	1	1	0	0	0	34	51
02:00	0	0	0	0	1	4	13	2	1	0	0	0	1	0	0	22	46
03:00	0	0	0	0	2	2	3	8	5	2	0	0	0	0	0	22	53
04:00	0	0	0	0	0	3	4	8	6	2	0	0	0	0	0	23	57
05:00	0	0	0	0	0	5	19	25	8	2	2	0	0	0	61	51	57
06:00	0	0	0	0	1	4	27	41	26	7	3	0	0	0	109	53	58
07:00	1	1	0	3	3	15	52	81	60	29	8	2	0	0	255	55	59
08:00	2	2	0	0	5	17	57	108	87	36	3	0	0	0	317	54	58
09:00	1	0	0	5	5	23	85	145	94	30	6	3	0	1	398	53	58
10:00	1	1	0	1	7	25	105	142	110	26	6	0	1	2	427	53	57
11:00	4	0	0	0	4	40	92	161	108	31	6	2	1	1	450	53	57
12:00	3	0	0	0	7	38	101	166	102	28	2	2	0	1	450	53	56
13:00	1	0	0	0	7	38	104	170	120	45	6	1	0	2	494	54	58
14:00	4	0	1	0	1	35	95	151	120	43	5	1	0	1	457	54	58
15:00	0	1	0	0	2	17	78	129	118	46	8	1	0	1	401	54	58
16:00	2	0	0	1	4	15	67	161	109	45	8	1	1	1	415	54	58
17:00	3	0	0	0	2	20	74	108	79	32	8	3	0	0	329	54	59
18:00	1	0	0	0	9	29	77	101	54	16	2	0	0	0	289	52	56
19:00	1	0	0	0	2	13	78	90	49	12	1	0	0	0	246	52	55
20:00	2	0	1	0	1	22	53	52	41	6	2	0	0	0	180	52	54
21:00	1	0	0	0	1	16	49	43	19	7	2	1	0	0	139	52	57
22:00	0	0	0	0	5	5	31	34	15	8	0	0	1	0	99	53	57
23:00	0	0	0	1	3	4	13	22	14	2	0	1	0	1	61	52	55
Total	27	5	2	11	74	399	1298	1964	1352	455	80	20	5	11	5703		
Percent	0.5%	0.1%	0.0%	0.2%	1.3%	7.0%	22.8%	34.4%	23.7%	8.0%	1.4%	0.4%	0.1%	0.2%			
AM Peak	11:00	08:00			10:00	11:00	10:00	11:00	10:00	08:00	07:00	09:00	02:00	10:00	11:00		
Vol.	4	2		5	7	40	105	161	110	36	8	3	1	2	450		
PM Peak	14:00	15:00	14:00	16:00	18:00	12:00	13:00	13:00	13:00	15:00	15:00	17:00	16:00	13:00	13:00		
Vol.	4	1	1	1	9	38	104	170	120	46	8	3	1	2	494		
Grand Total	107	32	50	132	575	2255	5663	7468	4497	1327	220	56	10	25	22417		
Percent	0.5%	0.1%	0.2%	0.6%	2.6%	10.1%	25.3%	33.3%	20.1%	5.9%	1.0%	0.2%	0.0%	0.1%			

Statistics	10 MPH Pace Speed :	41-50 MPH
	Number in Pace :	13131
	Percent in Pace :	58.6%
	Number of Vehicles > 45 MPH :	13603
	Percent of Vehicles > 45 MPH :	60.7%
	Mean Speed(Average) :	47 MPH

Accurate Counts 978-664-2565

Location : Westbrook Arterial
Location : East of Larrabee Road
City/State: Westbrook, ME
WB

6846SPDB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/01/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	31	52	57
01:00	0	1	0	0	0	6	8	6	4	1	1	0	0	0	23	53	57
02:00	0	1	1	0	0	3	6	4	5	0	0	0	0	0	20	52	54
03:00	0	0	4	0	0	4	3	10	1	0	1	0	0	0	23	49	54
04:00	0	0	3	0	0	7	11	15	6	1	0	0	0	0	43	50	54
05:00	0	0	11	0	3	4	22	28	17	4	0	0	0	0	89	52	54
06:00	0	1	19	0	1	24	85	75	29	6	2	0	0	0	242	50	54
07:00	3	5	35	1	9	68	187	158	57	10	0	0	0	0	533	49	53
08:00	7	6	31	4	15	49	147	190	61	11	2	0	0	0	523	49	53
09:00	2	3	30	1	3	24	83	126	77	13	3	1	0	0	366	52	54
10:00	0	4	35	0	3	23	98	166	64	18	1	0	0	0	412	51	54
11:00	0	9	24	3	22	46	139	124	49	11	4	1	0	1	433	50	54
12 PM	1	37	9	13	96	168	60	18	1	0	0	0	0	0	403	41	44
13:00	1	28	17	8	104	179	67	16	3	0	0	0	1	0	424	41	44
14:00	2	47	13	16	139	196	66	16	3	0	0	0	0	0	498	40	44
15:00	3	41	11	36	174	194	76	14	0	0	0	0	0	0	549	40	44
16:00	7	112	10	100	328	224	52	7	1	0	0	0	0	0	841	38	41
17:00	0	88	7	64	284	258	59	9	1	0	0	0	0	1	771	39	42
18:00	2	75	17	30	156	142	32	6	0	0	0	0	0	0	460	38	42
19:00	2	63	4	24	146	96	26	4	0	0	0	0	0	0	365	38	42
20:00	0	39	5	15	72	81	19	1	0	0	0	0	0	0	232	39	42
21:00	0	38	2	12	70	50	12	1	0	0	0	0	0	0	185	38	41
22:00	0	22	2	10	34	39	6	1	1	0	0	0	0	0	115	38	41
23:00	0	12	0	5	24	16	3	1	0	0	0	0	0	0	61	38	41
Total	30	632	292	342	1685	1903	1272	1004	386	77	14	2	1	2	7642		
Percent	0.4%	8.3%	3.8%	4.5%	22.0%	24.9%	16.6%	13.1%	5.1%	1.0%	0.2%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	07:00	08:00	11:00	07:00	07:00	08:00	09:00	10:00	11:00	09:00			07:00		
Vol.	7	9	35	4	22	68	187	190	77	18	4	1		1	533		
PM Peak	16:00	16:00	13:00	16:00	16:00	17:00	15:00	12:00	13:00				13:00	17:00	16:00		
Vol.	7	112	17	100	328	258	76	18	3				1	1	841		

Location : Westbrook Arterial
 Location : East of Larrabee Road
 City/State: Westbrook, ME
 WB

6846SPDB

Accurate Counts 978-664-2565

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	85th Percent	95th Percent
10/02/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	
01:00	0	9	2	8	10	18	4	1	0	0	0	0	0	0	52	39
02:00	0	9	2	4	8	8	1	1	0	0	0	0	0	0	33	38
03:00	0	6	3	7	9	7	5	0	1	0	0	0	0	0	38	40
04:00	0	4	3	5	6	2	4	0	0	0	0	0	0	0	24	40
05:00	0	10	2	1	16	5	4	0	0	0	0	0	0	0	38	38
06:00	1	21	6	14	24	27	20	4	0	0	0	0	0	0	117	41
07:00	0	37	7	36	88	50	24	5	1	0	0	0	0	0	248	39
08:00	9	67	27	69	205	104	39	12	2	1	0	0	0	0	535	38
09:00	5	94	13	65	192	117	26	11	0	0	0	0	0	0	523	38
10:00	1	52	19	37	132	114	34	4	0	0	0	0	1	0	392	39
11:00	0	49	11	33	112	104	51	14	0	0	0	0	0	0	393	39
12 PM	2	58	17	54	153	145	40	9	0	0	0	0	0	0	374	40
13:00	5	61	21	54	127	148	42	11	1	0	0	0	0	0	478	39
14:00	3	60	9	39	192	176	52	10	0	0	0	0	0	0	470	39
15:00	1	90	11	79	246	178	49	8	1	2	0	0	0	0	541	39
16:00	4	120	7	93	352	172	49	6	0	0	0	0	0	0	666	38
17:00	4	102	3	64	300	215	41	12	0	0	0	0	0	0	803	38
18:00	3	76	7	44	189	116	31	1	1	0	0	0	0	0	741	38
19:00	4	52	5	23	134	79	14	1	0	0	0	0	0	0	468	38
20:00	0	48	4	12	81	60	20	0	0	0	0	0	0	0	312	37
21:00	0	56	3	25	92	54	14	0	0	0	0	0	0	0	225	38
22:00	0	36	1	9	54	41	10	2	0	0	0	0	0	0	244	37
23:00	0	18	0	5	30	29	6	0	1	0	0	0	0	0	153	38
Total	42	1199	209	826	2871	2059	619	119	8	3	0	0	1	1	7957	38
Percent	0.5%	15.1%	2.6%	10.4%	36.1%	25.9%	7.8%	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%		
AM Peak	07:00	08:00	07:00	07:00	07:00	08:00	11:00	11:00	07:00	07:00			09:00		07:00	
Vol.	9	94	27	69	205	117	51	14	2	1			1		535	
PM Peak	13:00	16:00	13:00	16:00	16:00	17:00	14:00	17:00	13:00	15:00				15:00	16:00	
Vol.	5	120	21	93	352	215	52	12	1	2				1	803	

Location : Westbrook Arterial
 Location : East of Larrabee Road
 City/State: Westbrook, ME
 WB

6846SPDB

Accurate Counts 978-664-2565

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/03/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	64	38	39
01:00	0	15	0	6	23	17	3	0	0	0	0	0	0	0	0	38	39
02:00	0	8	1	10	11	7	1	0	0	0	0	0	0	0	0	36	39
03:00	0	7	0	1	11	7	0	0	0	0	0	0	0	0	0	37	39
04:00	0	5	3	3	4	3	2	0	0	0	0	0	0	0	0	26	39
05:00	0	9	0	1	6	5	1	0	0	0	0	0	0	0	0	20	42
06:00	0	7	0	2	3	6	5	0	0	0	0	0	0	0	0	22	37
07:00	0	20	3	4	16	26	5	3	0	0	0	0	0	0	0	23	41
08:00	1	46	10	29	51	60	31	1	1	0	0	0	0	0	0	77	39
09:00	0	53	5	10	92	72	13	13	2	0	0	0	0	0	0	39	43
10:00	3	67	6	19	115	78	31	10	3	0	0	0	0	0	0	260	39
11:00	3	61	9	19	129	111	44	8	0	0	0	0	0	0	0	332	44
12 PM	3	45	10	12	114	148	57	10	0	0	0	0	0	0	0	384	43
13:00	0	61	8	18	126	162	62	13	2	0	1	0	0	0	0	399	44
14:00	1	44	11	12	112	111	51	21	1	3	0	0	0	0	0	455	40
15:00	3	51	11	4	80	154	81	14	0	0	0	0	0	0	0	40	44
16:00	2	48	12	9	83	126	68	18	2	0	0	0	0	0	0	366	42
17:00	0	32	9	3	95	88	57	23	0	0	0	0	0	0	0	396	42
18:00	2	44	4	23	91	140	40	6	0	0	0	0	0	0	0	369	42
19:00	0	43	6	28	63	70	25	3	0	0	0	0	0	0	0	309	42
20:00	3	38	8	19	77	55	20	4	0	0	0	0	0	0	0	361	39
21:00	0	31	3	14	64	55	12	1	0	0	0	0	0	0	0	275	39
22:00	0	39	1	11	64	31	5	0	0	0	0	0	0	0	0	238	39
23:00	2	36	5	24	40	31	5	0	0	0	0	0	0	0	0	180	38
Total	25	875	133	287	1562	1635	650	155	12	5	1	0	0	2	5342	143	37
Percent	0.5%	16.4%	2.5%	5.4%	29.2%	30.6%	12.2%	2.9%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	07:00	07:00	10:00	11:00	11:00	08:00	09:00						11:00		
Vol.	3	67	10	29	129	148	57	13	3						399		
PM Peak	15:00	17:00	15:00	19:00	12:00	12:00	14:00	16:00	12:00	13:00	12:00			17:00	12:00		
Vol.	3	65	12	28	126	162	81	23	2	3	1			2	455		
Grand Total	97	2706	634	1455	6118	5597	2541	1278	406	85	15	2	2	5	20941		
Percent	0.5%	12.9%	3.0%	6.9%	29.2%	26.7%	12.1%	6.1%	1.9%	0.4%	0.1%	0.0%	0.0%	0.0%			

Statistics

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 11715

Percent in Pace : 55.9%

Number of Vehicles > 45 MPH : 1793

Percent of Vehicles > 45 MPH : 8.6%

Mean Speed(Average) : 34 MPH

Location : Westbrook Arterial
 Location : East of Larrabee Road
 City/State: Westbrook, ME
 EB, WB

Accurate Counts 978-664-2565

6846SPDB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/01/15	15	20	25	30	35	40	45	50	55	60	65	70	75	999	57	53	58
01:00	0	1	0	0	0	10	14	15	12	3	2	0	0	0	45	50	54
02:00	0	1	1	0	0	7	10	13	5	2	0	0	0	0	42	52	54
03:00	0	0	4	0	0	6	12	11	10	0	1	0	0	0	52	50	58
04:00	0	0	3	0	3	16	31	36	4	2	2	0	0	0	111	51	54
05:00	0	1	11	0	4	11	53	77	67	9	2	0	0	0	235	53	54
06:00	4	1	19	1	8	60	188	249	112	31	3	8	0	0	684	52	56
07:00	8	6	37	12	64	186	432	421	219	53	5	1	0	2	1446	51	54
08:00	11	7	37	18	40	135	326	366	192	46	10	1	1	0	1190	51	54
09:00	5	5	30	1	17	62	193	295	200	56	11	1	0	2	878	53	57
10:00	1	4	35	0	8	63	228	323	157	43	2	6	0	0	870	52	55
11:00	4	10	24	4	40	103	293	282	153	33	5	2	0	1	954	51	54
12 PM	3	38	12	15	105	210	187	195	113	29	10	0	0	0	917	50	54
13:00	2	30	17	13	115	208	182	174	121	34	11	0	1	0	908	51	55
14:00	4	48	13	16	167	246	188	207	115	34	2	3	0	0	1043	49	54
15:00	7	41	11	37	181	254	227	213	133	38	6	4	0	0	1152	50	54
16:00	10	115	10	107	342	300	229	217	108	30	2	0	1	0	1471	48	53
17:00	2	88	8	70	320	332	212	224	129	27	4	3	0	4	1423	48	53
18:00	3	75	17	32	159	175	148	158	58	16	3	0	0	0	844	48	52
19:00	3	63	4	25	158	124	94	102	50	12	0	0	0	0	635	48	53
20:00	0	39	5	15	75	110	84	62	34	3	0	0	0	0	427	47	52
21:00	0	39	2	12	71	61	49	38	21	1	0	0	0	0	294	47	51
22:00	0	22	2	10	35	43	24	28	26	4	1	0	0	0	195	50	54
23:00	0	12	0	5	26	23	8	14	9	3	0	0	0	0	100	48	53
Total	68	646	304	393	1943	2754	3423	3740	2067	511	83	29	3	9	15973		
Percent	0.4%	4.0%	1.9%	2.5%	12.2%	17.2%	21.4%	23.4%	12.9%	3.2%	0.5%	0.2%	0.0%	0.1%			
AM Peak	08:00	11:00	07:00	08:00	07:00	07:00	07:00	07:00	07:00	09:00	09:00	06:00	08:00	07:00	07:00		
Vol.	11	10	37	18	64	186	432	421	219	56	11	8	1	2	1446		
PM Peak	16:00	16:00	13:00	16:00	16:00	17:00	16:00	17:00	15:00	15:00	13:00	15:00	13:00	17:00	16:00		
Vol.	10	115	17	107	342	332	229	224	133	38	11	4	1	4	1471		

Location : Westbrook Arterial
 Location : East of Larrabee Road
 City/State: Westbrook, ME
 EB, WB

6846SPDB

Accurate Counts 978-664-2565

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/02/15	15	20	25	30	35	40	45	50	55	60	65	70	75	80	91	48	53
01:00	0	9	2	10	10	20	13	18	7	0	2	0	0	0	59	47	53
02:00	0	6	3	7	9	11	13	6	5	0	1	0	0	0	61	47	52
03:00	0	4	3	5	6	7	12	11	5	2	0	0	0	0	55	49	54
04:00	0	10	2	2	17	10	14	19	19	4	0	0	0	0	97	52	54
05:00	2	21	6	14	25	35	58	61	29	7	1	0	0	0	259	49	54
06:00	2	37	7	36	104	78	141	161	80	20	4	1	1	1	673	50	54
07:00	11	67	36	89	253	243	266	279	123	38	6	1	0	1	1413	49	53
08:00	7	95	13	69	203	204	207	224	95	25	8	1	0	0	1151	49	53
09:00	4	64	27	46	126	136	151	163	118	39	4	0	1	0	879	51	55
10:00	5	52	19	40	141	179	153	156	79	28	3	1	0	2	858	49	54
11:00	2	49	11	35	129	185	171	150	77	39	6	0	0	0	854	49	55
12 PM	3	60	27	60	164	222	159	190	91	31	3	0	1	0	1011	49	54
13:00	6	61	21	57	137	190	190	179	78	31	7	1	0	0	958	49	54
14:00	6	61	13	48	223	238	172	173	108	24	6	1	0	0	1073	49	53
15:00	4	94	14	90	274	243	234	212	109	34	2	2	0	1	1313	48	53
16:00	11	122	11	99	372	240	226	229	128	27	4	0	0	0	1469	48	53
17:00	10	103	6	65	317	298	223	195	116	37	2	0	0	0	1372	48	53
18:00	6	77	7	45	192	161	150	150	73	21	5	0	0	0	887	48	53
19:00	4	53	6	24	137	103	77	105	42	8	0	0	0	1	560	48	52
20:00	0	48	4	12	84	82	91	86	28	6	1	1	0	0	443	48	52
21:00	0	56	3	25	94	76	44	58	28	7	2	0	0	1	394	48	53
22:00	1	36	1	9	58	54	34	43	23	6	2	0	1	1	269	49	54
23:00	0	18	0	5	31	37	22	14	7	5	2	0	0	0	141	47	54
Total	84	1212	245	896	3114	3064	2833	2887	1472	441	71	9	4	8	16340		
Percent	0.5%	7.4%	1.5%	5.5%	19.1%	18.8%	17.3%	17.7%	9.0%	2.7%	0.4%	0.1%	0.0%	0.0%			
AM Peak	07:00	08:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	09:00	08:00	06:00	06:00	10:00	07:00		
Vol.	11	95	36	89	253	243	266	279	123	39	8	1	1	2	1413		
PM Peak	16:00	16:00	12:00	16:00	16:00	17:00	15:00	16:00	16:00	17:00	13:00	15:00	12:00	15:00	16:00		
Vol.	11	122	27	99	372	298	234	229	128	37	7	2	1	1	1469		

Location : Westbrook Arterial
 Location : East of Larrabee Road
 City/State: Westbrook, ME
 EB, WB

6846SPDB

Accurate Counts 978-664-2565

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
10/03/15	15	0	0	6	24	20	11	9	2	0	1	1	0	0	89	44	49
01:00	0	8	1	10	12	13	14	7	5	0	1	1	0	0	72	47	53
02:00	0	7	0	1	12	11	13	2	1	0	0	0	1	0	48	43	49
03:00	0	5	3	3	6	5	5	8	5	2	0	0	0	0	42	50	54
04:00	0	9	0	1	6	8	5	8	6	2	0	0	0	0	45	51	54
05:00	0	7	0	2	3	11	24	25	8	2	2	0	0	0	84	49	54
06:00	0	20	3	4	17	30	32	44	26	7	3	0	0	0	186	51	55
07:00	2	47	10	32	54	75	83	82	61	29	8	2	0	0	485	52	57
08:00	2	55	5	10	97	89	70	121	89	36	3	0	0	0	577	52	56
09:00	4	67	6	24	120	101	116	155	97	30	6	3	0	1	730	51	55
10:00	4	62	9	20	136	136	149	150	110	26	6	0	1	2	811	50	54
11:00	7	45	10	12	118	188	149	171	108	31	6	2	1	1	849	50	54
12 PM	5	61	8	18	133	200	163	179	104	28	3	2	0	1	905	50	54
13:00	1	44	11	12	119	149	155	191	121	48	6	1	0	2	860	51	56
14:00	5	51	12	4	81	189	176	165	120	43	5	1	0	1	853	51	55
15:00	3	49	12	9	85	143	146	147	120	46	8	1	0	1	770	52	56
16:00	4	32	9	4	99	103	124	184	109	45	8	1	1	1	724	52	57
17:00	3	65	8	6	94	160	114	114	79	34	8	3	0	2	690	51	56
18:00	3	44	4	23	100	101	108	108	55	16	2	0	0	0	564	49	54
19:00	1	43	6	28	65	83	103	93	49	12	1	0	0	0	484	49	53
20:00	5	38	9	19	78	77	73	56	41	6	2	0	0	0	404	48	53
21:00	1	31	3	14	65	71	61	44	19	7	2	1	0	0	319	47	53
22:00	0	39	1	11	69	36	36	34	15	8	0	0	1	0	250	48	53
23:00	2	36	5	25	43	35	18	22	14	2	0	1	0	1	204	46	52
Total	52	880	135	298	1636	2034	1948	2119	1364	460	81	20	5	13	11045		
Percent	0.5%	8.0%	1.2%	2.7%	14.8%	18.4%	17.6%	19.2%	12.3%	4.2%	0.7%	0.2%	0.0%	0.1%			
AM Peak	11:00	09:00	07:00	07:00	10:00	11:00	10:00	11:00	10:00	08:00	07:00	09:00	02:00	10:00	11:00		
Vol.	7	67	10	32	136	188	149	171	110	36	8	3	1	2	849		
PM Peak	12:00	17:00	14:00	19:00	12:00	12:00	14:00	13:00	13:00	13:00	15:00	17:00	16:00	13:00	12:00		
Vol.	5	65	12	28	133	200	176	191	121	48	8	3	1	2	905		
Grand Total	204	2738	684	1587	6693	7852	8204	8746	4903	1412	235	58	12	30	43358		
Percent	0.5%	6.3%	1.6%	3.7%	15.4%	18.1%	18.9%	20.2%	11.3%	3.3%	0.5%	0.1%	0.0%	0.1%			

Statistics	10 MPH Pace Speed :	41-50 MPH
	Number in Pace :	16950
	Percent in Pace :	39.1%
	Number of Vehicles > 45 MPH :	15396
	Percent of Vehicles > 45 MPH :	35.5%
	Mean Speed(Average) :	41 MPH

MAINE DOT ACCIDENT PRINTOUTS

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS☒ Crash Summary I☒ Section Detail☒ Crash Summary II☐ 1320 Public☐ 1320 Private☐ 1320 SummaryREPORT DESCRIPTION

Westbrook section 1

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0025X

Start Node: 18548
End Node: 17169Start Offset: 0
End Offset: 0☐ Exclude First Node
☐ Exclude Last Node

Route: 0025E

Start Node: 18541
End Node: 18542Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 18542
End Node: 18543Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 66387
End Node: 18544Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 18544
End Node: 18545Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 18545
End Node: 18546Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 18546
End Node: 18547Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 18547
End Node: 18548Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Crash Summary I

Nodes														
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury Crashes			PD	Injury	Percent Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18548	0025X - 6	Int of SPRING ST WILLIAM B CLARKE DR	9	24	0	1	1	4	18	25.0	11.037	0.72	1.00	0.00
18547	0025X - 6.15	Int of CHURCH ST WILLIAM B CLARKE DR	2	6	0	1	0	0	5	16.7	7.012	0.29	0.29	0.00
18546	0025X - 6.20	Int of BRACKETT ST WILLIAM B CLARKE DR	2	12	0	0	1	3	8	33.3	7.084	0.56	0.29	1.95
18545	0025X - 6.28	Int of CENTRAL ST WILLIAM B CLARKE DR	2	4	0	0	1	0	3	25.0	6.718	0.20	0.29	0.00
18544	0025X - 6.33	Int of MECHANIC ST WILLIAM B CLARKE DR	9	19	0	0	0	2	17	10.5	6.837	0.93	1.08	0.00
66387	0025X - 6.40	Non Int WILLIAM B CLARKE DR	2	0	0	0	0	0	0	0.0	3.240	0.00	0.35	0.00
18543	0025X - 6.46	Int of SACO ST WILLIAM B CLARKE DR	9	23	0	0	0	7	15	31.8	7.379	1.04	1.07	0.00
18542	0025X - 6.52	Int of MAIN ST NEW GORHAM RD WILLIAM B CLARKE DR	9	15	0	0	0	4	11	26.7	7.675	0.65	1.06	0.00
60941	0025X - 6.55	Int of RD INV 3200793 WILLIAM B CLARKE DR	2	4	0	0	0	1	3	25.0	4.109	0.32	0.33	0.00
18541	0025X - 6.60	Int of CONANT ST WILLIAM B CLARKE DR	2	2	0	0	0	0	2	0.0	7.543	0.09	0.29	0.00
18540	0025X - 6.94	Int of CONANT ST WILLIAM B CLARKE DR	2	0	0	0	0	0	0	0.0	6.822	0.00	0.29	0.00
17467	0025X - 7.11	Int of CONANT ST JUNIPER LN	2	1	0	0	0	0	1	0.0	6.788	0.05	0.29	0.00
17169	0025X - 7.22	TL Gorham Westbrook	2	0	0	0	0	0	0	0.0	3.353	0.00	0.35	0.00
Study Years: 3.00			NODE TOTALS:											
				110	0	2	3	21	83	23.6	85.597	0.43	0.41	1.04

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18547 Int of CHURCH ST WILLIAM B CLARKE DR	18548	3117231	0 - 0.15	0025X - 6 ST RTE 25	0.15	2	1	0	0	1	0	0	100.0	0.00491	67.87	417.12 Statewide Crash Rate: 172.40	0.00
18546 Int of BRACKETT ST WILLIAM B CLARKE DR	18547	3121644	0 - 0.05	0025X - 6.15 ST RTE 25	0.05	2	1	0	0	0	1	0	100.0	0.00176	188.94	542.85 Statewide Crash Rate: 172.40	0.00
18545 Int of CENTRAL ST WILLIAM B CLARKE DR	18546	3140103	0 - 0.08	0025X - 6.20 ST RTE 25	0.08	2	1	0	0	0	0	1	0.0	0.00268	124.45	487.49 Statewide Crash Rate: 172.40	0.00
18544 Int of MECHANIC ST WILLIAM B CLARKE DR	18545	3118634	0 - 0.05	0025X - 6.28 ST RTE 25	0.05	2	1	0	0	0	0	1	0.0	0.00165	201.82	551.99 Statewide Crash Rate: 172.40	0.00
66387 Non Int WILLIAM B CLARKE DR	18544	3117233	0 - 0.07	0025X - 6.33 ST RTE 25	0.07	2	3	0	0	0	0	3	0.0	0.00227	440.90	508.96 Statewide Crash Rate: 172.40	0.00
18543 Int of SAGO ST WILLIAM B CLARKE DR	66387	3117232	0 - 0.06	0025X - 6.40 ST RTE 25	0.06	2	3	0	0	0	1	2	33.3	0.00389	257.19	442.71 Statewide Crash Rate: 172.40	0.00
18542 Int of MAIN ST NEW GORHAM RD WILLIAM B CLARKE DR	18543	2083767	0 - 0.06	0025X - 6.46 ST RTE 25	0.06	2	2	0	0	0	0	2	0.0	0.00162	411.87	554.81 Statewide Crash Rate: 172.40	0.00
60941 Int of RD INV 3200793 WILLIAM B CLARKE DR	18542	3123357	0 - 0.03	0025X - 6.52 ST RTE 25	0.03	2	1	0	0	0	0	1	0.0	0.00106	313.60	614.57 Statewide Crash Rate: 172.40	0.00
18541 Int of CONANT ST WILLIAM B CLARKE DR	60941	2083770	0 - 0.05	0025X - 6.55 ST RTE 25	0.05	2	0	0	0	0	0	0	0.0	0.00205	0.00	522.11 Statewide Crash Rate: 172.40	0.00
18540 Int of CONANT ST WILLIAM B CLARKE DR	18541	3106694	0 - 0.34	0025X - 6.60 ST RTE 25	0.34	2	3	0	0	0	0	3	0.0	0.02322	43.06	293.37 Statewide Crash Rate: 172.40	0.00
17467 Int of CONANT ST JUNIPER LN	18540	3119267	0 - 0.17	0025X - 6.94 ST RTE 25	0.17	2	1	0	0	0	1	0	100.0	0.01154	28.88	339.74 Statewide Crash Rate: 172.40	0.00
17169 TL Gorham Westbrook	17467	192934	0 - 0.11	0025X - 7.11 ST RTE 25	0.11	2	0	0	0	0	0	0	0.0	0.00738	0.00	377.19 Statewide Crash Rate: 172.40	0.00
18541 Int of CONANT ST WILLIAM B CLARKE DR	18542	3416747	0 - 0.08	0025E - 0.22 ST RTE 25E	0.08	2	0	0	0	0	0	0	0.0	0.00221	0.00	512.56 Statewide Crash Rate: 172.40	0.00
18542 Int of MAIN ST NEW GORHAM RD WILLIAM B CLARKE DR	18543	3416750	0 - 0.06	0025E - 0.30 ST RTE 25E	0.06	2	0	0	0	0	0	0	0.0	0.00162	0.00	554.81 Statewide Crash Rate: 172.40	0.00
66387 Non Int WILLIAM B CLARKE DR	18544	3117234	0 - 0.07	0025E - 0.36 ST RTE 25E	0.07	2	1	0	0	0	0	1	0.0	0.00227	146.97	508.96 Statewide Crash Rate: 172.40	0.00
18544 Int of MECHANIC ST WILLIAM B CLARKE DR	18545	3119985	0 - 0.05	0025E - 0.43 ST RTE 25E	0.05	2	2	0	0	0	1	1	50.0	0.00165	403.64	551.99 Statewide Crash Rate: 172.40	0.00
18545 Int of CENTRAL ST WILLIAM B CLARKE DR	18546	3140104	0 - 0.08	0025E - 0.48 ST RTE 25E	0.08	2	2	0	0	0	2	0	100.0	0.00268	248.89	487.49 Statewide Crash Rate: 172.40	0.00
18546 Int of BRACKETT ST WILLIAM B CLARKE DR	18547	3123238	0 - 0.05	0025E - 0.56 ST RTE 25E	0.05	2	1	0	0	0	0	1	0.0	0.00176	188.94	542.85 Statewide Crash Rate: 172.40	0.00
18547 Int of CHURCH ST WILLIAM B CLARKE DR	18548	3121637	0 - 0.15	0025E - 0.61 ST RTE 25E	0.15	2	0	0	0	0	0	0	0.0	0.00581	0.00	399.83 Statewide Crash Rate: 172.40	0.00

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
Study Years: 3.00					1.76	23	0	0	1	6	16	30.4	0.08204	93.45	238.55	0.39
Section Totals:					1.76	133	0	2	4	27	99	24.8	0.08204	540.40	350.33	1.54
Grand Totals:																

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
18547	18548	3117231	0 - 0.15	0025X - 6	1	0	0	1	0	0	2013-11035	05/02/2013	6.14	B
18546	18547	3121644	0 - 0.05	0025X - 6.15	1	0	0	0	1	0	2012-30563	05/18/2012	6.19	C
18545	18546	3140103	0 - 0.08	0025X - 6.20	1	0	0	0	0	1	2012-38434	09/10/2012	6.23	PD
18544	18545	3118634	0 - 0.05	0025X - 6.28	1	0	0	0	0	1	2011-7217	01/31/2011	6.32	PD
66387	18544	3117233	0 - 0.07	0025X - 6.33	3	0	0	0	0	3	2011-23881	09/27/2011	6.34	PD
											2012-30550	05/28/2012	6.35	PD
											2013-14845	06/10/2013	6.35	PD
18543	66387	3117232	0 - 0.06	0025X - 6.40	3	0	0	0	1	2	2012-42418	10/27/2012	6.43	PD
											2012-32379	06/29/2012	6.44	C
18542	18543	2083767	0 - 0.06	0025X - 6.46	2	0	0	0	0	2	2013-19651	08/11/2013	6.45	PD
											2012-37333	09/01/2012	6.48	PD
60941	18542	3123357	0 - 0.03	0025X - 6.52	1	0	0	0	0	1	2011-7561	03/30/2011	6.54	PD
18541	60941	2083770	0 - 0.05	0025X - 6.55	0	0	0	0	0	0				
18540	18541	3106694	0 - 0.34	0025X - 6.60	3	0	0	0	0	3	2013-20828	08/18/2013	6.70	PD
											2011-11085	09/26/2011	6.91	PD
17467	18540	3119267	0 - 0.17	0025X - 6.94	1	0	0	0	1	0	2013-34212	12/17/2013	6.93	PD
17169	17467	192934	0 - 0.11	0025X - 7.11	0	0	0	0	0	0	2011-23733	06/19/2011	7.05	C
18541	18542	3416747	0 - 0.08	0025E - 0.22	0	0	0	0	0	0				
18542	18543	3416750	0 - 0.06	0025E - 0.30	0	0	0	0	0	0				
66387	18544	3117234	0 - 0.07	0025E - 0.36	1	0	0	0	0	1	2013-2373	01/29/2013	0.42	PD
18544	18545	3119985	0 - 0.05	0025E - 0.43	2	0	0	0	1	1	2012-27669	05/04/2012	0.44	C
											2012-51119	07/03/2012	0.44	PD
18545	18546	3140104	0 - 0.08	0025E - 0.48	2	0	0	0	2	0	2012-45708	11/19/2012	0.52	C
18546	18547	3123238	0 - 0.05	0025E - 0.56	1	0	0	0	0	1	2013-11799	05/14/2013	0.53	C
18547	18548	3121637	0 - 0.15	0025E - 0.61	0	0	0	0	0	0	2013-32245	12/04/2013	0.59	PD
Totals:					23	0	0	0	1	6	16			

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	0	0	0	0	0	1	0	8
MONDAY	0	0	0	0	0	0	1	1	1	0	3	2	0	0	3	2	5	4	0	1	1	1	0	1	0	26
TUESDAY	0	0	0	0	0	0	0	4	2	1	4	2	0	1	0	1	4	5	1	0	0	0	1	0	0	26
WEDNESDAY	0	1	0	0	0	0	1	0	2	0	2	2	2	2	3	2	1	3	0	1	0	0	1	0	0	23
THURSDAY	0	0	0	0	0	0	0	1	3	1	1	0	1	0	1	1	3	4	0	0	0	0	0	0	0	16
FRIDAY	0	0	0	0	0	0	0	1	2	1	1	1	0	1	1	2	3	2	1	1	0	0	1	0	0	18
SATURDAY	0	0	0	0	0	0	0	1	0	1	2	4	0	0	0	3	4	0	0	1	0	0	0	0	0	16
Totals	0	1	0	0	0	0	2	8	10	4	14	12	3	5	9	12	21	19	2	4	1	1	3	2	0	133

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	186	23-Bicyclist	3
2-(Sport) Utility Vehicle	31	24-Witness	0
3-Passenger Van	4	25-Other	2
4-Cargo Van (10K lbs or Less)	3	Total	279
5-Pickup	33		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	4		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	3		
17-Medium/Heavy Trucks (More than 10,000 lbs)	8		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	2		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr-1	Dr-2	Dr-3	Dr-4	Dr-5	Other	Total
No Contributing Action	31	94	12	1	0	0	138
Ran Off Roadway	1	1	0	0	0	0	2
Failed to Yield Right-of-Way	24	5	1	0	0	0	30
Ran Red Light	7	1	0	0	0	0	8
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	1	0	0	0	0	1
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	1	1	0	0	0	0	2
Improper Turn	4	1	0	0	0	0	5
Improper Backing	1	0	0	0	0	0	1
Improper Passing	2	2	0	0	0	0	4
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	35	7	1	1	0	0	44
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	0	0	0	0	0	1
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	1	0	0	0	0	1
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	19	2	0	0	0	0	21
Unknown	6	8	1	0	0	0	15
Total	132	124	15	2	0	0	273

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr-1	Dr-2	Dr-3	Dr-4	Dr-5	Other	Total
Apparently Normal	126	125	15	2	0	0	268
Physically Impaired or Handicapped	1	0	0	0	0	0	1
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	3	1	0	0	0	0	4
Other	1	1	0	0	0	0	2
Total	132	127	15	2	0	0	276

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	20	0	0	0	0	20
20-24	36	0	0	0	0	36
25-29	23	0	0	0	0	23
30-39	48	0	0	0	0	48
40-49	49	0	0	0	0	49
50-59	58	0	0	0	0	58
60-69	23	0	0	0	0	23
70-79	12	0	0	0	0	12
80-Over	4	0	0	0	0	4
Unknown	1	3	0	2	0	6
Total	274	3	0	2	0	279

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0	K	0	0
2-Fire / Explosion	0	39-Unknown	45	A	2	2
3-Immersion	0	40-Gate or Cable	0	B	4	5
4-Jackknife	0	41-Pressure Ridge	0	C	27	39
5-Cargo / Equipment Loss Or Shift	0	Total	274	PD	99	0
6-Fell / Jumped from Motor Vehicle	0			Total	132	46
7-Thrown or Falling Object	0					
8-Other Non-Collision	5					
9-Pedestrian	2					
10-Pedalcycle	2					
11-Railway Vehicle - Train, Engine	0					
12-Animal	1					
13-Motor Vehicle in Transport	214					
14-Parked Motor Vehicle	0					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	4					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	0					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	0					
33-Traffic Sign Support	0					
34-Traffic Signal Support	1					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Traffic Control Devices			Road Character		Total
Traffic Control Device	Total		Road Grade		
1-Traffic Signals (Stop & Go)	86		1-Level		128
2-Traffic Signals (Flashing)	4		2-On Grade		2
3-Advisory/Warning Sign	1		3-Top of Hill		0
4-Stop Signs - All Approaches	1		4-Bottom of Hill		3
5-Stop Signs - Other	11		5-Other		0
6-Yield Sign	4		Total		133
7-Curve Warning Sign	0				
8-Officer, Flagman, School Patrol	0				
9-School Bus Stop Arm	0				
10-School Zone Sign	0				
11-R.R. Crossing Device	0				
12-No Passing Zone	0				
13-None	24				
14-Other	2				
Total	133				

Light			Road Character		Total
Light Condition	Total		Road Grade		
1-Daylight	112		1-Level		128
2-Dawn	0		2-On Grade		2
3-Dusk	1		3-Top of Hill		0
4-Dark - Lighted	19		4-Bottom of Hill		3
5-Dark - Not Lighted	1		5-Other		0
6-Dark - Unknown Lighting	0		Total		133
7-Unknown	0				
Total	133				

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	6	1	3	10
FEBRUARY	2	3	4	9
MARCH	6	7	4	17
APRIL	3	1	4	8
MAY	1	7	6	14
JUNE	4	2	4	10
JULY	4	4	1	9
AUGUST	6	4	2	12
SEPTEMBER	3	5	1	9
OCTOBER	3	4	2	9
NOVEMBER	2	6	2	10
DECEMBER	3	2	11	16
Total	43	46	44	133

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	20	0	19	54	0	1	0	0	0	0	0	0	0	94
Head-on / Sideswipe	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Intersection Movement	0	0	6	19	0	4	0	0	0	0	0	0	0	29
Pedestrians	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	1	0	2	0	0	1	0	0	0	0	0	0	0	4
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	22	0	32	73	0	6	0	0	0	0	0	0	0	133

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	11	0	0	0	0	0	0	0	0	0	1	12
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	77	0	0	0	0	0	0	0	0	0	3	80
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	14	0	0	0	0	0	1	0	0	0	4	19
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	3	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	7	7
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	1	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	1	2	0	0	0	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	105	1	0	0	0	0	2	4	0	0	0	133

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I☒ Section Detail☒ Crash Summary II☐ 1320 Public☐ 1320 Private☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 1

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0025B

Start Node: 15061
End Node: 17179Start Offset: 0
End Offset: 0☐ Exclude First Node
☐ Exclude Last Node

Route: 025BE

Start Node: 15075
End Node: 15073Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 60986
End Node: 15062Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 15062
End Node: 60984Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 60984
End Node: 67668Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 67668
End Node: 67669Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 67669
End Node: 67672Start Offset: 0
End Offset: 0☒ Exclude First Node
☐ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 2

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0025X

Start Node: 59825
End Node: 18548

Start Offset: 0
End Offset: 0

☐ Exclude First Node
☐ Exclude Last Node

Route: 0025E

Start Node: 18548
End Node: 18550

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 18550
End Node: 18551

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 18551
End Node: 63311

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 63311
End Node: 59833

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 59833
End Node: 67676

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☒ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Node	Route - MP	Node Description	U/R	Nodes										Percent Annual M Injury Ent-Veh	Crash Rate	Critical Rate	CRF
				Total Crashes	K	A	B	C	PD	Injury Crashes	Crashes	Crashes	Crashes				
59825	0025X - 4.11	TL Portland Westbrook	2	0	0	0	0	0	0	0	0	0	0	0.0	2.216	0.00	0.37
67676	0025X - 4.27	Non Int WESTBROOK ARTERIAL	2	0	0	0	0	0	0	0	0	0	0	0.0	2.216	0.00	0.37
59833	0025X - 4.38	Int of LARRABEE RD WESTBROOK ARTERIAL	9	15	0	0	0	3	12	20.0	7.094	0.70	1.08	0.00	0.65	0.35	0.00
15172	0025X - 4.90	Int of RD INV 05B0261 WESTBROOK ARTERIAL	2	0	0	0	0	0	0	0.0	2.712	0.00	0.11	0.00	0.65	0.35	0.00
63311	0025X - 5.53	Int of WESTBROOK ARTERIAL WILLIAM B CLARKE DR	9	4	0	0	0	2	2	50.0	6.514	0.20	1.09	0.00	0.65	0.35	0.00
18551	0025X - 5.64	Int of ENT TO HANNAFORD WILLIAM B CLARKE DR	9	9	0	1	0	1	7	22.2	6.550	0.46	1.09	0.00	0.65	0.35	0.00
18550	0025X - 5.86	Int of STROUDWATER ST WILLIAM B CLARKE DR	9	23	0	0	0	7	16	30.4	9.346	0.82	1.02	0.00	0.65	0.35	0.00
18549	0025X - 5.95	Int of PLEASANT ST WILLIAM B CLARKE DR	2	0	0	0	0	0	0	0.0	3.658	0.00	0.34	0.00	0.65	0.35	0.00
18548	0025X - 6	Int of SPRING ST WILLIAM B CLARKE DR	9	24	0	1	1	4	18	25.0	11.037	0.72	1.00	0.00	0.65	0.35	0.00
66388	0025E - 0.82	Int of PLEASANT ST WILLIAM B CLARKE DR	2	1	0	0	0	0	1	0.0	4.111	0.08	0.33	0.00	0.12	0.33	0.00
15167	0025E - 1.86	Int of RD INV 05A0261, WESTBROOK ARTERIAL	2	0	0	0	0	0	0	0.0	3.329	0.00	0.33	0.00	0.11	0.33	0.00
Study Years: 3.00				NODE TOTALS:													
				76	0	2	1	17	56	26.3	58.783	0.43	0.62	0.70			

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Sections										Annual HMVM	Crash Rate	Critical Rate	CRF
							Total Crashes	K	Injury Crashes			PD			Percent Injury					
								A	B	C										
67676	59825	3416008	0 - 0.16	0025X - 4.11 ST RTE 25	0.16	2	1	0	0	0	0	1	0.0	0.00709	47.02	198.76	0.00			
Non Int WESTBROOK ARTERIAL																				
59833	67676	3509142	0 - 0.11	0025X - 4.27 ST RTE 25	0.11	2	1	0	0	0	1	0.0	0.00244	136.77	259.77	72.19	0.00			
Int of LARRABEE RD WESTBROOK ARTERIAL																				
59833	15172	3115943	0 - 0.52	0025X - 4.38 ST RTE 25	0.52	2	2	0	0	0	2	0.0	0.01410	47.27	166.78	72.19	0.00			
Int of LARRABEE RD WESTBROOK ARTERIAL																				
15172	63311	3117225	0 - 0.63	0025X - 4.90 ST RTE 25	0.63	2	3	0	0	1	0	2	33.3	0.01423	70.25	166.40	0.00			
Int of RD INV 0580261 WESTBROOK ARTERIAL																				
18551	63311	3117228	0 - 0.11	0025X - 5.53 ST RTE 25	0.11	2	0	0	0	0	0	0	0.0	0.00333	0.00	461.14	0.00			
Int of ENT TO HANNAFORD WILLIAM B CLARKE DR																				
18550	18551	3117227	0 - 0.22	0025X - 5.64 ST RTE 25	0.22	2	1	0	0	0	1	0	100.0	0.00618	53.91	394.15	0.00			
Int of STROUDWATER ST WILLIAM B CLARKE DR																				
18549	18550	3119984	0 - 0.09	0025X - 5.86 ST RTE 25	0.09	2	0	0	0	0	0	0	0.0	0.00321	0.00	465.71	0.00			
Int of PLEASANT ST WILLIAM B CLARKE DR																				
18548	18549	3130164	0 - 0.05	0025X - 5.95 ST RTE 25	0.05	2	0	0	0	0	0	0	0.0	0.00185	0.00	536.65	0.00			
Int of SPRING ST WILLIAM B CLARKE DR																				
18548	66388	3117235	0 - 0.06	0025E - 0.76 ST RTE 25E	0.06	2	0	0	0	0	0	0	0.0	0.00247	0.00	498.47	0.00			
Int of SPRING ST WILLIAM B CLARKE DR																				
66388	18550	3119986	0 - 0.09	0025E - 0.82 ST RTE 25E	0.09	2	0	0	0	0	0	0	0.0	0.00363	0.00	451.01	0.00			
Int of PLEASANT ST WILLIAM B CLARKE DR																				
18550	18551	3117236	0 - 0.22	0025E - 0.91 ST RTE 25E	0.22	2	1	0	0	0	0	1	0.0	0.00734	45.42	377.98	0.00			
Int of STROUDWATER ST WILLIAM B CLARKE DR																				
18551	63311	3140107	0 - 0.10	0025E - 1.13 ST RTE 25E	0.10	2	4	0	0	0	0	4	0.0	0.00303	440.33	472.66	0.00			
Int of ENT TO HANNAFORD WILLIAM B CLARKE DR																				
15167	63311	3117224	0 - 0.63	0025E - 1.23 ST RTE 25E	0.63	2	3	0	0	0	1	2	33.3	0.01710	58.49	159.08	0.00			
Int of RD INV 05A0261 WESTBROOK ARTERIAL																				
15167	59833	3115936	0 - 0.52	0025E - 1.86 ST RTE 25E	0.52	2	6	0	1	0	1	4	33.3	0.01731	115.54	158.61	0.00			
Int of RD INV 05A0261 WESTBROOK ARTERIAL																				
59833	67676	3416009	0 - 0.11	0025E - 2.38 ST RTE 25E	0.11	2	1	0	0	0	0	1	0.0	0.00244	136.77	259.77	0.00			
Int of LARRABEE RD WESTBROOK ARTERIAL																				
Study Years: 3.00					Section Totals:	3.62	23	0	1	1	3	18	21.7	0.10574	72.50	146.20	0.50			
Grand Totals:					3.62	99	0	3	2	20	74	25.3	0.10574	312.08	236.96	1.32				

Total	Injury Crashes
-------	----------------

Page 4 of 12 on 2/17/2015, 7:59 AM

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM											Un	Tot	
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10			11
SUNDAY	0	0	0	0	0	0	0	0	0	1	1	2	0	0	1	1	0	0	0	0	0	0	0	0	0	6
MONDAY	0	0	0	0	0	2	0	0	0	0	0	0	1	1	3	2	2	0	0	1	1	2	1	0	0	16
TUESDAY	0	0	0	0	0	0	0	0	1	2	1	3	0	1	3	4	2	2	4	2	0	0	0	1	0	26
WEDNESDAY	0	0	0	0	0	0	0	0	2	1	3	0	1	0	3	1	0	1	1	3	0	0	0	0	0	16
THURSDAY	0	0	0	0	0	0	0	0	0	2	2	0	0	1	0	1	2	1	0	0	0	0	0	0	0	9
FRIDAY	0	0	0	0	0	0	0	0	2	0	1	2	0	2	0	0	1	3	0	1	0	0	0	1	0	13
SATURDAY	0	0	0	0	0	0	0	0	0	2	5	0	2	0	0	3	1	0	0	0	0	0	0	0	0	13
Totals	0	0	0	0	0	2	0	5	8	13	7	4	5	10	12	8	7	5	7	1	2	1	2	0	0	99

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	135	23-Bicyclist	1
2-(Sport) Utility Vehicle	28	24-Witness	0
3-Passenger Van	2	25-Other	2
4-Cargo Van (10K lbs or Less)	0	Total	197
5-Pickup	21		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	2		
17-Medium/Heavy Trucks (More than 10,000 lbs)	6		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	26	54	9	2	1	0	92
Ran Off Roadway	7	0	0	0	0	0	7
Failed to Yield Right-of-Way	9	2	0	0	0	0	11
Ran Red Light	2	1	0	1	0	0	4
Ran Stop Sign	1	0	0	0	0	0	1
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	1	0	0	0	0	0	1
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	2	1	0	0	0	0	3
Improper Turn	1	3	0	0	0	0	4
Improper Backing	1	0	0	0	0	0	1
Improper Passing	1	1	0	0	0	0	2
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	25	8	0	1	0	0	34
Failed to Keep in Proper Lane	3	0	0	0	0	0	3
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	1	0	0	0	0	1
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	2	0	0	0	0	0	2
Over-Correcting/Over-Steering	1	0	0	0	0	0	1
Other Contributing Action	8	5	0	0	0	0	13
Unknown	8	8	0	0	0	0	16
Total	98	84	9	4	1	0	196

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	96	82	9	4	1	0	192
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	1	0	0	0	0	0	1
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	2	0	0	0	0	0	2
Other	0	2	0	0	0	0	2
Total	99	84	9	4	1	0	197

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	25	0	0	0	0	25
20-24	18	0	0	0	0	18
25-29	20	0	0	0	0	20
30-39	39	0	0	0	0	39
40-49	31	0	0	0	0	31
50-59	35	0	0	0	0	35
60-69	14	0	0	0	0	14
70-79	10	0	0	0	0	10
80-Over	4	0	0	0	0	4
Unknown	0	1	0	0	0	1
Total	196	1	0	0	0	197

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0	K	0	0
2-Fire / Explosion	0	39-Unknown	34	A	3	3
3-Immersion	0	40-Gate or Cable	0	B	2	3
4-Jackknife	0	41-Pressure Ridge	0	C	20	23
5-Cargo / Equipment Loss Or Shift	2	Total	196	PD	74	0
6-Fell / Jumped from Motor Vehicle	0			Total	99	29
7-Thrown or Falling Object	0					
8-Other Non-Collision	5					
9-Pedestrian	0					
10-Pedalcycle	0					
11-Railway Vehicle - Train, Engine	0					
12-Animal	1					
13-Motor Vehicle in Transport	145					
14-Parked Motor Vehicle	0					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	1					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	1					
27-Guardrail Face	4					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	2					
33-Traffic Sign Support	1					
34-Traffic Signal Support	0					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Traffic Control Devices		Total
Traffic Control Device		
1-Traffic Signals (Stop & Go)		75
2-Traffic Signals (Flashing)		1
3-Advisory/Warning Sign		1
4-Stop Signs - All Approaches		0
5-Stop Signs - Other		0
6-Yield Sign		1
7-Curve Warning Sign		1
8-Officer, Flagman, School Patrol		0
9-School Bus Stop Arm		0
10-School Zone Sign		0
11-R.R. Crossing Device		0
12-No Passing Zone		0
13-None		18
14-Other		2
Total		99

Road Character		Total
Road Grade		
1-Level		88
2-On Grade		6
3-Top of Hill		2
4-Bottom of Hill		3
5-Other		0
Total		99

Light		Total
Light Condition		
1-Daylight		81
2-Dawn		0
3-Dusk		3
4-Dark - Lighted		8
5-Dark - Not Lighted		7
6-Dark - Unknown Lighting		0
7-Unknown		0
Total		99

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	6	1	2	9
FEBRUARY	3	2	4	9
MARCH	4	4	2	10
APRIL	5	1	2	8
MAY	2	2	4	8
JUNE	5	3	2	10
JULY	3	2	3	8
AUGUST	2	2	1	5
SEPTEMBER	1	4	1	6
OCTOBER	1	2	2	5
NOVEMBER	4	5	4	13
DECEMBER	1	6	1	8
Total	37	34	28	99

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Rear End / Sideswipe	8	3	18	36	0	0	0	0	0	0	0	0	0	65
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	5	11	0	1	0	0	0	0	0	0	0	17
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	9	2	1	0	0	0	0	0	0	0	0	0	14
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	12	27	48	0	1	0	0	0	0	0	0	0	99

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	5	0	0	0	0	0	0	0	0	0	1	6
Dark - Not Lighted	4	1	0	0	0	0	0	0	0	0	1	6
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	50	0	0	0	1	0	1	0	0	0	3	55
Dusk	1	0	0	0	0	0	0	0	0	0	1	2
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	10	0	0	0	0	0	1	0	0	0	3	14
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	5	5
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	2	0	0	2	5
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	70	3	0	0	1	0	2	4	0	0	0	99

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 3

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0590035

Start Node: 15094
End Node: 60969

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☐ Exclude Last Node

Route: 0025B

Start Node: 60968
End Node: 15094

Start Offset: 0
End Offset: 0

☐ Exclude First Node
☐ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 2

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0025B

Start Node: 17179

End Node: 18542

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☒ Exclude Last Node

Crash Summary I

Nodes																
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury Crashes			Percent Annual M			Crash Rate	Critical Rate	CRF		
						A	B	C	PD	Injury	Ent-Veh					
17179	0025B - 2.36	Int of MAIN ST SPRING ST	9	9	0	0	0	1	8	11.1	7,704	0.39	Statewide Crash Rate: 1.06	0.65	0.00	
17178	0025B - 2.42	Non Int MAIN ST	2	0	0	0	0	0	0	0.0	6,909	0.00	Statewide Crash Rate: 0.33	0.14	0.00	
15298	0025B - 2.44	Int of ASH ST, MAIN ST	2	2	0	1	1	0	0	100.0	7,259	0.09	Statewide Crash Rate: 0.32	0.14	0.00	
17177	0025B - 2.47	Int of CHURCH ST MAIN ST	2	5	0	0	1	1	3	40.0	7,454	0.22	Statewide Crash Rate: 0.32	0.14	0.00	
17176	0025B - 2.52	Non Int MAIN ST	2	0	0	0	0	0	0	0.0	6,933	0.00	Statewide Crash Rate: 0.33	0.14	0.00	
15084	0025B - 2.55	Non-Int MAIN ST	2	0	0	0	0	0	0	0.0	6,916	0.00	Statewide Crash Rate: 0.33	0.14	0.00	
17175	0025B - 2.56	Int of BRIDGE ST MAIN ST WESTBROOK COMMONS CVS	9	15	0	0	2	4	9	40.0	8,149	0.61	Statewide Crash Rate: 1.05	0.65	0.00	
15085	0025B - 2.59	Non-Int MAIN ST	2	0	0	0	0	0	0	0.0	4,061	0.00	Statewide Crash Rate: 0.38	0.14	0.00	
17174	0025B - 2.62	Int of MAIN ST RD INV 0590271	2	2	0	0	0	0	2	0.0	5,635	0.12	Statewide Crash Rate: 0.34	0.14	0.00	
17173	0025B - 2.65	Int of MAIN ST MECHANIC ST	2	6	0	1	0	1	4	33.3	5,182	0.39	Statewide Crash Rate: 0.35	0.14	1.10	
15086	0025B - 2.67	Int of DANA ST, MAIN ST	2	0	0	0	0	0	0	0.0	4,321	0.00	Statewide Crash Rate: 0.37	0.14	0.00	
17172	0025B - 2.74	Int of MAIN ST MILL LN	2	1	0	0	0	0	1	0.0	3,572	0.09	Statewide Crash Rate: 0.39	0.14	0.00	
15087	0025B - 2.77	Int of MAIN ST, MILL LN	2	0	0	0	0	0	0	0.0	2,805	0.00	Statewide Crash Rate: 0.41	0.14	0.00	
17171	0025B - 2.78	Non Int MAIN ST	2	2	0	0	0	0	2	0.0	2,452	0.27	Statewide Crash Rate: 0.43	0.14	0.00	
60940	0025B - 2.82	Int of MAIN ST RD INV 3200793	2	0	0	0	0	0	0	0.0	1,863	0.00	Statewide Crash Rate: 0.46	0.14	0.00	
Study Years: 3.00			NODE TOTALS:													
				42	0	2	4	7	29	31.0	81,215	0.17	0.32	0.54		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Injury	Percent	Annual HMVM	Crash Rate	Critical Rate	CRF
17178	17179	3129295	0 - 0.06	0025B - 2.36 ST RTE 25B	0.06	2	5	0	0	1	0	4	20.0	0.00404	412.13	464.34	0.00
Non Int MAIN ST																	
15298	17178	3118705	0 - 0.02	0025B - 2.42 ST RTE 25B	0.02	2	1	0	0	0	0	1	0.0	0.00142	235.46	608.14	0.00
Int of ASH ST, MAIN ST																	
15298	17177	3106032	0 - 0.03	0025B - 2.44 ST RTE 25B	0.03	2	3	0	0	0	0	2	0.0	0.00222	450.76	542.20	0.00
Int of ASH ST, MAIN ST																	
17176	17177	192944	0 - 0.05	0025B - 2.47 ST RTE 25B	0.05	2	7	0	0	0	0	7	0.0	0.00359	650.49	478.82	1.36
Non Int MAIN ST																	
15084	17176	3105998	0 - 0.03	0025B - 2.52 ST RTE 25B	0.03	2	0	0	0	0	0	0	0.0	0.00201	0.00	556.38	0.00
Non-Int MAIN ST																	
15084	17175	3118703	0 - 0.01	0025B - 2.55 ST RTE 25B	0.01	2	0	0	0	0	0	0	0.0	0.00071	0.00	712.64	0.00
Non-Int MAIN ST																	
15085	17175	3100214	0 - 0.03	0025B - 2.56 ST RTE 25B	0.03	2	1	0	0	0	0	1	0.0	0.00139	240.32	611.25	0.00
Non-Int MAIN ST																	
15085	17174	3120108	0 - 0.03	0025B - 2.59 ST RTE 25B	0.03	2	2	0	0	0	2	0	100.0	0.00105	635.06	654.12	0.00
Non-Int MAIN ST																	
17173	17174	3106579	0 - 0.03	0025B - 2.62 ST RTE 25B	0.03	2	0	0	0	0	0	0	0.0	0.00170	0.00	580.42	0.00
Int of MAIN ST, MECHANIC ST																	
15086	17173	3105999	0 - 0.02	0025B - 2.65 ST RTE 25B	0.02	2	1	0	0	0	0	1	0.0	0.00086	386.05	684.17	0.00
Int of DANA ST, MAIN ST																	
15086	17172	190519	0 - 0.07	0025B - 2.67 ST RTE 25B	0.07	2	6	0	0	0	1	5	16.7	0.00301	664.72	501.03	1.33
Int of DANA ST, MAIN ST																	
15087	17172	3118704	0 - 0.03	0025B - 2.74 ST RTE 25B	0.03	2	1	0	0	0	1	0	100.0	0.00084	398.40	688.95	0.00
Int of MAIN ST, MILL LN																	
15087	17171	3123716	0 - 0.01	0025B - 2.77 ST RTE 25B	0.01	2	1	0	1	0	0	0	100.0	0.00028	1208.15	804.43	1.50
Int of MAIN ST, MILL LN																	
17171	60940	3119787	0 - 0.04	0025B - 2.78 ST RTE 25B	0.04	2	0	0	0	0	0	0	0.0	0.00086	0.00	685.07	0.00
Non Int MAIN ST																	
60940	18542	3139171	0 - 0.02	0025B - 2.82 ST RTE 25B	0.02	2	0	0	0	0	0	0	0.0	0.00032	0.00	800.91	0.00
Int of MAIN ST, RD INV 3200793																	

Study Years: 3.00

Section Totals:

0.48 28 0 0 1 1 1 4 21 21.4 0.02429 384.32 309.73 1.24

Grand Totals:

0.48 70 0 0 3 5 11 50 27.1 0.02429 960.79 440.91 2.18

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C	PD				
17178	17179	3129295	0 - 0.06	0025B - 2.36	5	0	0	1	0	4	2011-23319 2012-41746 2011-23301 2012-24495 2012-30571 2012-47221 2012-34371 2012-51194 2012-30566 2012-44087 2011-7219 2011-23898 2011-23698 2013-19077 2011-11923 2012-33522	10/12/2011 10/17/2012 07/05/2011 03/14/2012 05/23/2012 12/14/2012 08/04/2012 12/29/2012 05/21/2012 11/06/2012 01/31/2011 10/25/2011 06/03/2011 07/31/2013 04/22/2011 07/23/2012	2.37 2.37 2.38 2.39 2.41 2.43 2.45 2.45 2.45 2.48 2.48 2.48 2.48 2.49 2.49	B PD PD PD PD PD PD PD PD PD PD PD PD PD PD PD
15298	17178	3118705	0 - 0.02	0025B - 2.42	1	0	0	0	0	1				
15298	17177	3106032	0 - 0.03	0025B - 2.44	3	0	0	0	0	2				
17176	17177	192944	0 - 0.05	0025B - 2.47	7	0	0	0	0	7				
15084	17176	3105998	0 - 0.03	0025B - 2.52	0	0	0	0	0	0				
15084	17175	3118703	0 - 0.01	0025B - 2.55	0	0	0	0	0	0				
15085	17175	3100214	0 - 0.03	0025B - 2.56	1	0	0	0	0	1	2012-46294	11/27/2012	2.58	PD
15085	17174	3120108	0 - 0.03	0025B - 2.59	2	0	0	0	2	0	2012-30572 2011-18922	05/24/2012 12/14/2011	2.60 2.61	C C
17173	17174	3106579	0 - 0.03	0025B - 2.62	0	0	0	0	0	0				
15086	17173	3105999	0 - 0.02	0025B - 2.65	1	0	0	0	0	1	2013-10586	04/29/2013	2.66	PD
15086	17172	190519	0 - 0.07	0025B - 2.67	6	0	0	0	1	5	2013-34209 2012-44089 2011-24154 2013-18354 2011-23878 2011-7318 2013-15762 2012-31253	12/14/2013 11/09/2012 11/01/2011 07/27/2013 09/16/2011 02/11/2011 06/26/2013 05/26/2012	2.70 2.70 2.72 2.73 2.73 2.73 2.76 2.78	PD PD PD C PD PD C A
15087	17172	3118704	0 - 0.03	0025B - 2.74	1	0	0	0	1	0				
15087	17171	3123716	0 - 0.01	0025B - 2.77	1	0	1	0	0	0				
17171	60940	3119787	0 - 0.04	0025B - 2.78	0	0	0	0	0	0				
60940	18542	3139171	0 - 0.02	0025B - 2.82	0	0	0	0	0	0				
Totals:					28	0	1	1	4	21				

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	5
MONDAY	0	0	0	0	0	0	2	0	0	2	0	0	0	0	1	2	1	1	1	0	0	1	0	0	0	11
TUESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	2	0	0	0	0	0	0	7
WEDNESDAY	0	0	0	0	0	1	0	1	1	0	0	4	1	1	1	0	0	3	0	1	1	0	0	0	0	14
THURSDAY	0	0	0	0	0	0	1	1	1	1	1	0	2	0	0	0	0	2	1	1	0	0	0	0	0	11
FRIDAY	0	0	0	0	0	0	1	0	1	1	1	0	1	0	1	1	3	0	1	2	0	0	0	0	0	13
SATURDAY	0	0	0	0	0	0	0	0	0	3	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	9
Totals	1	0	0	0	0	2	3	3	3	9	3	3	6	5	4	6	6	8	5	4	1	1	0	0	0	70

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	99	23-Bicyclist	1
2-(Sport) Utility Vehicle	16	24-Witness	0
3-Passenger Van	2	25-Other	0
4-Cargo Van (10K lbs or Less)	0	Total	140
5-Pickup	17		
6-Motor Home	0		
7-School Bus	1		
8-Transit Bus	2		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	1		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	1		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics**Crashes by Driver Action at Time of Crash****Crashes by Apparent Physical Condition And Driver**

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total	Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	21	45	3	0	0	0	69	Apparently Normal	62	63	4	0	0	0	129
Ran Off Roadway	2	0	0	0	0	0	2	Physically Impaired or Handicapped	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	17	3	0	0	0	0	20	Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ran Red Light	0	1	0	0	0	0	1	Ill (Sick)	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0	Asleep or Fatigued	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0	Under the Influence of Medications/Drugs/Alcohol	2	0	0	0	0	0	2
Disregarded Other Road Markings	0	0	0	0	0	0	0	Other	2	1	0	0	0	0	3
Exceeded Posted Speed Limit	0	0	0	0	0	0	0	Total	66	64	4	0	0	0	134
Drove Too Fast For Conditions	1	1	0	0	0	0	2								
Improper Turn	0	0	0	0	0	0	0								
Improper Backing	0	0	0	0	0	0	0								
Improper Passing	3	0	0	0	0	0	3								
Wrong Way	0	0	0	0	0	0	0								
Followed Too Closely	11	5	0	0	0	0	16								
Failed to Keep in Proper Lane	1	3	0	0	0	0	4								
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	0	0	0	0	0	1								
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0								
Over-Correcting/Over-Steering	0	0	0	0	0	0	0								
Other Contributing Action	6	1	0	0	0	0	7								
Unknown	3	4	1	0	0	0	8								
Total	66	63	4	0	0	0	133		139	1	0	0	0	0	140

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	4	0	0	0	0	4
20-24	20	0	0	0	0	20
25-29	9	0	0	0	0	9
30-39	31	0	0	0	0	31
40-49	26	0	0	0	0	26
50-59	21	0	0	0	0	21
60-69	18	0	0	0	0	18
70-79	6	0	0	0	0	6
80-Over	2	0	0	0	0	2
Unknown	2	1	0	0	0	3
Total	139	1	0	0	0	140

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	1	K	0	0
2-Fire / Explosion	0	39-Unknown	27	A	3	3
3-Immersion	0	40-Gate or Cable	0	B	5	9
4-Jackknife	0	41-Pressure Ridge	0	C	11	14
5-Cargo / Equipment Loss Or Shift	0	Total	137	PD	50	0
6-Fell / Jumped from Motor Vehicle	0			Total	69	26
7-Thrown or Falling Object	0					
8-Other Non-Collision	0					
9-Pedestrian	0					
10-Pedalcycle	0					
11-Railway Vehicle - Train, Engine	0					
12-Animal	0					
13-Motor Vehicle in Transport	101					
14-Parked Motor Vehicle	6					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	1					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	0					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	1					
32-Utility Pole / Light Support	0					
33-Traffic Sign Support	0					
34-Traffic Signal Support	0					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Traffic Control Devices		Total
Traffic Control Device		
1-Traffic Signals (Stop & Go)		25
2-Traffic Signals (Flashing)		0
3-Advisory/Warning Sign		0
4-Stop Signs - All Approaches		1
5-Stop Signs - Other		8
6-Yield Sign		0
7-Curve Warning Sign		0
8-Officer, Flagman, School Patrol		0
9-School Bus Stop Arm		0
10-School Zone Sign		0
11-R.R. Crossing Device		0
12-No Passing Zone		0
13-None		36
14-Other		0
Total		70

Road Character		Total
Road Grade		
1-Level		60
2-On Grade		10
3-Top of Hill		0
4-Bottom of Hill		0
5-Other		0
Total		70

Light		Total
Light Condition		
1-Daylight		53
2-Dawn		1
3-Dusk		2
4-Dark - Lighted		14
5-Dark - Not Lighted		0
6-Dark - Unknown Lighting		0
7-Unknown		0
Total		70

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	2	0	1	3
FEBRUARY	3	2	0	5
MARCH	1	2	1	4
APRIL	1	1	3	5
MAY	2	4	2	8
JUNE	2	1	2	5
JULY	1	2	2	5
AUGUST	1	2	1	4
SEPTEMBER	2	0	3	5
OCTOBER	3	3	3	9
NOVEMBER	2	3	2	7
DECEMBER	5	3	2	10
Total	25	23	22	70

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	14	2	20	7	0	5	0	0	0	0	0	0	0	48
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	6	4	0	6	0	0	0	0	0	0	0	16
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	0	0	2	0	0	0	0	0	0	0	0	0	4
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Other	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	16	2	27	14	0	11	0	0	0	0	0	0	0	70

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	11	1	0	0	0	0	0	0	0	0	0	12
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	1	0	0	0	0	0	0	0	0	0	0	1
Daylight	42	0	0	0	0	0	0	0	0	0	1	43
Dusk	2	0	0	0	0	0	0	0	0	0	0	2
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	5	0	0	0	0	0	0	0	0	0	3	8
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
 Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	2	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	2	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	61	1	0	0	0	0	0	0	0	0	0	70

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 3

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0590063

Start Node: 11003
End Node: 18542

Start Offset: 0
End Offset: 0

☐ Exclude First Node
☒ Exclude Last Node

Route: 3201592

Start Node: 18542
End Node: 63592

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☒ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	K	A	B	C	PD	Injury	Percent Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
11003	0590063 - 0	TL Gorham Westbrook	2	0	0	0	0	0	0	0.0	2.037	0.00	0.42	0.00
15092	0590063 - 0.03	Int of LONGFELLOW DR NEW GORHAM RD	2	1	0	0	0	0	1	0.0	2.090	0.16	0.42	0.00
15091	0590063 - 0.18	Int of LORI LN NEW GORHAM RD	2	2	0	0	0	1	1	50.0	2.126	0.31	0.42	0.00
15090	0590063 - 0.44	Int of NEW GORHAM RD WILLIAM ST	2	0	0	0	0	0	0	0.0	2.160	0.00	0.42	0.00
15089	0590063 - 0.50	Int of FAIRLAWN AV, NEW GORHAM RD	2	0	0	0	0	0	0	0.0	2.178	0.00	0.42	0.00
60939	0590063 - 0.53	Int of NEW GORHAM RD RD INV 3200792	2	3	0	0	0	0	3	0.0	3.021	0.33	0.38	0.00
15088	0590063 - 0.56	Int of LEWIS ST NEW GORHAM RD	2	0	0	0	0	0	0	0.0	2.900	0.00	0.39	0.00
63592	0590063 - 0.58	Non Int NEW GORHAM RD	2	0	0	0	0	0	0	0.0	2.854	0.00	0.39	0.00
Study Years: 3.00			NODE TOTALS:											
				6	0	0	0	1	5	16.7	19.366	0.10	0.24	0.42

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
11003	15092	3117648	0 - 0.03	0590063 - 0 RD INV 05 90063	0.03	2	0	0	0	0	0	0.0	0.00061	0.00	618.21	0.00
TL GORHAM Westbrook																
15091	15092	3106000	0 - 0.15	0590063 - 0.03 RD INV 05 90063	0.15	2	1	0	0	1	0	100.0	0.00313	106.40	424.84	0.00
Int of LORIAN NEW GORHAM RD																
15090	15091	3117676	0 - 0.26	0590063 - 0.18 RD INV 05 90063	0.26	2	2	0	0	0	1	50.0	0.00552	120.70	367.19	0.00
Int of NEW GORHAM RD WILLIAM ST																
15089	15090	3118952	0 - 0.06	0590063 - 0.44 RD INV 05 90063	0.06	2	0	0	0	0	0	0.0	0.00130	0.00	530.55	0.00
Int of FAIRLAWN AV, NEW GORHAM RD																
60939	15089	2083749	0 - 0.03	0590063 - 0.50 RD INV 05 90063	0.03	2	0	0	0	0	0	0.0	0.00065	0.00	611.53	0.00
Int of NEW GORHAM RD RD INV 3200792																
15088	60939	3139170	0 - 0.03	0590063 - 0.53 RD INV 05 90063	0.03	2	0	0	0	0	0	0.0	0.00087	0.00	579.46	0.00
Int of LEWIS ST NEW GORHAM RD																
15088	63592	3123070	0 - 0.02	0590063 - 0.56 RD INV 05 90063	0.02	2	0	0	0	0	0	0.0	0.00057	0.00	624.81	0.00
Int of LEWIS ST NEW GORHAM RD																
63592	18542	3139591	0 - 0.03	0590063 - 0.58 RD INV 05 90063	0.03	2	0	0	0	0	0	0.0	0.00043	0.00	645.88	0.00
Non Int NEW GORHAM RD																
18542	63592	3139592	0 - 0.03	3201592 - 0 RD INV 3201592	0.03	2	1	0	0	0	1	0.0	0.00043	779.15	645.98	1.21
Int of MAIN ST NEW GORHAM RD WILLIAM B CLARKE DR																

Study Years: 3.00

Section Totals:

0.64 4 0 0 1 1 2 50.0 0.01352 98.61 296.22 0.33

Grand Totals:

0.64 10 0 0 1 2 7 30.0 0.01352 246.53 443.92 0.56

Crash Summary

Section Details													
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C	PD			
11003	15092	3117648	0 - 0.03	0590063 - 0	0	0	0	0	0	0			
15091	15092	3106000	0 - 0.15	0590063 - 0.03	1	0	0	1	0	0	2012-34054	07/25/2012	B
15090	15091	3117676	0 - 0.26	0590063 - 0.18	2	0	0	0	1	1	2013-28295	11/11/2013	PD
											2011-14814	10/29/2011	C
15089	15090	3118952	0 - 0.06	0590063 - 0.44	0	0	0	0	0	0			
60939	15089	2083749	0 - 0.03	0590063 - 0.50	0	0	0	0	0	0			
15088	60939	3139170	0 - 0.03	0590063 - 0.53	0	0	0	0	0	0			
15088	63592	3123070	0 - 0.02	0590063 - 0.56	0	0	0	0	0	0			
63592	18542	3139591	0 - 0.03	0590063 - 0.58	0	0	0	0	0	0			
18542	63592	3139592	0 - 0.03	3201592 - 0	1	0	0	0	0	1	2012-36902	08/28/2012	PD
Totals:					4	0	0	1	1	2			

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONDAY	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
TUESDAY	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
WEDNESDAY	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FRIDAY	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SATURDAY	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Totals	0	0	0	0	0	1	0	2	1	0	1	1	0	0	0	0	1	0	0	1	0	0	1	1	0	10

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	11	23-Bicyclist	0
2-(Sport) Utility Vehicle	2	24-Witness	0
3-Passenger Van	0	25-Other	0
4-Cargo Van (10K lbs or Less)	1	Total	18
5-Pickup	4		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	0		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics**Crashes by Driver Action at Time of Crash**

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	2	6	0	0	0	0	8
Ran Off Roadway	1	0	0	0	0	0	1
Failed to Yield Right-of-Way	1	0	0	0	0	0	1
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	1	0	0	0	0	0	1
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	3	0	1	0	0	0	4
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	2	1	0	0	0	0	3
Unknown	0	0	0	0	0	0	0
Total	10	7	1	0	0	0	18

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	9	7	1	0	0	0	17
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	1	0	0	0	0	0	1
Other	0	0	0	0	0	0	0
Total	10	7	1	0	0	0	18

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	3	0	0	0	0	3
20-24	2	0	0	0	0	2
25-29	2	0	0	0	0	2
30-39	2	0	0	0	0	2
40-49	4	0	0	0	0	4
50-59	3	0	0	0	0	3
60-69	1	0	0	0	0	1
70-79	1	0	0	0	0	1
80-Over	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
Total	18	0	0	0	0	18

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	1	38-Other Fixed Object (wall, building, tunnel, etc.)	1	K	0	0
2-Fire / Explosion	0	39-Unknown	0	A	0	0
3-Immersion	0	40-Gate or Cable	0	B	1	1
4-Jackknife	0	41-Pressure Ridge	0	C	2	2
5-Cargo / Equipment Loss Or Shift	0	Total	18	PD	7	0
6-Fell / Jumped from Motor Vehicle	0			Total	10	3
7-Thrown or Falling Object	0					
8-Other Non-Collision	0					
9-Pedestrian	0					
10-Pedalcycle	0					
11-Railway Vehicle - Train, Engine	0					
12-Animal	1					
13-Motor Vehicle in Transport	15					
14-Parked Motor Vehicle	0					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	0					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	0					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	0					
33-Traffic Sign Support	0					
34-Traffic Signal Support	0					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Traffic Control Devices			Road Character		Total
Traffic Control Device	Total		Road Grade		
1-Traffic Signals (Stop & Go)	1		1-Level		5
2-Traffic Signals (Flashing)	0		2-On Grade		3
3-Advisory/Warning Sign	0		3-Top of Hill		1
4-Stop Signs - All Approaches	0		4-Bottom of Hill		1
5-Stop Signs - Other	0		5-Other		0
6-Yield Sign	0		Total		10
7-Curve Warning Sign	0				
8-Officer, Flagman, School Patrol	0				
9-School Bus Stop Arm	0				
10-School Zone Sign	0				
11-R.R. Crossing Device	0				
12-No Passing Zone	0				
13-None	9				
14-Other	0				
Total	10				

Light			Total
Light Condition			
1-Daylight			5
2-Dawn			1
3-Dusk			0
4-Dark - Lighted			2
5-Dark - Not Lighted			2
6-Dark - Unknown Lighting			0
7-Unknown			0
Total			10

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	0	1	1	2
FEBRUARY	0	0	1	1
MARCH	1	0	1	2
APRIL	0	0	0	0
MAY	0	0	0	0
JUNE	0	0	0	0
JULY	0	1	0	1
AUGUST	0	1	1	2
SEPTEMBER	0	0	0	0
OCTOBER	1	0	0	1
NOVEMBER	0	0	1	1
DECEMBER	0	0	0	0
Total	2	3	5	10

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	1	0	6	0	0	0	0	0	0	0	0	0	0	7
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	0	0	0	0	0	0	0	0	0	0	0	0	2
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	0	6	0	0	0	0	0	0	0	0	0	0	10

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	1	0	0	0	0	0	0	0	0	0	0	1
Daylight	2	1	0	0	0	0	0	0	0	0	0	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	1	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface****Weather
Light**

	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
 Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	1	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	5	1	0	0	0	0	1	2	0	0	0	10

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 4

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0590187

Start Node: 15056

End Node: 15163

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☐ Exclude Last Node

Route: 0590056

Start Node: 15163

End Node: 15070

Start Offset: 0

End Offset: 0

☒ Exclude First Node

☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total		Injury Crashes			Percent Annual M		Crash Rate	Critical Rate	CRF
				Crashes	K	A	B	C	PD	Injury Ent-Veh			
15056	0590187 - 0	Int of FOREST ST STROUDWATER ST	2	6	0	1	0	0	5	16.7	4.083	0.49 Statewide Crash Rate: 0.13	1.38
15168	0590187 - 0.03	Int of FOREST ST RD INV 05A0261	2	0	0	0	0	0	0	0.0	1.615	0.00 Statewide Crash Rate: 0.11	0.00
60957	0590187 - 0.05	Int of FOREST ST RD INV 3200799	2	0	0	0	0	0	0	0.0	1.357	0.00 Statewide Crash Rate: 0.11	0.00
P15166	0590187 - 0.11	Int of FOREST ST LIBBY AV RD INV 3200800	2	1	0	0	0	1	0	100.0	1.994	0.17 Statewide Crash Rate: 0.11	0.00
A15165	0590187 - 0.15	Int of FOREST ST RD INV 05B0261	2	0	0	0	0	0	0	0.0	0.000	0.00 Statewide Crash Rate: 0.11	0.00
A15164	0590187 - 0.16	Int of FOREST ST HASKELL ST	2	0	0	0	0	0	0	0.0	0.000	0.00 Statewide Crash Rate: 0.13	0.00
15163	0590187 - 0.22	Int of FOREST ST ROCHESTER ST	2	0	0	0	0	0	0	0.0	1.210	0.00 Statewide Crash Rate: 0.13	0.00
15162	0590056 - 0.17	Int of CEDAR ST FOREST ST	2	0	0	0	0	0	0	0.0	0.868	0.00 Statewide Crash Rate: 0.13	0.00
15161	0590056 - 0.29	Int of COTTAGE ST FOREST ST	2	0	0	0	0	0	0	0.0	0.832	0.00 Statewide Crash Rate: 0.13	0.00
15160	0590056 - 0.33	Int of CLIFFORD ST FOREST ST	2	0	0	0	0	0	0	0.0	0.808	0.00 Statewide Crash Rate: 0.13	0.00
15159	0590056 - 0.36	Int of FOREST ST WHITE ST	2	0	0	0	0	0	0	0.0	0.793	0.00 Statewide Crash Rate: 0.13	0.00
15158	0590056 - 0.41	Int of FOREST ST OAK ST	2	1	0	0	0	0	1	0.0	0.810	0.41 Statewide Crash Rate: 0.13	0.00
15070	0590056 - 0.49	Int of FOREST ST MAIN ST	9	14	0	1	0	4	9	35.7	6.289	0.74 Statewide Crash Rate: 0.65	0.00
Study Years: 3.00				NODE TOTALS:									
				22	0	2	0	5	15	31.8	20.659	0.35	0.45
													0.79

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Injury	Percent	Annual HMVM	Crash Rate	Critical Rate	CRF
15056	15168	3117675	0 - 0.03	0590187 - 0 RD INV 05 90187	0.03	2	0	0	0	0	0	0	0.0	0.00057	0.00	625.07	0.00
		Int of FOREST ST STROUDWATER ST													Statewide Crash Rate: 151.25		
60957	15168	2094000	0 - 0.02	0590187 - 0.03 RD INV 05 90187	0.02	2	0	0	0	0	0	0	0.0	0.00027	0.00	646.28	0.00
		Int of FOREST ST RD INV 3200799													Statewide Crash Rate: 151.25		
15166	60957	3115354	0 - 0.06	0590187 - 0.05 RD INV 05 90187	0.06	2	0	0	0	0	0	0	0.0	0.00083	0.00	585.48	0.00
		Int of FOREST ST LIBBY AV RD INV 3200800													Statewide Crash Rate: 151.25		
15165	15166	3120692	0 - 0.04	0590187 - 0.11 RD INV 05 90187	0.04	2	0	0	0	0	0	0	0.0	0.00047	0.00	639.79	0.00
		Int of FOREST ST RD INV 05B0261													Statewide Crash Rate: 151.25		
15164	15165	3123717	0 - 0.01	0590187 - 0.15 RD INV 05 90187	0.01	2	0	0	0	0	0	0	0.0	0.00013	0.00	475.73	0.00
		Int of FOREST ST HASKELL ST													Statewide Crash Rate: 151.25		
15163	15164	3106022	0 - 0.06	0590187 - 0.16 RD INV 05 90187	0.06	2	0	0	0	0	0	0	0.0	0.00072	0.00	601.38	0.00
		Int of FOREST ST ROCHESTER ST													Statewide Crash Rate: 151.25		
15162	15163	3122241	0 - 0.17	0590056 - 0 RD INV 05 90056	0.17	2	3	0	0	0	3	0	0.0	0.00151	664.30	511.96	1.30
		Int of CEDAR ST FOREST ST													Statewide Crash Rate: 151.25		
15161	15162	3129273	0 - 0.12	0590056 - 0.17 RD INV 05 90056	0.12	2	0	0	0	0	0	0	0.0	0.00099	0.00	563.96	0.00
		Int of COTTAGE ST FOREST ST													Statewide Crash Rate: 151.25		
15160	15161	3106021	0 - 0.04	0590056 - 0.29 RD INV 05 90056	0.04	2	0	0	0	0	0	0	0.0	0.00032	0.00	652.81	0.00
		Int of CLIFFORD ST FOREST ST													Statewide Crash Rate: 151.25		
15159	15160	3106020	0 - 0.03	0590056 - 0.33 RD INV 05 90056	0.03	2	0	0	0	0	0	0	0.0	0.00024	0.00	636.06	0.00
		Int of FOREST ST WHITE ST													Statewide Crash Rate: 151.25		
15158	15159	3106019	0 - 0.05	0590056 - 0.36 RD INV 05 90056	0.05	2	2	0	0	0	1	0	100.0	0.00039	1703.81	649.97	2.62
		Int of FOREST ST OAK ST													Statewide Crash Rate: 151.25		
15070	15158	3119231	0 - 0.08	0590056 - 0.41 RD INV 05 90056	0.08	2	1	0	0	0	1	0	0.0	0.00062	534.69	616.47	0.00
		Int of FOREST ST MAIN ST													Statewide Crash Rate: 151.25		
Study Years: 3.00					Section Totals:	0.71	6	0	0	0	1	4	16.7	0.00706	283.47	345.38	0.82
Grand Totals:					0.71	28	0	2	0	6	19	28.6	0.00706		1322.84	510.79	2.59

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
15056	15168	3117675	0 - 0.03	0590187 - 0	0	0	0	0	0	0				
60957	15168	2094000	0 - 0.02	0590187 - 0.03	0	0	0	0	0	0				
15166	60957	3115354	0 - 0.06	0590187 - 0.05	0	0	0	0	0	0				
15165	15166	3120692	0 - 0.04	0590187 - 0.11	0	0	0	0	0	0				
15164	15165	3123717	0 - 0.01	0590187 - 0.15	0	0	0	0	0	0				
15163	15164	3106022	0 - 0.06	0590187 - 0.16	0	0	0	0	0	0				
15162	15163	3122241	0 - 0.17	0590056 - 0	3	0	0	0	0	3	2013-19617	08/06/2013	0.03	PD
											2013-1834	01/23/2013	0.08	PD
											2013-30134	11/26/2013	0.13	PD
15161	15162	3129273	0 - 0.12	0590056 - 0.17	0	0	0	0	0	0				
15160	15161	3106021	0 - 0.04	0590056 - 0.29	0	0	0	0	0	0				
15159	15160	3106020	0 - 0.03	0590056 - 0.33	0	0	0	0	0	0				
15158	15159	3106019	0 - 0.05	0590056 - 0.36	2	0	0	0	1	0	2012-23265	02/06/2012	0.39	
											2013-13645	06/06/2013	0.39	C
15070	15158	3119231	0 - 0.08	0590056 - 0.41	1	0	0	0	0	1	2012-25259	03/30/2012	0.48	PD
Totals:					6	0	0	0	1	4				

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
MONDAY	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3
TUESDAY	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	4
WEDNESDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	1	0	1	0	1	0	7
THURSDAY	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	0	3	1	0	0	0	0	0	0	0	8
FRIDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
Totals	1	1	0	0	0	0	1	1	4	1	0	1	1	0	3	3	4	3	0	2	0	1	0	1	0	28

Vehicle Counts by Type

Unit Type	Total		Unit Type		Total	
	39	23-Bicyclist			1	1
1-Passenger Car	39	23-Bicyclist			1	1
2-(Sport) Utility Vehicle	9	24-Witness			0	0
3-Passenger Van	1	25-Other			1	1
4-Cargo Van (10K lbs or Less)	0	Total			55	
5-Pickup	3					
6-Motor Home	0					
7-School Bus	0					
8-Transit Bus	0					
9-Motor Coach	0					
10-Other Bus	0					
11-Motorcycle	0					
12-Moped	0					
13-Low Speed Vehicle	0					
14-Autocycle	0					
15-Experimental	0					
16-Other Light Trucks (10,000 lbs or Less)	1					
17-Medium/Heavy Trucks (More than 10,000 lbs)	0					
18-ATV - (4 wheel)	0					
20-ATV - (2 wheel)	0					
21-Snowmobile	0					
22-Pedestrian	0					

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr-1	Dr-2	Dr-3	Dr-4	Dr-5	Other	Total
No Contributing Action	9	19	1	0	0	0	29
Ran Off Roadway	1	0	0	0	0	0	1
Failed to Yield Right-of-Way	3	1	1	0	0	0	5
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	1	0	0	0	0	0	1
Improper Turn	0	0	0	0	0	0	0
Improper Backing	1	0	0	0	0	0	1
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	9	2	0	0	0	0	11
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	1	0	0	0	0	1
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	1	0	0	0	0	0	1
Unknown	1	0	0	0	0	0	1
Total	26	23	2	0	0	0	51

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr-1	Dr-2	Dr-3	Dr-4	Dr-5	Other	Total
Apparently Normal	25	23	2	0	0	0	50
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional (Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	1	0	0	0	0	0	1
Other	0	0	0	0	0	0	0
Total	26	23	2	0	0	0	51

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	6	0	0	0	0	6
20-24	7	0	0	0	0	7
25-29	4	0	0	0	0	4
30-39	12	0	0	0	0	12
40-49	7	0	0	0	0	7
50-59	7	0	0	0	0	7
60-69	6	0	0	0	0	6
70-79	2	0	0	0	0	2
80-Over	2	0	0	0	0	2
Unknown	1	1	0	0	0	2
Total	54	1	0	0	0	55

Crash Summary II - Characteristics

Most Harmful Event		Most Harmful Event		Injury Data	
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Number Of Injuries
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0	K	0
2-Fire / Explosion	0	39-Unknown	12	A	2
3-Immersion	0	40-Gate or Cable	0	B	0
4-Jackknife	1	41-Pressure Ridge	0	C	6
5-Cargo / Equipment Loss Or Shift	0	Total	52	PD	19
6-Fell / Jumped from Motor Vehicle	0			Total	27
7-Thrown or Falling Object	0				10
8-Other Non-Collision	0				
9-Pedestrian	0				
10-Pedalcycle	1				
11-Railway Vehicle - Train, Engine	0				
12-Animal	0				
13-Motor Vehicle in Transport	32				
14-Parked Motor Vehicle	5				
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0				
16-Work Zone / Maintenance Equipment	0				
17-Other Non-Fixed Object	1				
18-Impact Attenuator / Crash Cushion	0				
19-Bridge Overhead Structure	0				
20-Bridge Pier or Support	0				
21-Bridge Rail	0				
22-Cable Barrier	0				
23-Culvert	0				
24-Curb	0				
25-Ditch	0				
26-Embankment	0				
27-Guardrail Face	0				
28-Guardrail End	0				
29-Concrete Traffic Barrier	0				
30-Other Traffic Barrier	0				
31-Tree (Standing)	0				
32-Utility Pole / Light Support	0				
33-Traffic Sign Support	0				
34-Traffic Signal Support	0				
35-Fence	0				
36-Mailbox	0				
37-Other Post Pole or Support	0				

Traffic Control Devices		Road Character	
Traffic Control Device	Total	Road Grade	Total
1-Traffic Signals (Stop & Go)	13	1-Level	22
2-Traffic Signals (Flashing)	0	2-On Grade	5
3-Advisory/Warning Sign	0	3-Top of Hill	1
4-Stop Signs - All Approaches	1	4-Bottom of Hill	0
5-Stop Signs - Other	4	5-Other	0
6-Yield Sign	0	Total	28
7-Curve Warning Sign	0		
8-Officer, Flagman, School Patrol	0		
9-School Bus Stop Arm	0		
10-School Zone Sign	0		
11-R.R. Crossing Device	0		
12-No Passing Zone	0		
13-None	10		
14-Other	0		
Total	28		

Light	
Light Condition	Total
1-Daylight	22
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	4
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	1
7-Unknown	0
Total	28

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	1	0	1	2
FEBRUARY	2	1	0	3
MARCH	0	3	2	5
APRIL	0	0	0	0
MAY	1	0	0	1
JUNE	2	1	1	4
JULY	0	1	0	1
AUGUST	1	0	2	3
SEPTEMBER	0	1	0	1
OCTOBER	2	0	0	2
NOVEMBER	1	1	2	4
DECEMBER	1	1	0	2
Total	11	9	8	28

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	4	0	2	14	0	0	0	0	0	0	0	0	0	20
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	5	1	0	0	0	0	0	0	0	0	0	6
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	1	0	0	0	0	0	0	0	0	0	0	0	0	1
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	0	7	15	0	1	0	0	0	0	0	0	0	28

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	4	0	0	0	0	0	0	0	0	0	0	4
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	14	1	0	0	0	0	0	0	0	0	0	15
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	1	1
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	3	0	0	0	0	0	0	0	0	0	1	4
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	1	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	2	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	22	1	0	0	0	0	0	2	0	0	0	28

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 5

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0025B

Start Node: 15073

End Node: 15094

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☒ Exclude Last Node

Route: 0590035

Start Node: 15094

End Node: 15955

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☐ Exclude Last Node

Crash Summary I

Nodes														
Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes			Percent Annual M			Crash Rate	Critical Rate	CRF	
					K	A	B	C	PD	Injury	Ent-Veh			
P15073	0025B - 1.41	Int of CUMBERLAND ST MAIN ST	2	7	0	0	0	2	5	28.6	8,317	0.28	0.31	0.00
A60967	0025B - 1.44	Int of CUMBERLAND ST RD INV 3200801	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
A60968	0025B - 1.50	Int of CUMBERLAND ST WARREN AV	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
P15093	0025B - 1.53	Int of CUMBERLAND ST WARREN AV	2	80	0	0	0	11	69	13.8	7,273	3.67	0.32	11.34
P15094	0590035 - 0	Int of CUMBERLAND ST HARNOIS AV	2	7	0	0	1	1	5	28.6	8,972	0.26	0.31	0.00
A60969	0590035 - 0.04	Int of CUMBERLAND ST HARNOIS AV	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
17751	0590035 - 0.09	Non Int CUMBERLAND ST	2	2	0	0	1	1	0	100.0	2,902	0.23	0.39	0.00
15095	0590035 - 0.23	Int of BROWN ST, CUMBERLAND ST	2	5	0	0	0	3	2	60.0	5,940	0.28	0.32	0.00
15096	0590035 - 0.41	Int of COTTAGE PL CUMBERLAND ST	2	3	0	0	0	2	1	66.7	5,021	0.20	0.34	0.00
15097	0590035 - 0.52	Int of CUMBERLAND ST PARK RD	2	6	0	0	0	0	6	0.0	5,132	0.39	0.33	1.17
15098	0590035 - 0.73	Int of BRIDGE ST CUMBERLAND ST	9	18	0	0	0	0	18	0.0	6,063	0.99	1.11	0.00
15099	0590035 - 0.78	Int of CUMBERLAND ST LOWELL ST	2	1	0	0	0	0	1	0.0	3,355	0.10	0.37	0.00
15100	0590035 - 0.83	Int of CUMBERLAND ST WEBSTER ST	2	1	0	0	0	1	0	100.0	3,255	0.10	0.38	0.00
15101	0590035 - 1.09	Int of CUMBERLAND ST PIERCE ST	2	2	0	0	0	0	2	0.0	3,609	0.18	0.37	0.00
63030	0590035 - 1.14	Int of CUMBERLAND ST WILSON DR	2	0	0	0	0	0	0	0.0	3,539	0.00	0.37	0.00
15134	0590035 - 1.56	Non Int CUMBERLAND ST	2	3	0	0	1	0	2	33.3	1,750	0.57	0.44	1.30
15955	0590035 - 2	TL Westbrook Windham	2	0	0	0	0	0	0	0.0	1,750	0.00	0.44	0.00
Study Years: 3.00				NODE TOTALS:										
				135	0	0	3	21	111	17.8	66,878	0.67	0.26	2.63

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	Injury Crashes					Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF	
							K	A	B	C	PD						
15073 Int of CUMBERLAND ST MAIN ST	60967	3129656	0 - 0.03	0025B - 1.41 ST RTE 25B	0.03	2	0	0	0	1	1	50.0	0.00105	633.54	653.75 Statewide Crash Rate: 186.32	0.00	
60967 Int of CUMBERLAND ST RD INV 3200801	60968	3115357	0 - 0.06	0025B - 1.44 ST RTE 25B	0.06	7	0	0	1	1	5	28.6	0.00342	682.98	484.86 Statewide Crash Rate: 186.32	1.41	
60968 Int of CUMBERLAND ST WARREN AV	15093	3139174	0 - 0.03	0025B - 1.50 ST RTE 25B	0.03	2	0	0	0	0	0	0.0	0.00131	0.00	619.98 Statewide Crash Rate: 186.32	0.00	
15093 Int of CUMBERLAND ST WARREN AV	15094	2094087	0 - 0.02	0025B - 1.53 ST RTE 25B	0.02	2	2	0	0	0	2	0.0	0.00121	549.15	631.68 Statewide Crash Rate: 186.32	0.00	
15094 Int of CUMBERLAND ST HARNOIS AV	60969	3122933	0 - 0.04	0590035 - 0 RD INV 05 90035	0.04	2	0	0	0	0	0	0.0	0.00127	0.00	533.39 Statewide Crash Rate: 151.25	0.00	
60969 Int of CUMBERLAND ST HARNOIS AV	17751	3139175	0 - 0.05	0590035 - 0.04 RD INV 05 90035	0.05	2	1	0	0	0	1	0.0	0.00290	114.87	433.36 Statewide Crash Rate: 151.25	0.00	
15095 Int of BROWN ST, CUMBERLAND ST	17751	3131605	0 - 0.14	0590035 - 0.09 RD INV 05 90035	0.14	2	7	0	0	0	2	5	0.00812	287.18	333.66 Statewide Crash Rate: 151.25	0.00	
15095 Int of BROWN ST, CUMBERLAND ST	15096	3106001	0 - 0.18	0590035 - 0.23 RD INV 05 90035	0.18	2	4	0	0	0	1	3	0.00917	145.48	324.12 Statewide Crash Rate: 151.25	0.00	
15096 Int of COTTAGE PL CUMBERLAND ST	15097	3106002	0 - 0.11	0590035 - 0.41 RD INV 05 90035	0.11	2	3	0	0	0	3	0.0	0.00528	189.43	371.42 Statewide Crash Rate: 151.25	0.00	
15097 Int of CUMBERLAND ST PARK RD	15098	3106003	0 - 0.21	0590035 - 0.52 RD INV 05 90035	0.21	2	5	0	0	0	1	4	0.00818	203.78	333.12 Statewide Crash Rate: 151.25	0.00	
15098 Int of BRIDGE ST CUMBERLAND ST	15099	3106004	0 - 0.05	0590035 - 0.73 RD INV 05 90035	0.05	2	3	0	0	0	1	2	0.00168	596.89	498.64 Statewide Crash Rate: 151.25	1.20	
15099 Int of CUMBERLAND ST LOWELL ST	15100	3119232	0 - 0.05	0590035 - 0.78 RD INV 05 90035	0.05	2	1	0	0	0	1	0	0.00164	203.17	501.23 Statewide Crash Rate: 151.25	0.00	
15100 Int of CUMBERLAND ST WEBSTER ST	15101	3106006	0 - 0.26	0590035 - 0.83 RD INV 05 90035	0.26	2	2	0	0	0	2	0.0	0.00825	80.77	332.39 Statewide Crash Rate: 151.25	0.00	
15101 Int of CUMBERLAND ST PIERCE ST	63030	3118483	0 - 0.05	0590035 - 1.09 RD INV 05 90035	0.05	2	1	0	0	0	1	0.0	0.00176	189.08	492.34 Statewide Crash Rate: 151.25	0.00	
63030 Int of CUMBERLAND ST WILSON DR	15134	3115860	0 - 0.42	0590035 - 1.14 RD INV 05 90035	0.42	2	7	0	0	0	1	6	0.01470	158.75	290.78 Statewide Crash Rate: 151.25	0.00	
15134 Non Int CUMBERLAND ST	15955	3106011	0 - 0.44	0590035 - 1.56 RD INV 05 90035	0.44	1	8	0	0	1	1	6	0.01540	173.18	295.42 Statewide Crash Rate: 156.37	0.00	
Study Years: 3.00					Section Totals:	2.14	53	0	0	2	10	41	22.6	0.08534	207.02	216.49	0.96
Grand Totals:					2.14	188	0	0	5	31	152	19.1	0.08534	734.32	320.72	2.29	2.29

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C	PD				
15073	60967	3129656	0 - 0.03	0025B - 1.41	2	0	0	0	1	1	2012-51082	01/06/2012	1.42	PD
											2012-41253	09/26/2012	1.43	C
60967	60968	3115357	0 - 0.06	0025B - 1.44	7	0	0	1	1	5	2011-7528	03/04/2011	1.45	PD
											2012-51110	06/07/2012	1.47	PD
											2013-13681	06/05/2013	1.47	PD
											2011-7307	02/04/2011	1.48	C
											2013-184	01/03/2013	1.48	PD
											2013-26933	10/25/2013	1.48	PD
60968	15093	3139174	0 - 0.03	0025B - 1.50	0	0	0	0	0	0	2013-12012	05/17/2013	1.49	B
											2011-18999	12/16/2011	1.54	PD
15093	15094	2094087	0 - 0.02	0025B - 1.53	2	0	0	0	0	2	2012-47977	12/08/2012	1.54	PD
15094	60969	3122933	0 - 0.04	0590035 - 0	0	0	0	0	0	0	2012-30565	05/21/2012	0.05	PD
											2013-16706	02/05/2013	0.13	PD
60969	17751	3139175	0 - 0.05	0590035 - 0.04	1	0	0	0	0	1	2012-25184	03/28/2012	0.14	C
15095	17751	3131605	0 - 0.14	0590035 - 0.09	7	0	0	0	2	5	2013-4348	02/17/2013	0.16	PD
											2012-49375	12/27/2012	0.16	PD
											2012-51178	11/26/2012	0.18	PD
											2012-50227	12/27/2012	0.21	PD
											2013-13735	05/31/2013	0.22	C
											2012-27781	05/03/2012	0.25	PD
15095	15096	3106001	0 - 0.18	0590035 - 0.23	4	0	0	0	1	3	2011-16476	11/13/2011	0.29	C
											2011-15431	11/09/2011	0.29	PD
											2011-23308	07/12/2011	0.33	PD
15096	15097	3106002	0 - 0.11	0590035 - 0.41	3	0	0	0	0	3	2011-8554	08/24/2011	0.45	PD
											2013-32879	12/16/2013	0.45	PD
											2011-11905	04/05/2011	0.51	PD
											2013-16703	01/23/2013	0.53	PD
15097	15098	3106003	0 - 0.21	0590035 - 0.52	5	0	0	0	1	4	2011-23726	06/14/2011	0.63	PD
											2011-15693	11/16/2011	0.67	PD
											2011-7339	02/22/2011	0.70	PD
											2011-5794	01/04/2011	0.72	C

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
15098	15099	3106004	0 - 0.05	0590035 - 0.73	3	0	0	0	1	2	2013-18294	07/25/2013	0.75	C
											2012-42158	10/25/2012	0.75	PD
											2012-39835	09/28/2012	0.76	PD
15099	15100	3119232	0 - 0.05	0590035 - 0.78	1	0	0	0	1	0	2012-43114	11/06/2012	0.81	C
15100	15101	3106006	0 - 0.26	0590035 - 0.83	2	0	0	0	0	2	2012-23235	01/10/2012	1.02	PD
15101	63030	3118483	0 - 0.05	0590035 - 1.09	1	0	0	0	0	1	2011-24118	12/31/2011	1.05	PD
											2012-51122	07/08/2012	1.11	PD
											2011-23858	08/01/2011	1.15	PD
63030	15134	3115860	0 - 0.42	0590035 - 1.14	7	0	0	0	1	6	2012-41264	10/08/2012	1.22	PD
15134	15955	3106011	0 - 0.44	0590035 - 1.56	8	0	0	1	1	6	2013-20249	08/13/2013	1.40	C
											2011-11921	04/22/2011	1.44	PD
											2013-34215	12/17/2013	1.46	PD
											2011-11125	09/21/2011	1.50	PD
											2012-51079	02/16/2012	1.54	PD
											2012-48405	12/19/2012	1.66	PD
											2012-51166	11/07/2012	1.66	PD
											2012-51223	02/24/2012	1.67	PD
											2012-23571	03/04/2012	1.69	PD
											2012-38638	09/15/2012	1.81	B
											2011-9472	09/03/2011	1.82	PD
2011-23889	10/30/2011	1.86	PD											
2013-12573	05/24/2013	1.96	C											
Totals:					53	0	0	0	2	10	41			

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Tot		
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		Un	
SUNDAY	0	3	0	0	0	0	1	0	1	1	1	1	0	0	2	0	0	0	0	0	1	0	0	0	0	11	
MONDAY	0	0	0	0	0	0	0	2	1	2	5	1	1	1	1	2	3	2	2	0	0	0	0	0	0	23	
TUESDAY	0	0	0	0	0	0	0	8	3	2	1	2	3	2	3	2	3	2	1	1	1	0	0	1	1	0	35
WEDNESDAY	0	0	1	0	1	1	0	2	2	0	1	1	5	0	4	1	0	2	4	2	0	0	0	0	0	27	
THURSDAY	0	0	0	0	0	0	0	4	4	3	0	0	5	5	4	5	2	0	2	1	0	1	0	1	0	37	
FRIDAY	0	0	0	0	0	1	1	5	1	2	2	2	2	4	3	3	2	4	2	0	0	0	0	2	0	36	
SATURDAY	0	0	0	0	0	0	0	2	3	3	2	1	1	0	2	3	0	1	1	0	0	0	0	0	0	19	
Totals	0	3	1	0	1	2	2	23	15	13	12	8	17	12	19	16	10	11	12	5	0	1	1	4	0	188	

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	217	23-Bicyclist	1
2-(Sport) Utility Vehicle	66	24-Witness	0
3-Passenger Van	13	25-Other	2
4-Cargo Van (10K lbs or Less)	4	Total	359
5-Pickup	43		
6-Motor Home	0		
7-School Bus	1		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	2		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	2		
17-Medium/Heavy Trucks (More than 10,000 lbs)	8		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	53	120	4	1	0	0	178
Ran Off Roadway	7	0	0	0	0	0	7
Failed to Yield Right-of-Way	19	8	0	0	0	0	27
Ran Red Light	3	1	0	0	0	0	4
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	4	1	0	0	0	0	5
Improper Turn	1	0	0	0	0	0	1
Improper Backing	2	0	0	0	0	0	2
Improper Passing	2	0	0	0	0	0	2
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	57	16	0	0	0	0	73
Failed to Keep in Proper Lane	5	0	0	0	0	0	5
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	4	0	0	0	0	0	4
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	1	0	0	0	0	1
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	25	3	1	0	0	0	29
Unknown	5	7	3	1	1	0	17
Total	187	157	8	2	1	0	355

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	179	156	8	2	1	0	346
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	1	0	0	0	0	0	1
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	2	0	0	0	0	0	2
Under the Influence of Medications/Drugs/Alcohol	3	1	0	0	0	0	4
Other	2	0	0	0	0	0	2
Total	187	157	8	2	1	0	355

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	30	0	0	0	0	30
20-24	49	0	0	0	0	49
25-29	42	0	0	0	0	42
30-39	53	0	0	0	0	53
40-49	57	0	0	0	0	57
50-59	59	0	0	0	0	59
60-69	45	0	0	0	0	45
70-79	14	0	0	0	0	14
80-Over	7	0	0	0	0	7
Unknown	2	1	0	0	0	3
Total	358	1	0	0	0	359

Crash Summary II - Characteristics

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
1-Overturn / Rollover	2	K	0
2-Fire / Explosion	0	A	0
3-Immersion	0	B	6
4-Jackknife	0	C	41
5-Cargo / Equipment Loss Or Shift	0	PD	0
6-Fell / Jumped from Motor Vehicle	0	Total	188
7-Thrown or Falling Object	1		47
8-Other Non-Collision	4		
9-Pedestrian	1		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	8		
13-Motor Vehicle in Transport	270		
14-Parked Motor Vehicle	7		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	2		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	3		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	1		
21-Bridge Rail	2		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	2		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	1		
32-Utility Pole / Light Support	1		
33-Traffic Sign Support	1		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
38-Other Fixed Object (wall, building, tunnel, etc.)	2	K	0
39-Unknown	49	A	0
40-Gate or Cable	0	B	6
41-Pressure Ridge	0	C	41
Total	359	PD	0
		Total	47

Road Character		Injury Data	
Road Grade	Total	Severity Code	Number Of Injuries
1-Level	152	K	0
2-On Grade	28	A	0
3-Top of Hill	3	B	6
4-Bottom of Hill	5	C	41
5-Other	0	PD	0
Total	188		

Traffic Control Devices		Injury Data	
Traffic Control Device	Total	Severity Code	Number Of Injuries
1-Traffic Signals (Stop & Go)	17	K	0
2-Traffic Signals (Flashing)	0	A	0
3-Advisory/Warning Sign	0	B	6
4-Stop Signs - All Approaches	5	C	41
5-Stop Signs - Other	75	PD	0
6-Yield Sign	18	Total	47
7-Curve Warning Sign	0		
8-Officer, Flagman, School Patrol	0		
9-School Bus Stop Arm	0		
10-School Zone Sign	0		
11-R.R. Crossing Device	0		
12-No Passing Zone	0		
13-None	73		
14-Other	0		
Total	188		

Light		Injury Data	
Light Condition	Total	Severity Code	Number Of Injuries
1-Daylight	155	K	0
2-Dawn	4	A	0
3-Dusk	4	B	6
4-Dark - Lighted	18	C	41
5-Dark - Not Lighted	7	PD	0
6-Dark - Unknown Lighting	0	Total	47
7-Unknown	0		
Total	188		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	8	5	4	17
FEBRUARY	4	8	6	18
MARCH	5	5	2	12
APRIL	7	3	4	14
MAY	5	3	9	17
JUNE	8	6	2	16
JULY	2	5	7	14
AUGUST	7	4	2	13
SEPTEMBER	4	10	1	15
OCTOBER	7	9	1	17
NOVEMBER	6	10	4	20
DECEMBER	3	10	2	15
Total	66	78	44	188

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	18	1	97	10	0	4	0	0	0	0	0	0	1	131
Head-on / Sideswipe	1	1	1	0	0	0	1	0	0	0	0	0	0	4
Intersection Movement	0	0	11	8	0	6	0	0	0	0	0	0	0	25
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	7	6	2	0	0	0	0	0	0	0	0	0	0	15
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	3	0	0	0	0	0	0	3
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	8	0	0	0	0	0	0	0	0	0	0	0	0	8
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	35	8	111	18	0	11	4	0	0	0	0	0	0	188

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	9	0	0	0	0	0	0	0	0	0	3	12
Dark - Not Lighted	4	1	0	0	0	0	0	0	0	0	0	5
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	2	0	0	0	0	0	0	0	0	0	1	3
Daylight	109	1	0	0	0	0	0	1	0	0	5	116
Dusk	3	0	0	0	0	0	0	0	0	0	0	3
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	1	0	0	0	0	0	0	0	1	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	17	0	0	0	0	0	0	0	0	0	3	20
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	13	13
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	2	0	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	2	0	0	0	2
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	1	0	0	0	0	0	0	0	0	0	1
Daylight	0	0	0	0	0	0	1	2	0	0	1	4
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	145	4	0	0	0	0	1	9	1	0	0	188

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 6

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0590044

Start Node: 15098
End Node: 15148

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☐ Exclude Last Node

Route: 0590013

Start Node: 15098
End Node: 15105

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total		Injury Crashes			Percent Annual M		Crash Rate	Critical Rate	CRF
				Crashes	K	A	B	C	PD	Injury Ent-Veh			
15150	0590044 - 0.23	Int of BRIDGE ST GRAHAM RD	2	1	0	0	0	0	1	0.0	2.453 Statewide Crash Rate: 0.14	0.40 0.13	0.00
15149	0590044 - 0.36	Int of BRIDGE ST LUGRIN ST	2	1	0	0	0	1	0	100.0	2.096 Statewide Crash Rate: 0.16	0.42 0.13	0.00
15148	0590044 - 0.51	Int of BRIDGE ST EAST BRIDGE ST METHODIST RD	2	1	0	0	1	0	0	100.0	1.972 Statewide Crash Rate: 0.17	0.43 0.13	0.00
15116	0590013 - 0.09	Int of BEECHWOOD AV BRIDGE ST	2	0	0	0	0	0	0	0.0	2.432 Statewide Crash Rate: 0.00	0.41 0.13	0.00
15115	0590013 - 0.14	Int of BRIDGE ST EVERETT ST	2	0	0	0	0	0	0	0.0	2.465 Statewide Crash Rate: 0.00	0.40 0.13	0.00
15114	0590013 - 0.19	Int of BRIDGE ST, FALMOUTH ST	2	2	0	1	0	0	1	50.0	2.671 Statewide Crash Rate: 0.25	0.40 0.13	0.00
15113	0590013 - 0.30	Int of BRIDGE ST MYRTLE ST	2	2	0	0	0	1	1	50.0	2.708 Statewide Crash Rate: 0.25	0.39 0.13	0.00
15112	0590013 - 0.35	Int of BRIDGE ST LYMAN ST	2	1	0	0	0	0	1	0.0	2.777 Statewide Crash Rate: 0.12	0.39 0.13	0.00
15111	0590013 - 0.40	Int of BRIDGE ST KING ST	2	0	0	0	0	0	0	0.0	2.801 Statewide Crash Rate: 0.00	0.39 0.13	0.00
15110	0590013 - 0.45	Int of BRIDGE ST NORTH ST PIERCE ST	2	1	0	0	0	0	1	0.0	3.443 Statewide Crash Rate: 0.10	0.37 0.13	0.00
15109	0590013 - 0.48	Non Int BRIDGE ST	2	0	0	0	0	0	0	0.0	3.318 Statewide Crash Rate: 0.00	0.37 0.13	0.00
15108	0590013 - 0.50	Int of BRIDGE ST WALKER ST	2	0	0	0	0	0	0	0.0	3.490 Statewide Crash Rate: 0.00	0.37 0.13	0.00
15107	0590013 - 0.56	Int of BRIDGE ST MITCHELL ST	2	0	0	0	0	0	0	0.0	3.661 Statewide Crash Rate: 0.00	0.36 0.13	0.00
15106	0590013 - 0.62	Int of BRIDGE ST DODGE ST	2	0	0	0	0	0	0	0.0	3.703 Statewide Crash Rate: 0.00	0.36 0.13	0.00
15105	0590013 - 0.69	Int of BRIDGE ST LINCOLN ST	2	1	0	0	0	1	0	100.0	3.973 Statewide Crash Rate: 0.08	0.36 0.13	0.00
Study Years: 3.00				NODE TOTALS:									
				10	0	1	1	3	5	50.0	43.963	0.08	0.21 0.37

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Sections					Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
						Total Crashes	K	A	B	C	PD				
15098	15150	3117677	0 - 0.23	0590044 - 0 RD INV 05 90044	0.23	2	4	0	0	0	4	0.00573	232.88	363.87	0.00
Int of BRIDGE ST CUMBERLAND ST															
15149	15150	3106018	0 - 0.13	0590044 - 0.23 RD INV 05 90044	0.13	2	1	0	0	0	1	0.00306	109.07	427.57	0.00
Int of BRIDGE ST LUGRIN ST															
15148	15149	3123961	0 - 0.15	0590044 - 0.36 RD INV 05 90044	0.15	2	1	0	0	0	1	0.00257	129.95	447.42	0.00
Int of BRIDGE ST EAST BRIDGE ST METHODIST RD															
15098	15116	3106005	0 - 0.09	0590013 - 0 RD INV 05 90013	0.09	2	1	0	0	1	0	0.00215	154.92	468.11	0.00
Int of BRIDGE ST CUMBERLAND ST															
15115	15116	3119233	0 - 0.05	0590013 - 0.09 RD INV 05 90013	0.05	2	0	0	0	0	0	0.00121	0.00	539.41	0.00
Int of BRIDGE ST EVERETT ST															
15114	15115	3120691	0 - 0.05	0590013 - 0.14 RD INV 05 90013	0.05	2	1	0	0	0	1	0.00122	272.16	537.81	0.00
Int of BRIDGE ST, FALMOUTH ST															
15113	15114	190579	0 - 0.11	0590013 - 0.19 RD INV 05 90013	0.11	2	0	0	0	0	0	0.00289	0.00	434.01	0.00
Int of BRIDGE ST MYRTLE ST															
15112	15113	3106010	0 - 0.05	0590013 - 0.30 RD INV 05 90013	0.05	2	0	0	0	0	0	0.00134	0.00	526.46	0.00
Int of BRIDGE ST LYMAN ST															
15111	15112	3106009	0 - 0.05	0590013 - 0.35 RD INV 05 90013	0.05	2	0	0	0	0	0	0.00138	0.00	523.09	0.00
Int of BRIDGE ST KING ST															
15110	15111	3120690	0 - 0.05	0590013 - 0.40 RD INV 05 90013	0.05	2	1	0	0	0	1	0.00140	238.72	521.38	0.00
Int of BRIDGE ST NORTH ST PIERCE ST															
15109	15110	3106008	0 - 0.03	0590013 - 0.45 RD INV 05 90013	0.03	2	0	0	0	0	0	0.00097	0.00	566.26	0.00
Non Int BRIDGE ST															
15108	15109	3106007	0 - 0.02	0590013 - 0.48 RD INV 05 90013	0.02	2	0	0	0	0	0	0.00068	0.00	607.83	0.00
Int of BRIDGE ST WALKER ST															
15107	15108	3131606	0 - 0.06	0590013 - 0.50 RD INV 05 90013	0.06	2	1	0	0	0	1	0.00212	157.00	469.70	0.00
Int of BRIDGE ST MITCHELL ST															
15106	15107	3120309	0 - 0.06	0590013 - 0.56 RD INV 05 90013	0.06	2	0	0	0	0	0	0.00219	0.00	465.83	0.00
Int of BRIDGE ST DODGE ST															
15105	15106	3120689	0 - 0.07	0590013 - 0.62 RD INV 05 90013	0.07	2	4	0	0	0	1	0.00258	516.79	446.75	1.16
Int of BRIDGE ST LINCOLN ST															
Study Years:					3.00										
Section Totals:					1.20	14	0	0	1	1	12	14.3	148.24	249.04	0.60
Grand Totals:					1.20	24	0	1	2	4	17	29.2	254.13	380.86	0.67

Crash Summary

Section Details															
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree
										C	PD				
15098	15150	3117677	0 - 0.23	0590044 - 0	4	0	0	0	0	0	4	2013-16691 2012-42094 2011-15014 2012-25619	04/04/2013 10/16/2012 11/07/2011 03/31/2012	0.08 0.10 0.13 0.14	PD PD PD PD
15149	15150	3106018	0 - 0.13	0590044 - 0.23	1	0	0	0	0	0	1	2013-16692	04/06/2013	0.31	PD
15148	15149	3123961	0 - 0.15	0590044 - 0.36	1	0	0	0	0	0	1	2011-23321	11/24/2011	0.47	PD
15098	15116	3106005	0 - 0.09	0590013 - 0	1	0	0	1	0	0	0	2013-29424	11/21/2013	0.07	B
15115	15116	3119233	0 - 0.05	0590013 - 0.09	0	0	0	0	0	0	0				
15114	15115	3120691	0 - 0.05	0590013 - 0.14	1	0	0	0	0	0	1	2013-20826	08/15/2013	0.17	PD
15113	15114	190579	0 - 0.11	0590013 - 0.19	0	0	0	0	0	0	0				
15112	15113	3106010	0 - 0.05	0590013 - 0.30	0	0	0	0	0	0	0				
15111	15112	3106009	0 - 0.05	0590013 - 0.35	0	0	0	0	0	0	0				
15110	15111	3120690	0 - 0.05	0590013 - 0.40	1	0	0	0	0	0	1	2012-51087	03/23/2012	0.41	PD
15109	15110	3106008	0 - 0.03	0590013 - 0.45	0	0	0	0	0	0	0				
15108	15109	3106007	0 - 0.02	0590013 - 0.48	0	0	0	0	0	0	0				
15107	15108	3131606	0 - 0.06	0590013 - 0.50	1	0	0	0	0	0	1	2012-31265	05/29/2012	0.52	PD
15106	15107	3120309	0 - 0.06	0590013 - 0.56	0	0	0	0	0	0	0				
15105	15106	3120689	0 - 0.07	0590013 - 0.62	4	0	0	0	0	1	3	2011-9520 2013-13678 2012-51152 2013-10404	09/04/2011 05/28/2013 09/24/2012 04/22/2013	0.63 0.67 0.68 0.68	PD C PD PD
Totals:					14	0	0	0	1	1	12				

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	1	0	5
MONDAY	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	4
TUESDAY	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
THURSDAY	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	1	0	1	0	0	0	0	6
FRIDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
SATURDAY	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3
Totals	1	1	0	0	0	0	0	1	1	1	1	0	2	1	2	3	3	2	2	1	1	0	0	1	0	24

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	29	23-Bicyclist	1
2-(Sport) Utility Vehicle	5	24-Witness	0
3-Passenger Van	0	25-Other	0
4-Cargo Van (10K lbs or Less)	0	Total	42
5-Pickup	5		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	2		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	0		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	4	12	0	0	0	0	16
Ran Off Roadway	3	0	0	0	0	0	3
Failed to Yield Right-of-Way	2	0	0	0	0	0	2
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	3	0	0	0	0	0	3
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	0	0	0	0	0	0
Improper Turn	0	0	0	0	0	0	0
Improper Backing	2	1	0	0	0	0	3
Improper Passing	0	1	0	0	0	0	1
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	5	2	0	0	0	0	7
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	0	0	0	0	0	1
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	2	0	0	0	0	0	2
Unknown	1	0	0	0	0	0	1
Total	23	16	0	0	0	0	39

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	19	15	0	0	0	0	34
Physically Impaired or Handicapped	0	1	0	0	0	0	1
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	1	0	0	0	0	0	1
Asleep or Fatigued	2	0	0	0	0	0	2
Under the Influence of Medications/Drugs/Alcohol	0	1	0	0	0	0	1
Other	1	0	0	0	0	0	1
Total	23	17	0	0	0	0	40

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	3	0	0	0	0	3
20-24	7	0	0	0	0	7
25-29	2	0	0	0	0	2
30-39	8	0	0	0	0	8
40-49	6	0	0	0	0	6
50-59	8	0	0	0	0	8
60-69	4	0	0	0	0	4
70-79	2	0	0	0	0	2
80-Over	1	0	0	0	0	1
Unknown	0	1	0	0	0	1
Total	41	1	0	0	0	42

Crash Summary II - Characteristics

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
1-Overturn / Rollover	0		
2-Fire / Explosion	0		
3-Immersion	0		
4-Jackknife	0		
5-Cargo / Equipment Loss Or Shift	0		
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	1		
13-Motor Vehicle in Transport	28		
14-Parked Motor Vehicle	3		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		
Total		24	9

Most Harmful Event		Road Character	
Most Harmful Event	Total	Road Grade	Total
1-Level	18		
2-On Grade	6		
3-Top of Hill	0		
4-Bottom of Hill	0		
5-Other	0		
Total			24

Traffic Control Devices		Light	
Traffic Control Device	Total	Light Condition	Total
1-Traffic Signals (Stop & Go)	0	1-Daylight	19
2-Traffic Signals (Flashing)	0	2-Dawn	0
3-Advisory/Warning Sign	0	3-Dusk	0
4-Stop Signs - All Approaches	0	4-Dark - Lighted	3
5-Stop Signs - Other	7	5-Dark - Not Lighted	2
6-Yield Sign	0	6-Dark - Unknown Lighting	0
7-Curve Warning Sign	0	7-Unknown	0
8-Officer, Flagman, School Patrol	0	Total	
9-School Bus Stop Arm	0		24
10-School Zone Sign	0		
11-R, R, Crossing Device	0		
12-No Passing Zone	0		
13-None	17		
14-Other	0		
Total			24

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	0	0	0	0
FEBRUARY	1	0	1	2
MARCH	0	2	0	2
APRIL	0	0	3	3
MAY	0	2	1	3
JUNE	0	2	1	3
JULY	0	0	0	0
AUGUST	0	0	3	3
SEPTEMBER	1	1	0	2
OCTOBER	0	1	0	1
NOVEMBER	2	0	2	4
DECEMBER	1	0	0	1
Total	5	8	11	24

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	3	0	1	3	0	6	0	0	0	0	0	0	0	13
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	0	3	0	1	0	0	0	0	0	0	0	4
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	1	1	2	0	0	0	0	0	0	0	0	0	0	4
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	1	1	0	0	0	0	0	0	0	0	0	0	0	2
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	2	3	7	0	7	0	0	0	0	0	0	0	24

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	2	0	0	0	0	0	0	0	0	0	1	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	1	0	1	2
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	16	0	0	0	0	0	0	0	0	0	0	16
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	1	0	0	0	0	0	0	1	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface****Weather
Light**

	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	19	0	0	0	0	0	0	2	1	0	0	24

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Node	Route - MP	Node Description	Nodes										Percent Annual M Injury Ent-Veh	Crash Rate	Critical Rate	CRF
			UR	Total Crashes	K	A	B	C	PD	Injury	Crashes	Crash Rate				
15061	0025B - 0.48	TL Portland Westbrook Int of BRIGHTON AV MAIN ST	2	0	0	0	0	0	0	0.0	2,657	0.00	0.42	0.00	0.00	0.00
67669	0025B - 0.55	Non Int MAIN ST	2	7	0	0	0	2	5	28.6	4,906	0.48	0.36	1.33	0.14	0.00
67668	0025B - 0.61	Non Int MAIN ST	2	1	0	0	0	0	1	0.0	5,084	0.07	0.35	0.00	0.14	0.00
A60984	0025B - 0.66	Non Int MAIN ST	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00	0.00	0.00
P15062	0025B - 0.71	Int of LARRABEE RD MAIN ST	9	38	0	1	3	11	23	39.5	8,768	1.44	1.04	1.39	0.65	0.00
A60986	0025B - 0.75	Int of MAIN ST RD INV 3200810	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00	0.00	0.00
18447	0025B - 0.83	Int of LIZA HARMON DR MAIN ST	2	1	0	0	0	0	1	0.0	6,033	0.06	0.34	0.00	0.14	0.00
18449	0025B - 0.96	Int of MAIN ST YORK ST	2	2	0	0	0	0	2	0.0	6,341	0.11	0.33	0.00	0.14	0.00
15063	0025B - 1.03	Int of COLONIAL RD MAIN ST	2	1	0	0	0	0	1	0.0	6,197	0.05	0.34	0.00	0.14	0.00
15064	0025B - 1.09	Int of DEER HILL AV MAIN ST WEBSTER AV	2	4	0	0	1	1	2	50.0	6,040	0.22	0.34	0.00	0.14	0.00
P15065	0025B - 1.14	Int of MAIN ST MARRETT ST	2	0	0	0	0	0	0	0.0	5,847	0.00	0.34	0.00	0.14	0.00
A15066	0025B - 1.15	Int of BERKELEY ST MAIN ST	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00	0.14	0.00
P15067	0025B - 1.19	Int of MAIN ST TOLMAN ST	2	2	0	0	0	0	2	0.0	5,739	0.12	0.34	0.00	0.14	0.00
A15068	0025B - 1.20	Int of MAIN ST WALTHAM ST	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00	0.14	0.00
15069	0025B - 1.26	Int of MAIN ST MASON ST	2	1	0	0	0	0	1	0.0	5,588	0.06	0.35	0.00	0.14	0.00
15070	0025B - 1.31	Int of FOREST ST MAIN ST	9	14	0	1	0	4	9	35.7	6,289	0.74	1.10	0.00	0.65	0.00
15071	0025B - 1.35	Int of MAIN ST STATE ST	2	0	0	0	0	0	0	0.0	6,203	0.00	0.34	0.00	0.14	0.00
15072	0025B - 1.39	Int of LAMB ST MAIN ST	2	2	0	0	0	1	1	50.0	6,299	0.11	0.34	0.00	0.14	0.00
P15073	0025B - 1.41	Int of CUMBERLAND ST MAIN ST	2	7	0	0	0	2	5	28.6	8,317	0.28	0.31	0.00	0.14	0.00
A60967	0025B - 1.44	Int of CUMBERLAND ST RD INV 3200801	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00	0.14	0.00
A60968	0025B - 1.50	Int of CUMBERLAND ST WARREN AV	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00	0.14	0.00
P15093	0025B - 1.53	Int of CUMBERLAND ST WARREN AV	2	80	0	0	0	11	69	13.8	7,273	3.67	0.32	11.34	0.14	0.00

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Node	Route - MP	Node Description	Nodes										Percent Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
			U/R	Total Crashes	K	Injury Crashes			A	B	C	PD	Injury			
P15094	0025B - 1.55	Int of CUMBERLAND ST HARNOLD AV	2	7	0	0	0	1	1	1	5	28.6	8.972	0.26	0.31	0.00
A60970	0025B - 1.58	Non Int HARNOLD AV	2	0	0	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
A60971	0025B - 1.61	Int of HARNOLD AV RD INV 3200804	2	0	0	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
P15075	0025B - 1.65	Int of HARNOLD AV MAIN ST	2	2	0	0	0	0	0	0	2	0.0	9.257	0.07	0.30	0.00
15076	0025B - 1.68	Int of MAIN ST, TRAMWAY LN	2	2	0	0	0	0	0	0	2	0.0	6.754	0.10	0.33	0.00
15077	0025B - 1.75	Int of MAIN ST ROCHESTER ST	2	6	0	0	0	0	0	0	6	0.0	6.613	0.30	0.33	0.00
P15078	0025B - 1.80	Int of LOCUST ST MAIN ST	2	1	0	0	0	0	0	0	1	0.0	6.486	0.05	0.33	0.00
A15079	0025B - 1.81	Int of HASKELL ST MAIN ST	2	0	0	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
18553	0025B - 1.88	Int of MAIN ST WESTBROOK ARTERIAL	9	13	0	0	1	3	9	30.8	7.081	0.61	1.08	0.65	1.08	0.00
15080	0025B - 1.92	Int of MAIN ST, STEVENS AV	2	0	0	0	0	0	0	0	0	0.0	5.396	0.00	0.35	0.00
15081	0025B - 1.95	Int of MAIN ST SCHOOL ST	2	6	0	0	1	2	3	50.0	5.346	0.37	0.35	0.14	1.07	1.07
15082	0025B - 1.97	Int of MAIN ST SPEIRS ST	2	1	0	0	0	0	0	1	0.0	0.0	5.326	0.06	0.35	0.00
17186	0025B - 1.99	Int of DAY ST MAIN ST	2	0	0	0	0	0	0	0	0	0.0	5.282	0.00	0.35	0.00
17185	0025B - 2.01	Int of MAIN ST PARK DRIVE 1	2	0	0	0	0	0	0	0	0	0.0	5.328	0.00	0.35	0.00
15083	0025B - 2.04	Int of GILES ST, MAIN ST	2	7	0	1	2	2	2	71.4	2.640	0.88	0.42	0.14	2.11	2.11
P17184	0025B - 2.06	Int of MAIN ST PARK DRIVE 2	2	2	0	0	0	0	0	2	0.0	0.0	5.404	0.12	0.35	0.00
A60950	0025B - 2.07	Int of MAIN ST RD INV 3200795	2	0	0	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
17183	0025B - 2.14	Int of DUNN ST MAIN ST	2	7	0	0	1	2	4	42.9	5.486	0.43	0.35	0.14	1.22	1.22
17182	0025B - 2.24	Int of MAIN ST STROUDWATER ST	2	5	0	0	1	1	3	40.0	6.612	0.25	0.33	0.14	0.00	0.00
17181	0025B - 2.28	Int of FOSTER ST MAIN ST	2	4	0	0	0	2	2	50.0	6.028	0.22	0.34	0.14	0.00	0.00
17180	0025B - 2.31	Int of MAIN ST, PLEASANT ST	2	1	0	0	0	0	0	1	0.0	0.0	6.055	0.06	0.34	0.00
17179	0025B - 2.36	Int of MAIN ST SPRING ST	9	9	0	0	0	1	8	11.1	7.704	0.39	1.06	0.65	1.06	0.00

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Node	Route - MP	Node Description	U/R	Nodes										CRF
				Total Crashes	Injury Crashes			Percent Annual M			Crash Rate			Critical Rate
					K	A	B	C	PD	Injury	Ent-Veh			
A60972	025BE - 0.03	Int of MAIN ST RD INV 3200804	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
15074	025BE - 0.14	Int of MAIN ST SEAVEY ST	2	0	0	0	0	0	0	0.0	5.407	0.00	0.35	0.00
A60973	025BE - 0.18	Int of MAIN ST RD INV 3200801	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
A67674	025BE - 0.28	Int of MAIN ST RD INV 3200809	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
67672	025BE - 0.49	TL Portland Westbrook	2	0	0	0	0	0	0	0.0	2.252	0.00	0.44	0.00
Study Years: 3.00				233	0	3	11	46	173	25.8	217.010	0.36	0.26	1.40
NODE TOTALS:				233	0	3	11	46	173	25.8	217.010	0.36	0.26	1.40

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury Crashes			Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF		
								A	B	C	PD						
15061	67669	3415739	0 - 0.07	0025B - 0.48 ST RTE 25B	0.07	2	1	0	0	0	1	0.0	0.00186	179.21	567.72	0.00	
TL Portland Westbrook Int of BRIGHTON AV MAIN ST RIVERSIDE ST																	
67669	67668	3415740	0 - 0.06	0025B - 0.55 ST RTE 25B	0.06	2	0	0	0	0	0	0.0	0.00159	0.00	590.68	0.00	
Non Int MAIN ST																	
67668	60984	3415736	0 - 0.05	0025B - 0.61 ST RTE 25B	0.05	2	0	0	0	0	0	0.0	0.00142	0.00	608.25	0.00	
Non Int MAIN ST																	
60984	15062	3139182	0 - 0.05	0025B - 0.66 ST RTE 25B	0.05	2	0	0	0	0	0	0.0	0.00132	0.00	618.61	0.00	
Non Int MAIN ST																	
15062	60986	3139183	0 - 0.04	0025B - 0.71 ST RTE 25B	0.04	2	2	0	0	0	2	0.0	0.00046	1435.92	769.96	1.86	
Int of LARRABEE RD MAIN ST																	
60986	18447	3119789	0 - 0.08	0025B - 0.75 ST RTE 25B	0.08	2	20	0	3	1	6	10	50.0	0.00445	1498.00	453.42	3.30
Int of MAIN ST RD INV 3200810																	
18447	18449	3106663	0 - 0.13	0025B - 0.83 ST RTE 25B	0.13	2	2	0	0	0	1	1	50.0	0.00824	80.90	389.94	0.00
Int of LIZA HARMON DR MAIN ST																	
15063	18449	3131600	0 - 0.07	0025B - 0.96 ST RTE 25B	0.07	2	3	0	0	0	1	2	33.3	0.00442	226.25	454.21	0.00
Int of COLONIAL RD, MAIN ST																	
15063	15064	3105996	0 - 0.06	0025B - 1.03 ST RTE 25B	0.06	2	0	0	0	0	0	0.0	0.00360	0.00	478.77	0.00	
Int of COLONIAL RD, MAIN ST																	
15064	15065	3120687	0 - 0.05	0025B - 1.09 ST RTE 25B	0.05	2	4	0	0	0	1	3	25.0	0.00291	457.68	505.49	0.00
Int of DEER HILL AV MAIN ST WEBSTER AV																	
15065	15066	3120026	0 - 0.01	0025B - 1.14 ST RTE 25B	0.01	2	0	0	0	0	0	0.0	0.00058	0.00	743.37	0.00	
Int of MAIN ST MARRETT ST																	
15066	15067	3131601	0 - 0.04	0025B - 1.15 ST RTE 25B	0.04	2	7	0	0	0	3	4	42.9	0.00228	1022.57	538.54	1.90
Int of BERKELEY ST MAIN ST																	
15067	15068	3131602	0 - 0.01	0025B - 1.19 ST RTE 25B	0.01	2	0	0	0	0	0	0.0	0.00056	0.00	746.61	0.00	
Int of MAIN ST TOLMAN ST																	
15068	15069	3118907	0 - 0.06	0025B - 1.20 ST RTE 25B	0.06	2	2	0	0	0	1	1	50.0	0.00334	199.75	488.03	0.00
Int of MAIN ST WALTHAM ST																	
15069	15070	3105997	0 - 0.05	0025B - 1.26 ST RTE 25B	0.05	2	3	0	0	0	0	3	0.0	0.00277	361.30	512.24	0.00
Int of MAIN ST MASON ST																	
15070	15071	3123960	0 - 0.04	0025B - 1.31 ST RTE 25B	0.04	2	5	0	0	0	2	3	40.0	0.00248	672.45	527.12	1.28
Int of FOREST ST MAIN ST																	
15071	15072	3100212	0 - 0.04	0025B - 1.35 ST RTE 25B	0.04	2	4	0	0	0	1	3	25.0	0.00247	539.74	527.57	1.02
Int of MAIN ST STATE ST																	
15072	15073	3122932	0 - 0.02	0025B - 1.39 ST RTE 25B	0.02	2	0	0	0	0	0	0	0.0	0.00128	0.00	623.34	0.00
Int of LAMB ST MAIN ST																	
15073	60967	3129656	0 - 0.03	0025B - 1.41 ST RTE 25B	0.03	2	2	0	0	0	1	1	50.0	0.00105	633.54	654.10	0.00
Int of CUMBERLAND ST MAIN ST																	
60967	60968	3115357	0 - 0.06	0025B - 1.44 ST RTE 25B	0.06	2	7	0	0	1	1	5	28.6	0.00342	682.98	485.11	1.41
Int of CUMBERLAND ST RD INV 3200801																	

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	Injury Crashes				Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
									A	B	C	PD					
60968	15093	3139174	0 - 0.03	0025B - 1.50 ST RTE 25B	0.03	2	0	0	0	0	0	0.0	0.00131	0.00	620.30	0.00	
		Int of CUMBERLAND ST WARREN AV												Statewide Crash Rate: 186.45			
15093	15094	2094087	0 - 0.02	0025B - 1.53 ST RTE 25B	0.02	2	2	0	0	0	2	0.0	0.00121	549.15	632.01	0.00	
		Int of CUMBERLAND ST WARREN AV												Statewide Crash Rate: 186.45			
60970	15094	3123358	0 - 0.03	0025B - 1.55 ST RTE 25B	0.03	2	0	0	0	0	0	0.0	0.00091	0.00	676.09	0.00	
		Non Int HARNOLD AV												Statewide Crash Rate: 186.45			
60971	60970	3129657	0 - 0.03	0025B - 1.58 ST RTE 25B	0.03	2	1	0	0	0	1	0.0	0.00174	191.46	577.42	0.00	
		Int of HARNOLD AV RD INV 3200804												Statewide Crash Rate: 186.45			
15075	60971	3115358	0 - 0.04	0025B - 1.61 ST RTE 25B	0.04	2	0	0	0	0	0	0.0	0.00147	0.00	602.48	0.00	
		Int of HARNOLD AV MAIN ST												Statewide Crash Rate: 186.45			
15075	15076	2094089	0 - 0.03	0025B - 1.65 ST RTE 25B	0.03	2	2	0	0	0	1	50.0	0.00207	321.69	552.13	0.00	
		Int of HARNOLD AV MAIN ST												Statewide Crash Rate: 186.45			
15076	15077	3122238	0 - 0.07	0025B - 1.68 ST RTE 25B	0.07	2	7	0	0	0	2	4	0.00461	506.46	449.47	1.13	
		Int of MAIN ST, TRAMWAY LN												Statewide Crash Rate: 186.45			
15077	15078	3131603	0 - 0.05	0025B - 1.75 ST RTE 25B	0.05	2	4	0	0	0	4	0.0	0.00323	412.32	492.03	0.00	
		Int of MAIN ST ROCHESTER ST												Statewide Crash Rate: 186.45			
15078	15079	3118701	0 - 0.01	0025B - 1.80 ST RTE 25B	0.01	2	0	0	0	0	0	0.0	0.00064	0.00	728.29	0.00	
		Int of LOCUST ST MAIN ST												Statewide Crash Rate: 186.45			
15079	18553	3129951	0 - 0.07	0025B - 1.81 ST RTE 25B	0.07	2	1	0	0	0	0	1	0.00442	75.37	454.13	0.00	
		Int of HASKELL ST MAIN ST												Statewide Crash Rate: 186.45			
15080	18553	3117922	0 - 0.04	0025B - 1.88 ST RTE 25B	0.04	2	2	0	0	0	1	50.0	0.00216	309.15	546.48	0.00	
		Int of MAIN ST STEVENS AV												Statewide Crash Rate: 186.45			
15080	15081	3118702	0 - 0.03	0025B - 1.92 ST RTE 25B	0.03	2	3	0	0	0	3	0.0	0.00160	624.61	589.89	1.06	
		Int of MAIN ST STEVENS AV												Statewide Crash Rate: 186.45			
15081	15082	3122239	0 - 0.02	0025B - 1.95 ST RTE 25B	0.02	2	0	0	0	0	0	0.0	0.00106	0.00	652.28	0.00	
		Int of MAIN ST SCHOOL ST												Statewide Crash Rate: 186.45			
15082	17186	3120688	0 - 0.02	0025B - 1.97 ST RTE 25B	0.02	2	1	0	0	0	1	0	0.00105	316.68	654.06	0.00	
		Int of MAIN ST SPEIRS ST												Statewide Crash Rate: 186.45			
17185	17186	3131679	0 - 0.02	0025B - 1.99 ST RTE 25B	0.02	2	0	0	0	0	0	0.0	0.00106	0.00	653.40	0.00	
		Int of MAIN ST PARK DRIVE 1												Statewide Crash Rate: 186.45			
15083	17185	3123314	0 - 0.03	0025B - 2.01 ST RTE 25B	0.03	2	1	0	0	0	0	1	0.00158	211.43	592.19	0.00	
		Int of GILES ST, MAIN ST												Statewide Crash Rate: 186.45			
15083	17184	3131604	0 - 0.02	0025B - 2.04 ST RTE 25B	0.02	2	4	0	0	0	1	3	0.00105	1268.57	654.28	1.94	
		Int of GILES ST, MAIN ST												Statewide Crash Rate: 186.45			
60950	17184	3123758	0 - 0.01	0025B - 2.06 ST RTE 25B	0.01	2	0	0	0	0	0	0.0	0.00053	0.00	754.10	0.00	
		Int of MAIN ST RD INV 3200795												Statewide Crash Rate: 186.45			
17183	60950	3115353	0 - 0.07	0025B - 2.07 ST RTE 25B	0.07	2	1	0	0	0	0	1	0.00378	88.29	472.82	0.00	
		Int of DUNN ST MAIN ST												Statewide Crash Rate: 186.45			
17182	17183	3119265	0 - 0.10	0025B - 2.14 ST RTE 25B	0.10	2	4	0	0	1	0	2	0.00549	242.88	430.18	0.00	
		Int of MAIN ST STROUDWATER ST												Statewide Crash Rate: 186.45			

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Sections							Annual HMVM	Crash Rate	Critical Rate	CRF
						Crashes	K	A	B	C	PD	Injury				
17181	17182	3106583 Int of FOSTER ST MAIN ST	0 - 0.04	0025B - 2.24 ST RTE 25B	0.04	2	3	0	0	0	0	3	0.00241	415.61	531.19	0.00
17180	17181	3106582 Int of MAIN ST PLEASANT ST	0 - 0.03	0025B - 2.28 ST RTE 25B	0.03	2	1	0	0	0	0	1	0.00179	186.13	573.27	0.00
17179	17180	192947 Int of MAIN ST SPRING ST	0 - 0.05	0025B - 2.31 ST RTE 25B	0.05	2	9	0	0	1	0	8	0.00297	1008.61	502.78	2.01
60972	15075	3139176 Int of MAIN ST RD INV 3200804	0 - 0.03	0258E - 0 ST RTE 25BE	0.03	2	1	0	0	0	1	0	0.00097	344.36	667.00	0.00
15074	60972	3118446 Int of MAIN ST SEAVEY ST	0 - 0.11	0258E - 0.03 ST RTE 25BE	0.11	2	4	0	0	0	0	4	0.00588	226.62	422.88	0.00
60973	15074	3115360 Int of MAIN ST RD INV 3200801	0 - 0.04	0258E - 0.14 ST RTE 25BE	0.04	2	2	0	0	0	0	2	0.00204	326.39	554.20	0.00
15073	60973	3115359 Int of CUMBERLAND ST MAIN ST	0 - 0.04	0258E - 0.18 ST RTE 25BE	0.04	2	0	0	0	0	0	0	0.00117	0.00	637.97	0.00
60986	15062	3415795 Int of MAIN ST RD INV 3200810	0 - 0.04	0258E - 0.22 ST RTE 25BE	0.04	2	1	0	0	0	0	1	0.00114	291.92	641.47	0.00
15062	67674	3415849 Int of LARRABEE RD MAIN ST	0 - 0.02	0258E - 0.26 ST RTE 25BE	0.02	2	0	0	0	0	0	0	0.00032	0.00	801.51	0.00
67674	60984	3415850 Int of MAIN ST RD INV 3200809	0 - 0.03	0258E - 0.28 ST RTE 25BE	0.03	2	1	0	0	0	0	1	0.00067	495.14	721.57	0.00
60984	67668	3415772 Non Int MAIN ST	0 - 0.05	0258E - 0.31 ST RTE 25BE	0.05	2	2	0	0	0	1	1	0.00122	548.66	631.88	0.00
67668	67669	3415773 Non Int MAIN ST	0 - 0.06	0258E - 0.36 ST RTE 25BE	0.06	2	0	0	0	0	0	0	0.00135	0.00	615.77	0.00
67669	67672	3415775 Non Int MAIN ST	0 - 0.07	0258E - 0.42 ST RTE 25BE	0.07	2	0	0	0	0	0	0	0.00158	0.00	592.21	0.00
Study Years: 3.00					Section Totals:	2.37	119	0	4	3	27	84	28.6	344.95	244.89	1.41
Grand Totals:					2.37		352	0	7	14	73	257	26.7	1020.35	359.24	2.84

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree	
							A	B	C	PD				
15061	67669	3415739	0 - 0.07	0025B - 0.48	1	0	0	0	0	1	2011-7189	01/10/2011	0.53	PD
67669	67668	3415740	0 - 0.06	0025B - 0.55	0	0	0	0	0	0				
67668	60984	3415736	0 - 0.05	0025B - 0.61	0	0	0	0	0	0				
60984	15062	3139182	0 - 0.05	0025B - 0.66	0	0	0	0	0	0				
15062	60986	3139183	0 - 0.04	0025B - 0.71	2	0	0	0	0	2	2013-34757	12/28/2013	0.72	PD
											2012-45450	11/27/2012	0.72	PD
60986	18447	3119789	0 - 0.08	0025B - 0.75	20	0	3	1	6	10	2012-49362	12/31/2012	0.76	C
											2013-22770	09/09/2013	0.77	A
											2013-16559	06/17/2013	0.77	B
											2012-23267	02/08/2012	0.77	C
											2011-8781	08/24/2011	0.77	C
											2012-30068	06/08/2012	0.77	PD
											2013-32053	12/07/2013	0.77	PD
											2011-17682	12/03/2011	0.77	PD
											2013-17868	07/17/2013	0.77	PD
											2013-13614	05/30/2013	0.78	A
											2013-15881	07/01/2013	0.78	A
											2012-30552	06/02/2012	0.78	C
											2011-8065	08/12/2011	0.78	C
											2013-794	01/08/2013	0.78	PD
											2012-41258	10/02/2012	0.78	PD
											2012-27496	04/24/2012	0.78	PD
											2011-7545	03/17/2011	0.78	PD
											2012-51070	02/02/2012	0.78	PD
											2012-33295	07/23/2012	0.80	PD
											2012-24784	03/19/2012	0.82	C
18447	18449	3106663	0 - 0.13	0025B - 0.83	2	0	0	0	1	1	2011-23312	07/20/2011	0.85	PD
											2013-32848	12/15/2013	0.88	C
15063	18449	3131600	0 - 0.07	0025B - 0.96	3	0	0	0	1	2	2011-23742	07/18/2011	0.97	PD
											2011-11236	09/28/2011	0.97	PD
15063	15064	3105996	0 - 0.06	0025B - 1.03	0	0	0	0	0	0	2013-26503	10/22/2013	1.02	C

Crash Summary

Section Details

Start Node	End Node	Element	Offset		Route - MP	Total Crashes		Injury Crashes					Crash Report	Crash Date	Crash Mile Point	Injury Degree
			Begin	End		K	A	B	C	PD						
15064	15065	3120687	0 - 0.05	0025B - 1.09	4	0	0	0	1	3	2013-13644	06/06/2013	1.10	PD		
											2013-13643	05/28/2013	1.10	PD		
											2011-10032	09/12/2011	1.11	C		
											2012-25673	04/06/2012	1.12	PD		
15065	15066	3120026	0 - 0.01	0025B - 1.14	0	0	0	0	0	0	2011-18997	12/16/2011	1.16	PD		
15066	15067	3131601	0 - 0.04	0025B - 1.15	7	0	0	0	3	4	2011-18998	12/16/2011	1.16	PD		
15067	15068	3131602	0 - 0.01	0025B - 1.19	0	0	0	0	0	0	2012-29774	06/05/2012	1.16	PD		
											2012-41656	10/18/2012	1.17	C		
											2011-23305	07/07/2011	1.17	PD		
											2011-11124	09/07/2011	1.18	C		
											2012-36167	08/17/2012	1.18	C		
											2012-30593	05/24/2012	1.24	C		
15068	15069	3118907	0 - 0.06	0025B - 1.20	2	0	0	0	1	1	2011-23690	05/27/2011	1.25	PD		
15069	15070	3105997	0 - 0.05	0025B - 1.26	3	0	0	0	0	3	2012-23266	02/07/2012	1.27	PD		
15070	15071	3123960	0 - 0.04	0025B - 1.31	5	0	0	0	2	3	2011-7211	01/28/2011	1.28	PD		
											2011-7559	03/28/2011	1.30	PD		
											2013-23891	09/23/2013	1.32	PD		
											2012-51139	08/10/2012	1.32	PD		
											2011-5919	07/27/2011	1.33	C		
15071	15072	3100212	0 - 0.04	0025B - 1.35	4	0	0	0	1	3	2013-15699	06/27/2013	1.33	PD		
											2011-10285	09/16/2011	1.34	C		
											2012-26330	04/13/2012	1.36	PD		
											2012-42727	10/30/2012	1.37	C		
											2011-11937	04/28/2011	1.37	PD		
15072	15073	3122932	0 - 0.02	0025B - 1.39	0	0	0	0	0	0	2012-49346	12/28/2012	1.38	PD		
15073	60967	3129656	0 - 0.03	0025B - 1.41	2	0	0	0	1	1	2012-51082	01/06/2012	1.42	PD		
											2012-41253	09/26/2012	1.43	C		

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree	
							A	B	C	PD				
60967	60968	3115357	0 - 0.06	0025B - 1.44	7	0	0	1	1	5	2011-7528 2013-13681 2012-51110 2011-7307 2013-184 2013-26933 2013-12012	03/04/2011 06/05/2013 06/07/2012 02/04/2011 01/03/2013 10/25/2013 05/17/2013	1.45 1.47 1.47 1.48 1.48 1.48 1.49	PD PD PD C PD PD B
60968	15093	3139174	0 - 0.03	0025B - 1.50	0	0	0	0	0	0				
15093	15094	2094087	0 - 0.02	0025B - 1.53	2	0	0	0	0	2	2012-47977 2011-18999	12/08/2012 12/16/2011	1.54 1.54	PD PD
60970	15094	3123358	0 - 0.03	0025B - 1.55	0	0	0	0	0	0				
60971	60970	3129657	0 - 0.03	0025B - 1.58	1	0	0	0	0	1	2012-25672	04/06/2012	1.59	PD
15075	60971	3115358	0 - 0.04	0025B - 1.61	0	0	0	0	0	0				
15075	15076	2094089	0 - 0.03	0025B - 1.65	2	0	0	0	1	1	2012-27493 2013-27042	04/19/2012 10/30/2013	1.67 1.67	C PD
15076	15077	3122238	0 - 0.07	0025B - 1.68	7	0	0	0	2	4	2012-42419 2012-24828 2011-23177 2011-17434 2011-16569 2013-19165 2011-23290 2012-51217 2011-11910 2012-37090 2013-6164	10/27/2012 03/23/2012 06/04/2011 12/01/2011 11/25/2011 08/02/2013 06/14/2011 02/11/2012 04/08/2011 08/30/2012 03/04/2013	1.69 1.71 1.72 1.72 1.74 1.74 1.74 1.76 1.77 1.78 1.79	PD PD PD PD C C PD PD PD PD PD
15077	15078	3131603	0 - 0.05	0025B - 1.75	4	0	0	0	0	4				
15078	15079	3118701	0 - 0.01	0025B - 1.80	0	0	0	0	0	0				
15079	18553	3129951	0 - 0.07	0025B - 1.81	1	0	0	0	0	1	2011-22172	02/03/2011	1.82	PD
15080	18553	3117922	0 - 0.04	0025B - 1.88	2	0	0	0	1	1	2012-30587 2013-185	06/09/2012 01/04/2013	1.89 1.90	PD C
15080	15081	3118702	0 - 0.03	0025B - 1.92	3	0	0	0	0	3	2012-48566 2013-7019	12/12/2012 03/13/2013	1.93 1.94	PD PD
15081	15082	3122239	0 - 0.02	0025B - 1.95	0	0	0	0	0	0	2012-51222	12/07/2012	1.94	PD

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree	
						K	A	B	C					PD
15082	17186	3120688	0 - 0.02	0025B - 1.97	1	0	0	0	1	0	2012-33230	07/20/2012	1.98	C
17185	17186	3131679	0 - 0.02	0025B - 1.99	0	0	0	0	0	0				
15083	17185	3123314	0 - 0.03	0025B - 2.01	1	0	0	0	0	1	2011-5679	01/28/2011	2.02	PD
15083	17184	3131604	0 - 0.02	0025B - 2.04	4	0	0	0	1	3	2013-19273	08/05/2013	2.05	C
											2013-23145	09/13/2013	2.05	PD
											2012-51111	06/12/2012	2.05	PD
											2013-19057	08/05/2013	2.05	PD
60950	17184	3123758	0 - 0.01	0025B - 2.06	0	0	0	0	0	0				
17183	60950	3115353	0 - 0.07	0025B - 2.07	1	0	0	0	0	1	2013-16050	07/02/2013	2.10	PD
17182	17183	3119265	0 - 0.10	0025B - 2.14	4	0	1	0	1	2	2013-8163	03/27/2013	2.19	PD
											2011-6369	07/30/2011	2.22	A
											2012-41262	10/06/2012	2.22	C
											2013-31009	11/29/2013	2.22	PD
17181	17182	3106583	0 - 0.04	0025B - 2.24	3	0	0	0	0	3	2011-23323	05/02/2011	2.26	PD
											2012-35045	08/09/2012	2.27	PD
											2011-18995	11/22/2011	2.27	PD
17180	17181	3106582	0 - 0.03	0025B - 2.28	1	0	0	0	0	1	2012-51061	01/21/2012	2.30	PD
17179	17180	192947	0 - 0.05	0025B - 2.31	9	0	0	1	0	8	2012-51072	02/03/2012	2.32	PD
											2012-27498	04/27/2012	2.34	PD
											2012-31277	06/04/2012	2.35	B
											2012-51134	02/24/2012	2.35	PD
											2013-13130	05/23/2013	2.35	PD
											2012-25605	04/05/2012	2.35	PD
											2011-7218	01/31/2011	2.35	PD
											2012-32426	07/03/2012	2.35	PD
											2013-7440	03/20/2013	2.35	PD
60972	15075	3139176	0 - 0.03	025BE - 0	1	0	0	0	1	0	2011-8782	08/26/2011	0.02	C
15074	60972	3118446	0 - 0.11	025BE - 0.03	4	0	0	0	0	4	2013-26216	10/12/2013	0.06	PD
											2013-9411	04/15/2013	0.06	PD
											2012-38437	09/12/2012	0.06	PD
60973	15074	3115360	0 - 0.04	025BE - 0.14	2	0	0	0	0	2	2011-19051	12/17/2011	0.13	PD
											2013-22176	08/30/2013	0.15	PD
											2012-27824	05/03/2012	0.16	PD

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
15073	60973	3115359	0 - 0.04	025BE - 0.18	0	0	0	0	0	0				
60986	15062	3415795	0 - 0.04	025BE - 0.22	1	0	0	0	0	1	2012-51065	01/29/2012	0.25	PD
15062	67674	3415849	0 - 0.02	025BE - 0.26	0	0	0	0	0	0				
67674	60984	3415850	0 - 0.03	025BE - 0.28	1	0	0	0	0	1	2013-16988	07/09/2013	0.29	PD
60984	67668	3415772	0 - 0.05	025BE - 0.31	2	0	0	0	1	1	2013-10690	04/30/2013	0.34	C
											2011-10353	09/09/2011	0.34	PD
67668	67669	3415773	0 - 0.06	025BE - 0.36	0	0	0	0	0	0				
67669	67672	3415775	0 - 0.07	025BE - 0.42	0	0	0	0	0	0				
Totals:					119	0	4	3	27	84				

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	1	0	1	0	0	0	0	0	1	1	2	4	2	0	2	0	1	0	0	1	0	1	0	0	0	17
MONDAY	0	0	0	0	0	0	0	2	4	5	5	6	4	4	2	5	7	7	2	0	1	0	0	0	0	54
TUESDAY	0	0	0	0	0	1	3	4	4	2	1	5	5	6	8	5	5	4	3	2	1	0	0	0	0	55
WEDNESDAY	1	0	1	0	0	1	0	7	0	2	2	9	3	6	4	5	5	5	3	1	1	1	0	0	0	52
THURSDAY	0	0	0	0	0	2	3	5	6	3	3	9	6	6	6	10	6	6	2	0	1	1	0	0	0	69
FRIDAY	0	0	0	0	0	2	1	4	1	3	6	5	4	6	6	8	4	8	2	3	5	0	0	1	0	69
SATURDAY	0	0	0	0	0	0	0	1	2	5	3	4	4	3	2	3	0	4	2	1	0	0	2	0	0	36
Totals	2	0	2	0	0	2	5	13	24	22	22	29	37	28	32	35	28	34	14	8	9	3	2	1	0	352

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	452	23-Bicyclist	4
2-(Sport) Utility Vehicle	112	24-Witness	3
3-Passenger Van	12	25-Other	3
4-Cargo Van (10K lbs or Less)	13	Total	710
5-Pickup	82		
6-Motor Home	0		
7-School Bus	1		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	1		
11-Motorcycle	7		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	3		
17-Medium/Heavy Trucks (More than 10,000 lbs)	14		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	3		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	107	239	14	2	0	0	362
Ran Off Roadway	4	1	0	0	0	0	5
Failed to Yield Right-of-Way	51	14	1	0	0	0	66
Ran Red Light	1	0	0	0	0	0	1
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	1	0	0	0	0	0	1
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	4	1	0	0	0	0	5
Improper Turn	6	2	0	0	0	0	8
Improper Backing	4	0	0	0	0	0	4
Improper Passing	7	3	0	0	0	0	10
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	111	37	3	1	0	0	152
Failed to Keep in Proper Lane	3	1	0	0	0	0	4
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	6	1	0	0	0	0	7
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	0	0	0	0	0	1
Over-Correcting/Over-Steering	1	0	0	0	0	0	1
Other Contributing Action	29	7	1	0	0	0	37
Unknown	12	10	0	0	0	0	22
Total	348	316	19	3	0	0	686

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	335	318	19	3	0	0	675
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional/Depressed, Angry, Disturbed, etc.)	1	1	0	0	0	0	2
Ill (Sick)	0	1	0	0	0	0	1
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	5	3	0	0	0	0	8
Other	7	0	0	0	0	0	7
Total	348	323	19	3	0	0	693

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	57	0	0	0	0	57
20-24	84	0	0	0	0	84
25-29	80	0	0	0	0	80
30-39	118	0	0	0	0	118
40-49	119	0	0	0	0	119
50-59	113	0	0	0	0	113
60-69	78	0	0	0	0	78
70-79	33	0	0	0	0	33
80-Over	12	0	0	0	0	12
Unknown	6	4	0	3	0	13
Total	700	4	0	3	0	707

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	3	K	0	0
2-Fire / Explosion	0	39-Unknown	95	A	7	8
3-Immersion	0	40-Gate or Cable	0	B	14	19
4-Jackknife	0	41-Pressure Ridge	0	C	73	89
5-Cargo / Equipment Loss Or Shift	0	Total	697	PD	257	0
6-Fell / Jumped from Motor Vehicle	0			Total	351	116
7-Thrown or Falling Object	0					
8-Other Non-Collision	11					
9-Pedestrian	2					
10-Pedalcycle	2					
11-Railway Vehicle - Train, Engine	0					
12-Animal	0					
13-Motor Vehicle in Transport	562					
14-Parked Motor Vehicle	13					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	1					
17-Other Non-Fixed Object	5					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	1					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	0					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	2					
33-Traffic Sign Support	0					
34-Traffic Signal Support	0					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Traffic Control Devices			Road Character	
Traffic Control Device	Total		Road Grade	Total
1-Traffic Signals (Stop & Go)	84		1-Level	322
2-Traffic Signals (Flashing)	0		2-On Grade	30
3-Advisory/Warning Sign	0		3-Top of Hill	0
4-Stop Signs - All Approaches	5		4-Bottom of Hill	0
5-Stop Signs - Other	94		5-Other	0
6-Yield Sign	22		Total	352
7-Curve Warning Sign	0			
8-Officer, Flagman, School Patrol	3			
9-School Bus Stop Arm	1			
10-School Zone Sign	0			
11-R.R. Crossing Device	0			
12-No Passing Zone	0			
13-None	141			
14-Other	2			
Total	352			

Light		Light Condition	
	Total		Total
1-Daylight	298		
2-Dawn	1		
3-Dusk	10		
4-Dark - Lighted	42		
5-Dark - Not Lighted	1		
6-Dark - Unknown Lighting	0		
7-Unknown	0		
Total	352		

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	15	7	7	29
FEBRUARY	10	14	5	29
MARCH	6	9	9	24
APRIL	9	13	7	29
MAY	10	4	13	27
JUNE	10	16	6	32
JULY	9	13	9	31
AUGUST	10	9	11	30
SEPTEMBER	12	6	9	27
OCTOBER	7	13	10	30
NOVEMBER	10	10	9	29
DECEMBER	13	17	5	35
Total	121	131	100	352

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	65	0	145	46	0	13	0	0	0	0	0	0	1	270
Head-on / Sideswipe	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Intersection Movement	0	0	18	4	0	39	0	0	0	0	0	0	0	61
Pedestrians	2	0	0	0	0	1	0	0	0	0	0	0	0	3
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	3	0	8	0	0	0	0	0	0	0	0	0	0	11
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	1	1	0	0	2	0	0	0	0	0	0	0	4
Other	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	73	1	172	50	0	55	0	0	0	0	0	0	0	352

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	27	0	1	0	0	0	0	1	0	0	4	33
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	218	1	0	0	0	0	2	1	0	0	9	231
Dusk	6	0	0	0	0	0	1	0	0	0	1	8
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	2	0	0	0	0	0	0	0	1	0	0	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	28	0	0	0	0	0	0	0	0	0	6	34
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	4	4
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	21	21
Dusk	0	0	0	0	0	0	0	0	0	0	2	2
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	2	0	0	0	0	0	0	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	2	0	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	1	0	0	0	0	0	0	0	0	0	1
Daylight	0	0	0	0	0	0	2	5	0	0	3	10
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	282	4	1	0	0	0	5	9	1	0	0	352

Crash Summary I

Node			Nodes										CRF	
Node	Route - MP	Node Description	U/R	Total Crashes	K	A	B	C	PD	Injury	Percent Annual M Ent-Veh	Crash Rate	Critical Rate	
A60983	0590209 - 0.40	Int of LARRABEE RD RD INV 3200809	2	0	0	0	0	0	0	0	0.00	0.00	0.00	
15174	0590209 - 0.55	Int of LARRABEE RD TERMINAL ST	2	2	0	0	0	2	0	100.0	3.240	0.21	0.40	
14750	0590209 - 0.74	Int of LARRABEE RD SAUNDERS WY	2	1	0	0	0	0	1	0.0	3.379	0.10	0.39	
15169	0590209 - 0.81	Int of LARRABEE RD RD INV 3200413	2	0	0	0	0	0	0	0.0	3.072	0.00	0.40	
59833	0590209 - 0.91	Int of LARRABEE RD WESTBROOK ARTERIAL	9	15	0	0	0	3	12	20.0	7.094	0.70	1.08	
15175	0590209 - 0	TL Portland Westbrook	2	0	0	0	0	0	0	0.0	4.201	0.00	0.37	
14806	0590209 - 0.12	Int of DELTA DR LARRABEE RD	2	3	0	0	0	0	3	0.0	4.076	0.25	0.37	
A60985	0590209 - 0.34	Int of LARRABEE RD RD INV 3200810	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	
Study Years: 3.00			NODE TOTALS:											
			21	0	0	0	5	16	23.8	25.062	0.28	0.44	0.64	

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	UIR	Sections					Annual HMVM	Crash Rate	Critical Rate	CRF
							Total Crashes	K	A	B	C	PD	Percent Injury		
15062	60983	3508589	0 - 0.03	0590209 - 0.37 RD INV 05 90209	0.03	2	0	0	0	0	0	0	0.0	0.00015	0.00
Int of LARRABEE RD MAIN ST															
60983	15174	3119843	0 - 0.15	0590209 - 0.40 RD INV 05 90209	0.15	2	0	0	0	0	0	0	0.0	0.00422	0.00
Int of LARRABEE RD RD INV 3200809															
14750	15174	190040	0 - 0.19	0590209 - 0.55 RD INV 05 90209	0.19	2	0	0	0	0	0	0	0.0	0.00652	0.00
Int of LARRABEE RD SAUNDERS WY															
14750	15169	3119842	0 - 0.07	0590209 - 0.74 RD INV 05 90209	0.07	2	0	0	0	0	0	0	0.0	0.00213	0.00
Int of LARRABEE RD SAUNDERS WY															
15169	59833	3139396	0 - 0.10	0590209 - 0.81 RD INV 05 90209	0.10	2	0	0	0	0	0	0	0.0	0.00310	0.00
Int of LARRABEE RD RD INV 3200413															
14806	15175	3105765	0 - 0.12	0590209 - 0 RD INV 05 90209	0.12	2	1	0	0	0	0	1	0.0	0.00488	0.00
Int of DELTA DR LARRABEE RD															
14806	60985	3119788	0 - 0.22	0590209 - 0.12 RD INV 05 90209	0.22	2	3	0	0	0	1	2	33.3	0.00768	0.00
Int of DELTA DR LARRABEE RD															
60985	15062	3129658	0 - 0.03	0590209 - 0.34 RD INV 05 90209	0.03	2	0	0	0	0	0	0	0.0	0.00070	0.00
Int of LARRABEE RD RD INV 3200810															
Study Years: 3.00					Section Totals:	0.91	4	0	0	0	1	3	25.0	0.02938	0.15
Grand Totals:					0.91		25	0	0	0	6	19	24.0	0.02938	0.66

Crash Summary I

Node		Route - MP	Node Description		Nodes										CRF
U/R	Total Crashes	K	A	B	C	PD	Injury	Percent Annual M	Crash Rate	Critical Rate					
A60969	0590035 - 0.04	Int of CUMBERLAND ST	HARNOS AV	2	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00	
A60968	0025B - 1.50	Int of CUMBERLAND ST	WARREN AV	2	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00	
P15093	0025B - 1.53	Int of CUMBERLAND ST	WARREN AV	2	80	0	0	0	11	69	13.8	7.273	3.67	11.34*	
P15094	0025B - 1.55	Int of CUMBERLAND ST	HARNOS AV	2	7	0	0	1	1	5	28.6	8.972	0.26	0.31	
Study Years: 3.00				NODE TOTALS:											
				87	0	0	0	1	12	74	14.9	16.245	1.79	0.27	6.67

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes					Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
								K	A	B	C	PD					
15094	60969	3122833	0 - 0.04	0590035 - 0	0.04	2	0	0	0	0	0	0	0.0	0.00127	0.00	533.66	0.00
Int of CUMBERLAND ST HARNOLD AV																	
60968	15093	3139174	0 - 0.03	RD INV 05 90035	0.03	2	0	0	0	0	0	0	0.0	0.00131	0.00	620.30	0.00
Int of CUMBERLAND ST WARREN AV																	
15093	15094	2094087	0 - 0.02	0025B - 1.50	0.02	2	2	0	0	0	0	2	0.0	0.00121	549.15	632.01	0.00
Int of CUMBERLAND ST WARREN AV																	
ST RTE 25B																	
Statewide Crash Rate: 166.45																	
Section Totals:																	
Study Years: 3.00					0.09	2	0	0	0	0	0	2	0.0	0.00379	175.77	449.96	0.39
Grand Totals:																	
					0.09	89	0	0	0	1	12	76	14.6	0.00379	7821.86	631.99	12.38

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree	
							A	B	C	PD				
15094	60969	3122933	0 - 0.04	0590035 - 0	0	0	0	0	0	0				
60968	15093	3139174	0 - 0.03	0025B - 1.50	0	0	0	0	0	0				
15093	15094	2094087	0 - 0.02	0025B - 1.53	2	0	0	0	0	2	2012-47977	12/08/2012	1.54	
											2011-18999	12/16/2011	1.54	
Totals:					2	0	0	0	0	2				

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM											Un	Tot	
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10			11
SUNDAY	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
MONDAY	0	0	0	0	0	0	0	0	1	2	3	1	0	1	0	2	1	2	1	0	0	0	0	0	0	14
TUESDAY	0	0	0	0	0	0	0	1	1	1	0	1	2	2	3	2	1	1	1	1	0	0	0	0	0	17
WEDNESDAY	0	0	1	0	0	0	0	0	1	0	0	1	4	0	2	1	0	1	0	1	0	0	0	0	0	12
THURSDAY	0	0	0	0	0	0	0	1	2	2	0	0	3	4	2	3	2	0	1	0	0	0	0	0	0	20
FRIDAY	0	0	0	0	0	1	0	2	1	0	1	1	1	2	1	2	1	2	0	0	0	0	0	0	0	15
SATURDAY	0	0	0	0	0	0	0	1	1	0	0	1	1	0	1	1	0	1	0	0	0	0	0	0	0	7
Totals	0	0	1	0	0	1	0	5	8	5	5	6	11	9	10	11	5	7	3	2	0	0	0	0	0	89

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	105	23-Bicyclist	0
2-(Sport) Utility Vehicle	31	24-Witness	0
3-Passenger Van	7	25-Other	1
4-Cargo Van (10K lbs or Less)	4	Total	176
5-Pickup	22		
6-Motor Home	0		
7-School Bus	1		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	1		
17-Medium/Heavy Trucks (More than 10,000 lbs)	4		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	26	64	0	0	0	0	90
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	8	4	0	0	0	0	12
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	1	1	0	0	0	0	2
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	1	0	0	0	0	0	1
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	35	13	0	0	0	0	48
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	2	0	0	0	0	0	2
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	14	2	0	0	0	0	16
Unknown	2	2	0	0	0	0	4
Total	89	86	0	0	0	0	175

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	87	86	0	0	0	0	173
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional/(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	1	0	0	0	0	0	1
Other	1	0	0	0	0	0	1
Total	89	86	0	0	0	0	175

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	12	0	0	0	0	12
20-24	23	0	0	0	0	23
25-29	25	0	0	0	0	25
30-39	21	0	0	0	0	21
40-49	21	0	0	0	0	21
50-59	36	0	0	0	0	36
60-69	27	0	0	0	0	27
70-79	6	0	0	0	0	6
80-Over	4	0	0	0	0	4
Unknown	1	0	0	0	0	1
Total	176	0	0	0	0	176

Crash Summary II - Characteristics

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
1-Overturn / Rollover	0		
2-Fire / Explosion	0		
3-Immersion	0		
4-Jackknife	0		
5-Cargo / Equipment Loss Or Shift	0		
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	4		
9-Pedestrian	0		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	142		
14-Parked Motor Vehicle	2		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	1		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	1		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		
Total	176	Total	15

Road Character		Light	
Road Grade	Total	Light Condition	Total
1-Level	89	1-Daylight	79
2-On Grade	0	2-Dawn	1
3-Top of Hill	0	3-Dusk	2
4-Bottom of Hill	0	4-Dark - Lighted	7
5-Other	0	5-Dark - Not Lighted	0
Total	89	6-Dark - Unknown Lighting	0
		7-Unknown	0
		Total	89

Traffic Control Devices		Severity Code	
Traffic Control Device	Total	Severity Code	Number Of Injuries
1-Traffic Signals (Stop & Go)	0		
2-Traffic Signals (Flashing)	0		
3-Advisory/Warning Sign	0		
4-Stop Signs - All Approaches	5		
5-Stop Signs - Other	64		
6-Yield Sign	11		
7-Curve Warning Sign	0		
8-Officer, Flagman, School Patrol	0		
9-School Bus Stop Arm	0		
10-School Zone Sign	0		
11-R. R. Crossing Device	0		
12-No Passing Zone	0		
13-None	9		
14-Other	0		
Total	89	Total	15

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	6	2	1	9
FEBRUARY	2	3	2	7
MARCH	3	2	2	7
APRIL	4	3	4	11
MAY	4	0	4	8
JUNE	5	3	1	9
JULY	1	1	3	5
AUGUST	4	1	0	5
SEPTEMBER	2	2	1	5
OCTOBER	0	5	0	5
NOVEMBER	2	5	3	10
DECEMBER	1	7	0	8
Total	34	34	21	89

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics**Crashes by Crash Type and Type of Location**

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	1	0	82	0	0	1	0	0	0	0	0	0	0	84
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	2	0	0	1	0	0	0	0	0	0	0	3
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	2	0	0	0	0	0	0	0	0	0	0	2
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	86	0	0	2	0	0	0	0	0	0	0	89

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	3	0	0	0	0	0	0	0	0	0	2	5
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	58	0	0	0	0	0	0	0	0	0	2	60
Dusk	2	0	0	0	0	0	0	0	0	0	0	2
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	1	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	8	0	0	0	0	0	0	0	0	0	1	9
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	7	7
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	1	0	0	0	0	0	0	0	0	0	1
Daylight	0	0	0	0	0	0	1	1	0	0	1	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	71	1	0	0	0	0	1	2	1	0	0	89

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Westbrook section 4

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0590209

Start Node: 15062
End Node: 59833

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☐ Exclude Last Node

Route: 0590209

Start Node: 15175
End Node: 15062

Start Offset: 0
End Offset: 0

☐ Exclude First Node
☒ Exclude Last Node

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree	
							A	B	C	PD				
15062	60983	3508589	0 - 0.03	0590209 - 0.37	0	0	0	0	0	0				
60983	15174	3119843	0 - 0.15	0590209 - 0.40	0	0	0	0	0	0				
14750	15174	190040	0 - 0.19	0590209 - 0.55	0	0	0	0	0	0				
14750	15169	3119842	0 - 0.07	0590209 - 0.74	0	0	0	0	0	0				
15169	59833	3139396	0 - 0.10	0590209 - 0.81	0	0	0	0	0	0				
14806	15175	3105765	0 - 0.12	0590209 - 0	1	0	0	0	0	1	2011-7197	01/18/2011	0.07	PD
14806	60985	3119788	0 - 0.22	0590209 - 0.12	3	0	0	0	1	2	2013-9227	04/12/2013	0.17	PD
											2012-42679	10/25/2012	0.21	C
											2013-25887	10/18/2013	0.30	PD
60985	15062	3129658	0 - 0.03	0590209 - 0.34	0	0	0	0	0	0				
Totals:					4	0	0	0	1	3				

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM											Un	Tot	
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10			11
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	3
TUESDAY	0	0	0	0	0	0	1	0	0	1	0	1	1	1	0	0	0	0	2	1	0	0	0	0	0	8
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2
FRIDAY	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	5
SATURDAY	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Totals	0	0	0	0	0	0	1	0	0	3	2	5	4	2	0	0	2	1	2	3	0	0	0	0	0	25

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	31	23-Bicyclist	0
2-(Sport) Utility Vehicle	11	24-Witness	0
3-Passenger Van	0	25-Other	0
4-Cargo Van (10K lbs or Less)	0	Total	49
5-Pickup	4		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	3		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	6	19	1	0	0	0	26
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	4	0	0	0	0	0	4
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	1	0	0	0	0	0	1
Improper Turn	1	0	0	0	0	0	1
Improper Backing	0	0	0	0	0	0	0
Improper Passing	2	0	0	0	0	0	2
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	8	2	0	0	0	0	10
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	1	0	0	0	0	1
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	1	0	0	0	0	0	1
Unknown	2	1	0	0	0	0	3
Total	25	23	1	0	0	0	49

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	25	22	1	0	0	0	48
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	1	0	0	0	0	1
Total	25	23	1	0	0	0	49

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	8	0	0	0	0	8
20-24	7	0	0	0	0	7
25-29	6	0	0	0	0	6
30-39	8	0	0	0	0	8
40-49	7	0	0	0	0	7
50-59	12	0	0	0	0	12
60-69	0	0	0	0	0	0
70-79	0	0	0	0	0	0
80-Over	1	0	0	0	0	1
Unknown	0	0	0	0	0	0
Total	49	0	0	0	0	49

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0	K	0	0
2-Fire / Explosion	0	39-Unknown	4	A	0	0
3-Immersion	0	40-Gate or Cable	0	B	0	0
4-Jackknife	0	41-Pressure Ridge	0	C	6	6
5-Cargo / Equipment Loss Or Shift	2	Total	49	PD	19	0
6-Fell / Jumped from Motor Vehicle	0			Total	25	6
7-Thrown or Falling Object	0					
8-Other Non-Collision	0					
9-Pedestrian	0					
10-Pedalcycle	0					
11-Railway Vehicle - Train, Engine	0					
12-Animal	0					
13-Motor Vehicle in Transport	39					
14-Parked Motor Vehicle	0					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	2					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	0					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	1					
33-Traffic Sign Support	1					
34-Traffic Signal Support	0					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Traffic Control Devices			Road Character		Total
Traffic Control Device	Total	Road Grade	Total		
1-Traffic Signals (Stop & Go)	15	1-Level	25		
2-Traffic Signals (Flashing)	0	2-On Grade	0		
3-Advisory/Warning Sign	0	3-Top of Hill	0		
4-Stop Signs - All Approaches	0	4-Bottom of Hill	0		
5-Stop Signs - Other	4	5-Other	0		
6-Yield Sign	0	Total	25		
7-Curve Warning Sign	0				
8-Officer, Flagman, School Patrol	0				
9-School Bus Stop Arm	0				
10-School Zone Sign	0				
11-R.R. Crossing Device	0				
12-No Passing Zone	0				
13-None	6				
14-Other	0				
Total	25				

Light		Total
Light Condition		
1-Daylight	19	19
2-Dawn	0	0
3-Dusk	1	1
4-Dark - Lighted	3	3
5-Dark - Not Lighted	2	2
6-Dark - Unknown Lighting	0	0
7-Unknown	0	0
Total	25	25

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	2	1	0	3
FEBRUARY	1	1	1	3
MARCH	1	0	1	2
APRIL	0	1	2	3
MAY	0	0	0	0
JUNE	0	0	1	1
JULY	0	1	0	1
AUGUST	1	0	2	3
SEPTEMBER	0	2	0	2
OCTOBER	1	1	2	4
NOVEMBER	1	0	0	1
DECEMBER	0	1	1	2
Total	7	8	10	25

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	0	0	12	1	0	3	0	0	0	0	0	0	0	16
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	3	0	0	3	0	0	0	0	0	0	0	6
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	2	0	0	0	0	0	0	0	0	0	0	2
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	18	1	0	6	0	0	0	0	0	0	0	25

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	11	0	0	0	0	0	0	0	0	0	0	11
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	2	0	0	0	0	0	0	0	0	0	3	5
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	2	0	0	1	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	16	0	0	0	0	0	0	3	0	0	0	25

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Portland section 1

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0025X

Start Node: 12694

End Node: 13042

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☐ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes																		
Node	Route - MP	Node Description	U/R	Crashes		Injury Crashes					Percent Annual M		Crash Rate	Critical Rate	CRF			
				Total	K	A	B	C	PD	Injury	Ent-Veh							
12694	0025X - 0.72	Int of BRIGHTON AV DEERING AV FALMOUTH ST	9	17	0	0	1	5	11	35.3	6,507	0.87	1.09	0.00				
12696	0025X - 0.78	Int of BRIGHTON AV WOODMONT ST	2	0	0	0	0	0	0	0.0	4,250	0.00	0.33	0.00				
12762	0025X - 0.84	Int of BRIGHTON AV KENWOOD ST	2	0	0	0	0	0	0	0.0	4,218	0.00	0.33	0.00				
12680	0025X - 0.86	Int of BRIGHTON AV, PITT ST	2	0	0	0	0	0	0	0.0	4,296	0.00	0.33	0.00				
12764	0025X - 0.89	Int of BRIGHTON AV SHEFFIELD ST	2	0	0	0	0	0	0	0.0	4,357	0.00	0.33	0.00				
12687	0025X - 0.93	Int of BRIGHTON AV WILLIAM ST	2	2	0	0	0	0	2	0.0	4,740	0.14	0.32	0.00				
12740	0025X - 0.95	Int of BRIGHTON AV CATHERINE ST	2	0	0	0	0	0	0	0.0	4,556	0.00	0.32	0.00				
12691	0025X - 1	Int of BRIGHTON AV, DARTMOUTH ST	9	14	0	0	2	5	7	50.0	5,224	0.89	1.14	0.00				
12700	0025X - 1.05	Int of BRIGHTON AV DEVONSHIRE ST NOYES ST ST JOH	9	22	0	0	0	6	16	27.3	7,921	0.93	1.06	0.00				
17636	0025X - 1.10	Non Int BRIGHTON AV	2	0	0	0	0	0	0	0.0	3,416	0.00	0.35	0.00				
12877	0025X - 1.11	Int of BRIGHTON AV DOUGLASS ST	2	9	0	0	0	4	5	44.4	7,075	0.42	0.29	1.46				
12779	0025X - 1.13	Int of BRIGHTON AV, ST GEORGE ST	2	0	0	0	0	0	0	0.0	6,558	0.00	0.30	0.00				
12878	0025X - 1.16	Int of BRIGHTON AV MASSACHUSETTS AV	2	2	0	0	1	1	0	100.0	6,583	0.10	0.30	0.00				
P12782	0025X - 1.19	Int of BEACON ST, BRIGHTON AV	2	5	0	0	1	2	2	60.0	6,593	0.25	0.30	0.00				
A12883	0025X - 1.21	Int of BOLTON ST BRIGHTON AV	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00				
A12884	0025X - 1.26	Int of BRIGHTON AV WHITNEY AV	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00				
P12776	0025X - 1.27	Int of BRIGHTON AV ORLAND ST	2	2	0	0	0	1	1	50.0	6,527	0.10	0.30	0.00				
P12775	0025X - 1.30	Int of BRIGHTON AV, DEBLOIS ST	2	3	0	0	1	1	1	66.7	6,365	0.16	0.30	0.00				
A12891	0025X - 1.31	Int of BRIGHTON AV FRANCES ST	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00				
P12783	0025X - 1.35	Int of BRIGHTON AV, HIGHLAND ST	2	4	0	0	0	3	1	75.0	6,685	0.20	0.29	0.00				
A12892	0025X - 1.36	Int of BRIGHTON AV EDWARDS ST	2	0	0	0	0	0	0	0.0	0,000	0.00	0.00	0.00				
12898	0025X - 1.42	0503311 POR,BRIGHTON AVE,CRAIGIE ST.	2	2	0	0	0	1	1	50.0	6,581	0.10	0.30	0.00				

Crash Summary I

Nodes																	
Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes				Percent Annual M				Crash Rate	Critical Rate	CRF		
					K	A	B	C	PD	Injury	Ent-Veh						
P12899	0025X - 1.48	Int of BRIGHTON AV, CALEB ST	2	1	0	0	0	0	1	0.0	6.568	Statewide Crash Rate: 0.12	0.05	0.30	0.00		
A12904	0025X - 1.50	Int of BRIGHTON AV, HOLLIS RD	2	0	0	0	0	0	0	0.0	0.000	Statewide Crash Rate: 0.12	0.00	0.00	0.00		
12903	0025X - 1.54	Int of BRADLEY ST, BRIGHTON AV	2	0	0	0	0	0	0	0.0	6.465	Statewide Crash Rate: 0.12	0.00	0.30	0.00		
12928	0025X - 1.64	Int of BRIGHTON AV, STEVENS AV	9	35	0	0	2	14	19	45.7	9.749	Statewide Crash Rate: 0.65	1.20	1.02	1.18		
12801	0025X - 1.71	Int of BELFIELD ST, BRIGHTON AV	2	1	0	0	0	0	1	0.0	5.717	Statewide Crash Rate: 0.12	0.06	0.31	0.00		
12992	0025X - 1.76	Int of BRIGHTON AV, MOTLEY ST	2	2	0	0	0	1	1	50.0	5.746	Statewide Crash Rate: 0.12	0.12	0.31	0.00		
12994	0025X - 1.81	Int of BRIGHTON AV, KENILWORTH ST	2	1	0	0	0	1	0	100.0	5.817	Statewide Crash Rate: 0.12	0.06	0.30	0.00		
12871	0025X - 1.84	Int of BRIGHTON AV, FELLOWS ST	2	0	0	0	0	0	0	0.0	5.859	Statewide Crash Rate: 0.12	0.00	0.30	0.00		
12973	0025X - 1.86	Int of BANCROFT ST, BRIGHTON AV	2	1	0	0	0	1	0	100.0	5.860	Statewide Crash Rate: 0.12	0.06	0.30	0.00		
12991	0025X - 1.91	Int of BRIGHTON AV, WOLCOTT ST	2	2	0	0	0	0	2	0.0	5.735	Statewide Crash Rate: 0.12	0.12	0.31	0.00		
12874	0025X - 1.93	Int of BRIGHTON AV, MONDTROSE AV	2	1	0	0	0	0	1	0.0	5.669	Statewide Crash Rate: 0.12	0.06	0.31	0.00		
12980	0025X - 1.96	Int of BRIGHTON AV, FLEETWOOD ST	2	1	0	0	1	0	0	100.0	5.708	Statewide Crash Rate: 0.12	0.06	0.31	0.00		
63716	0025X - 1.98	Non-Int BRIGHTON AV	2	1	0	0	0	1	0	100.0	5.693	Statewide Crash Rate: 0.12	0.06	0.31	0.00		
12868	0025X - 2.01	Int of BRIGHTON AV, COLONIAL RD, COLUMBIA RD, WOOLFORD RD	9	18	0	1	0	6	11	38.9	8.406	Statewide Crash Rate: 0.65	0.71	1.04	0.00		
12981	0025X - 2.06	Int of BRIGHTON AV, HASTINGS ST	2	3	0	0	0	1	2	33.3	7.908	Statewide Crash Rate: 0.12	0.13	0.28	0.00		
13010	0025X - 2.08	Int of BRIGHTON AV, WESTMINSTER AV	2	0	0	0	0	0	0	0.0	8.385	Statewide Crash Rate: 0.12	0.00	0.28	0.00		
12984	0025X - 2.11	Int of BRIGHTON AV, MACHIGONNE ST	2	0	0	0	0	0	0	0.0	8.354	Statewide Crash Rate: 0.12	0.00	0.28	0.00		
13012	0025X - 2.13	Int of BRIGHTON AV, EDGEWORTH AV	2	1	0	0	0	0	1	0.0	8.294	Statewide Crash Rate: 0.12	0.04	0.28	0.00		
13013	0025X - 2.18	Int of BRIGHTON AV, JEANNE ST	2	1	0	0	0	0	1	0.0	8.409	Statewide Crash Rate: 0.12	0.04	0.28	0.00		
13055	0025X - 2.34	Int of BRIGHTON AV, WAYSIDE RD	2	0	0	0	0	0	0	0.0	8.189	Statewide Crash Rate: 0.12	0.00	0.28	0.00		
13023	0025X - 2.36	Int of BRIGHTON AV, LUCAS ST	2	2	0	0	0	2	0	100.0	7.482	Statewide Crash Rate: 0.12	0.09	0.29	0.00		
13038	0025X - 2.43	Int of BRIGHTON AV, MAYER RD	2	2	0	0	0	0	2	0.0	7.089	Statewide Crash Rate: 0.12	0.09	0.29	0.00		

Crash Summary I

Nodes																	
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury Crashes			Percent Annual M			Crash Rate	Critical Rate	CRF			
						A	B	C	PD	Injury	Ent-Veh						
13066	0025X - 2.53	Int of BRIGHTON AV HARMON RD	2	1	0	0	0	0	1	0.0	7.061	Statewide Crash Rate: 0.05	0.29	0.12	0.00		
13035	0025X - 2.55	Int of ALBION ST, BRIGHTON AV	2	0	0	0	0	0	0	0.0	7.030	Statewide Crash Rate: 0.00	0.29	0.12	0.00		
13070	0025X - 2.59	Int of BRIGHTON AV RAYMOND RD	2	0	0	0	0	0	0	0.0	6.980	Statewide Crash Rate: 0.00	0.29	0.12	0.00		
13073	0025X - 2.64	Int of BRIGHTON AV DENNETT ST	2	1	0	0	0	0	1	0.0	7.119	Statewide Crash Rate: 0.05	0.29	0.12	0.00		
13083	0025X - 2.67	Int of BRIGHTON AV ESSEX ST	2	3	0	0	0	2	1	66.7	7.049	Statewide Crash Rate: 0.14	0.29	0.12	0.00		
A13086	0025X - 2.70	Int of BRIGHTON AV KENT ST	2	0	0	0	0	0	0	0.0	0.000	Statewide Crash Rate: 0.00	0.00	0.12	0.00		
P13042	0025X - 2.71	Int of BRIGHTON AV CAPIRIC ST HILCREST AV	9	16	0	0	1	4	11	31.3	9.340	Statewide Crash Rate: 0.57	1.02	0.65	0.00		
Study Years: 3.00			NODE TOTALS:				176	0	1	10	62	103	41.5	294.133	0.20	0.24	0.82

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Sections					Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
						Total Crashes	K	A	B	C	PD				
12694	12696	3103820	0 - 0.06	0025X - 0.72 Int of BRIGHTON AV, DEERING AV, FALMOUTH ST, RTE 25	0.06	2	0	0	0	0	0	0.00252	0.00	495.43	0.00
12696	12762	3106206	0 - 0.06	0025X - 0.78 Int of BRIGHTON AV, WOODMONT ST, RTE 25	0.06	2	2	0	0	0	2	0.00253	264.02	495.01	0.00
12680	12762	3130187	0 - 0.02	0025X - 0.84 Int of BRIGHTON AV, PITT ST, RTE 25	0.02	2	1	0	0	1	0	0.00083	402.63	649.77	0.00
12680	12764	3106204	0 - 0.03	0025X - 0.86 Int of BRIGHTON AV, PITT ST, RTE 25	0.03	2	1	0	0	0	1	0.00129	258.75	587.09	0.00
12687	12764	3106205	0 - 0.04	0025X - 0.89 Int of BRIGHTON AV, WILLIAM ST, RTE 25	0.04	2	1	0	0	1	0	0.00174	191.74	544.88	0.00
12687	12740	3122181	0 - 0.02	0025X - 0.93 Int of BRIGHTON AV, WILLIAM ST, RTE 25	0.02	2	0	0	0	0	0	0.00091	0.00	636.84	0.00
12691	12740	3119189	0 - 0.05	0025X - 0.95 Int of BRIGHTON AV, DARTMOUTH ST, RTE 25	0.05	2	1	0	0	0	1	0.00226	147.18	509.14	0.00
12691	12700	3130035	0 - 0.05	0025X - 1 Int of BRIGHTON AV, DARTMOUTH ST, RTE 25	0.05	2	3	0	0	0	3	0.00247	404.63	497.77	0.00
12700	17636	3119190	0 - 0.05	0025X - 1.05 Int of BRIGHTON AV, DEVONSHIRE ST, NOYES ST, JOHN ST	0.05	2	5	0	0	0	5	0.00342	487.84	457.71	1.07
12877	17636	3120021	0 - 0.01	0025X - 1.10 Int of BRIGHTON AV, DOUGLASS ST, RTE 25	0.01	2	0	0	0	0	0	0.00068	0.00	675.54	0.00
12779	12877	3120098	0 - 0.02	0025X - 1.11 Int of BRIGHTON AV, ST GEORGE ST, RTE 25	0.02	2	0	0	0	0	0	0.00130	0.00	585.51	0.00
12779	12878	3129250	0 - 0.03	0025X - 1.13 Int of BRIGHTON AV, ST GEORGE ST, RTE 25	0.03	2	2	0	0	1	1	0.00195	342.06	529.22	0.00
12782	12878	3131537	0 - 0.03	0025X - 1.16 Int of BEACON ST, BRIGHTON AV, RTE 25	0.03	2	0	0	0	0	0	0.00194	0.00	530.18	0.00
12782	12883	3120099	0 - 0.02	0025X - 1.19 Int of BEACON ST, BRIGHTON AV, RTE 25	0.02	2	1	0	0	0	1	0.00127	261.67	588.70	0.00
12883	12884	3123616	0 - 0.05	0025X - 1.21 Int of BOLTON ST, BRIGHTON AV, RTE 25	0.05	2	1	0	0	1	0	0.00316	105.44	466.99	0.00
12776	12884	3122184	0 - 0.01	0025X - 1.26 Int of BRIGHTON AV, ORLAND ST, RTE 25	0.01	2	0	0	0	0	0	0.00064	0.00	684.12	0.00
12775	12776	3106212	0 - 0.03	0025X - 1.27 Int of BRIGHTON AV, DEBLOIS ST, RTE 25	0.03	2	0	0	0	0	0	0.00189	0.00	533.24	0.00
12775	12891	3123710	0 - 0.01	0025X - 1.30 Int of BRIGHTON AV, DEBLOIS ST, RTE 25	0.01	2	0	0	0	0	0	0.00062	0.00	687.51	0.00
12783	12891	3123925	0 - 0.04	0025X - 1.31 Int of BRIGHTON AV, HIGHLAND ST, RTE 25	0.04	2	0	0	0	0	0	0.00248	0.00	497.39	0.00

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Injury	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
12783	12892	3131538	0 - 0.01	0025X - 1.35 ST RTE 25	0.01	2	0	0	0	0	0	0	0.0	0.00065	0.00	681.35	0.00
		Int of BRIGHTON AV, HIGHLAND ST													Statewide Crash Rate: 172.40		
12892	12898	187491	0 - 0.06	0025X - 1.36 ST RTE 25	0.06	2	3	0	0	1	2	33.3	33.3	0.00390	256.30	442.31	0.00
		Int of BRIGHTON AV, EDWARDS ST													Statewide Crash Rate: 172.40		
12898	12899	187501	0 - 0.06	0025X - 1.42 ST RTE 25	0.06	2	7	0	0	3	4	42.9	42.9	0.00388	600.93	442.86	1.36
		0503311 POR, BRIGHTON AVE, CRAIGIE ST													Statewide Crash Rate: 172.40		
12899	12904	3131543	0 - 0.02	0025X - 1.48 ST RTE 25	0.02	2	0	0	0	0	0	0.0	0.0	0.00128	0.00	588.40	0.00
		Int of BRIGHTON AV, CALEB ST													Statewide Crash Rate: 172.40		
12903	12904	3106229	0 - 0.04	0025X - 1.50 ST RTE 25	0.04	2	1	0	0	1	0	100.0	100.0	0.00255	130.72	493.75	0.00
		Int of BRADLEY ST, BRIGHTON AV													Statewide Crash Rate: 172.40		
12903	12928	3131544	0 - 0.10	0025X - 1.54 ST RTE 25	0.10	2	8	0	0	1	7	12.5	12.5	0.00635	420.12	391.25	1.07
		Int of BRADLEY ST, BRIGHTON AV													Statewide Crash Rate: 172.40		
12801	12928	3119193	0 - 0.07	0025X - 1.64 ST RTE 25	0.07	2	2	0	0	0	2	0.0	0.0	0.00396	168.34	440.62	0.00
		Int of BELFIELD ST, BRIGHTON AV													Statewide Crash Rate: 172.40		
12801	12992	3106217	0 - 0.05	0025X - 1.71 ST RTE 25	0.05	2	3	0	0	2	1	66.7	66.7	0.00286	349.81	479.33	0.00
		Int of BELFIELD ST, BRIGHTON AV													Statewide Crash Rate: 172.40		
12992	12994	3106235	0 - 0.05	0025X - 1.76 ST RTE 25	0.05	2	2	0	0	1	1	100.0	100.0	0.00287	232.07	478.72	0.00
		Int of BRIGHTON AV, MOTLEY ST													Statewide Crash Rate: 172.40		
12871	12994	3118691	0 - 0.03	0025X - 1.81 ST RTE 25	0.03	2	0	0	0	0	0	0.0	0.0	0.00174	0.00	544.63	0.00
		Int of BRIGHTON AV, FELLOWS ST													Statewide Crash Rate: 172.40		
12871	12973	3106221	0 - 0.02	0025X - 1.84 ST RTE 25	0.02	2	0	0	0	0	0	0.0	0.0	0.00117	0.00	601.46	0.00
		Int of BRIGHTON AV, FELLOWS ST													Statewide Crash Rate: 172.40		
12973	12991	3106233	0 - 0.05	0025X - 1.86 ST RTE 25	0.05	2	4	0	0	2	2	50.0	50.0	0.00284	469.32	480.10	0.00
		Int of BANCROFT ST, BRIGHTON AV													Statewide Crash Rate: 172.40		
12874	12991	3106223	0 - 0.02	0025X - 1.91 ST RTE 25	0.02	2	0	0	0	0	0	0.0	0.0	0.00112	0.00	607.49	0.00
		Int of BRIGHTON AV, MONDROSE AV													Statewide Crash Rate: 172.40		
12874	12980	3106222	0 - 0.03	0025X - 1.93 ST RTE 25	0.03	2	1	0	0	0	1	0.0	0.0	0.00170	196.37	548.19	0.00
		Int of BRIGHTON AV, MONDROSE AV													Statewide Crash Rate: 172.40		
63716	12980	3121500	0 - 0.02	0025X - 1.96 ST RTE 25	0.02	2	3	0	0	0	3	0.0	0.0	0.00114	878.00	604.70	1.45
		Non-Int BRIGHTON AV													Statewide Crash Rate: 172.40		
12868	63716	3116181	0 - 0.03	0025X - 1.98 ST RTE 25	0.03	2	0	0	0	0	0	0.0	0.0	0.00085	0.00	645.35	0.00
		Int of BRIGHTON AV, COLONIAL RD, COLUMBIA RD, WOODFORD ST													Statewide Crash Rate: 172.40		
12868	12981	3123682	0 - 0.05	0025X - 2.01 ST RTE 25	0.05	2	3	0	0	0	3	0.0	0.0	0.00368	271.80	449.04	0.00
		Int of BRIGHTON AV, COLONIAL RD, COLUMBIA RD, WOODFORD ST													Statewide Crash Rate: 172.40		
12981	13010	3131547	0 - 0.02	0025X - 2.06 ST RTE 25	0.02	2	1	0	0	0	1	0.0	0.0	0.00167	199.46	550.36	0.00
		Int of BRIGHTON AV, HASTINGS ST													Statewide Crash Rate: 172.40		
12984	13010	3106234	0 - 0.03	0025X - 2.08 ST RTE 25	0.03	2	1	0	0	0	1	0.0	0.0	0.00250	133.32	496.28	0.00
		Int of BRIGHTON AV, MACHIGONNE ST													Statewide Crash Rate: 172.40		

Page 7 of 19 on 4/3/2015, 9:58 AM

Crash Summary

Section Details													
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C				
12694	12696	3103820	0 - 0.06	0025X - 0.72	0	0	0	0	0	2012-27334	05/01/2012	0.80	PD
12696	12762	3106206	0 - 0.06	0025X - 0.78	2	0	0	0	0	2013-27312	11/03/2013	0.80	PD
12680	12762	3130187	0 - 0.02	0025X - 0.84	1	0	0	0	1	2012-40012	10/02/2012	0.85	C
12680	12764	3106204	0 - 0.03	0025X - 0.86	1	0	0	0	0	2012-39859	10/01/2012	0.88	PD
12687	12764	3106205	0 - 0.04	0025X - 0.89	1	0	0	0	1	2013-26818	10/29/2013	0.92	C
12687	12740	3122181	0 - 0.02	0025X - 0.93	0	0	0	0	0	2012-41748	10/22/2012	0.97	PD
12691	12740	3119189	0 - 0.05	0025X - 0.95	1	0	0	0	0	2013-15810	07/01/2013	1.03	PD
12691	12700	3130035	0 - 0.05	0025X - 1	3	0	0	0	0	2011-13050	10/19/2011	1.03	PD
12700	17636	3119190	0 - 0.05	0025X - 1.05	5	0	0	0	0	2013-15202	06/24/2013	1.03	PD
12700	17636	3119190	0 - 0.05	0025X - 1.05	5	0	0	0	0	2013-11833	05/16/2013	1.06	PD
12700	17636	3119190	0 - 0.05	0025X - 1.05	5	0	0	0	0	2013-15287	06/25/2013	1.06	PD
12877	17636	3120021	0 - 0.01	0025X - 1.10	0	0	0	0	0	2011-2916C	02/04/2011	1.06	PD
12779	12877	3120098	0 - 0.02	0025X - 1.11	0	0	0	0	0	2013-2823	02/01/2013	1.08	PD
12779	12878	3129250	0 - 0.03	0025X - 1.13	2	0	0	0	1	2013-19380	08/08/2013	1.08	PD
12877	17636	3120021	0 - 0.01	0025X - 1.10	0	0	0	0	0	2012-3220	02/08/2012	1.14	C
12779	12878	3129250	0 - 0.03	0025X - 1.13	2	0	0	0	1	2013-21872	08/27/2013	1.15	PD
12782	12878	3131537	0 - 0.03	0025X - 1.16	0	0	0	0	0	2013-33651	12/19/2013	1.20	PD
12782	12883	3120099	0 - 0.02	0025X - 1.19	1	0	0	0	0	2011-10864	09/22/2011	1.22	C
12883	12884	3123616	0 - 0.05	0025X - 1.21	1	0	0	0	1				
12776	12884	3122184	0 - 0.01	0025X - 1.26	0	0	0	0	0				
12775	12776	3106212	0 - 0.03	0025X - 1.27	0	0	0	0	0				
12775	12891	3123710	0 - 0.01	0025X - 1.30	0	0	0	0	0				
12783	12891	3123925	0 - 0.04	0025X - 1.31	0	0	0	0	0				
12783	12892	3131538	0 - 0.01	0025X - 1.35	0	0	0	0	0				
12892	12898	187491	0 - 0.06	0025X - 1.36	3	0	0	0	1	2012-46914	12/10/2012	1.37	PD
12892	12898	187491	0 - 0.06	0025X - 1.36	3	0	0	0	1	2013-24455	10/01/2013	1.40	C
12892	12898	187491	0 - 0.06	0025X - 1.36	3	0	0	0	1	2012-1659	01/23/2012	1.40	PD

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
12898	12899	187501	0 - 0.06	0025X - 1.42	7	0	0	0	3	4	2013-28681 2011-8602C 2012-37959 2011-19184 2013-20444 2011-7802C 2011-8650C	11/15/2013 05/31/2011 09/06/2012 12/16/2011 08/20/2013 04/27/2011 06/06/2011	1.43 1.43 1.45 1.45 1.45 1.46 1.47	PD PD C C PD PD C
12899	12904	3131543	0 - 0.02	0025X - 1.48	0	0	0	0	0	0				
12903	12904	3106229	0 - 0.04	0025X - 1.50	1	0	0	0	1	0	2011-3678	06/29/2011	1.52	C
12903	12928	3131544	0 - 0.10	0025X - 1.54	8	0	0	0	1	7	2011-2923C 2012-36018 2011-4827 2012-31688 2013-28644 2013-10564 2012-40493 2013-27313 2011-4337C 2013-26674 2012-27039 2012-30309 2011-11991 2011-21036 2013-24948	02/04/2011 08/16/2012 07/13/2011 06/30/2012 11/14/2013 04/29/2013 10/09/2012 10/25/2013 02/28/2011 10/25/2013 04/26/2012 06/14/2012 10/06/2011 12/30/2011 10/07/2013	1.57 1.57 1.59 1.59 1.59 1.59 1.60 1.63 1.65 1.68 1.72 1.74 1.74 1.77 1.79	PD PD C PD PD PD PD PD PD PD B B PD C B
12801	12928	3119193	0 - 0.07	0025X - 1.64	2	0	0	0	0	2				
12801	12992	3106217	0 - 0.05	0025X - 1.71	3	0	0	2	0	1				
12992	12994	3106235	0 - 0.05	0025X - 1.76	2	0	0	1	1	0				
12871	12994	3118691	0 - 0.03	0025X - 1.81	0	0	0	0	0	0				
12871	12973	3106221	0 - 0.02	0025X - 1.84	0	0	0	0	0	0				
12973	12991	3106233	0 - 0.05	0025X - 1.86	4	0	0	0	2	2	2013-12675 2013-23626 2013-3999 2012-35146	05/27/2013 09/21/2013 02/14/2013 08/13/2012	1.87 1.89 1.90 1.90	PD C C PD
12874	12991	3106223	0 - 0.02	0025X - 1.91	0	0	0	0	0	0				
12874	12980	3106222	0 - 0.03	0025X - 1.93	1	0	0	0	0	1	2012-38148	09/10/2012	1.95	PD

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C	PD				
63716	12980	3121500	0 - 0.02	0025X - 1.96	3	0	0	0	0	3	2011-40C 2012-47126 2011-101C	01/03/2011 12/13/2012 01/05/2011	1.97 1.97 1.97	PD PD PD
12868	63716	3116181	0 - 0.03	0025X - 1.98	0	0	0	0	0	0				
12868	12981	3123682	0 - 0.05	0025X - 2.01	3	0	0	0	0	3	2013-8504 2011-780C 2012-2973	04/02/2013 01/11/2011 02/06/2012	2.02 2.02 2.04	PD PD PD
12981	13010	3131547	0 - 0.02	0025X - 2.06	1	0	0	0	0	1	2013-12424	05/23/2013	2.07	PD
12984	13010	3106234	0 - 0.03	0025X - 2.08	1	0	0	0	0	1	2013-8012	03/22/2013	2.09	PD
12984	13012	3131548	0 - 0.02	0025X - 2.11	0	0	0	0	0	0				
13012	13013	3130037	0 - 0.05	0025X - 2.13	2	0	0	0	0	2	2013-22402 2013-33432	09/07/2013 12/16/2013	2.15 2.15	PD PD
13013	13055	3106236	0 - 0.16	0025X - 2.18	3	0	0	0	2	1	2011-1387C 2011-6355 2013-2260	01/24/2011 08/01/2011 01/28/2013	2.20 2.20 2.32	C C PD
13023	13055	3123932	0 - 0.02	0025X - 2.34	1	0	0	0	0	1	2012-45261	11/26/2012	2.35	PD
13023	13038	3139392	0 - 0.07	0025X - 2.36	2	0	0	0	0	2	2013-27892	11/08/2013	2.39	PD
13038	13066	2527645	0 - 0.10	0025X - 2.43	2	0	0	0	0	2	2011-2921C 2013-33454 2012-28696	02/04/2011 12/17/2013 05/21/2012	2.42 2.47 2.52	PD PD PD
13035	13066	3120651	0 - 0.02	0025X - 2.53	1	0	0	0	1	0	2012-25095	03/28/2012	2.54	C
13035	13070	3119198	0 - 0.04	0025X - 2.55	0	0	0	0	0	0				
13070	13073	3117884	0 - 0.05	0025X - 2.59	0	0	0	0	0	0				
13073	13083	187715	0 - 0.03	0025X - 2.64	1	0	0	0	0	1	2011-706C	01/06/2011	2.66	PD
13083	13086	3139394	0 - 0.03	0025X - 2.67	9	0	0	0	3	6	2012-33445 2012-37068 2013-12921 2011-1427C 2011-4296C 2011-7837C 2011-15997 2013-18983 2013-21126	07/18/2012 08/29/2012 05/29/2013 01/24/2011 02/25/2011 05/04/2011 11/21/2011 08/05/2013 08/22/2013	2.68 2.68 2.68 2.68 2.69 2.69 2.69 2.69 2.69	C C PD PD C PD PD PD PD
13042	13086	3121743	0 - 0.01	0025X - 2.70	0	0	0	0	0	0				

Crash Summary

Section Details														
Start Node	End Node	Element	Offset	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
			Begin - End											

Totals: 78 0 0 3 19 56

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	1	0	0	0	0	0	0	1	0	0	0	0	2	1	2	1	0	2	0	1	2	0	0	0	0	13
MONDAY	0	0	0	0	0	0	1	2	6	3	3	3	5	5	5	4	7	3	5	1	0	0	0	0	0	53
TUESDAY	0	0	0	0	0	0	0	3	5	6	0	3	6	4	3	5	8	2	4	0	0	2	1	1	0	53
WEDNESDAY	0	0	1	0	0	0	1	0	2	2	1	2	0	6	3	2	7	2	2	0	0	0	0	0	0	31
THURSDAY	0	0	0	0	0	2	0	2	3	1	1	3	4	0	2	4	6	8	4	2	1	0	0	0	0	43
FRIDAY	1	0	0	0	0	0	1	1	5	3	2	2	1	2	2	1	6	4	2	1	0	0	0	1	0	35
SATURDAY	0	0	1	1	0	0	0	2	1	4	1	1	3	3	1	0	0	3	1	0	3	0	1	0	0	26
Totals	2	0	2	1	0	2	3	11	22	19	8	14	21	21	18	17	34	24	18	5	6	2	2	2	0	254

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	348	23-Bicyclist	6
2-(Sport) Utility Vehicle	101	24-Witness	31
3-Passenger Van	14	25-Other	5
4-Cargo Van (10K lbs or Less)	10	Total	577
5-Pickup	49		
6-Motor Home	0		
7-School Bus	2		
8-Transit Bus	2		
9-Motor Coach	0		
10-Other Bus	1		
11-Motorcycle	1		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	7		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Crashes by Apparent Physical Condition And Driver

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	89	120	20	3	0	0	232
Ran Off Roadway	2	1	0	0	0	0	3
Failed to Yield Right-of-Way	37	17	1	0	0	0	55
Ran Red Light	11	10	0	0	0	0	21
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	2	1	0	0	0	0	3
Drove Too Fast For Conditions	1	2	0	0	0	0	3
Improper Turn	3	1	0	0	0	0	4
Improper Backing	2	0	0	0	0	0	2
Improper Passing	3	1	0	0	0	0	4
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	47	31	8	1	0	0	87
Failed to Keep in Proper Lane	6	4	0	0	0	0	10
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	2	1	0	0	0	4
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	4	2	0	0	0	0	6
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	11	8	1	0	0	0	20
Unknown	4	2	0	0	0	0	6
Total	223	202	31	4	0	0	460

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	245	230	35	5	0	5	520
Physically Impaired or Handicapped	1	0	0	0	0	0	1
Emotional(Depressed, Angry, Disturbed, etc.)	1	1	0	0	0	0	2
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	1	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	3	0	0	0	0	1	4
Other	2	1	1	1	0	0	5
Total	252	233	36	6	0	6	533

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	45	0	0	0	0	45
20-24	86	0	0	0	0	86
25-29	66	0	0	0	0	66
30-39	105	0	0	0	0	105
40-49	87	0	0	0	0	87
50-59	75	0	0	0	0	75
60-69	43	0	0	0	0	43
70-79	13	0	0	0	0	13
80-Over	12	0	0	0	0	12
Unknown	8	6	0	0	0	14
Total	540	6	0	0	0	546

Crash Summary II - Characteristics

Most Harmful Event			Injury Data		
Most Harmful Event	Total	Most Harmful Event	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	K	0	0
2-Fire / Explosion	0	39-Unknown	A	1	1
3-Immersion	0	40-Gate or Cable	B	13	17
4-Jackknife	0	41-Pressure Ridge	C	81	109
5-Cargo / Equipment Loss Or Shift	0	Total	PD	159	0
6-Fell / Jumped from Motor Vehicle	0		Total	254	127
7-Thrown or Falling Object	0				
8-Other Non-Collision	2				
9-Pedestrian	0				
10-Pedalcycle	1				
11-Railway Vehicle - Train, Engine	0				
12-Animal	0				
13-Motor Vehicle in Transport	351				
14-Parked Motor Vehicle	11				
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0				
16-Work Zone / Maintenance Equipment	0				
17-Other Non-Fixed Object	0				
18-Impact Attenuator / Crash Cushion	0				
19-Bridge Overhead Structure	0				
20-Bridge Pier or Support	0				
21-Bridge Rail	0				
22-Cable Barrier	0				
23-Culvert	0				
24-Curb	1				
25-Ditch	0				
26-Embankment	0				
27-Guardrail Face	0				
28-Guardrail End	0				
29-Concrete Traffic Barrier	0				
30-Other Traffic Barrier	0				
31-Tree (Standing)	0				
32-Utility Pole / Light Support	1				
33-Traffic Sign Support	2				
34-Traffic Signal Support	0				
35-Fence	0				
36-Mailbox	0				
37-Other Post Pole or Support	0				

Traffic Control Devices			Road Character		Total
Traffic Control Device	Total	Road Grade			
1-Traffic Signals (Stop & Go)	153	1-Level			224
2-Traffic Signals (Flashing)	0	2-On Grade			20
3-Advisory/Warning Sign	0	3-Top of Hill			6
4-Stop Signs - All Approaches	2	4-Bottom of Hill			4
5-Stop Signs - Other	12	5-Other			0
6-Yield Sign	0	Total			254
7-Curve Warning Sign	0				
8-Officer, Flagman, School Patrol	0				
9-School Bus Stop Arm	0				
10-School Zone Sign	0				
11-R.R. Crossing Device	1				
12-No Passing Zone	2				
13-None	82				
14-Other	2				
Total	254				

Light		Total
Light Condition		
1-Daylight		193
2-Dawn		4
3-Dusk		9
4-Dark - Lighted		45
5-Dark - Not Lighted		3
6-Dark - Unknown Lighting		0
7-Unknown		0
Total		254

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	11	7	6	24
FEBRUARY	12	8	4	24
MARCH	4	7	7	18
APRIL	8	8	7	23
MAY	8	9	6	23
JUNE	3	5	4	12
JULY	4	8	3	15
AUGUST	6	6	9	21
SEPTEMBER	6	10	7	23
OCTOBER	6	8	11	25
NOVEMBER	9	4	10	23
DECEMBER	6	10	7	23
Total	83	90	81	254

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Rear End / Sideswipe	50	0	36	36	25	7	0	0	3	0	0	0	1	158
Head-on / Sideswipe	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Intersection Movement	0	0	16	23	23	17	0	0	0	0	0	0	0	79
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	0	3	2	2	0	0	0	0	0	0	0	0	9
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	1	0	3	1	1	0	0	0	0	0	0	0	0	6
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	54	0	58	62	51	24	0	0	4	0	0	0	0	254

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	24	0	0	0	0	0	1	0	0	0	1	26
Dark - Not Lighted	2	0	0	0	0	0	0	0	0	0	0	2
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	3	0	0	0	0	0	0	0	0	0	0	3
Daylight	133	0	0	0	0	0	0	5	0	0	8	146
Dusk	6	0	0	0	0	0	0	0	0	0	1	7
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	2	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	15	0	0	0	0	0	1	0	0	0	6	22
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	1	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	10	10
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	1	1
Daylight	0	0	0	0	0	0	0	0	0	1	12	13
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	1	3	0	0	0	4
Dark - Not Lighted	0	0	0	0	0	0	1	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	1	8	0	0	2	11
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	185	2	0	0	0	0	5	16	0	1	0	254

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I

☒ Section Detail

☒ Crash Summary II

☐ 1320 Public

☐ 1320 Private

☐ 1320 Summary

REPORT DESCRIPTION

Portland section 2

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0560109

Start Node: 12932

End Node: 13042

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☐ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes																		
Node	Route - MP	Node Description	U/R	Total Crashes	K	A	B	C	PD	Injury	Percent Annual M Ent-Veh	Crash Rate	Critical Rate	CRF				
12932	0560109 - 0	Int of CAPISIC ST STEVENS AV	9	10	0	0	0	3	7	30.0	5.751	0.58	1.12	0.00				
A66352	0560109 - 0.08	Int of CAPISIC ST RD INV 3209504	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00				
P13040	0560109 - 0.11	Int of CAPISIC ST FROST ST	2	11	0	0	0	5	6	45.5	4.756	0.77	0.34	2.26				
12971	0560109 - 0.34	Int of BANCROFT ST, CAPISIC ST	2	0	0	0	0	0	0	0.0	3.049	0.00	0.38	0.00				
12990	0560109 - 0.39	Int of CAPISIC ST WOLCOTT ST	2	1	0	0	0	0	1	0.0	2.834	0.12	0.39	0.00				
12967	0560109 - 0.41	Int of CAPISIC ST, RIVERVIEW ST	2	0	0	0	0	0	0	0.0	2.693	0.00	0.39	0.00				
12976	0560109 - 0.45	Int of CAPISIC ST COLONIAL RD	2	5	0	0	0	1	4	20.0	2.962	0.56	0.39	1.46				
11958	0560109 - 0.49	Int of CAPISIC ST, MACY ST	2	0	0	0	0	0	0	0.0	2.427	0.00	0.41	0.00				
13015	0560109 - 0.79	Int of CAPISIC ST SANDY TERR	2	0	0	0	0	0	0	0.0	2.380	0.00	0.41	0.00				
13026	0560109 - 0.81	Int of CAPISIC ST LITTLE RD	2	1	0	0	0	0	1	0.0	2.381	0.14	0.41	0.00				
13018	0560109 - 0.83	Int of CAPISIC ST, PRESNELL ST	2	0	0	0	0	0	0	0.0	2.301	0.00	0.41	0.00				
13024	0560109 - 0.91	Int of CAPISIC ST LUCAS ST	2	0	0	0	0	0	0	0.0	2.294	0.00	0.41	0.00				
13027	0560109 - 0.96	Int of CAPISIC ST STARBIRD RD	2	1	0	0	0	0	1	0.0	2.288	0.15	0.41	0.00				
13041	0560109 - 1.01	Non Int CAPISIC ST	2	0	0	0	0	0	0	0.0	2.162	0.00	0.42	0.00				
13033	0560109 - 1.10	Int of ALBION ST, CAPISIC ST	2	0	0	0	0	0	0	0.0	2.253	0.00	0.41	0.00				
P13042	0560109 - 1.26	Int of BRIGHTON AV CAPISIC ST HILCREST AV	9	16	0	0	1	4	11	31.3	9.340	0.57	1.02	0.00				
Study Years:	3.00	NODE TOTALS:			45	0	0	1	13	31	31.1	49.871	0.30	0.40	0.76			

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Injury Percent	Annual HMVM	Crash Rate	Critical Rate	CRF
12932	66352	3117213 Int of CAPISIC ST, STEVENS AV	0 - 0.08	0560109 - 0 RD INV 05 60109	0.08	2	1	0	0	0	1	0.0	0.00321	103.78	422.10	0.00
66352	13040	3117214 Int of CAPISIC ST, RD INV 3209504	0 - 0.03	0560109 - 0.08 RD INV 05 60109	0.03	2	0	0	0	0	0	0.0	0.00101	0.00	561.18	0.00
12971	13040	3121634 Int of BANCROFT ST, CAPISIC ST	0 - 0.23	0560109 - 0.11 RD INV 05 60109	0.23	2	2	0	0	0	2	0.0	0.00683	97.68	348.23	0.00
12971	12990	3120650 Int of BANCROFT ST, CAPISIC ST	0 - 0.05	0560109 - 0.34 RD INV 05 60109	0.05	2	0	0	0	0	0	0.0	0.00139	0.00	521.98	0.00
12967	12990	3123930 Int of CAPISIC ST, RIVERVIEW ST	0 - 0.02	0560109 - 0.39 RD INV 05 60109	0.02	2	0	0	0	0	0	0.0	0.00053	0.00	631.47	0.00
12967	12976	3106232 Int of CAPISIC ST, RIVERVIEW ST	0 - 0.04	0560109 - 0.41 RD INV 05 60109	0.04	2	0	0	0	0	0	0.0	0.00107	0.00	554.23	0.00
11958	12976	3130033 Int of CAPISIC ST, MACY ST	0 - 0.04	0560109 - 0.45 RD INV 05 60109	0.04	2	0	0	0	0	0	0.0	0.00099	0.00	564.76	0.00
11958	13015	3106127 Int of CAPISIC ST, MACY ST	0 - 0.30	0560109 - 0.49 RD INV 05 60109	0.30	2	4	0	1	0	3	25.0	0.00715	186.47	344.25	0.00
13015	13026	3131549 Int of CAPISIC ST, SANDY TERR	0 - 0.02	0560109 - 0.79 RD INV 05 60109	0.02	2	0	0	0	0	0	0.0	0.00047	0.00	640.95	0.00
13018	13026	3123931 Int of CAPISIC ST, PRESNELL ST	0 - 0.02	0560109 - 0.81 RD INV 05 60109	0.02	2	0	0	0	0	0	0.0	0.00046	0.00	642.26	0.00
13018	13024	3117659 Int of CAPISIC ST, PRESNELL ST	0 - 0.08	0560109 - 0.83 RD INV 05 60109	0.08	2	0	0	0	0	0	0.0	0.00181	0.00	488.87	0.00
13024	13027	3119197 Int of CAPISIC ST, LUCAS ST	0 - 0.05	0560109 - 0.91 RD INV 05 60109	0.05	2	0	0	0	0	0	0.0	0.00114	0.00	546.71	0.00
13027	13041	3131550 Int of CAPISIC ST, STARBIRD RD	0 - 0.05	0560109 - 0.96 RD INV 05 60109	0.05	2	0	0	0	0	0	0.0	0.00110	0.00	551.25	0.00
13033	13041	3130459 Int of ALBION ST, CAPISIC ST	0 - 0.09	0560109 - 1.01 RD INV 05 60109	0.09	2	1	0	0	0	1	0.0	0.00191	174.38	482.41	0.00
13033	13042	3106237 Int of ALBION ST, CAPISIC ST	0 - 0.16	0560109 - 1.10 RD INV 05 60109	0.16	2	1	0	0	0	1	0.0	0.00359	92.96	410.22	0.00
Study Years: 3.00					Section Totals:	1.26	9	0	1	0	8	11.1	0.03265	91.88	247.37	0.37
Grand Totals:					1.26	54	0	1	1	13	39	27.8	0.03265	551.25	378.63	1.46

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
12932	66352	3117213	0 - 0.08	0560109 - 0	1	0	0	0	0	1	2013-35111	12/30/2013	0.04	PD
66352	13040	3117214	0 - 0.03	0560109 - 0.08	0	0	0	0	0	0				
12971	13040	3121634	0 - 0.23	0560109 - 0.11	2	0	0	0	0	2	2013-31688	12/06/2013	0.32	PD
											2012-32921	07/13/2012	0.33	PD
12971	12990	3120650	0 - 0.05	0560109 - 0.34	0	0	0	0	0	0				
12967	12990	3123930	0 - 0.02	0560109 - 0.39	0	0	0	0	0	0				
12967	12976	3106232	0 - 0.04	0560109 - 0.41	0	0	0	0	0	0				
11958	12976	3130033	0 - 0.04	0560109 - 0.45	0	0	0	0	0	0				
11958	13015	3106127	0 - 0.30	0560109 - 0.49	4	0	1	0	0	3	2011-9683	09/06/2011	0.64	PD
											2012-22186	02/19/2012	0.67	PD
											2013-29254	11/21/2013	0.68	PD
											2011-16738	11/27/2011	0.69	A
13015	13026	3131549	0 - 0.02	0560109 - 0.79	0	0	0	0	0	0				
13018	13026	3123931	0 - 0.02	0560109 - 0.81	0	0	0	0	0	0				
13018	13024	3117659	0 - 0.08	0560109 - 0.83	0	0	0	0	0	0				
13024	13027	3119197	0 - 0.05	0560109 - 0.91	0	0	0	0	0	0				
13027	13041	3131550	0 - 0.05	0560109 - 0.96	0	0	0	0	0	0				
13033	13041	3130459	0 - 0.09	0560109 - 1.01	1	0	0	0	0	1	2012-43205	11/08/2012	1.07	PD
13033	13042	3106237	0 - 0.16	0560109 - 1.10	1	0	0	0	0	1	2011-21040	12/31/2011	1.25	PD
Totals:					9	0	1	0	0	8				

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	0	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	1	1	0	0	0	0	7
MONDAY	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	1	2	0	1	0	0	0	0	0	8
TUESDAY	0	0	0	0	0	0	1	1	2	0	0	1	1	1	1	0	0	1	1	0	2	0	0	0	0	12
WEDNESDAY	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
THURSDAY	1	0	0	0	0	0	0	0	2	1	0	0	2	0	0	2	2	0	1	0	0	0	0	0	0	11
FRIDAY	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	5
SATURDAY	0	0	0	0	0	0	0	2	0	1	0	0	1	0	0	2	1	1	1	0	1	0	0	0	0	9
Totals	1	0	1	0	0	0	1	5	5	2	0	2	6	1	5	5	6	4	3	2	4	1	0	0	0	54

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	69	23-Bicyclist	0
2-(Sport) Utility Vehicle	24	24-Witness	6
3-Passenger Van	4	25-Other	0
4-Cargo Van (10K lbs or Less)	1	Total	115
5-Pickup	8		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	1		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	2		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	16	29	1	0	0	0	46
Ran Off Roadway	1	0	0	0	0	0	1
Failed to Yield Right-of-Way	8	1	0	0	0	0	9
Ran Red Light	2	0	0	0	0	0	2
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	1	0	0	0	0	0	1
Exceeded Posted Speed Limit	1	0	0	0	0	0	1
Drove Too Fast For Conditions	0	1	0	0	0	0	1
Improper Turn	0	0	0	0	0	0	0
Improper Backing	1	0	0	0	0	0	1
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	13	7	1	1	0	0	22
Failed to Keep in Proper Lane	1	0	0	0	0	0	1
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	1	0	0	0	0	2
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	1	0	0	0	0	2
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	3	1	0	0	0	0	4
Unknown	0	0	0	0	0	0	0
Total	49	41	2	1	0	0	93

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	51	47	5	2	0	0	105
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	2	0	0	0	0	0	2
Other	1	0	0	0	0	0	1
Total	54	47	5	2	0	0	108

Driver Age by Unit Type

Age	Driver	Bicycle	Snow/Mobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	9	0	0	0	0	9
20-24	15	0	0	0	0	15
25-29	8	0	0	0	0	8
30-39	18	0	0	0	0	18
40-49	25	0	0	0	0	25
50-59	15	0	0	0	0	15
60-69	13	0	0	0	0	13
70-79	3	0	0	0	0	3
80-Over	1	0	0	0	0	1
Unknown	2	0	0	0	0	2
Total	109	0	0	0	0	109

Crash Summary II - Characteristics

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
1-Overturn / Rollover	0	K	0
2-Fire / Explosion	0	A	1
3-Immersion	0	B	1
4-Jackknife	0	C	15
5-Cargo / Equipment Loss Or Shift	2	PD	0
6-Fell / Jumped from Motor Vehicle	0	Total	54
7-Thrown or Falling Object	0		17
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	1		
13-Motor Vehicle in Transport	71		
14-Parked Motor Vehicle	1		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	2		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	1		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
38-Other Fixed Object (wall, building, tunnel, etc.)	0	K	0
39-Unknown	13	A	1
40-Gate or Cable	0	B	1
41-Pressure Ridge	0	C	15
Total	91	PD	0
		Total	54
			17

Road Character		Light	
Road Grade	Total	Light Condition	Total
1-Level	46	1-Daylight	39
2-On Grade	7	2-Dawn	0
3-Top of Hill	0	3-Dusk	4
4-Bottom of Hill	1	4-Dark - Lighted	11
5-Other	0	5-Dark - Not Lighted	0
Total	54	6-Dark - Unknown Lighting	0
		7-Unknown	0
		Total	54

Traffic Control Devices		Light	
Traffic Control Device	Total	Light Condition	Total
1-Traffic Signals (Stop & Go)	25	1-Daylight	39
2-Traffic Signals (Flashing)	0	2-Dawn	0
3-Advisory/Warning Sign	0	3-Dusk	4
4-Stop Signs - All Approaches	1	4-Dark - Lighted	11
5-Stop Signs - Other	14	5-Dark - Not Lighted	0
6-Yield Sign	0	6-Dark - Unknown Lighting	0
7-Curve Warning Sign	0	7-Unknown	0
8-Officer, Flagman, School Patrol	0	Total	54
9-School Bus Stop Arm	0		
10-School Zone Sign	0		
11-R.R. Crossing Device	0		
12-No Passing Zone	0		
13-None	14		
14-Other	0		
Total	54		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	1	0	2	3
FEBRUARY	0	4	1	5
MARCH	0	1	1	2
APRIL	3	0	1	4
MAY	1	1	0	2
JUNE	5	2	0	7
JULY	0	1	5	6
AUGUST	2	1	3	6
SEPTEMBER	2	0	2	4
OCTOBER	1	1	0	2
NOVEMBER	1	2	2	5
DECEMBER	2	1	5	8
Total	18	14	22	54

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	3	2	25	5	0	2	0	0	0	0	0	0	0	37
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	7	3	0	0	0	0	0	0	0	0	0	10
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	2	1	2	0	0	0	0	0	0	0	0	0	5
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	4	35	10	0	2	0	0	0	0	0	0	0	54

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	5	0	0	0	0	0	1	0	0	0	1	7
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	22	0	0	0	0	0	0	0	0	0	2	24
Dusk	3	0	0	0	0	0	0	0	0	0	0	3
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	1	2	0	0	0	0	2	0	0	0	1	6
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	1	0	0	0	0	0	0	0	0	0	3	4
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	1	3	0	0	0	4
Dusk	0	0	0	0	0	0	0	1	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	33	3	0	0	0	0	4	5	0	0	0	54

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Portland section 3

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0560808

Start Node: 12864
End Node: 12868

Start Offset: 0
End Offset: 0

☐ Exclude First Node
☐ Exclude Last Node

Route: 0009X

Start Node: 12864
End Node: 16852

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☐ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes																			
Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes				Percent Annual M			Crash Rate	Critical Rate	CRF					
				K	A	B	C	PD	Injury	Ent-Veh									
12864	0560808 - 0	Int of STEVENS AV WOODFORD ST	9	12	0	0	0	3	9	25.0	7.079	0.57	1.08	0.00					
12798	0560808 - 0.08	Int of BELFIELD ST, WOODFORD ST	2	0	0	0	0	0	0	0.0	2.795	0.00	0.41	0.00					
12860	0560808 - 0.14	Int of MARLOW ST WOODFORD ST	2	1	0	0	0	1	0.0	2.763	0.12	0.41	0.41	0.00					
12863	0560808 - 0.20	Int of CALDWELL ST WOODFORD ST	2	0	0	0	0	0	0.0	2.744	0.00	0.42	0.42	0.00					
12865	0560808 - 0.22	Int of FELLOWS ST WOODFORD ST	2	0	0	0	0	0	0.0	2.739	0.00	0.42	0.42	0.00					
12866	0560808 - 0.26	Int of HILLIS ST WOODFORD ST	2	0	0	0	0	0	0.0	2.687	0.00	0.42	0.42	0.00					
12867	0560808 - 0.32	Int of ROSEMONT AV, WOODFORD ST	2	2	0	0	0	2	0.0	2.564	0.26	0.42	0.42	0.00					
12868	0560808 - 0.38	Int of BRIGHTON AV COLONIAL RD WOODFORD ST	9	18	0	1	0	6	11	38.9	8.406	0.71	1.04	0.00					
12832	0009X - 62.55	Int of LAWN AV WOODFORD ST	2	0	0	0	0	0	0	0.0	3.503	0.00	0.39	0.00					
12826	0009X - 62.60	Int of GLENWOOD AV WOODFORD ST	2	2	0	0	0	2	0.0	3.562	0.19	0.39	0.39	0.00					
12821	0009X - 62.67	Int of BERKELEY ST, WOODFORD ST	2	1	0	0	0	1	0.0	3.602	0.09	0.39	0.39	0.00					
12786	0009X - 62.71	Int of HIGHLAND ST, WOODFORD ST	2	0	0	0	0	0	0.0	3.698	0.00	0.38	0.38	0.00					
12817	0009X - 62.80	Int of NORWOOD ST WOODFORD ST	2	2	0	0	1	0	1	50.0	3.531	0.19	0.39	0.00					
12780	0009X - 62.82	Int of BEACON ST, WOODFORD ST	2	0	0	0	0	0	0.0	3.688	0.00	0.38	0.38	0.00					
12816	0009X - 62.84	Int of NEVENS ST WOODFORD ST	2	2	0	0	1	0	1	50.0	3.600	0.19	0.39	0.00					
16852	0009X - 63	Int of DEERING AV FOREST AV WOODFORD ST	9	30	0	0	1	9	20	33.3	11.464	0.87	0.99	0.00					
Study Years: 3.00			NODE TOTALS:				70	0	1	3	18	48	31.4	68.425	0.34	0.44	0.77		

Crash Summary I

Sections																
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
12798 Int of BELFIELD ST, WOODFORD ST	12864 RD INV 05 60808	3106216	0 - 0.08	0560808 - 0	0.08	2	0	0	0	1	1	50.0	0.00222	299.82	541.88	0.00
12798 Int of BELFIELD ST, WOODFORD ST	0560808 - 0.08 RD INV 05 60808	3106215	0 - 0.06		0.06	2	0	0	0	0	0	0.0	0.00165	0.00	584.73	0.00
12860 Int of MARLOW ST, WOODFORD ST	0560808 - 0.14 RD INV 05 60808	3123927	0 - 0.06		0.06	2	3	0	0	2	1	66.7	0.00164	611.60	586.44	1.04
12863 Int of CALDWELL ST, WOODFORD ST	0560808 - 0.20 RD INV 05 60808	3118690	0 - 0.02		0.02	2	0	0	0	0	0	0.0	0.00054	0.00	750.27	0.00
12865 Int of FELLOWS ST, WOODFORD ST	0560808 - 0.22 RD INV 05 60808	3130036	0 - 0.04		0.04	2	0	0	0	0	0	0.0	0.00107	0.00	650.94	0.00
12866 Int of HILLIS ST, WOODFORD ST	0560808 - 0.26 RD INV 05 60808	187445	0 - 0.06		0.06	2	1	0	0	0	1	0.0	0.00157	212.22	592.45	0.00
12867 Int of ROSEMONT AV, WOODFORD ST	0560808 - 0.32 RD INV 05 60808	3106220	0 - 0.06		0.06	2	1	0	1	0	0	100.0	0.00147	226.50	602.26	0.00
12832 Int of LAWN AV, WOODFORD ST	0009X - 62.45 ST RTE 9	3106219	0 - 0.10		0.10	2	0	0	0	0	0	0.0	0.00342	0.00	484.58	0.00
12826 Int of GLENWOOD AV, WOODFORD ST	0009X - 62.55 ST RTE 9	3122187	0 - 0.05		0.05	2	1	0	0	0	1	0.0	0.00173	192.97	578.29	0.00
12821 Int of BERKELEY ST, WOODFORD ST	0009X - 62.60 ST RTE 9	3120648	0 - 0.07		0.07	2	0	0	0	0	0	0.0	0.00247	0.00	527.51	0.00
12786 Int of HIGHLAND ST, WOODFORD ST	0009X - 62.67 ST RTE 9	187318	0 - 0.04		0.04	2	0	0	0	0	0	0.0	0.00144	0.00	606.02	0.00
12786 Int of HIGHLAND ST, WOODFORD ST	0009X - 62.71 ST RTE 9	3131539	0 - 0.09		0.09	2	3	0	0	0	3	0.0	0.00311	321.15	496.60	0.00
12780 Int of BEACON ST, WOODFORD ST	0009X - 62.80 ST RTE 9	3106213	0 - 0.02		0.02	2	0	0	0	0	0	0.0	0.00071	0.00	714.32	0.00
12780 Int of BEACON ST, WOODFORD ST	0009X - 62.82 ST RTE 9	3120645	0 - 0.02		0.02	2	0	0	0	0	0	0.0	0.00069	0.00	717.82	0.00
12816 Int of NEVENS ST, WOODFORD ST	0009X - 62.84 ST RTE 9	3130458	0 - 0.16		0.16	2	12	0	0	3	9	25.0	0.00562	711.25	427.39	1.66
Study Years: 3.00				Section Totals:	0.93	23	0	0	1	6	16	30.4	0.02936	261.15	299.13	0.87
Grand Totals:				Grand Totals:	0.93	93	0	1	4	24	64	31.2	0.02936	1055.96	427.48	2.47

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
12798	12864	3106216	0 - 0.08	0560808 - 0	2	0	0	0	1	1	2013-33452 2012-27550	12/17/2013 05/04/2012	0.02 0.02	C PD
12798	12860	3106215	0 - 0.06	0560808 - 0.08	0	0	0	0	0	0				
12860	12863	3123927	0 - 0.06	0560808 - 0.14	3	0	0	0	2	1	2011-4278C 2013-6823 2012-28606	02/20/2011 03/12/2013 05/20/2012	0.15 0.18 0.19	C PD C
12863	12865	3118690	0 - 0.02	0560808 - 0.20	0	0	0	0	0	0				
12865	12866	3130036	0 - 0.04	0560808 - 0.22	0	0	0	0	0	0				
12866	12867	187445	0 - 0.06	0560808 - 0.26	1	0	0	0	0	1	2011-9758	09/07/2011	0.28	PD
12867	12868	3106220	0 - 0.06	0560808 - 0.32	1	0	0	1	0	0	2011-2912C	02/03/2011	0.36	B
12832	12864	3106219	0 - 0.10	0009X - 62.45	0	0	0	0	0	0				
12826	12832	3122187	0 - 0.05	0009X - 62.55	1	0	0	0	0	1	2012-916	01/16/2012	62.59	PD
12821	12826	3120648	0 - 0.07	0009X - 62.60	0	0	0	0	0	0				
12786	12821	187318	0 - 0.04	0009X - 62.67	0	0	0	0	0	0				
12786	12817	3131539	0 - 0.09	0009X - 62.71	3	0	0	0	0	3	2013-12380 2012-496 2012-39917	05/22/2013 01/12/2012 10/01/2012	62.74 62.78 62.79	PD PD PD
12780	12817	3106213	0 - 0.02	0009X - 62.80	0	0	0	0	0	0				
12780	12816	3120645	0 - 0.02	0009X - 62.82	0	0	0	0	0	0				
12816	16852	3130458	0 - 0.16	0009X - 62.84	12	0	0	0	3	9	2011-22144 2011-752C 2012-34490 2013-8865 2012-31672 2011-4361 2011-17296 2012-23206 2013-33083 2011-1703C 2013-4458 2013-8370	07/30/2011 01/19/2011 08/03/2012 04/03/2013 06/28/2012 07/07/2011 11/27/2011 03/05/2012 12/13/2013 01/30/2011 02/18/2013 04/01/2013	62.88 62.90 62.94 62.95 62.97 62.98 62.98 62.98 62.98 62.98 62.98 62.98	C PD PD PD PD C C PD PD PD PD PD
Totals:					23	0	0	0	1	6	16			

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	1	0	1	0	0	0	0	0	1	1	0	2	0	1	1	1	2	1	0	0	1	0	0	0	13	
MONDAY	0	0	0	0	0	0	1	1	0	1	1	1	1	0	2	1	2	2	0	3	0	0	0	0	16	
TUESDAY	0	0	0	0	0	0	0	1	2	0	1	0	0	1	0	0	2	0	0	0	0	1	0	0	8	
WEDNESDAY	0	0	0	0	0	0	0	1	1	1	0	0	1	3	1	1	0	0	1	1	0	0	1	0	12	
THURSDAY	1	0	0	0	0	0	0	1	2	0	0	0	2	1	0	2	1	0	4	1	0	1	0	0	16	
FRIDAY	0	1	0	0	0	0	1	0	0	0	3	0	3	1	1	5	1	2	0	0	0	0	1	0	19	
SATURDAY	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	2	1	0	0	9	
Totals	2	2	1	0	0	0	2	4	6	4	5	4	7	7	5	11	9	5	6	5	3	3	1	1	0	93

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	123	23-Bicyclist	2
2-(Sport) Utility Vehicle	31	24-Witness	13
3-Passenger Van	7	25-Other	2
4-Cargo Van (10K lbs or Less)	2	Total	204
5-Pickup	12		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	3		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	7		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	2		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Crashes by Apparent Physical Condition And Driver

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total	Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	45	35	4	0	0	0	84	Apparently Normal	89	78	7	0	0	4	178
Ran Off Roadway	1	0	0	0	0	0	1	Physically Impaired or Handicapped	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	12	10	1	0	0	0	23	Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ran Red Light	1	2	0	0	0	0	3	Ill (Sick)	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0	Asleep or Fatigued	1	0	0	0	0	0	1
Disregarded Other Traffic Sign	0	0	0	0	0	0	0	Under the Influence of Medications/Drugs/Alcohol	2	1	0	0	0	0	3
Disregarded Other Road Markings	0	0	0	0	0	0	0	Other	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	1	0	0	0	0	0	1	Total	92	79	7	0	0	4	182
Drove Too Fast For Conditions	1	1	0	0	0	0	2								
Improper Turn	5	0	0	0	0	0	5								
Improper Backing	0	2	0	0	0	0	2								
Improper Passing	0	2	0	0	0	0	2								
Wrong Way	0	0	0	0	0	0	0								
Followed Too Closely	7	10	2	0	0	0	19								
Failed to Keep in Proper Lane	1	1	0	0	0	0	2								
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	0	0	0	0	0	1								
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	0	0	0	0	0	1								
Over-Correcting/Over-Steering	0	0	0	0	0	0	0								
Other Contributing Action	1	4	0	0	0	0	5								
Unknown	4	2	0	0	0	0	6								
Total	81	69	7	0	0	0	157								

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	15	0	0	0	0	15
20-24	24	0	0	0	0	24
25-29	24	0	0	0	0	24
30-39	49	0	0	0	0	49
40-49	24	0	0	0	0	24
50-59	26	0	0	0	0	26
60-69	12	0	0	0	0	12
70-79	6	0	0	0	0	6
80-Over	1	0	0	0	0	1
Unknown	6	2	0	2	0	10
Total	187	2	0	2	0	191

Crash Summary II - Characteristics

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
1-Overturn / Rollover	0		
2-Fire / Explosion	0	K	0
3-Immersion	0	A	1
4-Jackknife	0	B	4
5-Cargo / Equipment Loss Or Shift	0	C	24
6-Fell / Jumped from Motor Vehicle	0	PD	64
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	1		
13-Motor Vehicle in Transport	132		
14-Parked Motor Vehicle	5		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	1		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		
Total		93	41

Road Character	
Road Grade	Total
1-Level	84
2-On Grade	8
3-Top of Hill	1
4-Bottom of Hill	0
5-Other	0
Total	93

Light	
Light Condition	Total
1-Daylight	64
2-Dawn	0
3-Dusk	6
4-Dark - Lighted	20
5-Dark - Not Lighted	3
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	93

Traffic Control Devices	
Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	67
2-Traffic Signals (Flashing)	2
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	4
6-Yield Sign	0
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	20
14-Other	0
Total	93

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	4	3	3	10
FEBRUARY	2	1	3	6
MARCH	2	3	4	9
APRIL	2	3	4	9
MAY	1	4	2	7
JUNE	3	1	1	5
JULY	3	1	3	7
AUGUST	1	2	5	8
SEPTEMBER	2	2	3	7
OCTOBER	4	3	1	8
NOVEMBER	1	2	3	6
DECEMBER	3	4	4	11
Total	28	29	36	93

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	8	0	1	10	28	3	0	0	0	0	0	0	1	51
Head-on / Sideswipe	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Intersection Movement	0	0	1	4	16	9	0	0	0	0	0	0	0	30
Pedestrians	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	1	0	1	0	1	0	0	0	0	0	0	0	0	3
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	1	0	0	0	0	0	0	0	2
Other	0	0	1	0	2	0	0	0	0	0	0	0	0	3
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	10	0	5	15	49	13	0	0	0	0	0	0	0	93

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	7	1	0	0	0	0	0	0	0	0	2	10
Dark - Not Lighted	2	0	0	0	0	0	0	0	0	0	0	2
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	49	0	0	0	0	0	0	1	0	0	2	52
Dusk	3	0	0	0	0	0	0	0	0	0	1	4
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	2	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	6	0	0	0	0	0	0	0	0	0	2	8
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
 Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	4	4
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	2	2
Dusk	0	0	0	0	0	0	0	0	0	0	2	2
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	1	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	1	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	2	0	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	2	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	67	3	0	0	0	0	0	5	0	0	0	93

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Portland section 4

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0302X

Start Node: 16852

End Node: 16870

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☐ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes																	
Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes			Percent Annual M			Crash Rate	Critical Rate	CRF				
					K	A	B	C	PD	Injury	Ent-Veh						
16852	0302X - 0.96	Int of DEERING AV FOREST AV WOODFORD ST	9	30	0	0	1	9	20	33.3	11,464	Statewide Crash Rate: 0.87	0.99	0.00			
A12802	0302X - 1.04	Int of FOREST AV, VANNAH AV	2	0	0	0	0	0	0	0.0	0.000	Statewide Crash Rate: 0.00	0.00	0.00			
P16853	0302X - 1.05	Int of FOREST AV OCEAN AV SAUNDER ST	9	24	0	0	2	5	17	29.2	10,519	Statewide Crash Rate: 0.76	1.00	0.00			
16854	0302X - 1.10	RRX 837478 FOREST AV	2	1	0	0	0	1	0	100.0	4,259	Statewide Crash Rate: 0.08	0.33	0.00			
16855	0302X - 1.11	Int of CONCORD ST FOREST AV	2	15	0	0	0	4	10	28.6	8,586	Statewide Crash Rate: 0.58	0.28	2.11			
16856	0302X - 1.15	Int of FOREST AV, PLEASANT AV	2	13	0	0	1	3	9	30.8	8,540	Statewide Crash Rate: 0.51	0.28	1.83			
16857	0302X - 1.22	Int of CLINTON ST FOREST AV	2	4	0	0	1	1	2	50.0	8,170	Statewide Crash Rate: 0.16	0.28	0.00			
16858	0302X - 1.28	Int of FOREST AV HARTLEY ST	2	6	0	0	1	5	0	100.0	8,214	Statewide Crash Rate: 0.24	0.28	0.00			
16859	0302X - 1.57	Int of FOREST AV HOLLY ST	2	4	0	0	1	1	2	50.0	7,962	Statewide Crash Rate: 0.17	0.28	0.00			
16860	0302X - 1.64	Int of FOREST AV WALTON ST	9	33	0	0	3	12	18	45.5	9,207	Statewide Crash Rate: 1.19	1.03	1.16			
16862	0302X - 1.76	Int of FOREST AV TREMAINE ST	2	1	0	0	0	1	0	100.0	7,880	Statewide Crash Rate: 0.04	0.28	0.00			
16863	0302X - 1.81	Int of ELMWOOD FOREST AV	2	1	0	0	0	0	1	0.0	7,736	Statewide Crash Rate: 0.04	0.28	0.00			
16864	0302X - 1.88	Int of FOREST AV WAVERLY ST	2	7	0	0	0	2	5	28.6	7,628	Statewide Crash Rate: 0.31	0.28	1.07			
16865	0302X - 1.92	Int of BELL ST NO 2 FOREST AV	2	2	0	0	0	1	1	50.0	7,721	Statewide Crash Rate: 0.09	0.28	0.00			
16866	0302X - 1.98	Int of FOREST AV POLAND ST	2	2	0	0	0	1	1	50.0	7,443	Statewide Crash Rate: 0.09	0.29	0.00			
16867	0302X - 2.02	Int of ADELAIDE ST FOREST AV READ ST	2	10	0	1	1	3	5	50.0	9,107	Statewide Crash Rate: 0.37	0.27	1.34			
16868	0302X - 2.05	Int of ARBOR ST FOREST AV	2	3	0	0	0	0	3	0.0	8,953	Statewide Crash Rate: 0.11	0.27	0.00			
16869	0302X - 2.13	Int of FOREST AV MORRILL ST 2	2	4	0	0	0	1	3	25.0	9,216	Statewide Crash Rate: 0.14	0.27	0.00			
16870	0302X - 2.23	Int of BISHOP ST FOREST AV STEVENS AV	9	30	0	0	2	7	21	30.0	12,739	Statewide Crash Rate: 0.78	0.97	0.00			
Study Years: 3.00			NODE TOTALS:				190	0	1	13	57	118	37.4	155.344	0.41	0.33	1.23

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury Crashes			Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF		
								A	B	C	PD						
12802	16852	3117658 Int of FOREST AV, VANNAH AV	0 - 0.08	0302X - 0.96 US 302	0.08	2	8	0	0	5	3	62.5	0.00713	373.97 Statewide Crash Rate: 172.59	380.60	0.00	
12802	16853	3118689 Int of FOREST AV, VANNAH AV	0 - 0.01	0302X - 1.04 US 302	0.01	2	0	0	0	0	0	0.0	0.00092	0.00 Statewide Crash Rate: 172.59	635.99	0.00	
16853	16854	3106420 Int of FOREST AV, OCEAN AV, SAUNDER ST	0 - 0.05	0302X - 1.05 US 302	0.05	2	9	0	0	1	8	11.1	0.00426	704.36 Statewide Crash Rate: 172.59	432.84	1.63	
16854	16855	3131655 RRX 837478, FOREST AV	0 - 0.01	0302X - 1.10 US 302	0.01	2	1	0	0	0	1	0.0	0.00085	391.31 Statewide Crash Rate: 172.59	646.38	0.00	
16855	16856	192564 Int of CONCORD ST, FOREST AV	0 - 0.04	0302X - 1.11 US 302	0.04	2	7	0	0	4	3	57.1	0.00337	691.55 Statewide Crash Rate: 172.59	459.56	1.50	
16856	16857	3106421 Int of FOREST AV, PLEASANT AV	0 - 0.07	0302X - 1.15 US 302	0.07	2	4	0	0	1	3	25.0	0.00545	244.74 Statewide Crash Rate: 172.59	406.71	0.00	
16857	16858	3120312 Int of CLINTON ST, FOREST AV	0 - 0.06	0302X - 1.22 US 302	0.06	2	4	0	0	0	4	0.0	0.00494	269.91 Statewide Crash Rate: 172.59	416.84	0.00	
16858	16859	3106422 Int of FOREST AV, HARTLEY ST	0 - 0.29	0302X - 1.28 US 302	0.29	2	42	0	1	16	24	41.5	0.02294	610.35 Statewide Crash Rate: 172.59	294.33	2.07	
16859	16860	3123551 Int of FOREST AV, HOLLY ST	0 - 0.07	0302X - 1.57 US 302	0.07	2	1	0	0	1	0	100.0	0.00555	60.09 Statewide Crash Rate: 172.59	404.89	0.00	
16860	16862	3106423 Int of FOREST AV, WALTON ST	0 - 0.12	0302X - 1.64 US 302	0.12	2	8	0	0	3	5	37.5	0.00956	278.90 Statewide Crash Rate: 172.59	354.97	0.00	
16862	16863	3106424 Int of FOREST AV, TREMAINE ST	0 - 0.05	0302X - 1.76 US 302	0.05	2	6	0	0	3	3	50.0	0.00387	517.17 Statewide Crash Rate: 172.59	443.68	1.17	
16863	16864	3117945 Int of ELMWOOD, FOREST AV	0 - 0.07	0302X - 1.81 US 302	0.07	2	5	0	1	1	3	40.0	0.00535	311.74 Statewide Crash Rate: 172.59	408.63	0.00	
16864	16865	3122265 Int of FOREST AV, WAVERLY ST	0 - 0.04	0302X - 1.88 US 302	0.04	2	2	0	0	0	2	0.0	0.00301	221.24 Statewide Crash Rate: 172.59	473.22	0.00	
16865	16866	3120313 Int of BELL ST NO 2, FOREST AV	0 - 0.06	0302X - 1.92 US 302	0.06	2	7	0	0	3	4	42.9	0.00439	531.71 Statewide Crash Rate: 172.59	429.56	1.24	
16866	16867	3131656 Int of FOREST AV, POLAND ST	0 - 0.04	0302X - 1.98 US 302	0.04	2	1	0	0	0	1	0.0	0.00300	110.94 Statewide Crash Rate: 172.59	473.57	0.00	
16867	16868	3118708 Int of ADELAIDE ST, FOREST AV, READ ST	0 - 0.03	0302X - 2.02 US 302	0.03	2	1	0	1	0	0	100.0	0.00267	124.81 Statewide Crash Rate: 172.59	488.26	0.00	
16868	16869	3129283 Int of ARBOR ST, FOREST AV	0 - 0.08	0302X - 2.05 US 302	0.08	2	9	0	0	1	8	11.1	0.00715	419.35 Statewide Crash Rate: 172.59	380.30	1.10	
16869	16870	3106425 Int of FOREST AV, MORRILL ST 2	0 - 0.10	0302X - 2.13 US 302	0.10	2	17	0	1	1	15	11.8	0.00927	611.44 Statewide Crash Rate: 172.59	357.56	1.71	
Study Years: 3.00					Section Totals:	1.27	132	0	0	4	40	87	33.3	0.10368	424.38	231.66	1.83
Grand Totals:					1.27	322	0	1	17	97	205	35.7	0.10368	1035.24	341.73	3.03	

Crash Summary

Section Details															
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree
										C	PD				
12802	16852	3117658	0 - 0.08	0302X - 0.96	8	0	0	0	0	5	3	2013-26675	10/24/2013	0.98	C
												2013-3518	02/10/2013	1	C
												2011-4284C	02/22/2011	1.01	C
												2012-47696	12/18/2012	1.01	PD
												2011-8594	08/24/2011	1.01	PD
												2012-915	01/16/2012	1.02	C
												2012-24168	03/13/2012	1.03	C
												2011-8697C	05/28/2011	1.03	PD
12802 16853	16853	3118689	0 - 0.01	0302X - 1.04	0	0	0	0	0	0	0				
	16854	3106420	0 - 0.05	0302X - 1.05	9	0	0	0	0	1	8	2011-7877C	05/12/2011	1.06	PD
												2013-26670	10/25/2013	1.06	PD
												2013-8120	03/27/2013	1.07	PD
												2013-28233	11/09/2013	1.07	PD
												2011-7838C	05/05/2011	1.07	PD
												2013-8509	04/02/2013	1.08	PD
												2013-19643	08/11/2013	1.08	PD
16854 16855	16855	3131655	0 - 0.01	0302X - 1.10	1	0	0	0	0	0	1	2012-1944	01/26/2012	1.09	PD
	16856	192564	0 - 0.04	0302X - 1.11	7	0	0	0	0	4	3	2012-37144	08/31/2012	1.10	C
												2011-18790	12/13/2011	1.11	PD
												2013-15118	06/23/2013	1.12	C
												2011-5710C	03/24/2011	1.12	PD
												2013-13805	06/07/2013	1.12	PD
												2012-49445	12/31/2012	1.13	C
												2012-39350	09/25/2012	1.13	C
16856												2011-5573	07/23/2011	1.13	PD
												2011-15435	11/10/2011	1.14	C
	16857	3106421	0 - 0.07	0302X - 1.15	4	0	0	0	0	1	3	2011-2905C	02/03/2011	1.16	PD
												2013-26671	10/24/2013	1.19	PD
												2012-43015	11/03/2012	1.21	C
												2013-23999	09/26/2013	1.21	PD
												2012-24755	03/21/2012	1.23	PD
												2011-6356	08/01/2011	1.25	PD
16857	16858	3120312	0 - 0.06	0302X - 1.22	4	0	0	0	0	0	4	2012-26735	04/20/2012	1.25	PD
												2011-7876	08/15/2011	1.25	PD

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	Injury Crashes		Crash Report	Crash Date	Crash Mile Point	Injury Degree
16858	16859	3106422	0 - 0.29	0302X - 1.28	42	0	0	1	16	24	2011-9696	09/07/2011	1.30	PD
											2011-7827C	05/03/2011	1.30	PD
											2011-7938C	04/30/2011	1.31	C
											2011-15731	11/16/2011	1.31	C
											2012-33649	07/25/2012	1.32	B
											2013-5122	02/22/2013	1.32	PD
											2013-33450	12/17/2013	1.32	PD
											2013-13509	06/05/2013	1.33	C
											2011-19686	12/22/2011	1.33	PD
											2011-739C	01/15/2011	1.34	PD
											2013-16998	07/12/2013	1.34	PD
											2013-28932	11/17/2013	1.36	PD
											2011-6394	08/02/2011	1.38	C
											2011-20487	12/28/2011	1.38	PD
											2012-40845	10/11/2012	1.38	PD
											2012-33652	07/27/2012	1.39	PD
											2012-25398	03/30/2012	1.40	C
											2011-15730	11/16/2011	1.41	
											2013-16288	07/04/2013	1.41	PD
											2013-33431	12/16/2013	1.41	PD
											2012-30048	06/10/2012	1.42	C
											2012-37611	09/04/2012	1.43	C
											2012-26545	04/18/2012	1.46	PD
											2012-48556	12/24/2012	1.47	C
2012-37462	09/02/2012	1.47	PD											
2012-32872	07/18/2012	1.48	PD											
2013-8888	04/03/2013	1.49	PD											
2012-31294	06/26/2012	1.49	PD											
2011-15439	11/10/2011	1.50	C											
2012-32286	07/03/2012	1.51	C											
2011-6093C	03/30/2011	1.51	PD											
2013-16280	07/03/2013	1.52	C											
2012-38237	09/10/2012	1.52	C											
2011-7958C	05/17/2011	1.52	PD											

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
											2013-18231	07/26/2013	1.53	C
											2011-11217	09/28/2011	1.53	C
											2013-26418	10/24/2013	1.53	PD
											2011-9610	09/03/2011	1.53	PD
											2011-4340C	03/01/2011	1.53	PD
											2013-22701	09/12/2013	1.55	C
											2011-99C	01/05/2011	1.56	C
											2012-29811	06/05/2012	1.56	PD
16859	16860	3123551	0 - 0.07	0302X - 1.57	1	0	0	0	1	0	2013-23667	09/23/2013	1.60	C
16860	16862	3106423	0 - 0.12	0302X - 1.64	8	0	0	0	3	5	2011-7763C	04/17/2011	1.66	PD
											2013-3477	02/10/2013	1.68	PD
											2012-40509	10/10/2012	1.70	C
											2012-25879	04/09/2012	1.70	C
											2013-36001	11/20/2013	1.70	PD
											2012-40034	10/03/2012	1.72	C
											2011-7919C	04/14/2011	1.73	PD
											2011-5484C	03/14/2011	1.75	PD
16862	16863	3106424	0 - 0.05	0302X - 1.76	6	0	0	0	3	3	2011-8878	08/27/2011	1.78	C
											2013-15910	07/02/2013	1.78	PD
											2012-38407	09/12/2012	1.78	PD
											2012-38319	09/11/2012	1.79	C
											2012-23817	03/11/2012	1.79	PD
											2012-38530	09/13/2012	1.80	C
16863	16864	3117945	0 - 0.07	0302X - 1.81	5	0	0	1	1	3	2013-34095	12/21/2013	1.82	B
											2012-42597	10/31/2012	1.84	C
											2011-874C	01/19/2011	1.85	PD
											2013-29685	11/22/2013	1.85	PD
											2012-26558	04/19/2012	1.86	PD
16864	16865	3122265	0 - 0.04	0302X - 1.88	2	0	0	0	0	2	2013-5996	02/28/2013	1.90	PD
											2013-5139	02/24/2013	1.90	PD

Crash Summary

Section Details															
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree
										C	PD				
16865	16866	3120313	0 - 0.06	0302X - 1.92	7	0	0	0	3	4		2011-5467C	03/11/2011	1.93	PD
												2011-7839C	05/05/2011	1.93	PD
												2011-2945	06/16/2011	1.95	C
												2013-1144	01/16/2013	1.95	C
												2013-12175	05/21/2013	1.95	PD
												2011-15448	11/12/2011	1.96	C
												2012-45888	11/30/2012	1.97	PD
16866	16867	3131656	0 - 0.04	0302X - 1.98	1	0	0	0	0	1	2011-1396C	01/25/2011	2.01	PD	
												2013-21874	09/02/2013	2.03	B
												2013-26669	10/25/2013	2.10	PD
16867	16868	3129283	0 - 0.08	0302X - 2.05	9	0	0	0	1	8	2013-26146	10/21/2013	2.11	C	
											2012-47866	12/20/2012	2.11	PD	
											2011-1391C	01/25/2011	2.11	PD	
											2012-25445	04/02/2012	2.11	PD	
16868	16869	3129283	0 - 0.08	0302X - 2.05	9	0	0	0	1	8	2011-5802C	03/25/2011	2.11	PD	
											2013-32903	12/16/2013	2.11	PD	
											2013-9206	04/11/2013	2.12	PD	
											2013-18425	07/26/2013	2.12	PD	

Crash Summary

Section Details												
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	Injury Crashes	Crash Report	Crash Date
											Crash Mile Point	Injury Degree
16869	16870	3106425	0 - 0.10	0302X - 2.13	17	0	0	1	1	15	2012-46240	12/04/2012
											2.14	PD
											2012-34492	08/03/2012
											2.16	PD
											2011-8690C	05/24/2011
											2.16	PD
											2011-8442	08/22/2011
											2.16	PD
											2013-20319	08/17/2013
											2.17	B
											2013-30032	11/26/2013
											2.17	PD
											2013-18731	07/31/2013
											2.17	PD
											2013-3898	02/13/2013
											2.17	PD
											2012-39858	10/01/2012
											2.18	PD
											2011-11089	09/24/2011
											2.18	PD
											2012-23513	03/07/2012
											2.18	PD
											2012-37812	09/06/2012
											2.18	PD
											2012-28206	05/14/2012
											2.20	PD
											2013-2596	01/31/2013
											2.20	PD
											2011-8583C	05/25/2011
											2.21	C
											2011-18195	12/08/2011
											2.21	PD
											2011-7880C	05/13/2011
											2.21	PD
Totals:					132	0	0	4	40	87		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	1	1	1	0	0	0	0	0	0	1	0	4	1	1	0	2	2	0	0	2	2	2	2	0	0	22
MONDAY	0	0	0	0	0	1	3	4	2	6	4	4	2	4	6	2	7	8	2	2	0	1	1	1	0	56
TUESDAY	0	0	0	0	0	1	4	4	1	1	3	7	4	4	3	4	6	6	1	1	2	2	0	0	0	50
WEDNESDAY	1	0	0	0	0	0	3	10	3	3	3	2	2	2	3	3	6	6	5	2	1	1	1	0	0	55
THURSDAY	1	0	0	0	0	0	3	4	5	1	5	2	6	6	5	5	3	3	4	2	1	0	1	1	0	52
FRIDAY	1	0	1	0	1	1	0	1	2	3	2	4	5	4	4	8	2	4	3	1	1	1	3	1	0	53
SATURDAY	1	2	0	0	0	1	0	0	0	1	1	2	6	6	2	3	1	1	0	4	2	1	0	0	0	34
Totals	5	3	2	0	1	1	3	14	24	16	14	25	25	27	23	27	27	28	15	14	9	8	3	0	322	

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	421	23-Bicyclist	12
2-(Sport) Utility Vehicle	94	24-Witness	34
3-Passenger Van	20	25-Other	10
4-Cargo Van (10K lbs or Less)	1	Total	697
5-Pickup	73		
6-Motor Home	0		
7-School Bus	2		
8-Transit Bus	1		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	4		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	3		
17-Medium/Heavy Trucks (More than 10,000 lbs)	12		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	10		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Crashes by Apparent Physical Condition And Driver

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total	Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	141	119	13	0	0	0	273	Apparently Normal	304	279	26	1	0	20	630
Ran Off Roadway	3	0	0	0	0	0	3	Physically Impaired or Handicapped	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	42	31	1	0	0	0	74	Emotional(Depressed, Angry, Disturbed, etc.)	0	0	1	0	0	0	1
Ran Red Light	1	1	0	0	0	0	2	Ill (Sick)	0	1	0	0	0	0	1
Ran Stop Sign	0	0	0	0	0	0	0	Asleep or Fatigued	1	0	0	0	0	0	1
Disregarded Other Traffic Sign	0	2	0	0	0	0	2	Under the Influence of Medications/Drugs/Alcohol	6	1	1	0	0	0	8
Disregarded Other Road Markings	3	1	0	0	0	0	4	Other	0	1	0	0	0	0	1
Exceeded Posted Speed Limit	2	0	0	0	0	0	2								
Drove Too Fast For Conditions	4	4	0	0	0	0	8								
Improper Turn	5	5	0	0	0	0	10								
Improper Backing	1	3	0	0	0	0	4								
Improper Passing	5	8	0	0	0	0	13								
Wrong Way	0	0	0	0	0	0	0								
Followed Too Closely	41	42	9	0	0	0	92								
Failed to Keep in Proper Lane	2	7	1	0	0	0	10								
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	2	2	0	0	0	0	4								
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	4	0	0	0	0	5								
Over-Correcting/Over-Steering	1	0	0	0	0	0	1								
Other Contributing Action	9	9	2	1	0	0	21								
Unknown	8	9	0	0	0	0	17								
Total	271	247	26	1	0	0	545		641	12	10	0	0	663	

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	44	0	0	0	0	44
20-24	86	0	0	0	0	86
25-29	87	0	0	0	0	87
30-39	122	0	0	0	0	122
40-49	111	0	0	0	0	111
50-59	94	0	0	0	0	94
60-69	46	0	0	0	0	46
70-79	19	0	0	0	0	19
80-Over	13	0	0	0	0	13
Unknown	19	12	0	10	0	41
Total	641	12	0	10	0	663

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	1	K	0	0
2-Fire / Explosion	0	39-Unknown	32	A	1	1
3-Immersion	0	40-Gate or Cable	0	B	17	22
4-Jackknife	0	41-Pressure Ridge	0	C	97	126
5-Cargo / Equipment Loss Or Shift	0	Total	524	PD	205	0
6-Fell / Jumped from Motor Vehicle	0			Total	320	149
7-Thrown or Falling Object	0					
8-Other Non-Collision	2					
9-Pedestrian	6					
10-Pedalcycle	2					
11-Railway Vehicle - Train, Engine	0					
12-Animal	0					
13-Motor Vehicle in Transport	469					
14-Parked Motor Vehicle	5					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	2					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	0					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	2					
33-Traffic Sign Support	0					
34-Traffic Signal Support	1					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	2					

Traffic Control Devices			Total
Traffic Control Device			
1-Traffic Signals (Stop & Go)			143
2-Traffic Signals (Flashing)			6
3-Advisory/Warning Sign			1
4-Stop Signs - All Approaches			1
5-Stop Signs - Other			20
6-Yield Sign			0
7-Curve Warning Sign			0
8-Officer, Flagman, School Patrol			0
9-School Bus Stop Arm			0
10-School Zone Sign			0
11-R.R. Crossing Device			2
12-No Passing Zone			1
13-None			147
14-Other			1
Total			322

Road Character			Total
Road Grade			
1-Level			314
2-On Grade			8
3-Top of Hill			0
4-Bottom of Hill			0
5-Other			0
Total			322

Light			Total
Light Condition			
1-Daylight			237
2-Dawn			2
3-Dusk			14
4-Dark - Lighted			66
5-Dark - Not Lighted			0
6-Dark - Unknown Lighting			1
7-Unknown			2
Total			322

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	9	5	11	25
FEBRUARY	5	2	12	19
MARCH	10	5	6	21
APRIL	8	8	8	24
MAY	16	5	3	24
JUNE	10	8	9	27
JULY	10	8	13	31
AUGUST	12	5	13	30
SEPTEMBER	6	13	10	29
OCTOBER	7	13	12	32
NOVEMBER	11	5	12	28
DECEMBER	9	17	6	32
Total	113	94	115	322

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	77	1	36	64	21	14	0	0	0	0	0	0	1	214
Head-on / Sideswipe	0	0	1	0	2	0	0	0	0	0	0	0	0	3
Intersection Movement	0	0	25	11	6	29	0	0	0	0	0	0	0	71
Pedestrians	4	0	0	2	0	0	0	0	0	0	0	0	0	6
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	4	0	6	2	1	1	0	0	0	0	0	0	0	14
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	1	0	2	4	0	5	0	0	0	0	0	0	0	12
Other	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	86	1	70	84	31	49	0	0	0	0	0	0	0	322

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	37	0	0	0	0	0	2	1	0	0	3	43
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	1	0	0	0	0	0	0	0	0	0	0	1
Dawn	1	0	0	0	0	0	0	0	0	0	0	1
Daylight	160	0	0	0	0	0	0	2	0	0	4	166
Dusk	10	0	0	0	0	0	0	1	0	0	1	12
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	3	0	0	0	0	0	0	0	0	0	1	4
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	1	1
Daylight	22	0	0	0	0	0	0	1	0	0	9	32
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	1	0	0	0	0	0	0	0	0	0	0	1

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	1	0	0	1
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	11	11
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	31	31
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics
Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	1	0	0	0	0	0	0	0	0	1	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	2	0	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	8	0	0	0	8
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	238	1	0	0	0	0	2	15	1	0	0	322

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS☒ Crash Summary I☒ Section Detail☒ Crash Summary II☐ 1320 Public☐ 1320 Private☐ 1320 SummaryREPORT DESCRIPTION

Portland section 1

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0025B

Start Node: 13054
End Node: 15061Start Offset: 0
End Offset: 0☐ Exclude First Node
☐ Exclude Last Node

Route: 0025X

Start Node: 12928
End Node: 13054Start Offset: 0
End Offset: 0☐ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 67672
End Node: 15889Start Offset: 0
End Offset: 0☐ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 15889
End Node: 67673Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 19569
End Node: 13154Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 13154
End Node: 13149Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 13149
End Node: 19572Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 025BE

Start Node: 19572
End Node: 13054Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 13054
End Node: 13133Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0025E

Start Node: 12868
End Node: 63716Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Crash Summary I

Node	Route - MP	Node Description	Nodes			Injury Crashes			Percent Annual M Injury Ent-Veh	Crash Rate	Critical Rate	CRF
			U/R	Total Crashes	K	A	B	C				
P13054	0025B - 0	Int of BRIGHTON AV CABOT ST RAND RD	9	27	0	0	0	7	20	25.9	10.034	1.01
											Statewide Crash Rate: 0.90	0.65
19572	0025B - 0.09	Int of BRIGHTON AV ENT PINE TREE	2	1	0	0	0	0	1	0.0	7.800	0.32
											Statewide Crash Rate: 0.14	0.00
13149	0025B - 0.13	Int of BRIGHTON AV LOWES TAFT AV	9	11	0	0	1	3	7	36.4	7.717	1.06
											Statewide Crash Rate: 0.65	0.00
13154	0025B - 0.18	Int of BRIGHTON AV HOLM AV	2	2	0	0	0	0	2	0.0	7.726	0.32
											Statewide Crash Rate: 0.14	0.00
19569	0025B - 0.27	Int of AARONS Z RD BRIGHTON AV ENT TO PORT HOS	9	8	0	0	0	3	5	37.5	8.035	1.05
											Statewide Crash Rate: 0.85	0.00
67673	0025B - 0.30	Non-Int BRIGHTON AV	2	0	0	0	0	0	0	0.0	7.618	0.32
											Statewide Crash Rate: 0.14	0.00
65546	0025B - 0.41	Int of BRIGHTON AV BRIGHTON AVE	2	0	0	0	0	0	0	0.0	4.132	0.37
											Statewide Crash Rate: 0.14	0.00
15889	0025B - 0.44	Int of BRIGHTON AV ENTRANCE TO DENNY'S Z RD RIVER	9	13	0	0	2	2	9	30.8	6.329	1.10
											Statewide Crash Rate: 0.55	0.00
15061	0025B - 0.48	TL Portland Westbrook Int of BRIGHTON AV MAIN ST RIV	2	0	0	0	0	0	0	0.0	2.657	0.42
											Statewide Crash Rate: 0.14	0.00
12928	0025X - 1.64	Int of BRIGHTON AV STEVENS AV	9	35	0	0	2	14	19	45.7	9.749	1.02
											Statewide Crash Rate: 0.65	1.18
12801	0025X - 1.71	Int of BELFIELD ST BRIGHTON AV	2	1	0	0	0	0	1	0.0	5.717	0.31
											Statewide Crash Rate: 0.12	0.00
12992	0025X - 1.76	Int of BRIGHTON AV MOTLEY ST	2	2	0	0	0	1	1	50.0	5.746	0.31
											Statewide Crash Rate: 0.12	0.00
12994	0025X - 1.81	Int of BRIGHTON AV KENILWORTH ST	2	1	0	0	0	1	0	100.0	5.817	0.30
											Statewide Crash Rate: 0.12	0.00
12871	0025X - 1.84	Int of BRIGHTON AV FELLOWS ST	2	0	0	0	0	0	0	0.0	5.859	0.30
											Statewide Crash Rate: 0.12	0.00
12973	0025X - 1.86	Int of BANCROFT ST BRIGHTON AV	2	1	0	0	0	1	0	100.0	5.860	0.30
											Statewide Crash Rate: 0.12	0.00
12991	0025X - 1.91	Int of BRIGHTON AV WOLCOTT ST	2	2	0	0	0	0	2	0.0	5.735	0.31
											Statewide Crash Rate: 0.12	0.00
12874	0025X - 1.93	Int of BRIGHTON AV MONDROSE AV	2	1	0	0	0	0	1	0.0	5.699	0.31
											Statewide Crash Rate: 0.12	0.00
12980	0025X - 1.96	Int of BRIGHTON AV FLEETWOOD ST	2	1	0	0	1	0	0	100.0	5.708	0.31
											Statewide Crash Rate: 0.12	0.00
63716	0025X - 1.98	Non-Int BRIGHTON AV	2	1	0	0	0	1	0	100.0	5.693	0.31
											Statewide Crash Rate: 0.12	0.00
12868	0025X - 2.01	Int of BRIGHTON AV COLONIAL RD COLUMBIA RD WOOD	9	18	0	1	0	6	11	38.9	8.406	1.04
											Statewide Crash Rate: 0.65	0.00
12981	0025X - 2.06	Int of BRIGHTON AV HASTINGS ST	2	3	0	0	0	1	2	33.3	7.908	0.28
											Statewide Crash Rate: 0.12	0.00
13010	0025X - 2.08	Int of BRIGHTON AV WESTMINSTER AV	2	0	0	0	0	0	0	0.0	8.385	0.28
											Statewide Crash Rate: 0.12	0.00

Crash Summary I

Node	Route - MP	Node Description	Nodes										CRF					
			U/R	Total Crashes	K	Injury Crashes			A	B	C	PD		Injury	Percent Annual M Ent-Veh	Crash Rate	Critical Rate	
12984	0025X - 2.11	Int of BRIGHTON AV, MACHIGONNE ST	2	0	0	0	0	0	0	0	0	0	0	0	8.354	0.00	0.28	0.00
															Statewide Crash Rate:	0.12		
13012	0025X - 2.13	Int of BRIGHTON AV, EDGEWORTH AV	2	1	0	0	0	0	0	0	0	1	0.0	0.0	8.294	0.04	0.28	0.00
															Statewide Crash Rate:	0.12		
13013	0025X - 2.18	Int of BRIGHTON AV, JEANNE ST	2	1	0	0	0	0	0	0	0	1	0.0	0.0	8.409	0.04	0.28	0.00
															Statewide Crash Rate:	0.12		
13055	0025X - 2.34	Int of BRIGHTON AV, WAYSIDE RD	2	0	0	0	0	0	0	0	0	0	0.0	0.0	8.189	0.00	0.28	0.00
															Statewide Crash Rate:	0.12		
13023	0025X - 2.36	Int of BRIGHTON AV, LUCAS ST	2	2	0	0	0	0	0	0	2	0	100.0	0.0	7.482	0.09	0.29	0.00
															Statewide Crash Rate:	0.12		
13038	0025X - 2.43	Int of BRIGHTON AV, MAYER RD	2	2	0	0	0	0	0	0	0	2	0.0	0.0	7.089	0.09	0.29	0.00
															Statewide Crash Rate:	0.12		
13066	0025X - 2.53	Int of BRIGHTON AV, HARMON RD	2	1	0	0	0	0	0	0	0	1	0.0	0.0	7.061	0.05	0.29	0.00
															Statewide Crash Rate:	0.12		
13035	0025X - 2.55	Int of ALBION ST, BRIGHTON AV	2	0	0	0	0	0	0	0	0	0	0.0	0.0	7.030	0.00	0.29	0.00
															Statewide Crash Rate:	0.12		
13070	0025X - 2.59	Int of BRIGHTON AV, RAYMOND RD	2	0	0	0	0	0	0	0	0	0	0.0	0.0	6.980	0.00	0.29	0.00
															Statewide Crash Rate:	0.12		
13073	0025X - 2.64	Int of BRIGHTON AV, DENNETT ST	2	1	0	0	0	0	0	0	0	1	0.0	0.0	7.119	0.05	0.29	0.00
															Statewide Crash Rate:	0.12		
13083	0025X - 2.67	Int of BRIGHTON AV, ESSEX ST	2	3	0	0	0	0	0	0	2	1	66.7	0.0	7.049	0.14	0.29	0.00
															Statewide Crash Rate:	0.12		
A13086	0025X - 2.70	Int of BRIGHTON AV, KENT ST	2	0	0	0	0	0	0	0	0	0	0.0	0.0	0.000	0.00	0.00	0.00
															Statewide Crash Rate:	0.12		
P13042	0025X - 2.71	Int of BRIGHTON AV, CAPISIC ST, HILCREST AV	9	16	0	0	0	0	0	0	1	4	11	31.3	9.340	0.57	1.02	0.00
															Statewide Crash Rate:	0.65		
13076	0025X - 2.75	Int of BRIGHTON AV, DEVON ST	2	7	0	0	0	0	0	0	1	5	28.6	0.0	4.655	0.50	0.32	1.55
															Statewide Crash Rate:	0.12		
13079	0025X - 2.80	Int of BRIGHTON AV, DORSET ST	2	1	0	0	0	0	0	0	0	0	1	0.0	4.659	0.07	0.32	0.00
															Statewide Crash Rate:	0.12		
P13102	0025X - 2.85	Int of BRIGHTON AV, WARWICK ST	9	17	0	0	0	0	0	0	6	11	35.3	0.0	9.859	0.57	1.01	0.00
															Statewide Crash Rate:	0.65		
A13050	0025X - 2.86	Int of BRIGHTON AV, ROWE AV	2	0	0	0	0	0	0	0	0	0	0.0	0.0	0.000	0.00	0.00	0.00
															Statewide Crash Rate:	0.12		
A13131	0025X - 2.89	Int of BRIGHTON AV, LOMOND ST	2	0	0	0	0	0	0	0	0	0	0.0	0.0	0.000	0.00	0.00	0.00
															Statewide Crash Rate:	0.12		
P12529	0025X - 2.90	Int of BRIGHTON AV, TERRACE AV	2	1	0	0	0	0	0	0	1	0	100.0	0.0	9.512	0.04	0.27	0.00
															Statewide Crash Rate:	0.12		
13052	0025X - 2.93	Int of BRIGHTON AV, WEBB ST	2	0	0	0	0	0	0	0	0	0	0.0	0.0	4.904	0.00	0.32	0.00
															Statewide Crash Rate:	0.12		
13133	0025X - 2.94	Int of BRIGHTON AV, WESSEX ST	2	1	0	0	0	0	0	0	0	1	0.0	0.0	9.703	0.03	0.27	0.00
															Statewide Crash Rate:	0.12		
67672	025BE - 0.49	TL Portland Westbrook	2	0	0	0	0	0	0	0	0	0	0.0	0.0	2.252	0.00	0.44	0.00
															Statewide Crash Rate:	0.14		

Crash Summary I

Nodes													
Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes					Percent Annual M		Crash Rate	Critical Rate
				K	A	B	C	PD	Injury	Ent-Veh			
A67678	0025E - 2.58	Int of BRIGHTON AV RD INV 3209763	2	0	0	0	0	0	0	0.000	0.00	0.00	0.00
													Statewide Crash Rate: 0.12
NODE TOTALS:			182	0	1	8	56	117	35.7	286.240	0.21	0.29	0.72
Study Years:			3.00										

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	UR Length	Sections				Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
							Total Crashes	K	A	B	C	PD			
13054	19572	3115367	0 - 0.09	0025B - 0	0.09	2	1	0	0	1	0	0	0.00339	98.42	486.19
Int of BRIGHTON AV CABOT ST RAND RD ST RTE 25B															0.00
13149	19572	3121390	0 - 0.04	0025B - 0.09	0.04	2	0	0	0	0	0	0	0.00151	0.00	598.74
Int of BRIGHTON AV LOWES TAFT AV ST RTE 25B															0.00
13149	13154	3115366	0 - 0.05	0025B - 0.13	0.05	2	0	0	0	0	0	0	0.00186	0.00	567.45
Int of BRIGHTON AV LOWES TAFT AV ST RTE 25B															0.00
13154	19569	3115365	0 - 0.09	0025B - 0.18	0.09	2	3	0	0	0	1	2	0.00343	291.78	484.71
Int of BRIGHTON AV HOLM AV ST RTE 25B															0.00
67673	19569	3415785	0 - 0.03	0025B - 0.27	0.03	2	2	0	0	0	0	2	0.00235	283.70	534.46
Non Int BRIGHTON AV ST RTE 25B															0.00
65546	67673	3415784	0 - 0.11	0025B - 0.30	0.11	2	1	0	0	0	0	1	0.00454	73.34	451.01
Int of BRIGHTON AV BRIGHTON AVE ST RTE 25B															0.00
15889	65546	3139802	0 - 0.03	0025B - 0.41	0.03	2	0	0	0	0	0	0	0.00069	0.00	718.23
Int of BRIGHTON AV ENTRANCE TO DENNY'S Z ST RTE 25B															0.00
15061	15889	3121571	0 - 0.04	0025B - 0.44	0.04	2	1	0	0	0	0	1	0.00093	359.60	673.67
TL Portland Westbrook Int of BRIGHTON AV ST RTE 25B															0.00
12801	12928	3119193	0 - 0.07	0025X - 1.64	0.07	2	2	0	0	0	0	2	0.00396	168.34	441.02
Int of BELFIELD ST BRIGHTON AV ST RTE 25															0.00
12801	12992	3106217	0 - 0.05	0025X - 1.71	0.05	2	3	0	0	2	0	1	0.00286	349.81	479.76
Int of BELFIELD ST BRIGHTON AV ST RTE 25															0.00
12992	12994	3106235	0 - 0.05	0025X - 1.76	0.05	2	2	0	0	1	1	0	0.00287	232.07	479.15
Int of BRIGHTON AV MOTLEY ST ST RTE 25															0.00
12871	12994	3118691	0 - 0.03	0025X - 1.81	0.03	2	0	0	0	0	0	0	0.00174	0.00	545.13
Int of BRIGHTON AV FELLOWS ST ST RTE 25															0.00
12871	12973	3106221	0 - 0.02	0025X - 1.84	0.02	2	0	0	0	0	0	0	0.00117	0.00	602.02
Int of BRIGHTON AV FELLOWS ST ST RTE 25															0.00
12873	12991	3106233	0 - 0.05	0025X - 1.86	0.05	2	4	0	0	0	2	2	0.00284	469.32	480.54
Int of BANCROFT ST BRIGHTON AV ST RTE 25															0.00
12874	12991	3106223	0 - 0.02	0025X - 1.91	0.02	2	0	0	0	0	0	0	0.00112	0.00	608.06
Int of BRIGHTON AV MONDTROSE AV ST RTE 25															0.00
12874	12980	3106222	0 - 0.03	0025X - 1.93	0.03	2	1	0	0	0	0	1	0.00170	196.37	548.69
Int of BRIGHTON AV MONDTROSE AV ST RTE 25															0.00
63716	12980	3121500	0 - 0.02	0025X - 1.96	0.02	2	3	0	0	0	0	3	0.00114	878.00	605.26
Non-Int BRIGHTON AV ST RTE 25															1.45
12868	63716	3116181	0 - 0.03	0025X - 1.98	0.03	2	0	0	0	0	0	0	0.00085	0.00	645.96
Int of BRIGHTON AV COLONIAL RD COLUMBIA ST RTE 25															0.00
12868	12981	3123682	0 - 0.05	0025X - 2.01	0.05	2	3	0	0	0	0	3	0.00368	271.80	449.45
Int of BRIGHTON AV COLONIAL RD COLUMBIA ST RTE 25															0.00
RD WOODFORD ST															
RD WOODFORD ST															

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	UJR	Sections										Total Crashes	K	Injury Crashes			PD	Percent Injury	Annual HMMV	Crash Rate	Critical Rate	CRF
							A	B	C	D	A	B	C	D													
12981	13010	3131547	0 - 0.02	0025X - 2.06 Int of BRIGHTON AV HASTINGS ST ST RTE 25	0.02	2	1	0	0	0	0	0	1	0	0	0	0	0.0	0.00167	199.46	550.86	0.00					
12984	13010	3106234	0 - 0.03	0025X - 2.08 Int of BRIGHTON AV MACHIGONNE ST ST RTE 25	0.03	2	1	0	0	0	0	1	0	0	0	0	0	0.0	0.00250	133.32	496.73	0.00					
12984	13012	3131548	0 - 0.02	0025X - 2.11 Int of BRIGHTON AV MACHIGONNE ST ST RTE 25	0.02	2	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00166	0.00	551.95	0.00					
13012	13013	3130037	0 - 0.05	0025X - 2.13 Int of BRIGHTON AV EDGEWORTH AV ST RTE 25	0.05	2	2	0	0	0	0	2	0	0	0	0	0	0.0	0.00411	162.38	436.97	0.00					
13013	13055	3106236	0 - 0.16	0025X - 2.18 Int of BRIGHTON AV JEANNE ST ST RTE 25	0.16	2	3	0	0	0	2	1	0	0	0	0	66.7	0.01307	76.52	330.78	0.00						
13023	13055	3123932	0 - 0.02	0025X - 2.34 Int of BRIGHTON AV LUCAS ST ST RTE 25	0.02	2	1	0	0	0	0	1	0	0	0	0	0	0.00157	212.52	559.73	0.00						
13023	13038	3139392	0 - 0.07	0025X - 2.36 Int of BRIGHTON AV LUCAS ST ST RTE 25	0.07	2	2	0	0	0	0	2	0	0	0	0	0	0.00495	134.72	416.70	0.00						
13038	13066	2527645	0 - 0.10	0025X - 2.43 Int of BRIGHTON AV MAYER RD ST RTE 25	0.10	2	2	0	0	0	0	2	0	0	0	0	0	0.00705	94.58	381.70	0.00						
13035	13066	3120651	0 - 0.02	0025X - 2.53 Int of ALBION ST BRIGHTON AV ST RTE 25	0.02	2	1	0	0	0	1	0	100.0	0.00140	575.60	237.79	575.60	0.00									
13035	13070	3119198	0 - 0.04	0025X - 2.55 Int of ALBION ST BRIGHTON AV ST RTE 25	0.04	2	0	0	0	0	0	0	0	0.00278	483.36	0.00	483.36	0.00									
13070	13073	3117884	0 - 0.05	0025X - 2.59 Int of BRIGHTON AV RAYMOND RD ST RTE 25	0.05	2	0	0	0	0	0	0	0	0.00348	455.99	0.00	455.99	0.00									
13073	13083	187715	0 - 0.03	0025X - 2.64 Int of BRIGHTON AV DENNETT ST ST RTE 25	0.03	2	1	0	0	0	0	1	0	0.00210	519.76	158.88	519.76	0.00									
13083	13086	3139394	0 - 0.03	0025X - 2.67 Int of BRIGHTON AV ESSEX ST ST RTE 25	0.03	2	9	0	0	0	3	6	33.3	0.00211	519.14	1423.23	519.14	2.74									
13042	13086	3121743	0 - 0.01	0025X - 2.70 Int of BRIGHTON AV CAPISC ST HILCREST AV	0.01	2	0	0	0	0	0	0	0	0.00071	671.69	0.00	671.69	0.00									
13042	13076	3139393	0 - 0.04	0025X - 2.71 Int of BRIGHTON AV CAPISC ST HILCREST AV	0.04	2	1	0	1	0	0	0	100.0	0.00368	449.36	90.53	449.36	0.00									
13076	13079	3119844	0 - 0.05	0025X - 2.75 Int of BRIGHTON AV DEVON ST ST RTE 25	0.05	2	4	0	0	0	1	3	25.0	0.00460	424.41	289.69	424.41	0.00									
13079	13102	3119200	0 - 0.05	0025X - 2.80 Int of BRIGHTON AV DORSET ST ST RTE 25	0.05	2	0	0	0	0	0	0	0	0.00460	424.41	0.00	424.41	0.00									
13050	13102	3131552	0 - 0.01	0025X - 2.85 Int of BRIGHTON AV ROWE AV ST RTE 25	0.01	2	1	0	0	0	0	1	0	0.00093	634.68	359.83	634.68	0.00									
13050	13131	3131553	0 - 0.03	0025X - 2.86 Int of BRIGHTON AV ROWE AV	0.03	2	7	0	0	2	2	3	57.1	0.00279	482.80	836.30	482.80	1.73									

Crash Summary I

Start Node				End Node				Element		Offset		Route - MP		Section Length		U/R		Sections					Annual HMVM		Crash Rate		Critical Rate		CRF	
Node				Node						Begin - End				Length		Crashes		K		Injury Crashes			Percent Injury		Crash Rate		Crash Rate		CRF	
12529	13131	3120019	0 - 0.01	0025X - 2.89	0.01	2	0	0	0	0	0	0	0	0	0.00093	0.00	634.13	0.00	634.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV TERRACE AV																														
12529	13052	3130457	0 - 0.03	0025X - 2.90	0.03	2	2	0	0	0	0	0	2	0.00290	230.20	478.15	0.00	478.15	0.00	230.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV TERRACE AV																														
13052	13133	3123711	0 - 0.01	0025X - 2.93	0.01	2	0	0	0	0	0	0	0	0.00097	0.00	628.85	0.00	628.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV WEBB ST																														
13054	13133	3139185	0 - 0.09	0025X - 2.94	0.09	2	2	0	0	0	0	0	2	0.00428	155.86	432.41	0.00	432.41	0.00	155.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV CABOT ST RAND RD																														
67672	15889	3415777	0 - 0.04	0258E - 0.49	0.04	2	0	0	0	0	0	0	0	0.00090	0.00	678.06	0.00	678.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TL Portland Westbrook																														
15889	67673	3415787	0 - 0.14	0258E - 0.53	0.14	2	2	0	0	0	0	0	2	0.00518	128.66	436.41	0.00	436.41	0.00	128.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV ENTRANCE TO DENNIS Z RD RIVERSIDE ST																														
19569	13154	3415788	0 - 0.09	0258E - 0.67	0.09	2	0	0	0	0	0	0	0	0.00343	0.00	484.71	0.00	484.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of AARONS Z RD BRIGHTON AV ENT TO PORT HOS																														
13154	13149	3415789	0 - 0.05	0258E - 0.76	0.05	2	0	0	0	0	0	0	0	0.00186	0.00	567.45	0.00	567.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV HOLM AV																														
13149	19572	3415790	0 - 0.04	0258E - 0.81	0.04	2	0	0	0	0	0	0	0	0.00151	0.00	598.74	0.00	598.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV LOWES TAFT AV																														
19572	13054	3415791	0 - 0.09	0258E - 0.85	0.09	2	1	0	0	0	0	1	0	0.00308	108.18	498.21	0.00	498.21	0.00	108.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV ENT PINE TREE																														
13054	67678	3416044	0 - 0.02	0025E - 2.56	0.02	2	0	0	0	0	0	0	0	0.00066	0.00	681.56	0.00	681.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV CABOT ST RAND RD																														
67678	13133	3416045	0 - 0.07	0025E - 2.58	0.07	2	1	0	0	0	0	0	1	0.00340	97.97	458.61	0.00	458.61	0.00	97.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV RD INV 3203763																														
12868	63716	2671096	0 - 0.03	0025E - 2.65	0.03	2	2	0	0	0	0	0	2	0.00085	780.95	646.14	1.21	646.14	1.21	780.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int of BRIGHTON AV COLONIAL RD COLUMBIA ST WOODFORD ST																														
RD WOODFORD ST																														
Study Years: 3.00				Section Totals:		2.44	72	0	1	6	14	51	29.2	0.13831	173.52	227.94	0.76	227.94	0.76											
Grand Totals:				Grand Totals:		2.44	254	0	2	14	70	168	33.9	0.13831	612.14	337.31	1.81	337.31	1.81											

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
13054	19572	3115367	0 - 0.09	0025B - 0	1	0	0	1	0	0	2013-29377	11/21/2013	0.05	B
13149	19572	3121390	0 - 0.04	0025B - 0.09	0	0	0	0	0	0				
13149	13154	3115366	0 - 0.05	0025B - 0.13	0	0	0	0	0	0				
13154	19569	3115365	0 - 0.09	0025B - 0.18	3	0	0	0	1	2	2012-47405	12/10/2012	0.22	C
											2011-6084C	03/31/2011	0.26	PD
											2012-22852	02/27/2012	0.26	PD
67673	19569	3415785	0 - 0.03	0025B - 0.27	2	0	0	0	0	2	2013-14837	06/20/2013	0.29	PD
											2012-26204	04/12/2012	0.29	PD
65546	67673	3415784	0 - 0.11	0025B - 0.30	1	0	0	0	0	1	2013-4579	02/18/2013	0.36	PD
15889	65546	3139802	0 - 0.03	0025B - 0.41	0	0	0	0	0	0				
15061	15889	3121571	0 - 0.04	0025B - 0.44	1	0	0	0	0	1	2013-8115	03/27/2013	0.46	PD
12801	12928	3119193	0 - 0.07	0025X - 1.64	2	0	0	0	0	2	2011-4337C	02/28/2011	1.65	PD
											2013-26674	10/25/2013	1.68	PD
12801	12992	3106217	0 - 0.05	0025X - 1.71	3	0	0	2	0	1	2012-27039	04/26/2012	1.72	B
											2012-30309	06/14/2012	1.74	B
12992	12994	3106235	0 - 0.05	0025X - 1.76	2	0	0	1	1	0	2011-11991	10/06/2011	1.74	PD
											2011-21036	12/30/2011	1.77	C
											2013-24948	10/07/2013	1.79	B
12871	12994	3118691	0 - 0.03	0025X - 1.81	0	0	0	0	0	0				
12871	12973	3106221	0 - 0.02	0025X - 1.84	0	0	0	0	0	0				
12973	12991	3106233	0 - 0.05	0025X - 1.86	4	0	0	0	2	2	2013-12675	05/27/2013	1.87	PD
											2013-23626	09/21/2013	1.89	C
											2013-3999	02/14/2013	1.90	C
											2012-35146	08/13/2012	1.90	PD
12874	12991	3106223	0 - 0.02	0025X - 1.91	0	0	0	0	0	0				
12874	12980	3106222	0 - 0.03	0025X - 1.93	1	0	0	0	0	1	2012-38148	09/10/2012	1.95	PD
63716	12980	3121500	0 - 0.02	0025X - 1.96	3	0	0	0	0	3	2012-47126	12/13/2012	1.97	PD
											2011-40C	01/03/2011	1.97	PD
											2011-101C	01/05/2011	1.97	PD
12868	63716	3116181	0 - 0.03	0025X - 1.98	0	0	0	0	0	0				
12868	12981	3123682	0 - 0.05	0025X - 2.01	3	0	0	0	0	3	2011-780C	01/11/2011	2.02	PD
											2013-8504	04/02/2013	2.02	PD
12981	13010	3131547	0 - 0.02	0025X - 2.06	1	0	0	0	0	1	2012-2973	02/06/2012	2.04	PD
											2013-12424	05/23/2013	2.07	PD

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
12984	13010	3106234	0 - 0.03	0025X - 2.08	1	0	0	0	0	1	2013-8012	03/22/2013	2.09	PD
12984	13012	3131548	0 - 0.02	0025X - 2.11	0	0	0	0	0	0				
13012	13013	3130037	0 - 0.05	0025X - 2.13	2	0	0	0	0	2	2013-33432	12/16/2013	2.15	PD
											2013-22402	09/07/2013	2.15	PD
13013	13055	3106236	0 - 0.16	0025X - 2.18	3	0	0	0	2	1	2011-1387C	01/24/2011	2.20	C
											2011-6355	08/01/2011	2.20	C
											2013-2260	01/28/2013	2.32	PD
13023	13055	3123932	0 - 0.02	0025X - 2.34	1	0	0	0	0	1	2012-45261	11/26/2012	2.35	PD
13023	13038	3139392	0 - 0.07	0025X - 2.36	2	0	0	0	0	2	2013-27892	11/08/2013	2.39	PD
13038	13066	2527645	0 - 0.10	0025X - 2.43	2	0	0	0	0	2	2011-2921C	02/04/2011	2.42	PD
											2013-33454	12/17/2013	2.47	PD
											2012-28696	05/21/2012	2.52	PD
13035	13066	3120651	0 - 0.02	0025X - 2.53	1	0	0	0	1	0	2012-25095	03/28/2012	2.54	C
13035	13070	3119198	0 - 0.04	0025X - 2.55	0	0	0	0	0	0				
13070	13073	3117884	0 - 0.05	0025X - 2.59	0	0	0	0	0	0				
13073	13083	187715	0 - 0.03	0025X - 2.64	1	0	0	0	0	1	2011-706C	01/06/2011	2.66	PD
13083	13086	3139394	0 - 0.03	0025X - 2.67	9	0	0	0	3	6	2012-37068	08/29/2012	2.68	C
											2012-33445	07/18/2012	2.68	C
											2013-12921	05/29/2013	2.68	PD
											2011-1427C	01/24/2011	2.68	PD
											2011-4296C	02/25/2011	2.69	C
											2013-18983	08/05/2013	2.69	PD
											2011-15997	11/21/2011	2.69	PD
											2011-7837C	05/04/2011	2.69	PD
											2013-21126	08/22/2013	2.69	PD
13042	13086	3121743	0 - 0.01	0025X - 2.70	0	0	0	0	0	0				
13042	13076	3139393	0 - 0.04	0025X - 2.71	1	0	1	0	0	0	2012-37961	09/06/2012	2.73	A
13076	13079	3119844	0 - 0.05	0025X - 2.75	4	0	0	0	1	3	2011-8606C	05/31/2011	2.76	PD
											2013-23741	09/24/2013	2.77	C
											2012-33643	07/23/2012	2.78	PD
13079	13102	3119200	0 - 0.05	0025X - 2.80	0	0	0	0	0	0	2012-38546	09/14/2012	2.79	PD
13050	13102	3131552	0 - 0.01	0025X - 2.85	1	0	0	0	0	1	2012-1215	01/18/2012	2.85	PD

Page 10 of 18 on 2/17/2015, 8:14 AM

Crash Summary II - Characteristics**Crashes by Day and Hour**

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	0	0	0	1	0	0	1	0	0	0	0	3	3	1	1	1	4	0	3	0	0	0	0	0	18
MONDAY	0	0	0	0	0	0	1	2	9	4	0	2	6	5	4	6	5	4	3	1	0	0	1	0	0	53
TUESDAY	0	0	0	0	0	0	0	2	4	5	1	2	3	4	3	4	9	3	3	0	0	0	1	2	0	46
WEDNESDAY	0	0	1	0	0	0	2	0	5	2	1	4	3	3	3	2	3	4	0	0	0	0	0	0	0	33
THURSDAY	0	0	0	0	0	2	1	1	4	0	1	4	3	2	4	6	8	2	4	2	1	2	0	1	0	48
FRIDAY	0	0	0	0	0	0	2	2	4	4	3	2	1	3	1	1	4	2	1	2	0	0	0	0	0	32
SATURDAY	1	0	1	0	0	0	0	1	0	3	1	1	3	1	0	1	2	4	1	1	3	0	0	0	0	24
Totals	1	0	2	0	1	2	6	9	26	18	7	15	22	21	16	21	32	23	12	9	4	2	2	3	0	254

Vehicle Counts by Type

Unit Type	Total		Unit Type	Total	
	1	2		1	2
1-Passenger Car	352	23-Bicyclist		2	
2-(Sport) Utility Vehicle	87	24-Witness		35	
3-Passenger Van	7	25-Other		3	
4-Cargo Van (10K lbs or Less)	6	Total		562	
5-Pickup	55				
6-Motor Home	0				
7-School Bus	1				
8-Transit Bus	0				
9-Motor Coach	0				
10-Other Bus	0				
11-Motorcycle	1				
12-Moped	0				
13-Low Speed Vehicle	0				
14-Autocycle	0				
15-Experimental	0				
16-Other Light Trucks (10,000 lbs or Less)	1				
17-Medium/Heavy Trucks (More than 10,000 lbs)	11				
18-ATV - (4 wheel)	0				
20-ATV - (2 wheel)	0				
21-Snowmobile	0				
22-Pedestrian	1				

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	94	117	11	4	0	0	226
Ran Off Roadway	6	1	0	0	0	0	7
Failed to Yield Right-of-Way	35	21	0	0	0	0	56
Ran Red Light	7	6	0	0	0	0	13
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	1	0	0	0	0	1
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	2	7	0	0	0	0	9
Improper Turn	3	1	0	0	0	0	4
Improper Backing	4	0	0	0	0	0	4
Improper Passing	1	1	0	0	0	0	2
Wrong Way	1	0	0	0	0	0	1
Followed Too Closely	48	28	7	1	0	0	84
Failed to Keep in Proper Lane	9	4	0	0	0	0	13
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	3	1	0	0	0	5
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	4	2	0	0	0	0	6
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	10	11	1	0	0	0	22
Unknown	6	3	0	0	0	0	9
Total	231	206	20	5	0	0	462

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	245	222	22	5	0	1	495
Physically Impaired or Handicapped	1	1	0	0	0	0	2
Emotional(Depressed, Angry, Disturbed, etc.)	1	1	0	0	0	0	2
Ill (Sick)	1	1	0	0	0	0	2
Asleep or Fatigued	0	1	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	1	1	0	0	0	2	4
Other	2	2	1	1	0	0	6
Total	251	229	23	6	0	3	512

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	34	0	0	0	0	34
20-24	78	0	0	0	0	78
25-29	54	0	0	0	0	54
30-39	104	0	0	0	0	104
40-49	96	0	0	0	0	96
50-59	71	0	0	0	0	71
60-69	49	0	0	0	0	49
70-79	18	0	0	0	0	18
80-Over	13	0	0	0	0	13
Unknown	7	2	0	1	0	10
Total	524	2	0	1	0	527

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	1		
12-Animal	0		
13-Motor Vehicle in Transport	334		
14-Parked Motor Vehicle	14		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	2	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	92
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	451
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	10	11	15	36
FEBRUARY	6	13	9	28
MARCH	3	8	12	23
APRIL	7	10	4	21
MAY	7	6	3	16
JUNE	1	8	3	12
JULY	2	5	6	13
AUGUST	5	6	9	20
SEPTEMBER	6	7	10	23
OCTOBER	10	3	5	18
NOVEMBER	8	5	3	16
DECEMBER	6	12	10	28
Total	71	94	89	254

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Rear End / Sideswipe	49	0	46	56	7	8	0	0	0	0	0	0	0	166
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	22	23	10	11	0	0	0	0	0	0	0	66
Pedestrians	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	0	9	6	0	0	0	0	0	0	0	0	0	17
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	1	0	0	1	0	0	0	0	0	0	0	0	0	2
Other	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	54	0	77	87	17	19	0	0	0	0	0	0	0	254

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	22	0	0	0	0	0	0	0	0	0	0	22
Dark - Not Lighted	2	0	0	0	0	0	0	0	0	0	0	2
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	3	0	0	0	0	0	0	0	0	0	0	3
Daylight	125	0	0	0	0	0	1	1	0	0	8	135
Dusk	7	0	0	0	0	0	0	0	0	0	2	9
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	5	0	0	0	0	0	0	0	0	0	2	7
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	16	0	0	0	0	0	1	1	0	0	8	26
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	1	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	6	6
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	1	1
Daylight	0	0	0	0	0	0	0	0	0	0	15	15
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	3	0	0	0	0	0	1	0	0	0	4
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	1	6	0	0	0	7
Dark - Not Lighted	0	0	0	0	0	0	1	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	1	8	0	0	2	11
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	181	4	0	0	0	0	5	17	0	0	0	254

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Portland section 2

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0025X

Start Node: 13054
End Node: 59825

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☐ Exclude Last Node

Route: 0025E

Start Node: 67675
End Node: 13054

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☒ Exclude Last Node

Route: 3209763

Start Node: 67677
End Node: 67678

Start Offset: 0
End Offset: 0

☒ Exclude First Node
☒ Exclude Last Node

Crash Summary I

Node		Route - MP	Node Description		Nodes										CRF
			U/R	Total Crashes	K	A	B	C	PD	Injury Crashes	Percent Annual M Injury Ent-Veh	Crash Rate	Critical Rate		
67675	0025X - 3.10	Non Int RAND RD	2	0	0	0	0	0	0	0	0.0	2.792	0.00	0.37	
												Statewide Crash Rate:	0.12		
13082	0025X - 3.46	Non Int RAND RD	2	1	0	0	0	1	0	100.0	1.573	0.21	0.42	0.00	
												Statewide Crash Rate:	0.12		
17893	0025X - 3.52	Int of PINETREE IND PK RAND RD	2	0	0	0	0	0	0	0	0.0	3.910	0.00	0.34	
												Statewide Crash Rate:	0.12	0.00	
59824	0025X - 3.85	Int of RAMP OFF I 95 NB RAMP ON I 95 NB RAND RD	9	10	0	0	3	4	3	70.0	5.913	0.56	1.11	0.00	
												Statewide Crash Rate:	0.65		
59825	0025X - 4.11	TL Portland Westbrook	2	0	0	0	0	0	0	0	0.0	2.216	0.00	0.37	
												Statewide Crash Rate:	0.11		
A67677	0025E - 2.54	Int of RAND RD RD INV 3209763	2	0	0	0	0	0	0	0	0.0	0.000	0.00	0.00	
												Statewide Crash Rate:	0.12		
Study Years: 3.00			NODE TOTALS: 11 0 0 0 3 5 3 72.7 16.404 0.22 0.50 0.44												

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Sections										Annual HMVM	Crash Rate	Critical Rate	CRF
						Section Crashes	Total Crashes	K	A	B	C	PD	Percent Injury						
13054	67675	3415950	0 - 0.07	0025X - 3.03 ST RTE 25	0.07	2	1	0	0	0	0	1	0.0	0.00085	390.61	648.19	0.00		
Int of BRIGHTON AV CABOT ST RAND RD																			
67675	13082	3415951	0 - 0.36	0025X - 3.10 ST RTE 25	0.36	2	5	0	0	1	0	4	20.0	0.01133	147.15	341.49	0.00		
Non Int RAND RD																			
13082	17893	3106239	0 - 0.06	0025X - 3.46 ST RTE 25	0.06	2	1	0	0	0	0	1	0.0	0.00189	176.57	534.04	0.00		
Non Int RAND RD																			
59824	17893	3118423	0 - 0.33	0025X - 3.52 ST RTE 25	0.33	2	1	0	0	0	0	1	0.0	0.01361	24.49	327.86	0.00		
Int of RAMP OFF I 95 NB RAMP ON I 95 NB RAND RD																			
59825	59824	3119764	0 - 0.26	0025X - 3.85 ST RTE 25	0.26	2	0	0	0	0	0	0	0.0	0.01152	0.00	175.45	0.00		
TL Portland Westbrook																			
67675	67677	3416040	0 - 0.05	0025E - 2.49 ST RTE 25E	0.05	2	0	0	0	0	0	0	0.0	0.00085	0.00	648.37	0.00		
Non Int RAND RD																			
67677	13054	3416041	0 - 0.02	0025E - 2.54 ST RTE 25E	0.02	2	0	0	0	0	0	0	0.0	0.00002	0.00	-2749.94	0.00		
Int of RAND RD RD INV 3209763																			
67677	67678	3416048	0 - 0.03	3209763 - 0 RD INV 3209763	0.03	2	0	0	0	0	0	0	0.0	0.00048	0.00	718.25	0.00		
Int of RAND RD RD INV 3209763																			
Statewide Crash Rate: 172.61																			
Study Years: 300					Section Totals:	1.18	8	0	0	1	0	7	12.5	0.04055	65.76	228.62	0.29		
Grand Totals:						1.18	19	0	0	4	5	10	47.4	0.04055	156.19	339.81	0.46		

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree	
						K	A	B	C					PD
13054	67675	3415950	0 - 0.07	0025X - 3.03	1	0	0	0	0	1	2011-3569C	02/15/2011	3.04	PD
67675	13082	3415951	0 - 0.36	0025X - 3.10	5	0	0	1	0	4	2012-25461	04/03/2012	3.15	PD
											2011-12574	10/14/2011	3.16	PD
											2013-23998	09/26/2013	3.16	PD
											2011-3956	07/03/2011	3.28	PD
											2012-30577	06/11/2012	3.43	B
13082	17893	3106239	0 - 0.06	0025X - 3.46	1	0	0	0	0	1	2011-8608C	05/31/2011	3.51	PD
59824	17893	3118423	0 - 0.33	0025X - 3.52	1	0	0	0	0	1	2013-28879	11/16/2013	3.82	PD
59825	59824	3119764	0 - 0.26	0025X - 3.85	0	0	0	0	0	0				
67675	67677	3416040	0 - 0.05	0025E - 2.49	0	0	0	0	0	0				
67677	13054	3416041	0 - 0.02	0025E - 2.54	0	0	0	0	0	0				
67677	67678	3416048	0 - 0.03	3209763 - 0	0	0	0	0	0	0				
Totals:					8	0	0	0	1	0	7			

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
TUESDAY	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	4
WEDNESDAY	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
FRIDAY	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	5
SATURDAY	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
Totals	0	0	0	1	0	0	0	2	3	2	0	1	1	1	1	0	2	3	0	0	0	0	1	1	0	19

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	24	23-Bicyclist	1
2-(Sport) Utility Vehicle	5	24-Witness	0
3-Passenger Van	1	25-Other	0
4-Cargo Van (10K lbs or Less)	0	Total	36
5-Pickup	1		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	1		
17-Medium/Heavy Trucks (More than 10,000 lbs)	3		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	11	7	0	0	0	0	18
Ran Off Roadway	1	0	0	0	0	0	1
Failed to Yield Right-of-Way	0	1	0	0	0	0	1
Ran Red Light	1	0	0	0	0	0	1
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	1	0	0	0	0	1
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	1	1	0	0	0	0	2
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	3	3	1	0	0	0	7
Failed to Keep in Proper Lane	1	0	0	0	0	0	1
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0
Total	18	13	1	0	0	0	32

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	19	14	1	0	0	1	35
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	19	14	1	0	0	1	35

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	2	0	0	0	0	2
20-24	3	0	0	0	0	3
25-29	7	0	0	0	0	7
30-39	8	0	0	0	0	8
40-49	1	0	0	0	0	1
50-59	7	0	0	0	0	7
60-69	5	0	0	0	0	5
70-79	1	0	0	0	0	1
80-Over	0	0	0	0	0	0
Unknown	1	1	0	0	0	2
Total	35	1	0	0	0	36

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	1	38-Other Fixed Object (wall, building, tunnel, etc.)	0			
2-Fire / Explosion	0	39-Unknown	2	K	0	0
3-Immersion	0	40-Gate or Cable	0	A	0	0
4-Jackknife	0	41-Pressure Ridge	0	B	4	4
5-Cargo / Equipment Loss Or Shift	0	Total	31	C	5	6
6-Fell / Jumped from Motor Vehicle	0			PD	10	0
7-Thrown or Falling Object	0			Total	19	10
8-Other Non-Collision	0					
9-Pedestrian	0					
10-Pedalcycle	0					
11-Railway Vehicle - Train, Engine	0					
12-Animal	0					
13-Motor Vehicle in Transport	27					
14-Parked Motor Vehicle	0					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	0					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	1					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	0					
33-Traffic Sign Support	0					
34-Traffic Signal Support	0					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Road Character		Total
Road Grade		
1-Level		17
2-On Grade		2
3-Top of Hill		0
4-Bottom of Hill		0
5-Other		0
Total		19

Light		Total
Light Condition		
1-Daylight		14
2-Dawn		0
3-Dusk		0
4-Dark - Lighted		5
5-Dark - Not Lighted		0
6-Dark - Unknown Lighting		0
7-Unknown		0
Total		19

Traffic Control Devices		Total
Traffic Control Device		
1-Traffic Signals (Stop & Go)		11
2-Traffic Signals (Flashing)		0
3-Advisory/Warning Sign		0
4-Stop Signs - All Approaches		0
5-Stop Signs - Other		0
6-Yield Sign		0
7-Curve Warning Sign		0
8-Officer, Flagman, School Patrol		0
9-School Bus Stop Arm		0
10-School Zone Sign		0
11-R.R. Crossing Device		1
12-No Passing Zone		0
13-None		7
14-Other		0
Total		19

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	0	0	0	0
FEBRUARY	1	0	0	1
MARCH	0	0	1	1
APRIL	0	1	0	1
MAY	1	0	0	1
JUNE	0	2	0	2
JULY	2	0	0	2
AUGUST	0	0	0	0
SEPTEMBER	1	1	2	4
OCTOBER	2	0	0	2
NOVEMBER	1	0	3	4
DECEMBER	1	0	0	1
Total	9	4	6	19

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	5	1	6	0	0	0	0	0	0	0	0	0	1	13
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	0	0	0	0	0	0	0	0	0	0	0	0	2
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	1	10	0	0	0	0	0	0	0	0	0	0	19

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	3	0	0	0	0	0	0	0	0	0	0	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	9	0	0	0	0	0	0	0	0	0	0	9
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	2	1	0	0	0	0	0	0	0	0	0	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	2	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	2	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	14	1	0	0	0	0	0	0	0	0	0	19

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I

☒ Section Detail

☒ Crash Summary II

☐ 1320 Public

☐ 1320 Private

☐ 1320 Summary

REPORT DESCRIPTION

Portland section 3

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 3202041

Start Node: 18670

End Node: 15175

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☐ Exclude Last Node

Route: 0560846

Start Node: 15175

End Node: 18670

Start Offset: 0

End Offset: 0

☒ Exclude First Node

☒ Exclude Last Node

Crash Summary I

Nodes														
Node	Route - MP	Node Description	UIR	Total Crashes	Injury Crashes				Percent Annual M Injury		Crash Rate	CRF		
					K	A	B	C	PD	Ent-Veh				
15175	3202041 - 0.05	TL Portland Westbrook	2	0	0	0	0	0	0	0.0	0.37	0.00		
					Statewide Crash Rate: 0.14									
Study Years: 3.00			NODE TOTALS:		59	0	0	1	10	48	18.6	15,667	0.77	1.63

Crash Summary I																	
Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18670	15175	3118605	0 - 0.05	3202041 - 0 Int of LARRABEE RD RAMP OFF TO RD INV 3202041	0.05	2	2	0	0	0	0	2	0.0	0.00108	614.98	649.50	0.00
15175	18670	3117324	0 - 0.05	0560846 - 0 RIVERSIDE ST LARRABEE RD RIVERSIDE ST RD INV 05 60846	0.05	2	0	0	0	0	0	0	0.0	0.00095	0.00	670.05	0.00
Study Years:		3.00	Section Totals:		0.10	2	2	0	0	0	0	2	0.0	0.00203	327.91	554.86	0.59
Grand Totals:					0.10	61	61	0	0	1	10	50	18.0	0.00203	10001.39	762.75	13.11

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	Section U/R	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18670	15175	3118605	0 - 0.05	3202041 - 0 RD INV 3202041	0.05	2	2	0	0	0	0	2	0.0	0.00108	614.98	649.50	0.00
Int of LARRABEE RD RAMP OFF TO RIVERSIDE ST LARRABEE RD RIVERSIDE ST																	
15175	18670	3117324	0 - 0.05	0660846 - 0 RD INV 05 60846	0.05	2	0	0	0	0	0	0	0.0	0.00095	0.00	670.05	0.00
TL Portland Westbrook																	
Study Years:		3.00	Section Totals:		0.10	2	0	0	0	0	0	2	0.0	0.00203	327.91	554.86	0.59
Grand Totals:					0.10	61	0	0	1	10	50	18.0	0.00203	10001.39	762.75	13.11	

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MIP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
18670	15175	3118605	0 - 0.05	3202041 - 0	2	0	0	0	0	2	2012-51170	11/09/2012	0.01	PD
15175	18670	3117324	0 - 0.05	0560846 - 0	0	0	0	0	0	0	2012-30586	05/08/2012	0.04	PD
Totals:					2	0	0	0	0	2				

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
MONDAY	0	0	0	0	0	0	0	0	0	0	1	1	1	3	0	0	3	0	0	1	0	0	0	0	0	10
TUESDAY	0	0	0	0	0	1	0	1	0	2	0	2	2	1	0	0	1	1	0	1	0	0	0	0	0	12
WEDNESDAY	0	0	0	0	0	0	0	2	0	1	0	1	0	3	0	0	1	0	2	0	0	0	0	0	0	10
THURSDAY	0	0	0	0	0	0	0	1	1	1	0	1	1	1	2	1	0	3	0	0	1	1	0	0	0	14
FRIDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	1	0	2	0	0	0	0	0	0	0	7
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	5
Totals	0	1	0	0	0	1	3	2	5	1	6	5	12	2	2	2	6	7	4	2	1	1	0	0	0	61

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	56	23-Bicyclist	0
2-(Sport) Utility Vehicle	30	24-Witness	7
3-Passenger Van	3	25-Other	1
4-Cargo Van (10K lbs or Less)	1	Total	130
5-Pickup	17		
6-Motor Home	1		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	14		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	27	26	1	0	0	0	54
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	8	8	0	0	0	0	16
Ran Red Light	2	2	0	0	0	0	4
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	2	0	0	0	0	0	2
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	0	0	0	0	0	0
Improper Turn	2	2	0	0	0	0	4
Improper Backing	0	1	0	0	0	0	1
Improper Passing	2	0	0	0	0	0	2
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	8	3	0	0	0	0	11
Failed to Keep in Proper Lane	2	6	0	0	0	0	8
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	1	0	0	0	0	1
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	2	4	0	0	0	0	6
Unknown	2	2	0	0	0	0	4
Total	57	55	1	0	0	0	113

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	59	58	1	0	0	0	118
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	1	1	0	0	0	0	2
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	1	0	0	0	0	0	1
Total	61	59	1	0	0	0	121

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	4	0	0	0	0	4
20-24	9	0	0	0	0	9
25-29	6	0	0	0	0	6
30-39	20	0	0	0	0	20
40-49	32	0	0	0	0	32
50-59	25	0	0	0	0	25
60-69	13	0	0	0	0	13
70-79	9	0	0	0	0	9
80-Over	3	0	0	0	0	3
Unknown	2	0	0	0	0	2
Total	123	0	0	0	0	123

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	3	38-Other Fixed Object (wall, building, tunnel, etc.)	0	K	0	0
2-Fire / Explosion	1	39-Unknown	12	A	0	0
3-Immersion	0	40-Gate or Cable	0	B	1	3
4-Jackknife	0	41-Pressure Ridge	0	C	10	12
5-Cargo / Equipment Loss Or Shift	0	Total	111	PD	50	0
6-Fell / Jumped from Motor Vehicle	0			Total	61	15
7-Thrown or Falling Object	0					
8-Other Non-Collision	1					
9-Pedestrian	0					
10-Pedalcycle	0					
11-Railway Vehicle - Train, Engine	0					
12-Animal	0					
13-Motor Vehicle in Transport	94					
14-Parked Motor Vehicle	0					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	0					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	0					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	0					
33-Traffic Sign Support	0					
34-Traffic Signal Support	0					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Traffic Control Devices			Total
Traffic Control Device			
1-Traffic Signals (Stop & Go)			49
2-Traffic Signals (Flashing)			1
3-Advisory/Warning Sign			0
4-Stop Signs - All Approaches			0
5-Stop Signs - Other			0
6-Yield Sign			8
7-Curve Warning Sign			0
8-Officer, Flagman, School Patrol			0
9-School Bus Stop Arm			0
10-School Zone Sign			0
11-R.R. Crossing Device			0
12-No Passing Zone			0
13-None			2
14-Other			1
Total			61

Road Character			Total
Road Grade			
1-Level			61
2-On Grade			0
3-Top of Hill			0
4-Bottom of Hill			0
5-Other			0
Total			61

Light			Total
Light Condition			
1-Daylight			52
2-Dawn			0
3-Dusk			3
4-Dark - Lighted			6
5-Dark - Not Lighted			0
6-Dark - Unknown Lighting			0
7-Unknown			0
Total			61

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	1	2	2	5
FEBRUARY	0	0	1	1
MARCH	4	2	0	6
APRIL	0	1	2	3
MAY	2	4	4	10
JUNE	0	0	3	3
JULY	2	3	1	6
AUGUST	0	1	3	4
SEPTEMBER	3	2	1	6
OCTOBER	0	4	3	7
NOVEMBER	2	2	0	4
DECEMBER	2	2	2	6
Total	16	23	22	61

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	1	0	8	42	0	0	0	0	0	0	0	0	0	51
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	0	8	0	1	0	0	0	0	0	0	0	9
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	9	50	0	1	0	0	0	0	0	0	0	61

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	6	0	0	0	0	0	0	0	0	0	0	6
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	34	0	0	0	0	0	1	0	0	0	3	38
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	8	0	0	0	0	0	0	0	0	0	0	8
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	5	5
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	1	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	50	0	0	0	0	0	1	0	0	0	0	61

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I ☒ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Portland section 4

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0560621

Start Node: 15889

End Node: 15893

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☐ Exclude Last Node

Route: 3202037

Start Node: 65547

End Node: 15889

Start Offset: 0

End Offset: 0

☒ Exclude First Node

☒ Exclude Last Node

Crash Summary I

Node	Route - MP	Node Description	Nodes										CRF
			U/R	Total Crashes	K	A	B	C	PD	Injury	Percent Annual M Ent-Veh	Crash Rate	
15889	0560621 - 0	Int of BRIGHTON AV ENTRANCE TO DENNIS Z RD RIVER 9	9	13	0	0	2	2	9	30.8	6.329	0.68	1.10
												Statewide Crash Rate: 0.65	0.00
65547	0560621 - 0.03	Int of BRIGHTON AVE RIVERSIDE ST	2	1	0	0	0	0	1	0.0	4.181	0.08	0.37
												Statewide Crash Rate: 0.14	0.00
63966	0560621 - 0.12	Int of ENT TO BUSINESS RD INV 3201824 RIVERSIDE ST	9	5	0	0	0	2	3	40.0	4.680	0.36	1.17
												Statewide Crash Rate: 0.65	0.00
A65550	0560621 - 0.24	Non Int RIVERSIDE ST	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00
												Statewide Crash Rate: 0.14	0.00
P16671	0560621 - 0.28	Int of LARRABEE RD RAMP OFF TO RIVERSIDE ST LARRA 9	9	59	0	0	1	10	48	18.6	11.466	1.72	0.99
												Statewide Crash Rate: 0.65	1.73
A65548	0560621 - 0.30	Int of RAMP OFF TO RIVERSIDE ST LARRABEE RD RIVER: 2	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00
												Statewide Crash Rate: 0.11	0.00
15890	0560621 - 0.45	Int of RIVERSIDE CT, RIVERSIDE ST	2	3	0	0	0	0	3	0.0	9.270	0.11	0.27
												Statewide Crash Rate: 0.12	0.00
15892	0560621 - 0.52	Non Int RIVERSIDE ST	2	0	0	0	0	0	0	0.0	4.511	0.00	0.33
												Statewide Crash Rate: 0.12	0.00
63963	0560621 - 0.58	Int of BUILDING FOR LEASE ENT TO HOME DEPOT RIVER 9	9	4	0	0	0	1	3	25.0	8.852	0.15	1.03
												Statewide Crash Rate: 0.65	0.00
15893	0560621 - 0.67	Int of RIVERSIDE ST WARREN AV	9	39	0	0	1	10	28	28.2	12.203	1.07	0.98
												Statewide Crash Rate: 0.65	1.09
Study Years: 3.00			NODE TOTALS:										
				124	0	0	4	25	95	23.4	61.492	0.67	0.63
													1.07

Crash Summary I

Start				End		Element	Offset	Route - MP	Sections							Annual HMVM	Crash Rate	Critical Rate	CRF
Node	Node	Node	Node	Section Length	U/R				Total Crashes	K	A	B	C	PD	Percent Injury				
15889	65547	3139803	0 - 0.03	0560621 - 0	Int of BRIGHTON AV ENTRANCE TO DENNIS Z RD INV 05 60621	0.03	2	0	0	0	0	0	0.0	0.00009	0.00	480.97	0.00		
																Statewide Crash Rate: 166.45			
65547	63966	3118593	0 - 0.09	0560621 - 0.03	Int of BRIGHTON AVE RIVERSIDE ST RD INV 05 60621	0.09	2	3	0	0	1	2	0	100.0	0.00368	271.80	475.95	0.00	
																Statewide Crash Rate: 166.45			
63966	65550	3123140	0 - 0.12	0560621 - 0.12	Int of ENT TO BUSINESS RD INV 3201824 RD INV 05 60621 RIVERSIDE ST	0.12	2	6	0	0	1	1	4	33.3	0.00505	396.34	439.30	0.00	
																Statewide Crash Rate: 166.45			
65550	18670	3116597	0 - 0.04	0560621 - 0.24	Non Int RIVERSIDE ST RD INV 05 60621	0.04	2	1	0	0	0	0	1	0.0	0.00152	219.04	597.51	0.00	
																Statewide Crash Rate: 166.45			
65548	18670	3139805	0 - 0.02	0560621 - 0.28	Int of RAMP OFF TO RIVERSIDE ST LARRABEE RD RIVERSIDE ST	0.02	2	3	0	0	0	0	3	0.0	0.00135	740.03	580.82	1.27	
																Statewide Crash Rate: 172.61			
15890	65548	3116598	0 - 0.15	0560621 - 0.30	Int of RIVERSIDE CT, RIVERSIDE ST RD INV 05 60621	0.15	2	12	0	0	0	1	10	9.1	0.01383	289.23	326.71	0.00	
																Statewide Crash Rate: 172.61			
15890	15892	3116599	0 - 0.07	0560621 - 0.45	Int of RIVERSIDE CT, RIVERSIDE ST RD INV 05 60621	0.07	2	7	0	0	0	3	4	42.9	0.00632	369.43	392.09	0.00	
																Statewide Crash Rate: 172.61			
15892	63963	3120364	0 - 0.06	0560621 - 0.52	Non Int RIVERSIDE ST RD INV 05 60621	0.06	2	2	0	0	0	2	0	100.0	0.00541	123.14	407.39	0.00	
																Statewide Crash Rate: 172.61			
63963	15893	3116235	0 - 0.09	0560621 - 0.58	Int of BUILDING FOR LEASE ENT TO HOME DEPOT RIVERSIDE ST RD INV 05 60621	0.09	2	12	0	0	0	2	10	16.7	0.00738	542.05	377.49	1.44	
																Statewide Crash Rate: 172.61			
65547	15889	3139804	0 - 0.03	3202037 - 0	Int of BRIGHTON AVE RIVERSIDE ST RD INV 3202037	0.03	2	2	0	0	0	1	1	50.0	0.00050	1341.33	762.04	1.76	
																Statewide Crash Rate: 166.45			
Study Years: 3.00				Section Totals:				0.70	48	0	0	2	12	33	29.2	0.04513	354.57	265.10	1.34
				Grand Totals:				0.70	172	0	0	6	37	128	25.0	0.04513	1270.54	384.14	3.31

Crash Summary

Section Details															
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree		
							A	B	C	PD					
15889 65547	65547 63966	3139803 3118593	0 - 0.03 0 - 0.09	0560621 - 0 0560621 - 0.03	0 3	0 0	0 0	0 1	0 2	0 0	2012-47001 2011-5309C	12/11/2012 03/05/2011	0.07 0.08	C C	
											2011-21043	12/31/2011	0.11	B	
63966	65550	3123140	0 - 0.12	0560621 - 0.12	6	0	0	1	1	4	2013-7846 2013-16281	03/25/2013 07/03/2013	0.16 0.19	PD C	
											2012-1998	01/26/2012	0.19	PD	
											2012-35132	08/10/2012	0.19	PD	
											2013-15704	06/28/2013	0.19	PD	
											2011-712C	01/08/2011	0.22	B	
65550	18670	3116597	0 - 0.04	0560621 - 0.24	1	0	0	0	0	1	2011-1428C	01/24/2011	0.27	PD	
65548	18670	3139805	0 - 0.02	0560621 - 0.28	3	0	0	0	0	3	2011-750C 2011-9028C	01/18/2011 06/14/2011	0.29 0.29	PD PD	
											2012-47703	12/18/2012	0.29	PD	
15890	65548	3116598	0 - 0.15	0560621 - 0.30	12	0	0	0	1	10	2012-48356 2013-17686	12/21/2012 07/18/2013	0.32 0.32		PD
											2012-32088	07/09/2012	0.33	PD	
											2011-8597	08/24/2011	0.35	PD	
											2012-42685	11/01/2012	0.36	PD	
											2012-44605	11/19/2012	0.37	PD	
											2013-7110	03/18/2013	0.40	PD	
											2013-30070	11/26/2013	0.40	PD	
											2013-31153	12/03/2013	0.41	PD	
											2011-13401	10/21/2011	0.43	C	
											2012-37132	08/30/2012	0.44	PD	
15890	15892	3116599	0 - 0.07	0560621 - 0.45	7	0	0	0	3	4	2012-30410 2012-2220	06/14/2012 01/28/2012	0.44 0.46	PD PD	
											2013-9423	04/13/2013	0.48	C	
											2013-2618	02/01/2013	0.48	PD	
											2012-28148	05/11/2012	0.48	PD	
											2013-10099	04/24/2013	0.49	C	
											2013-28448	10/20/2013	0.50	C	
											2012-23073	03/02/2012	0.51	PD	

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	Injury Crashes	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
15892	63963	3120364	0 - 0.06	0560621 - 0.52	2	0	0	0	2	2	0	2012-34698	08/07/2012	0.53	C
63963	15893	3116235	0 - 0.09	0560621 - 0.58	12	0	0	0	2	2	10	2012-28374	05/16/2012	0.57	C
												2013-12657	05/24/2013	0.59	PD
												2012-33664	07/29/2012	0.61	PD
												2013-10566	04/29/2013	0.62	C
												2011-7898C	05/16/2011	0.62	PD
												2013-3505	02/11/2013	0.62	PD
												2011-10711	09/21/2011	0.62	PD
												2013-22166	09/06/2013	0.62	PD
												2013-5116	02/21/2013	0.62	PD
												2013-33506	12/18/2013	0.64	PD
												2012-22174	02/17/2012	0.65	PD
												2011-9946	09/08/2011	0.66	C
												2011-97C	01/05/2011	0.66	PD
65547	15889	3139804	0 - 0.03	3202037 - 0	2	0	0	0	1	1	1	2011-5792C	03/25/2011	0.01	PD
												2011-5584	07/24/2011	0.02	C
Totals:					48	0	0	0	2	12	33				

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM													
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	1	2	0	0	0	0	0	0	1	1	0	1	2	0	1	2	0	0	2	0	1	0	0	0	0	14
MONDAY	0	0	1	0	0	0	0	2	1	0	2	2	3	4	2	2	4	3	0	1	0	0	0	0	0	27
TUESDAY	1	0	0	0	0	0	1	0	1	3	2	3	3	2	2	2	3	6	0	1	1	0	0	0	0	31
WEDNESDAY	0	0	0	0	0	0	0	3	1	1	1	1	0	7	1	1	3	0	2	0	1	0	0	0	0	22
THURSDAY	0	0	0	0	0	0	0	1	3	1	2	4	3	2	5	2	2	5	0	1	1	1	0	0	0	33
FRIDAY	0	0	0	0	0	0	0	1	2	0	1	3	2	5	0	3	2	4	1	0	0	1	0	0	0	25
SATURDAY	1	1	0	0	0	0	1	0	0	0	1	1	1	2	0	2	2	2	5	0	0	0	1	0	0	20
Totals	3	3	1	0	0	0	2	7	9	6	9	15	14	22	11	14	16	20	10	3	4	2	1	0	0	172

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	182	23-Bicyclist	1
2-(Sport) Utility Vehicle	76	24-Witness	24
3-Passenger Van	10	25-Other	3
4-Cargo Van (10K lbs or Less)	4	Total	372
5-Pickup	45		
6-Motor Home	1		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	2		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	1		
17-Medium/Heavy Trucks (More than 10,000 lbs)	23		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	69	68	6	1	0	0	144
Ran Off Roadway	2	0	0	0	0	0	2
Failed to Yield Right-of-Way	21	23	0	0	0	0	44
Ran Red Light	5	4	0	0	0	0	9
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	2	0	0	0	0	0	2
Exceeded Posted Speed Limit	0	1	0	0	0	0	1
Drove Too Fast For Conditions	3	1	1	0	0	0	5
Improper Turn	5	7	0	0	0	0	12
Improper Backing	0	2	0	0	0	0	2
Improper Passing	3	0	0	0	0	0	3
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	22	15	1	0	0	0	38
Failed to Keep in Proper Lane	6	11	0	0	0	0	17
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	2	0	0	0	0	3
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	1	0	0	0	0	1
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	6	7	0	0	0	0	13
Unknown	6	3	0	0	0	0	9
Total	151	145	8	1	0	0	305

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	167	156	8	1	0	1	333
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	1	1	0	0	0	0	2
Ill (Sick)	0	1	0	0	0	0	1
Asleep or Fatigued	0	1	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	1	0	0	0	0	0	1
Other	1	1	0	0	0	0	2
Total	170	160	8	1	0	1	340

Driver Age by Unit Type

Age	Driver	Bicycle	Snow/Mobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	14	0	0	0	0	14
20-24	37	0	0	0	0	37
25-29	30	0	0	0	0	30
30-39	66	0	0	0	0	66
40-49	61	0	0	0	0	61
50-59	63	0	0	0	0	63
60-69	43	0	0	0	0	43
70-79	19	0	0	0	0	19
80-Over	9	0	0	0	0	9
Unknown	5	1	0	0	0	6
Total	347	1	0	0	0	348

Crash Summary II - Characteristics

Most Harmful Event			Injury Data		
Most Harmful Event	Total	Most Harmful Event	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	4	38-Other Fixed Object (wall, building, tunnel, etc.)			
2-Fire / Explosion	1	39-Unknown	K	0	0
3-Immersion	0	40-Gate or Cable	A	0	0
4-Jackknife	0	41-Pressure Ridge	B	6	9
5-Cargo / Equipment Loss Or Shift	0	Total	C	37	43
6-Fell / Jumped from Motor Vehicle	1		PD	128	0
7-Thrown or Falling Object	0		Total	171	52
8-Other Non-Collision	1				
9-Pedestrian	0				
10-Pedalcycle	0				
11-Railway Vehicle - Train, Engine	0				
12-Animal	0				
13-Motor Vehicle in Transport	252				
14-Parked Motor Vehicle	1				
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0				
16-Work Zone / Maintenance Equipment	0				
17-Other Non-Fixed Object	0				
18-Impact Attenuator / Crash Cushion	0				
19-Bridge Overhead Structure	0				
20-Bridge Pier or Support	0				
21-Bridge Rail	0				
22-Cable Barrier	0				
23-Culvert	0				
24-Curb	0				
25-Ditch	0				
26-Embankment	0				
27-Guardrail Face	0				
28-Guardrail End	0				
29-Concrete Traffic Barrier	0				
30-Other Traffic Barrier	0				
31-Tree (Standing)	0				
32-Utility Pole / Light Support	1				
33-Traffic Sign Support	0				
34-Traffic Signal Support	0				
35-Fence	0				
36-Mailbox	0				
37-Other Post Pole or Support	0				

Traffic Control Devices		Road Character	
Traffic Control Device	Total	Road Grade	Total
1-Traffic Signals (Stop & Go)	125	1-Level	147
2-Traffic Signals (Flashing)	3	2-On Grade	24
3-Advisory/Warning Sign	0	3-Top of Hill	1
4-Stop Signs - All Approaches	0	4-Bottom of Hill	0
5-Stop Signs - Other	2	5-Other	0
6-Yield Sign	9	Total	172
7-Curve Warning Sign	0		
8-Officer, Flagman, School Patrol	1		
9-School Bus Stop Arm	0		
10-School Zone Sign	0		
11-R.R. Crossing Device	0		
12-No Passing Zone	0		
13-None	30		
14-Other	2		
Total	172		

Light	
Light Condition	Total
1-Daylight	131
2-Dawn	1
3-Dusk	7
4-Dark - Lighted	32
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	172

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2011	2012	2013	Total
JANUARY	6	5	7	18
FEBRUARY	2	4	8	14
MARCH	9	5	5	19
APRIL	1	1	7	9
MAY	6	7	8	21
JUNE	3	2	5	10
JULY	3	6	5	14
AUGUST	3	4	6	13
SEPTEMBER	6	3	3	12
OCTOBER	3	7	6	16
NOVEMBER	3	4	4	11
DECEMBER	3	6	6	15
Total	48	54	70	172

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	20	4	9	82	0	4	0	0	0	0	0	0	0	119
Head-on / Sideswipe	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Intersection Movement	0	0	3	24	0	15	0	0	0	0	0	0	0	42
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	0	0	4	0	0	0	0	0	0	0	0	0	6
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Other	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	24	5	13	110	0	20	0	0	0	0	0	0	0	172

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	1	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	17	1	0	0	0	0	0	0	0	0	3	21
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	1	0	0	0	0	0	0	0	0	0	0	1
Daylight	83	0	0	0	0	0	2	1	0	0	4	90
Dusk	4	0	0	0	0	0	0	0	0	0	1	5
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	3	0	0	0	0	0	0	0	0	0	1	4
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	21	1	0	0	0	0	0	0	0	0	2	24
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

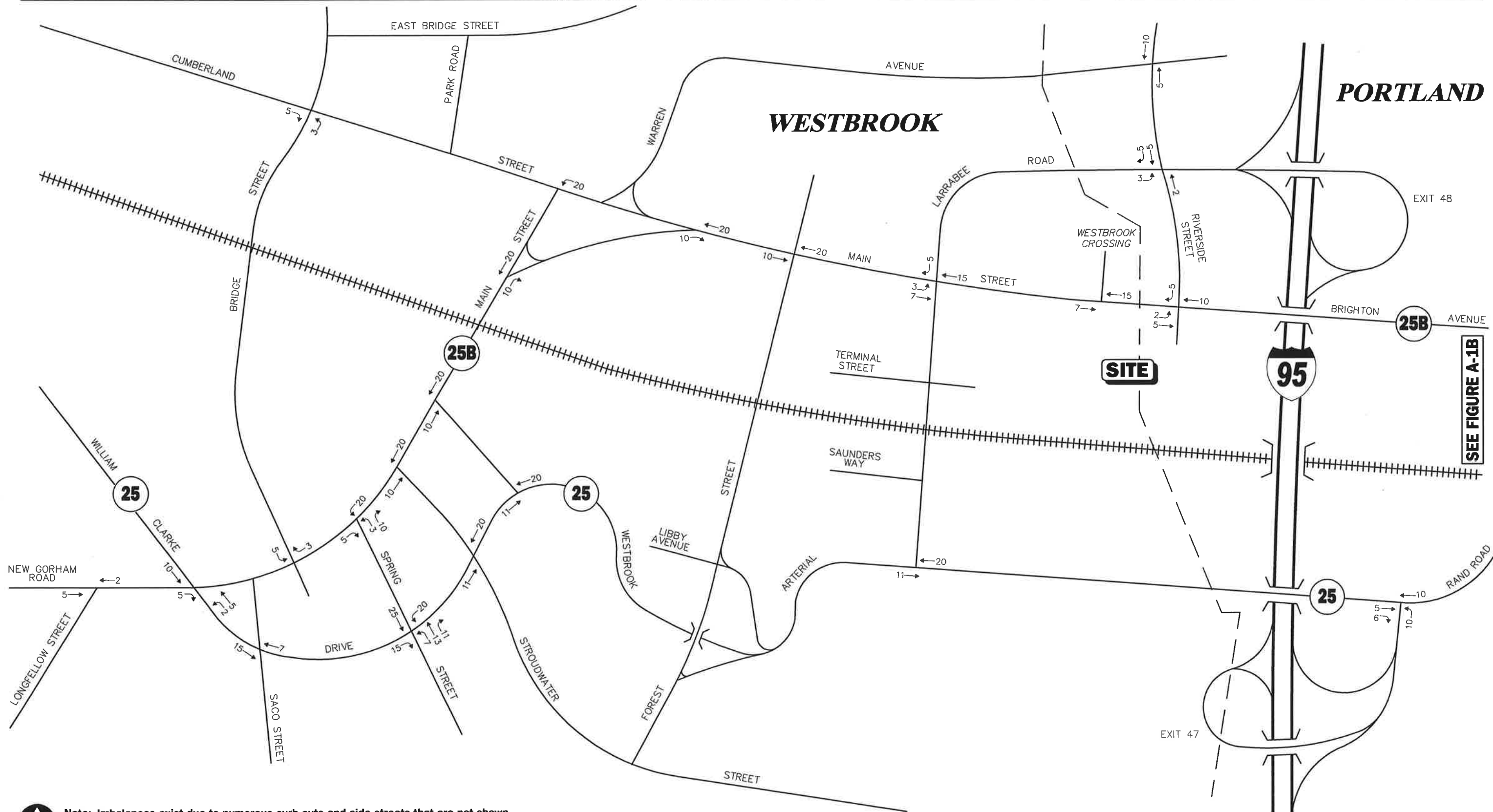
Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	4	4
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	13	13
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	1	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	1	1	0	0	1	3
Dusk	0	0	0	0	0	0	0	1	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	131	3	0	0	0	0	4	5	0	0	0	172

BACKGROUND DEVELOPMENT NETWORKS



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

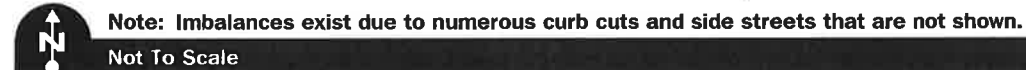


Vanasse & Associates, Inc.

Figure A-1A

Blue Spruce Farm
Residential Development
Weekday Evening
Peak Hour Traffic Volumes

SEE FIGURE A-1B



W **Vanasse & Associates, Inc.**

Blue Spruce Farm Residential Development Weekday Evening Peak Hour Traffic Volumes

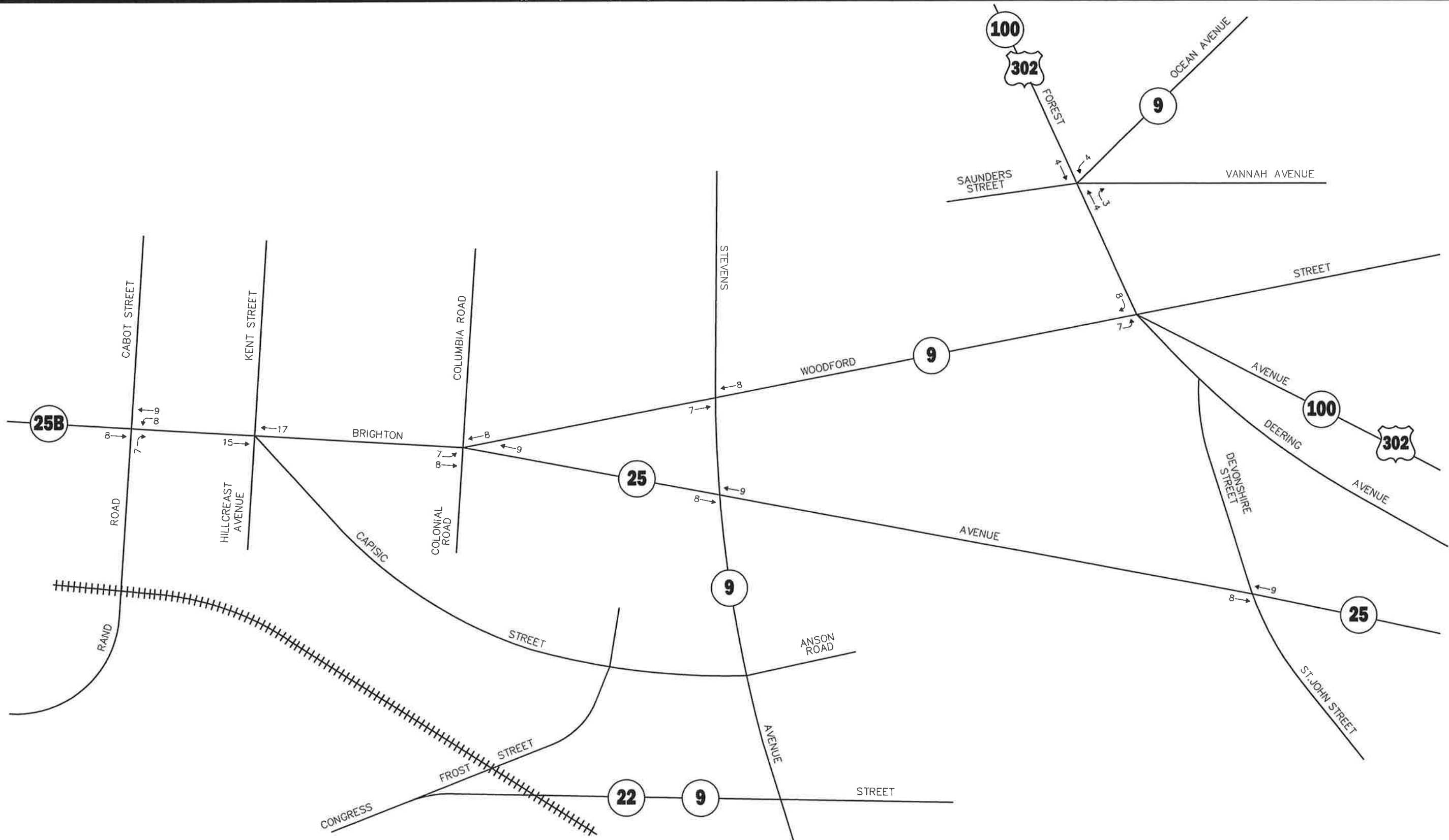


Not To Scale



Blue Spruce Farm Residential Development Saturday MIDDAY Peak Hour Traffic Volumes

SEE FIGURE A-2A



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not To Scale

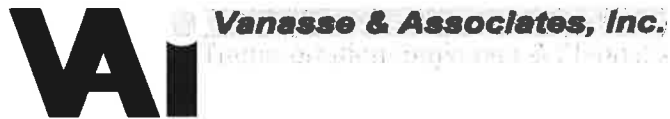
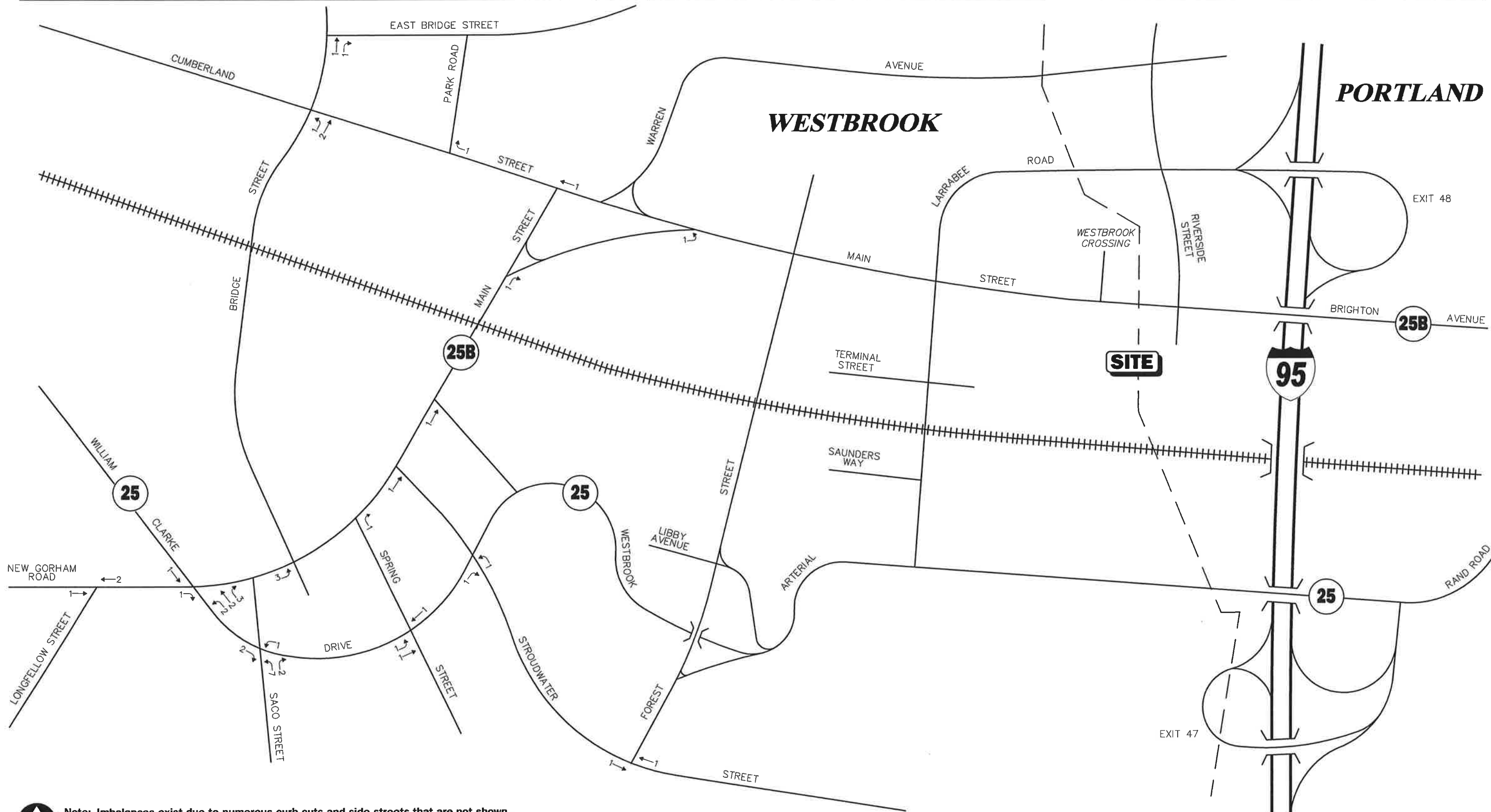


Figure A-2B
Blue Spruce Farm
Residential Development
Saturday MIDDAY
Peak Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

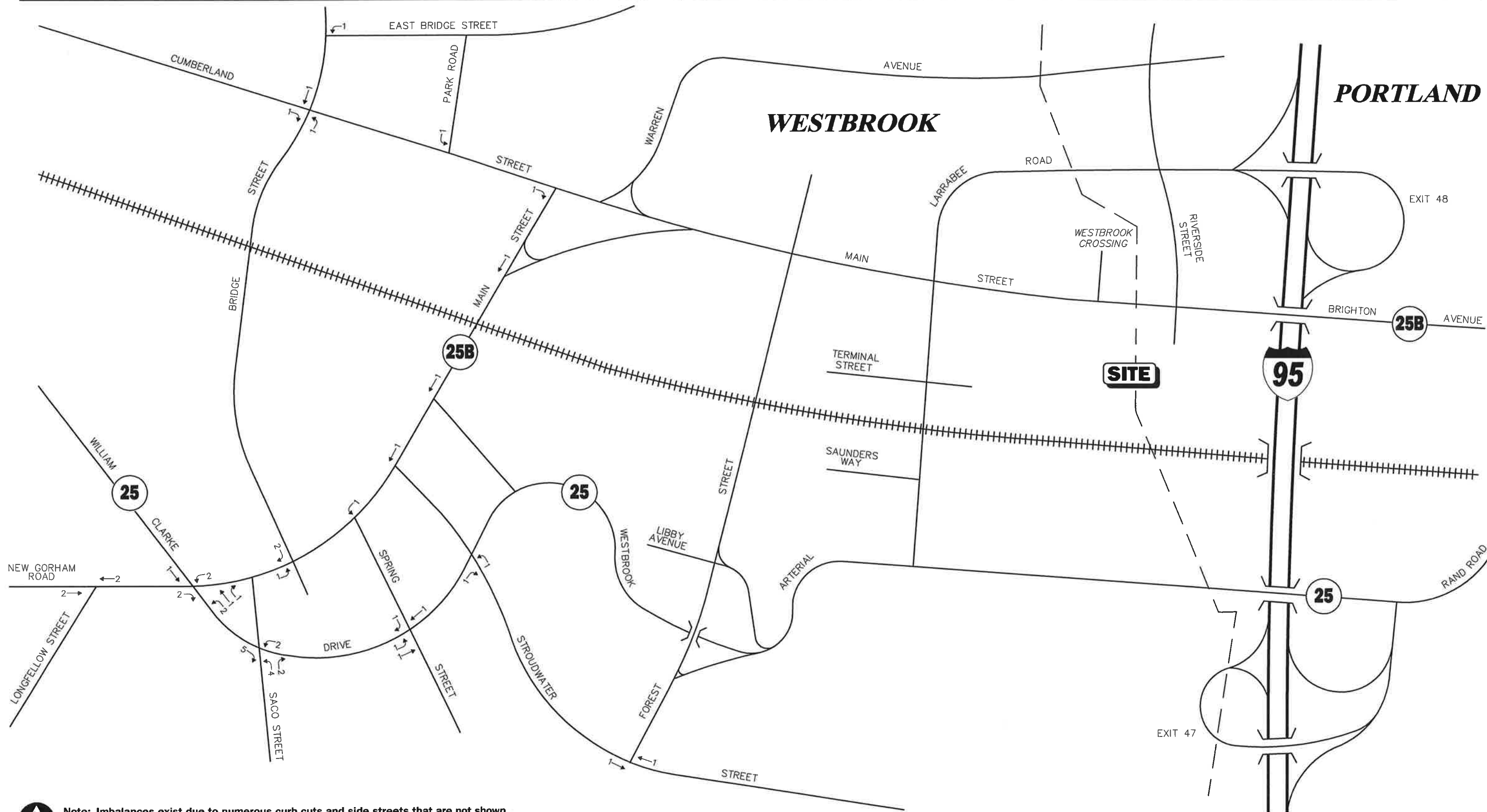
Not To Scale



Vanasse & Associates, Inc.

Figure A-3

5,000 sf Medical Facility
Weekday Evening
Peak Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale



Vanasse & Associates, Inc.

Figure A-4

5,000 sf Medical Facility
Saturday Midday
Peak Hour Traffic Volumes

TRIP-GENERATION CALCULATIONS

Institute of Transportation Engineers (ITE)
Trip Generation, 9th Edition
Land Use Code (LUC) 820 - Shopping Center

Average Vehicle Trips Ends vs: 1,000 Square Feet Gross Leasable Area
Independent Variable (X): 489.461

AVERAGE WEEKDAY DAILY

$$\ln T = 0.65 \ln (X) + 5.83$$

$$\ln T = 0.65 \ln 489.461 + (5.83)$$

$$\ln T = 9.86$$

$$T = 19065.74$$

$$T = 19,066 \text{ vehicle trips}$$

with 50% (9,533 vpd) entering and 50% (9,533 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$T = 0.96 * (X)$$

$$T = 0.96 * 489.461$$

$$T = 469.88$$

$$T = 470 \text{ vehicle trips}$$

with 62% (291 vph) entering and 38% (179 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$\ln T = 0.67 \ln (X) + 3.31$$

$$\ln T = 0.67 \ln 489.461 + (3.31)$$

$$\ln T = 7.46$$

$$T = 1736.30$$

$$T = 1,736 \text{ vehicle trips}$$

with 48% (833 vph) entering and 52% (903 vph) exiting.

SATURDAY DAILY

$$\ln T = 0.63 \ln (X) + 6.23$$

$$\ln T = 0.63 \ln 489.461 + (6.23)$$

$$\ln T = 10.13$$

$$T = 25129.10$$

$$T = 25,130 \text{ vehicle trips}$$

with 50% (12,565 vpd) entering and 50% (12,565 vpd) exiting.

SATURDAY MIDDAY PEAK HOUR OF GENERATOR

$$\ln T = 0.65 \ln (X) + 3.78$$

$$\ln T = 0.65 \ln 489.461 + (3.78)$$

$$\ln T = 7.81$$

$$T = 2454.43$$

$$T = 2,454 \text{ vehicle trips}$$

with 52% (1,276 vph) entering and 48% (1,178 vph) exiting.

Institute of Transportation Engineers (ITE)
Trip Generation, 9th Edition
Land Use Code (LUC) 944 - Gasoline/Service Station

Average Vehicle Trips Ends vs: Vehicle Fueling Positions
 Independent Variable (X): 8

AVERAGE WEEKDAY DAILY

$$\begin{aligned} T &= 168.56 * (X) \\ T &= 168.56 * 8 \\ T &= 1348.48 \\ T &= 1,348 \text{ vehicle trips} \\ &\text{with 50\% (674 vpd) entering and 50\% (674 vpd) exiting.} \end{aligned}$$

WEEKDAY MORNING PEAK HOUR OF GENERATOR

$$\begin{aligned} T &= 12.58 * (X) \\ T &= 12.58 * 8 \\ T &= 100.64 \\ T &= 101 \text{ vehicle trips} \\ &\text{with 50\% (51 vph) entering and 50\% (50 vph) exiting.} \end{aligned}$$

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$\begin{aligned} T &= 15.65 * (X) \\ T &= 15.65 * 8 \\ T &= 125.20 \\ T &= 125 \text{ vehicle trips} \\ &\text{with 50\% (63 vph) entering and 50\% (62 vph) exiting.} \end{aligned}$$

SATURDAY DAILY

$$\begin{aligned} \frac{\text{ITE LUC 853 Saturday Daily Trip Rate}}{\text{ITE LUC 853 Weekday Daily Trip Rate}} &= \frac{\text{ITE LUC 944 Saturday Daily Trip Rate}}{\text{ITE LUC 944 Weekday Daily Trip Rate}} \\ \frac{204.47}{542.60} &= \frac{(Y)}{168.56} \quad Y = 63.519 \end{aligned}$$

$$\begin{aligned} T &= Y * 8 \\ T &= 508.2 \\ T &= 508 \text{ vehicle trips} \\ &\text{with 50\% (254 vph) entering and 50\% (254 vph) exiting.} \end{aligned}$$

SATURDAY MIDDAY PEAK HOUR

$$\begin{aligned} \frac{\text{ITE LUC 853 Saturday Midday Trip Rate}}{\text{ITE LUC 853 Weekday Evening Trip Rate}} &= \frac{\text{ITE LUC 944 Saturday Midday Trip Rate}}{\text{ITE LUC 944 Weekday Evening Trip Rate}} \\ \frac{10.00}{19.98} &= \frac{(Y)}{15.65} \quad Y = 7.8328 \end{aligned}$$

$$\begin{aligned} T &= Y * 8 \\ T &= 62.7 \\ T &= 63 \text{ vehicle trips} \\ &\text{with 51\% (32 vph) entering and 50\% (31 vph) exiting.} \\ &\text{(same distribution split as ITE LUC 853 during the Saturday midday peak hour of generator)} \end{aligned}$$

CAPACITY ANALYSIS WORKSHEETS

Bridge Street at East Bridge Street
Cumberland Street at Bridge Street
Cumberland Street at Park Road
Cumberland Street at Harnois Avenue
Cumberland Street at Main Street
Main Street at Forest Street
Main Street at Larrabee Road
Main Street at the Westbrook Crossing Drive and the Project Site Driveway
Main Street at Harnois Avenue
Main Street at Westbrook Arterial
Main Street at Stroudwater Street
Main Street at Spring Street
Main Street at Bridge Street
William Clarke Drive at New Gorham Road
New Gorham Road at Longfellow Street
William Clarke Drive at Saco Street
William Clarke Drive at Spring Street
William Clarke Drive at Stroudwater Street
William Clarke Drive at Westbrook Arterial
Stroudwater Street at Forest Street
Forest Street at Westbrook Arterial Eastbound On-Ramp
Forest Street at Westbrook Arterial Westbound Off-Ramp and Libby Avenue
Westbrook Arterial at Larrabee Road
Westbrook Arterial at the Project Site Driveway
Larrabee Road at Terminal Street and the North Project Site Drive
Larrabee Road at Saunders Way and the South Project Site Drive
Riverside Street at Warren Avenue
Riverside Street at Larrabee Road and the I-95 Ramps
Main Street and Brighton Avenue at Riverside Street
Westbrook Arterial and Rand Road at the I-95 Ramps
Brighton Avenue at Rand Road and Cabot Street
Brighton Avenue at Capisic Street, Kent Street and Hillcrest Avenue
Brighton Avenue at Columbia Road and Colonial Road
Brighton Avenue at Steven Avenue
Brighton Avenue at St. John Street and Devonshire Street
Woodford Street at Steven Avenue
Forest Avenue at Woodford Street and Deering Avenue
Forest Avenue at Ocean Avenue, Saunders Street and Vannah Avenue
Steven Avenue at Capisic Street and Anson Road
Capisic Street at Frost Street

Bridge Street at East Bridge Street

2021 No-Build Weekday Evening Peak Hour

1: Bridge Street & East Bridge Street

1/25/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	279	8	229	174	7	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	13	12	12	16
Satd. Flow (prot)	1848	0	1831	0	0	2145
Flt Permitted	0.954					0.996
Satd. Flow (perm)	1848	0	1831	0	0	2145
Link Speed (mph)	30		30			30
Link Distance (ft)	520		616			253
Travel Time (s)	11.8		14.0			5.8
Peak Hour Factor	0.95	0.95	0.90	0.90	0.87	0.87
Heavy Vehicles (%)	1%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	302	0	447	0	0	113
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 45.3%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak Hour
1: Bridge Street & East Bridge Street

1/25/2016

Intersection

Intersection Delay, s/veh 6.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	279	8	229	174	7	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	90	90	87	87
Heavy Vehicles, %	1	0	1	1	0	0
Mvmt Flow	294	8	254	193	8	105

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	472	351	0
Stage 1	351	-	-
Stage 2	121	-	-
Follow-up Headway	3.509	3.3	2.2
Pot Capacity-1 Maneuver	552	697	1123
Stage 1	715	-	-
Stage 2	907	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	548	697	1123
Mov Capacity-2 Maneuver	548	-	-
Stage 1	715	-	-
Stage 2	900	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	0.6
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	551	1123	-
HCM Lane V/C Ratio	-	-	0.548	0.007	-
HCM Control Delay (s)	-	-	19.2	8.229	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	3.293	0.022	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 No-Build Saturday Midday Peak Hour
1: Bridge Street & East Bridge Street

1/26/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	111	14	101	108	15	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	13	12	12	16
Satd. Flow (prot)	1836	0	1773	0	0	2143
Flt Permitted	0.958					0.995
Satd. Flow (perm)	1836	0	1773	0	0	2143
Link Speed (mph)	30		30			30
Link Distance (ft)	520		616			253
Travel Time (s)	11.8		14.0			5.8
Peak Hour Factor	0.79	0.79	0.96	0.96	0.94	0.94
Heavy Vehicles (%)	1%	0%	3%	3%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	0	217	0	0	145
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 32.6%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak Hour
1: Bridge Street & East Bridge Street

1/26/2016

Intersection

Intersection Delay, s/veh 3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	111	14	101	108	15	121
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	96	96	94	94
Heavy Vehicles, %	1	0	3	3	0	0
Mvmt Flow	141	18	105	112	16	129

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	322	161	0
Stage 1	161	-	-
Stage 2	161	-	-
Follow-up Headway	3.509	3.3	2.2
Pot Capacity-1 Maneuver	674	889	1364
Stage 1	870	-	-
Stage 2	870	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	665	889	1364
Mov Capacity-2 Maneuver	665	-	-
Stage 1	870	-	-
Stage 2	859	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.8
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	684	1364	-
HCM Lane V/C Ratio	-	-	0.231	0.012	-
HCM Control Delay (s)	-	-	11.8	7.671	0
HCM Lane LOS			B	A	A
HCM 95th %tile Q(veh)	-	-	0.891	0.036	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Weekday Evening Peak Hour

1: Bridge Street & East Bridge Street

1/28/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	290	8	235	186	7	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	13	12	12	16
Satd. Flow (prot)	1849	0	1827	0	0	2147
Flt Permitted	0.954					0.997
Satd. Flow (perm)	1849	0	1827	0	0	2147
Link Speed (mph)	30		30			30
Link Distance (ft)	520		616			253
Travel Time (s)	11.8		14.0			5.8
Peak Hour Factor	0.95	0.95	0.90	0.90	0.87	0.87
Heavy Vehicles (%)	1%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	313	0	468	0	0	119
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 47.0%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Weekday Evening Peak Hour
1: Bridge Street & East Bridge Street

1/28/2016

Intersection

Intersection Delay, s/veh 7.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	290	8	235	186	7	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	90	90	87	87
Heavy Vehicles, %	1	0	1	1	0	0
Mvmt Flow	305	8	261	207	8	111

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	492	364	0
Stage 1	364	-	-
Stage 2	128	-	-
Follow-up Headway	3.509	3.3	2.2
Pot Capacity-1 Maneuver	538	685	1104
Stage 1	705	-	-
Stage 2	900	-	-
Time blocked-Platoon, %		-	-
Mov Capacity-1 Maneuver	534	685	1104
Mov Capacity-2 Maneuver	534	-	-
Stage 1	705	-	-
Stage 2	893	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.7	0	0.6
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	537	1104	-
HCM Lane V/C Ratio	-	-	0.584	0.007	-
HCM Control Delay (s)	-	-	20.7	8.285	0
HCM Lane LOS			C	A	A
HCM 95th %tile Q(veh)	-	-	3.719	0.022	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Saturday Midday Peak Hour

1: Bridge Street & East Bridge Street

1/27/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	130	14	110	125	15	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	13	12	12	16
Satd. Flow (prot)	1838	0	1769	0	0	2143
Flt Permitted	0.957					0.995
Satd. Flow (perm)	1838	0	1769	0	0	2143
Link Speed (mph)	30		30			30
Link Distance (ft)	520		616			253
Travel Time (s)	11.8		14.0			5.8
Peak Hour Factor	0.79	0.79	0.96	0.96	0.94	0.94
Heavy Vehicles (%)	1%	0%	3%	3%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	183	0	245	0	0	155
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.2%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Saturday Midday Peak Hour
1: Bridge Street & East Bridge Street

1/27/2016

Intersection

Intersection Delay, s/veh 4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	130	14	110	125	15	131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	96	96	94	94
Heavy Vehicles, %	1	0	3	3	0	0
Mvmt Flow	165	18	115	130	16	139

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	351	180	0
Stage 1	180	-	-
Stage 2	171	-	-
Follow-up Headway	3.509	3.3	2.2
Pot Capacity-1 Maneuver	648	868	1333
Stage 1	853	-	-
Stage 2	861	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	640	868	1333
Mov Capacity-2 Maneuver	640	-	-
Stage 1	853	-	-
Stage 2	850	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0.8
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	657	1333	-
HCM Lane V/C Ratio	-	-	0.277	0.012	-
HCM Control Delay (s)	-	-	12.6	7.733	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.13	0.036	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Cumberland Street at Bridge Street

2021 No-Build Weekday Evening Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	208	35	52	624	138	79	325	61	91	254	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1858	0	0	1848	0	0	1851	0	0	1826	0
Flt Permitted		0.900			0.964			0.810			0.741	
Satd. Flow (perm)	0	1681	0	0	1787	0	0	1511	0	0	1367	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			16			9			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		401			441			634			616	
Travel Time (s)		9.1			10.0			14.4			14.0	
Peak Hour Factor	0.94	0.94	0.94	0.97	0.97	0.97	0.89	0.89	0.89	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	287	0	0	839	0	0	523	0	0	490	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	37.0	37.0		37.0	37.0		26.0	26.0		26.0	26.0	
Total Split (%)	46.3%	46.3%		46.3%	46.3%		32.5%	32.5%		32.5%	32.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		33.0			33.0			22.0			22.0	
Actuated g/C Ratio		0.52			0.52			0.35			0.35	
v/c Ratio		0.32			0.89			0.98			1.00	
Control Delay		9.5			27.6			58.4			65.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.5			27.6			58.4			65.7	
LOS		A			C			E			E	
Approach Delay		9.5			27.6			58.4			65.7	
Approach LOS		A			C			E			E	
Stops (vph)		140			629			373			347	
Fuel Used(gal)		2			11			10			10	
CO Emissions (g/hr)		150			758			691			694	
NOx Emissions (g/hr)		29			148			134			135	
VOC Emissions (g/hr)		35			176			160			161	
Dilemma Vehicles (#)		0			0			0			0	
Queue Length 50th (ft)		55			257			191			~179	
Queue Length 95th (ft)		99			#498			#373			#365	
Internal Link Dist (ft)		321			361			554			536	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	17.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

2021 No-Build Weekday Evening Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		885			943			533			488	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.89			0.98			1.00	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 63

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 41.4

Intersection LOS: D

Intersection Capacity Utilization 94.2%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bridge Street & Cumberland Street /Cumberland Street

 p2	 p4	 p9
26 s	37 s	17 s
 p6	 p8	
26 s	37 s	

2021 No-Build Saturday Midday Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	27	341	55	64	355	72	56	162	50	74	187	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1784	0	0	1792	0	0	1816	0	0	1853	0
Flt Permitted		0.955			0.896			0.892			0.864	
Satd. Flow (perm)	0	1709	0	0	1615	0	0	1636	0	0	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			13			15			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		401			441			634			616	
Travel Time (s)		9.1			10.0			14.4			14.0	
Peak Hour Factor	0.87	0.87	0.87	0.93	0.93	0.93	0.92	0.92	0.92	0.86	0.86	0.86
Heavy Vehicles (%)	4%	5%	0%	3%	4%	0%	0%	1%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	486	0	0	528	0	0	291	0	0	332	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	35.0	35.0		35.0	35.0		28.0	28.0		28.0	28.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%		35.0%	35.0%		35.0%	35.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		24.3			24.3			17.2			17.2	
Actuated g/C Ratio		0.49			0.49			0.34			0.34	
v/c Ratio		0.58			0.67			0.51			0.59	
Control Delay		12.9			15.1			16.9			19.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.9			15.1			16.9			19.2	
LOS		B			B			B			B	
Approach Delay		12.9			15.1			16.9			19.2	
Approach LOS		B			B			B			B	
Stops (vph)		266			333			183			210	
Fuel Used(gal)		4			5			3			4	
CO Emissions (g/hr)		273			352			228			255	
NOx Emissions (g/hr)		53			69			44			50	
VOC Emissions (g/hr)		63			82			53			59	
Dilemma Vehicles (#)		0			0			0			0	
Queue Length 50th (ft)		91			105			65			81	
Queue Length 95th (ft)		191			237			138			155	
Internal Link Dist (ft)		321			361			554			536	

2021 No-Build Saturday Midday Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

1/26/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	17.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

2021 No-Build Saturday Midday Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		1127			1066			840			828	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.43			0.50			0.35			0.40	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 50

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 15.6

Intersection LOS: B

Intersection Capacity Utilization 72.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: Bridge Street & Cumberland Street /Cumberland Street

 p2	 p4	 p9
28 s	35 s	17 s
 p6	 p8	
28 s	35 s	

2021 Build Weekday Evening Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	226	35	65	643	157	79	325	72	108	254	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1860	0	0	1842	0	0	1847	0	0	1825	0
Flt Permitted		0.899			0.954			0.812			0.686	
Satd. Flow (perm)	0	1681	0	0	1765	0	0	1512	0	0	1267	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			17			11			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		401			441			634			616	
Travel Time (s)		9.1			10.0			14.4			14.0	
Peak Hour Factor	0.94	0.94	0.94	0.97	0.97	0.97	0.89	0.89	0.89	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	306	0	0	892	0	0	535	0	0	509	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	37.0	37.0		37.0	37.0		26.0	26.0		26.0	26.0	
Total Split (%)	46.3%	46.3%		46.3%	46.3%		32.5%	32.5%		32.5%	32.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		33.0			33.0			22.0			22.0	
Actuated g/C Ratio		0.52			0.52			0.35			0.35	
v/c Ratio		0.35			0.96			1.00			1.12	
Control Delay		9.8			37.7			62.9			104.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.8			37.7			62.9			104.3	
LOS		A			D			E			F	
Approach Delay		9.8			37.7			62.9			104.3	
Approach LOS		A			D			E			F	
Stops (vph)		152			669			383			352	
Fuel Used(gal)		2			13			11			14	
CO Emissions (g/hr)		162			930			739			970	
NOx Emissions (g/hr)		31			181			144			189	
VOC Emissions (g/hr)		37			216			171			225	
Dilemma Vehicles (#)		0			0			0			0	
Queue Length 50th (ft)		60			294			197			~228	
Queue Length 95th (ft)		106			#552			#383			#399	
Internal Link Dist (ft)		321			361			554			536	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	17.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

2021 Build Weekday Evening Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		885			932			535			453	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.96			1.00			1.12	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 63

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 55.0

Intersection LOS: E

Intersection Capacity Utilization 103.8%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bridge Street & Cumberland Street /Cumberland Street

 p2	 p4	 p9
26 s	37 s	17 s
 p6	 p8	
26 s	37 s	

2021 Build Saturday Midday Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	27	370	55	82	381	98	56	162	70	103	187	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1787	0	0	1785	0	0	1800	0	0	1849	0
Flt Permitted		0.952			0.879			0.887			0.779	
Satd. Flow (perm)	0	1706	0	0	1580	0	0	1613	0	0	1464	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			15			21			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		401			441			634			616	
Travel Time (s)		9.1			10.0			14.4			14.0	
Peak Hour Factor	0.87	0.87	0.87	0.93	0.93	0.93	0.92	0.92	0.92	0.86	0.86	0.86
Heavy Vehicles (%)	4%	5%	0%	3%	4%	0%	0%	1%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	519	0	0	603	0	0	313	0	0	366	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	35.0	35.0		35.0	35.0		28.0	28.0		28.0	28.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%		35.0%	35.0%		35.0%	35.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		31.0			31.0			22.7			22.7	
Actuated g/C Ratio		0.50			0.50			0.37			0.37	
v/c Ratio		0.60			0.75			0.52			0.68	
Control Delay		14.8			20.2			17.6			23.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.8			20.2			17.6			23.4	
LOS		B			C			B			C	
Approach Delay		14.8			20.2			17.6			23.4	
Approach LOS		B			C			B			C	
Stops (vph)		306			415			199			251	
Fuel Used(gal)		4			7			4			4	
CO Emissions (g/hr)		312			457			249			308	
NOx Emissions (g/hr)		61			89			48			60	
VOC Emissions (g/hr)		72			106			58			71	
Dilemma Vehicles (#)		0			0			0			0	
Queue Length 50th (ft)		132			171			82			110	
Queue Length 95th (ft)		210			#346			149			182	
Internal Link Dist (ft)		321			361			554			536	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	17.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

2021 Build Saturday Midday Peak Hour

2: Bridge Street & Cumberland Street /Cumberland Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		862			802			640			573	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.60			0.75			0.49			0.64	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 61.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 18.9

Intersection LOS: B

Intersection Capacity Utilization 89.1%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bridge Street & Cumberland Street /Cumberland Street

 ø2	 ø4	 ø9
28 s	35 s	17 s
 ø6	 ø8	
28 s	35 s	

2021 Build Weekday Evening Peak Hour with Mitigation
2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	226	35	65	643	157	79	325	72	108	254	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1860	0	0	1842	0	0	1847	0	0	1825	0
Flt Permitted		0.906			0.953			0.826			0.709	
Satd. Flow (perm)	0	1694	0	0	1763	0	0	1538	0	0	1309	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			16			11			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		401			441			634			616	
Travel Time (s)		9.1			10.0			14.4			14.0	
Peak Hour Factor	0.94	0.94	0.94	0.97	0.97	0.97	0.89	0.89	0.89	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	306	0	0	892	0	0	535	0	0	509	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	38.0	38.0		38.0	38.0		30.0	30.0		30.0	30.0	
Total Split (%)	44.7%	44.7%		44.7%	44.7%		35.3%	35.3%		35.3%	35.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		34.0			34.0			26.0			26.0	
Actuated g/C Ratio		0.50			0.50			0.38			0.38	
v/c Ratio		0.36			1.00			0.90			1.00	
Control Delay		11.5			50.6			41.2			63.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			50.6			41.2			63.4	
LOS		B			D			D			E	
Approach Delay		11.5			50.6			41.2			63.4	
Approach LOS		B			D			D			E	
Stops (vph)		160			689			385			362	
Fuel Used(gal)		2			16			8			10	
CO Emissions (g/hr)		172			1097			592			707	
NOx Emissions (g/hr)		33			213			115			137	
VOC Emissions (g/hr)		40			254			137			164	
Dilemma Vehicles (#)		0			0			0			0	
Queue Length 50th (ft)		70			~346			201			201	
Queue Length 95th (ft)		121			#607			#379			#397	
Internal Link Dist (ft)		321			361			554			536	

2021 Build Weekday Evening Peak Hour with Mitigation
 2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	17.0
Total Split (%)	20%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

2021 Build Weekday Evening Peak Hour with Mitigation
 2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		852			889			594			510	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.36			1.00			0.90			1.00	

Intersection Summary

Area Type: Other
 Cycle Length: 85
 Actuated Cycle Length: 68
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 45.9
 Intersection LOS: D
 Intersection Capacity Utilization 103.8%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Bridge Street & Cumberland Street /Cumberland Street

 Ø2	 Ø4	 Ø9
30 s	38 s	17 s
 Ø6	 Ø8	
30 s	38 s	

2021 Build Saturday Midday Peak Hour with Mitigation
2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	370	55	82	381	98	56	162	70	103	187	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1787	0	0	1785	0	0	1800	0	0	1849	0
Flt Permitted		0.952			0.879			0.886			0.775	
Satd. Flow (perm)	0	1706	0	0	1580	0	0	1611	0	0	1456	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			16			20			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		401			441			634			616	
Travel Time (s)		9.1			10.0			14.4			14.0	
Peak Hour Factor	0.87	0.87	0.87	0.93	0.93	0.93	0.92	0.92	0.92	0.86	0.86	0.86
Heavy Vehicles (%)	4%	5%	0%	3%	4%	0%	0%	1%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	519	0	0	603	0	0	313	0	0	366	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	36.0	36.0		36.0	36.0		27.0	27.0		27.0	27.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		33.8%	33.8%		33.8%	33.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		32.0			32.0			23.0			23.0	
Actuated g/C Ratio		0.51			0.51			0.37			0.37	
v/c Ratio		0.60			0.74			0.52			0.69	
Control Delay		14.3			19.2			18.4			24.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.3			19.2			18.4			24.8	
LOS		B			B			B			C	
Approach Delay		14.3			19.2			18.4			24.8	
Approach LOS		B			B			B			C	
Stops (vph)		300			414			207			256	
Fuel Used(gal)		4			6			4			5	
CO Emissions (g/hr)		306			448			255			316	
NOx Emissions (g/hr)		60			87			50			61	
VOC Emissions (g/hr)		71			104			59			73	
Dilemma Vehicles (#)		0			0			0			0	
Queue Length 50th (ft)		126			164			85			114	
Queue Length 95th (ft)		202			#293			154			188	
Internal Link Dist (ft)		321			361			554			536	

2021 Build Saturday Midday Peak Hour with Mitigation
 2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	17.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

2021 Build Saturday Midday Peak Hour with Mitigation
 2: Bridge Street & Cumberland Street /Cumberland Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		871			810			600			534	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.60			0.74			0.52			0.69	

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 63
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 18.8
 Intersection LOS: B
 Intersection Capacity Utilization 89.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Bridge Street & Cumberland Street /Cumberland Street

 p2	 p4	 p9
27 s	36 s	17 s
 p6	 p8	
27 s	36 s	

Cumberland Street at Park Road

2021 No-Build Weekday Evening Peak Hour
3: Cumberland Street & Park road

1/25/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	29	336	824	255	106	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1875	1825	0	1785	0
Flt Permitted		0.996			0.955	
Satd. Flow (perm)	0	1875	1825	0	1785	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		441	710		220	
Travel Time (s)		10.0	16.1		5.0	
Peak Hour Factor	0.85	0.85	0.98	0.98	0.86	0.86
Heavy Vehicles (%)	0%	1%	1%	0%	0%	17%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	429	1101	0	130	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 71.8%

ICU Level of Service C

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak Hour
3: Cumberland Street & Park road

1/25/2016

Intersection						
Intersection Delay, s/veh	9.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	29	336	824	255	106	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	98	98	86	86
Heavy Vehicles, %	0	1	1	0	0	17
Mvmt Flow	34	395	841	260	123	7
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1101	0	-	0	1435	971
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	464	-
Follow-up Headway	2.2	-	-	-	3.5	3.453
Pot Capacity-1 Maneuver	642	-	-	-	149	287
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	637	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	642	-	-	-	139	287
Mov Capacity-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	594	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.9		0		113.6	
HCM LOS					F	
Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	642	-	-	-	143	
HCM Lane V/C Ratio	0.053	-	-	-	0.911	
HCM Control Delay (s)	10.922	0	-	-	113.6	
HCM Lane LOS	B	A			F	
HCM 95th %tile Q(veh)	0.168	-	-	-	6.236	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

2021 No-Build Saturday Midday Peak Hour
3: Cumberland Street & Park road

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	12	432	462	158	152	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1898	1822	0	1798	0
Flt Permitted		0.999			0.955	
Satd. Flow (perm)	0	1898	1822	0	1798	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		441	710		220	
Travel Time (s)		10.0	16.1		5.0	
Peak Hour Factor	0.90	0.90	0.95	0.95	0.88	0.88
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	493	652	0	185	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 49.7%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak Hour
3: Cumberland Street & Park road

1/26/2016

Intersection						
Intersection Delay, s/veh	7.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	12	432	462	158	152	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	95	95	88	88
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	13	480	486	166	173	12
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	653	0	-	0	1076	569
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	507	-
Follow-up Headway	2.2	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	943	-	-	-	245	525
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	609	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	943	-	-	-	240	525
Mov Capacity-2 Maneuver	-	-	-	-	240	-
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	597	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.2		0		52.2	
HCM LOS					F	
Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	943	-	-	-	249	
HCM Lane V/C Ratio	0.014	-	-	-	0.744	
HCM Control Delay (s)	8.872	0	-	-	52.2	
HCM Lane LOS	A	A			F	
HCM 95th %tile Q(veh)	0.043	-	-	-	5.253	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

2021 Build Weekday Evening Peak Hour

3: Cumberland Street & Park road

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	29	382	875	268	117	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1875	1825	0	1787	0
Flt Permitted		0.996			0.955	
Satd. Flow (perm)	0	1875	1825	0	1787	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		441	710		220	
Travel Time (s)		10.0	16.1		5.0	
Peak Hour Factor	0.85	0.85	0.98	0.98	0.86	0.86
Heavy Vehicles (%)	0%	1%	1%	0%	0%	17%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	483	1166	0	143	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 75.9%

ICU Level of Service D

Analysis Period (min) 15

2021 Build Weekday Evening Peak Hour
3: Cumberland Street & Park road

1/26/2016

Intersection						
Intersection Delay, s/veh	17.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	29	382	875	268	117	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	98	98	86	86
Heavy Vehicles, %	0	1	1	0	0	17
Mvmt Flow	34	449	893	273	136	7
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1166	0	-	0	1548	1030
Stage 1	-	-	-	-	1030	-
Stage 2	-	-	-	-	518	-
Follow-up Headway	2.2	-	-	-	3.5	3.453
Pot Capacity-1 Maneuver	606	-	-	-	# 127	265
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	602	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	606	-	-	-	# 117	265
Mov Capacity-2 Maneuver	-	-	-	-	# 117	-
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	557	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.8		0		212.2	
HCM LOS					F	
Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	606	-	-	-	120	
HCM Lane V/C Ratio	0.056	-	-	-	1.192	
HCM Control Delay (s)	11.295	0	-	-	212.2	
HCM Lane LOS	B	A			F	
HCM 95th %tile Q(veh)	0.179	-	-	-	8.902	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

2021 Build Saturday Midday Peak Hour
3: Cumberland Street & Park road

1/27/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	12	510	532	176	172	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1898	1822	0	1800	0
Flt Permitted		0.999			0.955	
Satd. Flow (perm)	0	1898	1822	0	1800	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		441	710		220	
Travel Time (s)		10.0	16.1		5.0	
Peak Hour Factor	0.90	0.90	0.95	0.95	0.88	0.88
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	580	745	0	207	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 55.6% ICU Level of Service B

Analysis Period (min) 15

2021 Build Saturday Midday Peak Hour
3: Cumberland Street & Park road

1/27/2016

Intersection

Intersection Delay, s/veh 17.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	12	510	532	176	172	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	95	95	88	88
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	13	567	560	185	195	12

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	745	0	1246
Stage 1	-	-	653
Stage 2	-	-	593
Follow-up Headway	2.2	-	3.5
Pot Capacity-1 Maneuver	872	-	# 194
Stage 1	-	-	522
Stage 2	-	-	556
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	872	-	# 190
Mov Capacity-2 Maneuver	-	-	# 190
Stage 1	-	-	522
Stage 2	-	-	544

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	129.8
HCM LOS			F

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	872	-	-	-	197
HCM Lane V/C Ratio	0.015	-	-	-	1.056
HCM Control Delay (s)	9.193	0	-	-	129.8
HCM Lane LOS	A	A			F
HCM 95th %tile Q(veh)	0.047	-	-	-	9.542

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Cumberland Street at Harnois Avenue

2021 No-Build Weekday Evening Peak Hour
4: Main Street & Cumberland Street

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗	↙↘	↑		
Volume (vph)	0	577	566	1239	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	11	12	12	12
Satd. Flow (prot)	0	1863	3385	1900	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1863	3385	1900	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)		105	341			
Link Speed (mph)	30			30	30	
Link Distance (ft)	710			765	168	
Travel Time (s)	16.1			17.4	3.8	
Peak Hour Factor	0.88	0.88	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	656	596	1304	0	0
Turn Type		custom	Perm	NA		
Protected Phases				8		
Permitted Phases		7	8	7		
Detector Phase		7	8	8		
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0		
Minimum Split (s)		21.0	21.0	21.0		
Total Split (s)		48.0	32.0	32.0		
Total Split (%)		60.0%	40.0%	40.0%		
Yellow Time (s)		4.0	4.0	4.0		
All-Red Time (s)		1.0	1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		
Total Lost Time (s)		5.0	5.0	5.0		
Lead/Lag		Lead	Lag	Lag		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode		None	C-Max	C-Max		
Act Effct Green (s)		32.1	37.9	80.0		
Actuated g/C Ratio		0.40	0.47	1.00		
v/c Ratio		0.81	0.33	0.69		
Control Delay		25.4	4.3	5.6		
Queue Delay		0.0	0.0	0.0		
Total Delay		25.4	4.3	5.6		
LOS		C	A	A		
Approach Delay				5.2		
Approach LOS				A		
Stops (vph)		413	103	381		
Fuel Used(gal)		8	4	11		
CO Emissions (g/hr)		591	310	762		
NOx Emissions (g/hr)		115	60	148		
VOC Emissions (g/hr)		137	72	177		
Dilemma Vehicles (#)		0	0	0		
Queue Length 50th (ft)		239	9	132		
Queue Length 95th (ft)		282	43	416		

2021 No-Build Weekday Evening Peak Hour
4: Main Street & Cumberland Street

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	630			685	88	
Turn Bay Length (ft)						
Base Capacity (vph)		1049	1784	1900		
Starvation Cap Reductn		0	0	0		
Spillback Cap Reductn		0	0	0		
Storage Cap Reductn		0	0	0		
Reduced v/c Ratio		0.63	0.33	0.69		

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Yellow, Master Intersection
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 10.4
 Intersection Capacity Utilization 69.4%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 4: Main Street & Cumberland Street



2021 No-Build Saturday Midday Peak Hour
4: Main Street & Cumberland Street

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗	↘↙	↑		
Volume (vph)	0	697	697	698	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	11	12	12	12
Satd. Flow (prot)	0	1826	3319	1863	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1826	3319	1863	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)		43	340			
Link Speed (mph)	30			30	30	
Link Distance (ft)	710			765	168	
Travel Time (s)	16.1			17.4	3.8	
Peak Hour Factor	0.87	0.87	0.97	0.97	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	801	719	720	0	0
Turn Type		custom	Perm	NA		
Protected Phases				8		
Permitted Phases		7	8	7		
Detector Phase		7	8	8		
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0		
Minimum Split (s)		21.0	21.0	21.0		
Total Split (s)		51.0	29.0	29.0		
Total Split (%)		63.8%	36.3%	36.3%		
Yellow Time (s)		4.0	4.0	4.0		
All-Red Time (s)		1.0	1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		
Total Lost Time (s)		5.0	5.0	5.0		
Lead/Lag		Lead	Lag	Lag		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode		None	C-Max	C-Max		
Act Effct Green (s)		40.6	29.4	80.0		
Actuated g/C Ratio		0.51	0.37	1.00		
v/c Ratio		0.84	0.50	0.39		
Control Delay		24.8	7.6	0.6		
Queue Delay		0.0	0.0	0.0		
Total Delay		24.8	7.6	0.6		
LOS		C	A	A		
Approach Delay				4.1		
Approach LOS				A		
Stops (vph)		542	286	5		
Fuel Used(gal)		10	7	4		
CO Emissions (g/hr)		725	476	299		
NOx Emissions (g/hr)		141	93	58		
VOC Emissions (g/hr)		168	110	69		
Dilemma Vehicles (#)		0	0	0		
Queue Length 50th (ft)		290	35	0		
Queue Length 95th (ft)		379	86	0		
Internal Link Dist (ft)	630			685	88	

2021 No-Build Saturday Midday Peak Hour
4: Main Street & Cumberland Street

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Turn Bay Length (ft)						
Base Capacity (vph)		1068	1433	1863		
Starvation Cap Reductn		0	0	0		
Spillback Cap Reductn		0	0	0		
Storage Cap Reductn		0	0	0		
Reduced v/c Ratio		0.75	0.50	0.39		

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 11.5
 Intersection LOS: B
 Intersection Capacity Utilization 71.4%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 4: Main Street & Cumberland Street



2021 Build Weekday Evening Peak Hour
4: Main Street & Cumberland Street

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗	↙↘	↑		
Volume (vph)	0	634	579	1303	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	11	12	12	12
Satd. Flow (prot)	0	1863	3385	1900	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1863	3385	1900	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)		100	332			
Link Speed (mph)	30			30	30	
Link Distance (ft)	710			765	168	
Travel Time (s)	16.1			17.4	3.8	
Peak Hour Factor	0.88	0.88	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	720	609	1372	0	0
Turn Type		custom	Perm	NA		
Protected Phases				8		
Permitted Phases		7	8	7		
Detector Phase		7	8	8		
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0		
Minimum Split (s)		21.0	21.0	21.0		
Total Split (s)		48.0	32.0	32.0		
Total Split (%)		60.0%	40.0%	40.0%		
Yellow Time (s)		4.0	4.0	4.0		
All-Red Time (s)		1.0	1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		
Total Lost Time (s)		5.0	5.0	5.0		
Lead/Lag		Lead	Lag	Lag		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode		None	C-Max	C-Max		
Act Effct Green (s)		34.8	35.2	80.0		
Actuated g/C Ratio		0.44	0.44	1.00		
v/c Ratio		0.83	0.36	0.72		
Control Delay		25.3	5.1	6.7		
Queue Delay		0.0	0.0	0.0		
Total Delay		25.3	5.1	6.7		
LOS		C	A	A		
Approach Delay				6.2		
Approach LOS				A		
Stops (vph)		465	121	464		
Fuel Used(gal)		9	5	12		
CO Emissions (g/hr)		654	331	847		
NOx Emissions (g/hr)		127	64	165		
VOC Emissions (g/hr)		151	77	196		
Dilemma Vehicles (#)		0	0	0		
Queue Length 50th (ft)		259	8	168		
Queue Length 95th (ft)		321	m46	520		

2021 Build Weekday Evening Peak Hour
4: Main Street & Cumberland Street

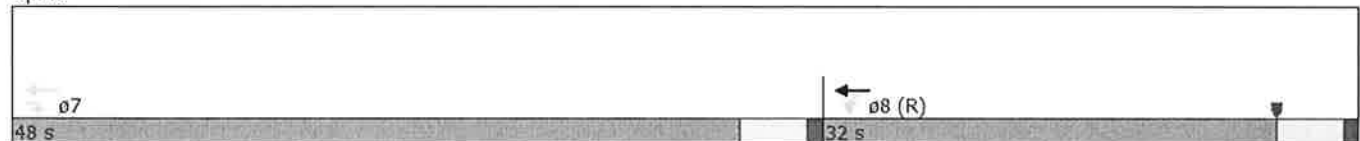
1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	630			685	88	
Turn Bay Length (ft)						
Base Capacity (vph)		1047	1673	1900		
Starvation Cap Reductn		0	0	0		
Spillback Cap Reductn		0	0	0		
Storage Cap Reductn		0	0	0		
Reduced v/c Ratio		0.69	0.36	0.72		

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Yellow, Master Intersection
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 11.3
 Intersection LOS: B
 Intersection Capacity Utilization 72.7%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Main Street & Cumberland Street



2021 Build Saturday Midday Peak Hour
4: Main Street & Cumberland Street

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗	↙↘	↑		
Volume (vph)	0	795	714	786	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	11	12	12	12
Satd. Flow (prot)	0	1826	3319	1863	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1826	3319	1863	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)		40	260			
Link Speed (mph)	30			30	30	
Link Distance (ft)	710			765	168	
Travel Time (s)	16.1			17.4	3.8	
Peak Hour Factor	0.87	0.87	0.97	0.97	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	914	736	810	0	0
Turn Type		custom	Perm	NA		
Protected Phases				8		
Permitted Phases		7	8	7		
Detector Phase		7	8	8		
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0		
Minimum Split (s)		21.0	21.0	21.0		
Total Split (s)		51.0	29.0	29.0		
Total Split (%)		63.8%	36.3%	36.3%		
Yellow Time (s)		4.0	4.0	4.0		
All-Red Time (s)		1.0	1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		
Total Lost Time (s)		5.0	5.0	5.0		
Lead/Lag		Lead	Lag	Lag		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode		None	C-Max	C-Max		
Act Effct Green (s)		43.6	26.4	80.0		
Actuated g/C Ratio		0.54	0.33	1.00		
v/c Ratio		0.90	0.58	0.43		
Control Delay		28.9	12.1	0.8		
Queue Delay		0.0	0.0	0.0		
Total Delay		28.9	12.1	0.8		
LOS		C	B	A		
Approach Delay				6.2		
Approach LOS				A		
Stops (vph)		624	442	21		
Fuel Used(gal)		13	8	5		
CO Emissions (g/hr)		875	591	345		
NOx Emissions (g/hr)		170	115	67		
VOC Emissions (g/hr)		203	137	80		
Dilemma Vehicles (#)		0	0	0		
Queue Length 50th (ft)		339	48	5		
Queue Length 95th (ft)		#525	115	3		
Internal Link Dist (ft)	630			685	88	

2021 Build Saturday Midday Peak Hour
4: Main Street & Cumberland Street

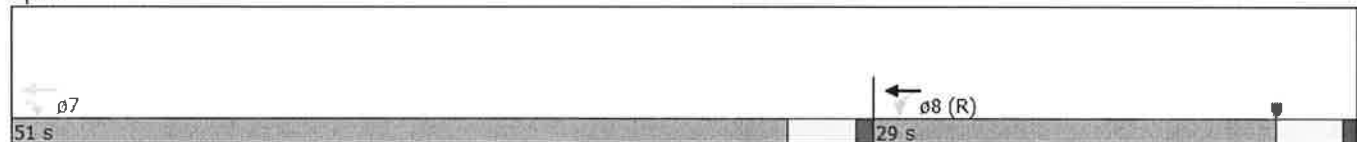
1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Turn Bay Length (ft)						
Base Capacity (vph)		1066	1267	1863		
Starvation Cap Reductn		0	0	0		
Spillback Cap Reductn		0	13	0		
Storage Cap Reductn		0	0	0		
Reduced v/c Ratio		0.86	0.59	0.43		

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 14.6
 Intersection LOS: B
 Intersection Capacity Utilization 77.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Main Street & Cumberland Street



Cumberland Street at Main Street

2021 No-Build Weekday Evening Peak Hour
5: Mian Street Connector & Main Street

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↖	↗
Volume (vph)	0	0	0	1347	413	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	0	3610	1787	1615
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3610	1787	1615
Right Turn on Red		Yes			Yes	Yes
Satd. Flow (RTOR)					2	
Link Speed (mph)	30			30	30	
Link Distance (ft)	765			561	950	
Travel Time (s)	17.4			12.8	21.6	
Peak Hour Factor	0.92	0.92	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1403	430	573
Turn Type				NA	NA	custom
Protected Phases				8	2	2
Permitted Phases						8
Detector Phase				8	2	2
Switch Phase						
Minimum Initial (s)				4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0
Total Split (s)				30.0	50.0	50.0
Total Split (%)				37.5%	62.5%	62.5%
Yellow Time (s)				4.0	4.0	4.0
All-Red Time (s)				1.0	1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode				C-Max	None	None
Act Effct Green (s)				43.0	27.0	80.0
Actuated g/C Ratio				0.54	0.34	1.00
v/c Ratio				0.72	0.71	0.35
Control Delay				19.0	24.2	0.5
Queue Delay				0.0	0.0	0.0
Total Delay				19.0	24.2	0.5
LOS				B	C	A
Approach Delay				19.0	10.6	
Approach LOS				B	B	
Stops (vph)				939	324	0
Fuel Used(gal)				16	7	5
CO Emissions (g/hr)				1139	512	329
NOx Emissions (g/hr)				222	100	64
VOC Emissions (g/hr)				264	119	76
Dilemma Vehicles (#)				0	0	0
Queue Length 50th (ft)				263	176	0
Queue Length 95th (ft)				#489	m184	m0
Internal Link Dist (ft)	685			481	870	

2021 No-Build Weekday Evening Peak Hour
5: Mian Street Connector & Main Street

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Turn Bay Length (ft)						
Base Capacity (vph)				1940	1006	1615
Starvation Cap Reductn				0	0	0
Spillback Cap Reductn				0	0	0
Storage Cap Reductn				0	0	0
Reduced v/c Ratio				0.72	0.43	0.35

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 73 (91%), Referenced to phase 8:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 15.5
 Intersection Capacity Utilization 69.4%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Mian Street Connector & Main Street

 02 50 s	 08 (R) 30 s
---	---

2021 No-Build Saturday Midday Peak Hour
5: Mian Street Connector & Main Street

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↖	↗
Volume (vph)	0	0	0	810	488	687
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	0	3574	1752	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3574	1752	1583
Right Turn on Red		Yes			Yes	Yes
Satd. Flow (RTOR)					91	
Link Speed (mph)	30			30	30	
Link Distance (ft)	765			561	950	
Travel Time (s)	17.4			12.8	21.6	
Peak Hour Factor	0.92	0.92	0.91	0.91	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	3%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	890	498	701
Turn Type				NA	NA	custom
Protected Phases				8	2	2
Permitted Phases						8
Detector Phase				8	2	2
Switch Phase						
Minimum Initial (s)				4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0
Total Split (s)				43.0	37.0	37.0
Total Split (%)				53.8%	46.3%	46.3%
Yellow Time (s)				4.0	4.0	4.0
All-Red Time (s)				1.0	1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode				C-Max	None	None
Act Effct Green (s)				44.3	25.7	80.0
Actuated g/C Ratio				0.55	0.32	1.00
v/c Ratio				0.45	0.80	0.44
Control Delay				12.6	32.3	0.7
Queue Delay				0.0	0.0	0.0
Total Delay				12.6	32.3	0.7
LOS				B	C	A
Approach Delay				12.6	13.8	
Approach LOS				B	B	
Stops (vph)				470	394	0
Fuel Used(gal)				8	10	6
CO Emissions (g/hr)				575	665	413
NOx Emissions (g/hr)				112	129	80
VOC Emissions (g/hr)				133	154	96
Dilemma Vehicles (#)				0	0	0
Queue Length 50th (ft)				132	189	0
Queue Length 95th (ft)				208	270	0
Internal Link Dist (ft)	685			481	870	

2021 No-Build Saturday Midday Peak Hour
 5: Mian Street Connector & Main Street

1/26/2016

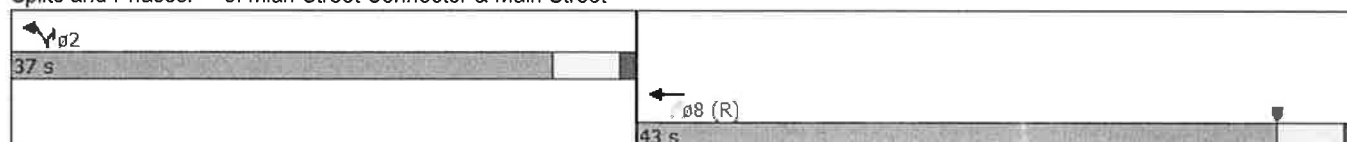
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Turn Bay Length (ft)						
Base Capacity (vph)				1979	755	1569
Starvation Cap Reductn				0	0	0
Spillback Cap Reductn				0	0	0
Storage Cap Reductn				0	0	0
Reduced v/c Ratio				0.45	0.66	0.45

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 5 (6%), Referenced to phase 8:WBT, Start of Yellow
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 13.3
 Intersection Capacity Utilization 71.4%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 5: Mian Street Connector & Main Street



2021 Build Weekday Evening Peak Hour
5: Mian Street Connector & Main Street

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↖	↗
Volume (vph)	0	0	0	1424	413	619
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	0	3610	1787	1615
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3610	1787	1615
Right Turn on Red		Yes			Yes	Yes
Satd. Flow (RTOR)					1	
Link Speed (mph)	30			30	30	
Link Distance (ft)	765			561	950	
Travel Time (s)	17.4			12.8	21.6	
Peak Hour Factor	0.92	0.92	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1483	430	645
Turn Type				NA	NA	custom
Protected Phases				8	2	2
Permitted Phases						8
Detector Phase				8	2	2
Switch Phase						
Minimum Initial (s)				4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0
Total Split (s)				30.0	50.0	50.0
Total Split (%)				37.5%	62.5%	62.5%
Yellow Time (s)				4.0	4.0	4.0
All-Red Time (s)				1.0	1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode				C-Max	None	None
Act Effct Green (s)				42.7	27.3	80.0
Actuated g/C Ratio				0.53	0.34	1.00
v/c Ratio				0.77	0.71	0.40
Control Delay				20.7	23.6	0.6
Queue Delay				0.0	0.0	0.0
Total Delay				20.7	23.6	0.6
LOS				C	C	A
Approach Delay				20.7	9.8	
Approach LOS				C	A	
Stops (vph)				1006	317	0
Fuel Used(gal)				18	7	5
CO Emissions (g/hr)				1243	506	372
NOx Emissions (g/hr)				242	98	72
VOC Emissions (g/hr)				288	117	86
Dilemma Vehicles (#)				0	0	0
Queue Length 50th (ft)				288	183	0
Queue Length 95th (ft)				#542	198	0
Internal Link Dist (ft)	685			481	870	

2021 Build Weekday Evening Peak Hour
 5: Mian Street Connector & Main Street

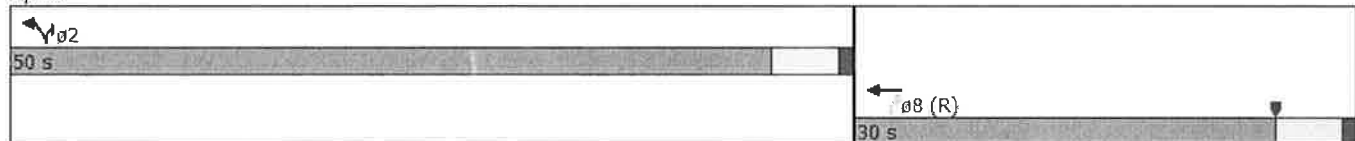
1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Turn Bay Length (ft)						
Base Capacity (vph)				1928	1005	1615
Starvation Cap Reductn				0	0	0
Spillback Cap Reductn				0	0	0
Storage Cap Reductn				0	0	0
Reduced v/c Ratio				0.77	0.43	0.40

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 73 (91%), Referenced to phase 8:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 16.1
 Intersection LOS: B
 Intersection Capacity Utilization 72.7%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Mian Street Connector & Main Street



2021 Build Saturday Midday Peak Hour
5: Mian Street Connector & Main Street

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↖	↗
Volume (vph)	0	0	0	915	488	804
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	0	3574	1752	1583
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3574	1752	1583
Right Turn on Red		Yes			Yes	Yes
Satd. Flow (RTOR)					65	
Link Speed (mph)	30			30	30	
Link Distance (ft)	765			561	950	
Travel Time (s)	17.4			12.8	21.6	
Peak Hour Factor	0.92	0.92	0.91	0.91	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	3%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1005	498	820
Turn Type				NA	NA	custom
Protected Phases				8	2	2
Permitted Phases						8
Detector Phase				8	2	2
Switch Phase						
Minimum Initial (s)				4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0
Total Split (s)				43.0	37.0	37.0
Total Split (%)				53.8%	46.3%	46.3%
Yellow Time (s)				4.0	4.0	4.0
All-Red Time (s)				1.0	1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode				C-Max	None	None
Act Effct Green (s)				43.4	26.6	80.0
Actuated g/C Ratio				0.54	0.33	1.00
v/c Ratio				0.52	0.80	0.52
Control Delay				13.9	31.2	0.8
Queue Delay				0.0	0.0	0.0
Total Delay				13.9	31.2	0.8
LOS				B	C	A
Approach Delay				13.9	12.3	
Approach LOS				B	B	
Stops (vph)				568	379	0
Fuel Used(gal)				10	9	7
CO Emissions (g/hr)				681	652	485
NOx Emissions (g/hr)				132	127	94
VOC Emissions (g/hr)				158	151	113
Dilemma Vehicles (#)				0	0	0
Queue Length 50th (ft)				163	200	0
Queue Length 95th (ft)				243	m278	0
Internal Link Dist (ft)	685			481	870	

2021 Build Saturday Midday Peak Hour
 5: Mian Street Connector & Main Street

1/27/2016

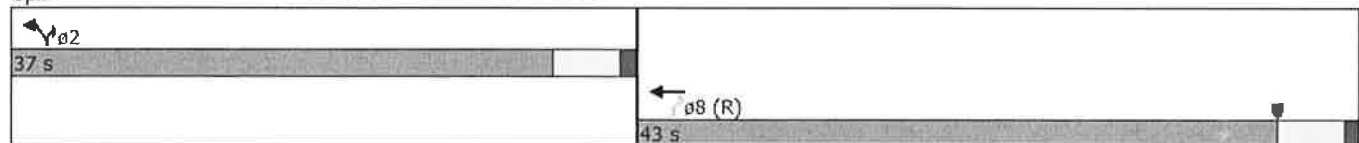
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Turn Bay Length (ft)						
Base Capacity (vph)				1937	739	1560
Starvation Cap Reductn				0	0	0
Spillback Cap Reductn				0	0	0
Storage Cap Reductn				0	0	0
Reduced v/c Ratio				0.52	0.67	0.53

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 5 (6%), Referenced to phase 8:WBT, Start of Yellow
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 13.0
 Intersection Capacity Utilization 77.9%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 5: Mian Street Connector & Main Street



Main Street at Forest Street

2021 No-Build Weekday Evening Peak Hour
6: Forest Street & Main Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	484	48	11	1000	5	364	8	38	2	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Storage Length (ft)	0		105	0		115	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1898	1615	0	1898	1615	0	1796	0	0	1959	0
Flt Permitted		0.675			0.993			0.741			0.884	
Satd. Flow (perm)	0	1282	1615	0	1887	1615	0	1391	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77			77		6			77	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		561			485			717			325	
Travel Time (s)		12.8			11.0			16.3			7.4	
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.82	0.82	0.82	0.33	0.33	0.33
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	544	53	0	1162	6	0	500	0	0	12	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0		31.0	31.0	
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	
Total Split (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	29.4%	29.4%		29.4%	29.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		40.0	40.0		40.0	40.0		20.0			20.0	
Actuated g/C Ratio		0.57	0.57		0.57	0.57		0.29			0.29	
v/c Ratio		0.74	0.06		1.08	0.01		1.25			0.02	
Control Delay		19.2	1.2		69.3	0.0		156.7			0.0	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		19.2	1.2		69.3	0.0		156.7			0.0	
LOS		B	A		E	A		F			A	
Approach Delay		17.6			68.9			156.7			0.0	
Approach LOS		B			E			F			A	
Stops (vph)		353	3		800	0		321			0	
Fuel Used(gal)		6	0		23	0		17			0	
CO Emissions (g/hr)		420	17		1573	1		1199			1	
NOx Emissions (g/hr)		82	3		306	0		233			0	
VOC Emissions (g/hr)		97	4		365	0		278			0	

2021 No-Build Weekday Evening Peak Hour
6: Forest Street & Main Street

1/25/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	15.0
Total Split (%)	18%
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 No-Build Weekday Evening Peak Hour

6: Forest Street & Main Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0		0			0	
Queue Length 50th (ft)		158	0		~571	0		~275			0	
Queue Length 95th (ft)		#294	8		#754	0		#394			0	
Internal Link Dist (ft)		481			405			637			245	
Turn Bay Length (ft)			105			115						
Base Capacity (vph)		732	955		1078	955		401			561	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.74	0.06		1.08	0.01		1.25			0.02	

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 70

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.25

Intersection Signal Delay: 74.4

Intersection LOS: E

Intersection Capacity Utilization 99.3%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Forest Street & Main Street

 ø2	 ø4	 ø9
25 s	45 s	15 s
 ø6	 ø8	
25 s	45 s	

2021 No-Build Saturday Midday Peak Hour
6: Forest Street & Main Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	633	51	160	515	32	88	2	48	8	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Storage Length (ft)	0		105	0		115	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1861	1615	0	1849	1615	0	1755	0	0	2003	0
Flt Permitted		0.994			0.648			0.792			0.873	
Satd. Flow (perm)	0	1852	1615	0	1213	1615	0	1434	0	0	1784	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77			77		29			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		561			485			717			325	
Travel Time (s)		12.8			11.0			16.3			7.4	
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.90	0.90	0.90	0.79	0.79	0.79
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	673	54	0	703	33	0	153	0	0	24	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0		31.0	31.0	
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	
Total Split (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	29.4%	29.4%		29.4%	29.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		40.1	40.1		40.1	40.1		10.6			10.6	
Actuated g/C Ratio		0.66	0.66		0.66	0.66		0.17			0.17	
v/c Ratio		0.55	0.05		0.88	0.03		0.56			0.08	
Control Delay		8.3	1.0		25.6	0.3		26.6			16.2	
Queue Delay		0.1	0.0		0.0	0.0		0.0			0.0	
Total Delay		8.4	1.0		25.6	0.3		26.6			16.2	
LOS		A	A		C	A		C			B	
Approach Delay		7.9			24.5			26.6			16.2	
Approach LOS		A			C			C			B	
Stops (vph)		325	3		447	1		96			13	
Fuel Used(gal)		6	0		9	0		2			0	
CO Emissions (g/hr)		397	17		597	9		143			13	
NOx Emissions (g/hr)		77	3		116	2		28			2	
VOC Emissions (g/hr)		92	4		138	2		33			3	

2021 No-Build Saturday Midday Peak Hour
6: Forest Street & Main Street

1/26/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	15.0
Total Split (%)	18%
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 No-Build Saturday Midday Peak Hour

6: Forest Street & Main Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0		0			0	
Queue Length 50th (ft)		107	0		169	0		41			5	
Queue Length 95th (ft)		233	8		#474	2		91			18	
Internal Link Dist (ft)		481			405			637			245	
Turn Bay Length (ft)			105			115						
Base Capacity (vph)		1224	1093		801	1093		493			595	
Starvation Cap Reductn		54	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.58	0.05		0.88	0.03		0.31			0.04	

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 60.7

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 17.2

Intersection LOS: B

Intersection Capacity Utilization 94.4%

ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Forest Street & Main Street

 2	 4	 9
25 s	45 s	15 s
 6	 8	
25 s	45 s	

2021 Build Weekday Evening Peak Hour
6: Forest Street & Main Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	553	48	11	1077	5	364	8	38	2	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Storage Length (ft)	0		105	0		115	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1900	1615	0	1898	1615	0	1796	0	0	1959	0
Flt Permitted		0.675			0.993			0.741			0.884	
Satd. Flow (perm)	0	1282	1615	0	1887	1615	0	1391	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77			77		6			77	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		561			485			717			325	
Travel Time (s)		12.8			11.0			16.3			7.4	
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.82	0.82	0.82	0.33	0.33	0.33
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	620	53	0	1251	6	0	500	0	0	12	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0		31.0	31.0	
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	
Total Split (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	29.4%	29.4%		29.4%	29.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		40.0	40.0		40.0	40.0		20.0			20.0	
Actuated g/C Ratio		0.57	0.57		0.57	0.57		0.29			0.29	
v/c Ratio		0.85	0.06		1.16	0.01		1.25			0.02	
Control Delay		26.3	1.2		101.7	0.0		156.7			0.0	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		26.3	1.2		101.7	0.0		156.7			0.0	
LOS		C	A		F	A		F			A	
Approach Delay		24.3			101.2			156.7			0.0	
Approach LOS		C			F			F			A	
Stops (vph)		421	3		860	0		321			0	
Fuel Used(gal)		8	0		31	0		17			0	
CO Emissions (g/hr)		542	17		2194	1		1199			1	
NOx Emissions (g/hr)		105	3		427	0		233			0	
VOC Emissions (g/hr)		126	4		508	0		278			0	

2021 Build Weekday Evening Peak Hour
6: Forest Street & Main Street

1/26/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	15.0
Total Split (%)	18%
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 Build Weekday Evening Peak Hour
6: Forest Street & Main Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0		0			0	
Queue Length 50th (ft)		200	0		~653	0		~275			0	
Queue Length 95th (ft)		#419	8		#837	0		#394			0	
Internal Link Dist (ft)		481			405			637			245	
Turn Bay Length (ft)			105			115						
Base Capacity (vph)		732	955		1078	955		401			561	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.85	0.06		1.16	0.01		1.25			0.02	

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 70

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.25

Intersection Signal Delay: 90.9

Intersection LOS: F

Intersection Capacity Utilization 103.4%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Forest Street & Main Street

 Ø2	 Ø4	 Ø9
25 s	45 s	15 s
 Ø6	 Ø8	
25 s	45 s	

2021 Build Saturday Midday Peak Hour

6: Forest Street & Main Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗		↔	↗		↕			↕	
Volume (vph)	7	750	51	160	620	32	88	2	48	8	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Storage Length (ft)	0		105	0		115	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1863	1615	0	1852	1615	0	1755	0	0	2003	0
Flt Permitted		0.994			0.571			0.792			0.873	
Satd. Flow (perm)	0	1852	1615	0	1068	1615	0	1434	0	0	1784	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77			77		29			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		561			485			717			325	
Travel Time (s)		12.8			11.0			16.3			7.4	
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.90	0.90	0.90	0.79	0.79	0.79
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	796	54	0	813	33	0	153	0	0	24	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0		31.0	31.0	
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	
Total Split (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	29.4%	29.4%		29.4%	29.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		40.1	40.1		40.1	40.1		10.6			10.6	
Actuated g/C Ratio		0.66	0.66		0.66	0.66		0.17			0.17	
v/c Ratio		0.65	0.05		1.15	0.03		0.56			0.08	
Control Delay		10.1	1.0		101.2	0.3		26.6			16.2	
Queue Delay		0.1	0.0		0.0	0.0		0.0			0.0	
Total Delay		10.3	1.0		101.2	0.3		26.6			16.2	
LOS		B	A		F	A		C			B	
Approach Delay		9.7			97.3			26.6			16.2	
Approach LOS		A			F			C			B	
Stops (vph)		436	3		541	1		96			13	
Fuel Used(gal)		7	0		22	0		2			0	
CO Emissions (g/hr)		508	17		1539	9		143			13	
NOx Emissions (g/hr)		99	3		299	2		28			2	
VOC Emissions (g/hr)		118	4		357	2		33			3	

2021 Build Saturday Midday Peak Hour
6: Forest Street & Main Street

1/27/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	15.0
Total Split (%)	18%
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 Build Saturday Midday Peak Hour

6: Forest Street & Main Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0		0			0	
Queue Length 50th (ft)		141	0		~361	0		41			5	
Queue Length 95th (ft)		314	8		#615	2		91			18	
Internal Link Dist (ft)		481			405			637			245	
Turn Bay Length (ft)			105			115						
Base Capacity (vph)		1224	1093		705	1093		493			595	
Starvation Cap Reductn		48	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.68	0.05		1.15	0.03		0.31			0.04	

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 60.7

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 50.7

Intersection LOS: D

Intersection Capacity Utilization 106.1%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Forest Street & Main Street

 ø2	 ø4	 ø9
25 s	45 s	15 s
 ø6	 ø8	
25 s	45 s	

2021 Build Weekday Evening Peak Hour with Mitigation
6: Forest Street & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	553	48	11	1077	5	364	8	38	2	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Storage Length (ft)	0		105	0		115	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1900	1615	0	3603	0	0	1796	0	0	1959	0
Flt Permitted		0.987			0.948			0.741			0.846	
Satd. Flow (perm)	0	1875	1615	0	3419	0	0	1391	0	0	1698	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77		1			6			77	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		561			485			717			325	
Travel Time (s)		12.8			11.0			16.3			7.4	
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.82	0.82	0.82	0.33	0.33	0.33
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	620	53	0	1257	0	0	500	0	0	12	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		31.0	31.0	
Total Split (s)	39.0	39.0	39.0	39.0	39.0		31.0	31.0		31.0	31.0	
Total Split (%)	45.9%	45.9%	45.9%	45.9%	45.9%		36.5%	36.5%		36.5%	36.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)		33.5	33.5		33.5			26.0			26.0	
Actuated g/C Ratio		0.48	0.48		0.48			0.37			0.37	
v/c Ratio		0.69	0.06		0.76			0.95			0.02	
Control Delay		18.8	1.7		18.5			53.8			0.0	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		18.8	1.7		18.5			53.8			0.0	
LOS		B	A		B			D			A	
Approach Delay		17.4			18.5			53.8			0.0	
Approach LOS		B			B			D			A	
Stops (vph)		416	4		847			330			0	
Fuel Used(gal)		7	0		13			9			0	
CO Emissions (g/hr)		480	17		905			602			1	
NOx Emissions (g/hr)		93	3		176			117			0	
VOC Emissions (g/hr)		111	4		210			139			0	

2021 Build Weekday Evening Peak Hour with Mitigation
6: Forest Street & Main Street

2/1/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	15.0
Total Split (%)	18%
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 Build Weekday Evening Peak Hour with Mitigation
6: Forest Street & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0			0			0	
Queue Length 50th (ft)		193	0		218			203			0	
Queue Length 95th (ft)		306	10		278			#337			0	
Internal Link Dist (ft)		481			405			637			245	
Turn Bay Length (ft)			105									
Base Capacity (vph)		917	830		1674			524			684	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.68	0.06		0.75			0.95			0.02	

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 69.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 25.4

Intersection LOS: C

Intersection Capacity Utilization 75.6%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Forest Street & Main Street

 p2	 p4	 p9
31 s	39 s	15 s
 p6	 p8	
31 s	39 s	

2021 Build Saturday Midday Peak Hour with Mitigation

6: Forest Street & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	750	51	160	620	32	88	2	48	8	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Storage Length (ft)	0		105	0		115	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1863	1615	0	3499	0	0	1755	0	0	2003	0
Flt Permitted		0.993			0.626			0.792			0.879	
Satd. Flow (perm)	0	1850	1615	0	2213	0	0	1434	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77		6			32			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		561			485			717			325	
Travel Time (s)		12.8			11.0			16.3			7.4	
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.90	0.90	0.90	0.79	0.79	0.79
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	796	54	0	846	0	0	153	0	0	24	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		31.0	31.0	
Total Split (s)	39.0	39.0	39.0	39.0	39.0		31.0	31.0		31.0	31.0	
Total Split (%)	45.9%	45.9%	45.9%	45.9%	45.9%		36.5%	36.5%		36.5%	36.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)		36.0	36.0		36.0			9.8			9.6	
Actuated g/C Ratio		0.70	0.70		0.70			0.19			0.19	
v/c Ratio		0.62	0.05		0.55			0.52			0.07	
Control Delay		9.6	1.1		7.9			22.7			14.3	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		9.6	1.1		7.9			22.7			14.3	
LOS		A	A		A			C			B	
Approach Delay		9.1			7.9			22.7			14.3	
Approach LOS		A			A			C			B	
Stops (vph)		440	5		417			94			13	
Fuel Used(gal)		7	0		7			2			0	
CO Emissions (g/hr)		505	18		467			135			12	
NOx Emissions (g/hr)		98	4		91			26			2	
VOC Emissions (g/hr)		117	4		108			31			3	

2021 Build Saturday Midday Peak Hour with Mitigation
6: Forest Street & Main Street

2/1/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	15.0
Total Split (%)	18%
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 Build Saturday Midday Peak Hour with Mitigation
6: Forest Street & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0			0			0	
Queue Length 50th (ft)		134	0		68			35			4	
Queue Length 95th (ft)		304	7		144			80			16	
Internal Link Dist (ft)		481			405			637			245	
Turn Bay Length (ft)			105									
Base Capacity (vph)		1287	1147		1542			750			925	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.62	0.05		0.55			0.20			0.03	

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 51.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 9.7

Intersection LOS: A

Intersection Capacity Utilization 87.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 6: Forest Street & Main Street

 02	 04	 09
31 s	39 s	15 s
 06	 08	
31 s	39 s	

Main Street at Larrabee Road

2021 No-Build Weekday Evening Peak

21: Larrabee Road & Main Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	253	455	86	233	658	20	105	208	160	98	315	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	12	11
Storage Length (ft)	140		0	200		0	0		0	0		215
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3593	0	1787	3680	0	0	3441	0	0	3531	1546
Flt Permitted	0.950			0.950				0.989			0.988	
Satd. Flow (perm)	1805	3593	0	1787	3680	0	0	3441	0	0	3531	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			2			65				335
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			826			903			431	
Travel Time (s)		24.6			18.8			20.5			9.8	
Peak Hour Factor	0.96	0.96	0.96	0.94	0.94	0.94	0.88	0.88	0.88	0.89	0.89	0.89
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%	0%	4%	0%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	564	0	248	721	0	0	537	0	0	464	335
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Detector Phase	7	4		3	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.5	21.5		9.5	21.5		21.5	21.5		21.5	21.5	21.5
Total Split (s)	30.0	50.0		20.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	25.0%	41.7%		16.7%	33.3%		20.8%	20.8%		20.8%	20.8%	20.8%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	19.9	22.8		24.6	27.4			18.6			18.6	18.6
Actuated g/C Ratio	0.19	0.22		0.23	0.26			0.18			0.18	0.18
v/c Ratio	0.77	0.71		0.59	0.75			0.81			0.74	0.61
Control Delay	57.6	42.7		43.8	41.8			48.6			50.8	10.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	57.6	42.7		43.8	41.8			48.6			50.8	10.0
LOS	E	D		D	D			D			D	B
Approach Delay		47.5			42.3			48.6			33.7	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	176	187		154	245			167			162	0
Queue Length 95th (ft)	287	254		258	326			#266			241	81
Internal Link Dist (ft)		1003			746			823			351	
Turn Bay Length (ft)	140			200								215
Base Capacity (vph)	440	1588		417	1257			723			688	570

2021 No-Build Weekday Evening Peak

21: Larrabee Road & Main Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.60	0.36		0.59	0.57			0.74			0.67	0.59

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 105

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 42.6

Intersection LOS: D

Intersection Capacity Utilization 75.0%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Larrabee Road & Main Street

 ø2	 ø6	 ø4	 ø3
25 s	25 s	50 s	20 s
		 ø7	 ø8
		30 s	40 s

2021 No-Build Saturday Midday Peak
21: Larrabee Road & Main Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	209	470	103	160	511	32	103	149	54	30	133	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	12	11
Storage Length (ft)	140		0	200		0	0		0	0		215
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3537	0	1787	3662	0	0	3338	0	0	3549	1546
Flt Permitted	0.950			0.950				0.983			0.991	
Satd. Flow (perm)	1787	3537	0	1787	3662	0	0	3338	0	0	3549	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			5			18				334
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			826			903			431	
Travel Time (s)		24.6			18.8			20.5			9.8	
Peak Hour Factor	0.75	0.75	0.75	0.81	0.81	0.81	0.86	0.86	0.86	0.67	0.67	0.67
Heavy Vehicles (%)	1%	1%	10%	1%	1%	0%	19%	1%	0%	0%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	279	764	0	198	671	0	0	356	0	0	244	334
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Detector Phase	7	4		3	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.5	21.5		9.5	21.5		21.5	21.5		21.5	21.5	21.5
Total Split (s)	30.0	50.0		20.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	25.0%	41.7%		16.7%	33.3%		20.8%	20.8%		20.8%	20.8%	20.8%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	19.8	27.9		16.9	25.0			15.1			13.5	13.5
Actuated g/C Ratio	0.21	0.30		0.18	0.27			0.16			0.14	0.14
v/c Ratio	0.74	0.72		0.62	0.69			0.65			0.48	0.66
Control Delay	50.3	33.6		48.2	36.1			43.3			42.8	11.6
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	50.3	33.6		48.2	36.1			43.3			42.8	11.6
LOS	D	C		D	D			D			D	B
Approach Delay		38.1			38.9			43.3			24.8	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	154	206		109	188			100			71	0
Queue Length 95th (ft)	243	251		202	262			172			95	0
Internal Link Dist (ft)		1003			746			823			351	
Turn Bay Length (ft)	140			200								215
Base Capacity (vph)	494	1774		339	1422			753			785	602

2021 No-Build Saturday Midday Peak

21: Larrabee Road & Main Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.56	0.43		0.58	0.47			0.47			0.31	0.55

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 94.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 36.3

Intersection LOS: D

Intersection Capacity Utilization 56.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 21: Larrabee Road & Main Street

 Ø2	 Ø6	 Ø4	 Ø3
25 s	25 s	50 s	20 s
		 Ø7	 Ø8
		30 s	40 s

2021 Build Weekday Evening Peak
21: Larrabee Road & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	253	484	126	233	690	52	150	305	160	127	401	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	12	11
Storage Length (ft)	140		0	200		0	0		0	0		215
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3564	0	1787	3659	0	0	3473	0	0	3531	1546
Flt Permitted	0.950			0.950				0.988			0.988	
Satd. Flow (perm)	1805	3564	0	1787	3659	0	0	3473	0	0	3531	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			6			35				335
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			826			903			431	
Travel Time (s)		24.6			18.8			20.5			9.8	
Peak Hour Factor	0.96	0.96	0.96	0.94	0.94	0.94	0.88	0.88	0.88	0.89	0.89	0.89
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%	0%	4%	0%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	635	0	248	789	0	0	699	0	0	594	335
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Detector Phase	7	4		3	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.5	21.5		9.5	21.5		21.5	21.5		21.5	21.5	21.5
Total Split (s)	30.0	50.0		20.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	25.0%	41.7%		16.7%	33.3%		20.8%	20.8%		20.8%	20.8%	20.8%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	None
Act Effct Green (s)	21.5	45.0		15.0	38.5			20.0			20.0	20.0
Actuated g/C Ratio	0.18	0.38		0.12	0.32			0.17			0.17	0.17
v/c Ratio	0.81	0.47		1.11	0.67			1.15			1.01	0.62
Control Delay	66.8	28.3		141.7	39.1			127.8			89.4	10.4
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	66.8	28.3		141.7	39.1			127.8			89.4	10.4
LOS	E	C		F	D			F			F	B
Approach Delay		39.6			63.6			127.8			60.9	
Approach LOS		D			E			F			E	
Queue Length 50th (ft)	196	184		~220	280			~323			~248	0
Queue Length 95th (ft)	287	239		#386	362			#432			#364	81
Internal Link Dist (ft)		1003			746			823			351	
Turn Bay Length (ft)	140			200								215
Base Capacity (vph)	376	1355		223	1176			608			588	536

2021 Build Weekday Evening Peak
21: Larrabee Road & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.70	0.47		1.11	0.67			1.15			1.01	0.63

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 69.5

Intersection LOS: E

Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Larrabee Road & Main Street

 $\phi 2$	 $\phi 6$	 $\phi 4$ (R)	 $\phi 3$
25 s	25 s	50 s	20 s
		 $\phi 7$	 $\phi 8$ (R)
		30 s	40 s

2021 Build Saturday Midday Peak
21: Larrabee Road & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	209	519	171	160	555	76	164	281	54	79	279	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	12	11
Storage Length (ft)	140		0	200		0	0		0	0		215
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3480	0	1787	3631	0	0	3382	0	0	3543	1546
Flt Permitted	0.950			0.950				0.984			0.989	
Satd. Flow (perm)	1787	3480	0	1787	3631	0	0	3382	0	0	3543	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			13			9				334
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			826			903			431	
Travel Time (s)		24.6			18.8			20.5			9.8	
Peak Hour Factor	0.75	0.75	0.75	0.81	0.81	0.81	0.86	0.86	0.86	0.67	0.67	0.67
Heavy Vehicles (%)	1%	1%	10%	1%	1%	0%	19%	1%	0%	0%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	279	920	0	198	779	0	0	581	0	0	534	334
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Detector Phase	7	4		3	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.5	21.5		9.5	21.5		21.5	21.5		21.5	21.5	21.5
Total Split (s)	30.0	50.0		20.0	40.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	25.0%	41.7%		16.7%	33.3%		20.8%	20.8%		20.8%	20.8%	20.8%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	None
Act Effct Green (s)	22.4	45.0		15.0	37.6			20.0			20.0	20.0
Actuated g/C Ratio	0.19	0.38		0.12	0.31			0.17			0.17	0.17
v/c Ratio	0.84	0.69		0.89	0.68			1.02			0.91	0.62
Control Delay	68.5	33.3		89.2	39.5			90.9			69.4	10.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	68.5	33.3		89.2	39.5			90.9			69.4	10.3
LOS	E	C		F	D			F			E	B
Approach Delay		41.5			49.5			90.9			46.7	
Approach LOS		D			D			F			D	
Queue Length 50th (ft)	206	299		153	278			~242			215	0
Queue Length 95th (ft)	243	287		#244	307			#337			198	0
Internal Link Dist (ft)		1003			746			823			351	
Turn Bay Length (ft)	140			200								215
Base Capacity (vph)	372	1332		223	1147			571			590	536

2021 Build Saturday Midday Peak
21: Larrabee Road & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.75	0.69		0.89	0.68			1.02			0.91	0.62

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 52.8

Intersection LOS: D

Intersection Capacity Utilization 70.3%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Larrabee Road & Main Street

 $\phi 2$	 $\phi 6$	 $\phi 4 (R)$	 $\phi 3$
25 s	25 s	50 s	20 s
		 $\phi 7$	 $\phi 8 (R)$
		30 s	40 s

2021 Build Weekday Evening Peak *With Mitigation*
 21: Larrabee Road & Main Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	253	484	126	233	690	52	150	305	160	127	401	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	12	11
Storage Length (ft)	140		0	200		0	0		0	0		215
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3564	0	1787	3659	0	0	3473	0	0	3531	1546
Flt Permitted	0.950			0.950				0.988			0.988	
Satd. Flow (perm)	1805	3564	0	1787	3659	0	0	3473	0	0	3531	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			8			50				335
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			826			903			431	
Travel Time (s)		24.6			18.8			20.5			9.8	
Peak Hour Factor	0.96	0.96	0.96	0.94	0.94	0.94	0.88	0.88	0.88	0.89	0.89	0.89
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%	0%	4%	0%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	635	0	248	789	0	0	699	0	0	594	335
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Detector Phase	7	4		3	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.5	21.5		9.5	21.5		21.5	21.5		21.5	21.5	21.5
Total Split (s)	19.4	25.8		18.6	25.0		24.0	24.0		21.6	21.6	21.6
Total Split (%)	21.6%	28.7%		20.7%	27.8%		26.7%	26.7%		24.0%	24.0%	24.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	None
Act Effct Green (s)	14.4	20.8		13.6	20.0			19.0			16.6	16.6
Actuated g/C Ratio	0.16	0.23		0.15	0.22			0.21			0.18	0.18
v/c Ratio	0.92	0.75		0.92	0.96			0.91			0.91	0.60
Control Delay	74.7	36.7		71.1	52.1			51.3			56.1	8.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	74.7	36.7		71.1	52.1			51.3			56.1	8.9
LOS	E	D		E	D			D			E	A
Approach Delay		47.9			56.6			51.3			39.1	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	150	167		145	211			198			175	0
Queue Length 95th (ft)	#294	230		#274	#346			#291			#270	69
Internal Link Dist (ft)		1003			746			823			351	
Turn Bay Length (ft)	140			200								215
Base Capacity (vph)	288	849		270	819			772			653	559

2021 Build Weekday Evening Peak
21: Larrabee Road & Main Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.92	0.75		0.92	0.96			0.91			0.91	0.60

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 56 (62%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 48.8

Intersection LOS: D

Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Larrabee Road & Main Street

 p2	 p6	 p3	 p4 (R)
24 s	21.6 s	18.6 s	25.8 s
		 p7	 p8 (R)
		19.4 s	25 s

2021 Build Saturday Midday Peak *with Mitigation*
 21: Larrabee Road & Main Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	209	519	171	160	555	76	164	281	54	79	279	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	12	11
Storage Length (ft)	140		0	200		0	0		0	0		215
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3480	0	1787	3631	0	0	3382	0	0	3543	1546
Flt Permitted	0.950			0.950				0.984			0.989	
Satd. Flow (perm)	1787	3480	0	1787	3631	0	0	3382	0	0	3543	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		50			16			13				334
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			826			903			431	
Travel Time (s)		24.6			18.8			20.5			9.8	
Peak Hour Factor	0.75	0.75	0.75	0.81	0.81	0.81	0.86	0.86	0.86	0.67	0.67	0.67
Heavy Vehicles (%)	1%	1%	10%	1%	1%	0%	19%	1%	0%	0%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	279	920	0	198	779	0	0	581	0	0	534	334
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												6
Detector Phase	7	4		3	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	9.5	21.5		9.5	21.5		21.5	21.5		21.5	21.5	21.5
Total Split (s)	20.4	30.7		16.2	26.5		21.5	21.5		21.6	21.6	21.6
Total Split (%)	22.7%	34.1%		18.0%	29.4%		23.9%	23.9%		24.0%	24.0%	24.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	None
Act Effct Green (s)	15.4	26.0		11.2	21.8			16.5			16.3	16.3
Actuated g/C Ratio	0.17	0.29		0.12	0.24			0.18			0.18	0.18
v/c Ratio	0.91	0.89		0.89	0.88			0.92			0.83	0.60
Control Delay	72.6	40.8		73.1	39.3			55.9			48.0	9.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	72.6	40.8		73.1	39.3			55.9			48.0	9.0
LOS	E	D		E	D			E			D	A
Approach Delay		48.2			46.2			55.9			33.0	
Approach LOS		D			D			E			C	
Queue Length 50th (ft)	158	250		92	136			153			154	0
Queue Length 95th (ft)	#224	253		#193	184			#231			150	8
Internal Link Dist (ft)		1003			746			823			351	
Turn Bay Length (ft)	140			200								215
Base Capacity (vph)	305	1039		222	890			630			653	557

Proposed Commercial Development
 VAI

Synchro 8 Report
 S:\Jobs\6846\Analysis\21bsatsite.syn

2021 Build Saturday Midday Peak
21: Larrabee Road & Main Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.91	0.89		0.89	0.88			0.92			0.82	0.60

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 69 (77%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 45.3

Intersection LOS: D

Intersection Capacity Utilization 70.3%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Larrabee Road & Main Street

 $\phi 2$	 $\phi 6$	 $\phi 4$ (R)	 $\phi 3$
21.5 s	21.6 s	30.7 s	16.2 s
		 $\phi 7$	 $\phi 8$ (R)
		20.4 s	26.5 s

Main Street at the Westbrook Crossing Drive and the Project Site Driveway

2021 No-Build Weekday Evening Peak
 22: Main Street & Westbrook Crossing Drive

1/28/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	125	469	788	86	50	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	3574	3524	0	1787	1599
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1805	3574	3524	0	1787	1599
Link Speed (mph)		30	30		30	
Link Distance (ft)		826	546		216	
Travel Time (s)		18.8	12.4		4.9	
Peak Hour Factor	0.87	0.87	0.93	0.93	0.87	0.87
Heavy Vehicles (%)	0%	1%	1%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	539	939	0	57	211
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 44.8%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak
22: Main Street & Westbrook Crossing Drive

1/28/2016

Intersection

Intersection Delay, s/veh 5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	125	469	788	86	50	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	93	93	87	87
Heavy Vehicles, %	0	1	1	0	1	1
Mvmt Flow	144	539	847	92	57	211

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	940	0	1451
Stage 1	-	-	894
Stage 2	-	-	557
Follow-up Headway	2.2	-	3.51
Pot Capacity-1 Maneuver	737	-	123
Stage 1	-	-	362
Stage 2	-	-	540
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	737	-	99
Mov Capacity-2 Maneuver	-	-	99
Stage 1	-	-	362
Stage 2	-	-	434

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	30.1
HCM LOS			D

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	737	-	-	-	99	543
HCM Lane V/C Ratio	0.195	-	-	-	0.581	0.389
HCM Control Delay (s)	11.064	-	-	-	82.7	15.8
HCM Lane LOS	B				F	C
HCM 95th %tile Q(veh)	0.719	-	-	-	2.723	1.833

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 No-Build Saturday Midday Peak
22: Main Street & Westbrook Crossing Drive

1/28/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	169	443	528	100	72	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	3574	3494	0	1805	1615
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1805	3574	3494	0	1805	1615
Link Speed (mph)		30	30		30	
Link Distance (ft)		826	546		216	
Travel Time (s)		18.8	12.4		4.9	
Peak Hour Factor	0.97	0.97	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	457	683	0	78	205
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 41.1%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak
22: Main Street & Westbrook Crossing Drive

1/28/2016

Intersection						
Intersection Delay, s/veh	5.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	169	443	528	100	72	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	92	92	92	92
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	174	457	574	109	78	205
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	683	0	-	0	1205	341
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	577	-
Follow-up Headway	2.2	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	919	-	-	-	179	661
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	530	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	919	-	-	-	145	661
Mov Capacity-2 Maneuver	-	-	-	-	145	-
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	430	-
Approach	EB		WB		SB	
HCM Control Delay, s	2.7		0		24.7	
HCM LOS					C	
Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	919	-	-	-	145	661
HCM Lane V/C Ratio	0.19	-	-	-	0.54	0.311
HCM Control Delay (s)	9.831	-	-	-	55.7	12.9
HCM Lane LOS	A				F	B
HCM 95th %tile Q(veh)	0.697	-	-	-	2.666	1.322
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

2021 Build Weekday Evening Peak
22: Main Street & Westbrook Crossing Drive

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	430	97	208	723	86	135	0	200	50	6	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3468	0	1770	3521	0	0	1770	1583	0	1798	1599
Flt Permitted	0.950			0.950				0.950			0.957	
Satd. Flow (perm)	1805	3468	0	1770	3521	0	0	1770	1583	0	1798	1599
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		826			546			276			216	
Travel Time (s)		18.8			12.4			6.3			4.9	
Peak Hour Factor	0.87	0.87	0.87	0.93	0.93	0.93	0.92	0.92	0.92	0.87	0.87	0.87
Heavy Vehicles (%)	0%	1%	2%	2%	1%	0%	2%	2%	2%	1%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	605	0	224	869	0	0	147	217	0	64	205
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 53.8%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Weekday Evening Peak
22: Main Street & Westbrook Crossing Drive

2/1/2016

Intersection												
Intersection Delay, s/veh	292.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	125	430	97	208	723	86	135	0	200	50	6	178
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	125	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	93	93	93	92	92	92	87	87	87
Heavy Vehicles, %	0	1	2	2	1	0	2	2	2	1	2	1
Mvmt Flow	144	494	111	224	777	92	147	0	217	57	7	205
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	870	0	0	606	0	0	1676	2154	303	1805	2164	435
Stage 1	-	-	-	-	-	-	837	837	-	1271	1271	-
Stage 2	-	-	-	-	-	-	839	1317	-	534	893	-
Follow-up Headway	2.2	-	-	2.22	-	-	3.52	4.02	3.32	3.51	4.02	3.31
Pot Capacity-1 Maneuver	783	-	-	968	-	-	# 62	47	693	# 50	47	572
Stage 1	-	-	-	-	-	-	327	380	-	179	237	-
Stage 2	-	-	-	-	-	-	326	225	-	500	358	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	783	-	-	968	-	-	# 23	29	693	# 24	29	572
Mov Capacity-2 Maneuver	-	-	-	-	-	-	# 23	29	-	# 24	29	-
Stage 1	-	-	-	-	-	-	267	310	-	146	182	-
Stage 2	-	-	-	-	-	-	155	173	-	280	292	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	2		2			\$ 1618.9			\$ 488.2			
HCM LOS						F			F			
Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	34	693	783	-	-	968	-	-	48	572		
HCM Lane V/C Ratio	6.447	0.209	0.183	-	-	0.231	-	-	2.762	0.238		
HCM Control Delay (s)	\$ 2681.6	11.6	10.628	-	-	9.833	-	-	\$ 976.8	13.3		
HCM Lane LOS	F	B	B			A			F	B		
HCM 95th %tile Q(veh)	26.278	0.784	0.669	-	-	0.893	-	-	14.097	0.924		
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

2021 Build Saturday Midday Peak

22: Site Drive/Westbrook Crossing Drive & Main Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	169	390	151	300	472	100	151	0	272	72	7	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	3415	0	1770	3487	0	0	1770	1583	0	1815	1615
Flt Permitted	0.950			0.950				0.950			0.957	
Satd. Flow (perm)	1805	3415	0	1770	3487	0	0	1770	1583	0	1815	1615
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		826			546			296			216	
Travel Time (s)		18.8			12.4			6.7			4.9	
Peak Hour Factor	0.97	0.97	0.97	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	2%	1%	0%	2%	2%	2%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	558	0	326	622	0	0	164	296	0	86	198
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 57.3%

ICU Level of Service B

Analysis Period (min) 15

2021 Build Saturday Midday Peak
22: Site Drive/Westbrook Crossing Drive & Main Street

2/1/2016

Intersection

Intersection Delay, s/veh 469.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	169	390	151	300	472	100	151	0	272	72	7	182
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	2	1	0	2	2	2	0	2	0
Mvmt Flow	174	402	156	326	513	109	164	0	296	78	8	198

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	622	0	0	558	0	0	1741	2102	279	1769	2126	311
Stage 1	-	-	-	-	-	-	828	828	-	1220	1220	-
Stage 2	-	-	-	-	-	-	913	1274	-	549	906	-
Follow-up Headway	2.2	-	-	2.22	-	-	3.52	4.02	3.32	3.5	4.02	3.3
Pot Capacity-1 Maneuver	969	-	-	1009	-	-	# 56	51	718	# 54	49	691
Stage 1	-	-	-	-	-	-	332	384	-	194	251	-
Stage 2	-	-	-	-	-	-	294	236	-	493	353	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	969	-	-	1009	-	-	# 21	28	718	# 21	27	691
Mov Capacity-2 Maneuver	-	-	-	-	-	-	# 21	28	-	# 21	27	-
Stage 1	-	-	-	-	-	-	272	315	-	159	170	-
Stage 2	-	-	-	-	-	-	# 136	160	-	238	290	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	3.5	\$ 1928.3	\$ 870.7
HCM LOS			F	F

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	33	718	969	-	-	1009	-	-	37	691
HCM Lane V/C Ratio	7.96	0.275	0.18	-	-	0.323	-	-	4.103	0.191
HCM Control Delay (s)	\$ 3366.3	11.9	9.528	-	-	10.262	-	-	\$ 1617.2	11.4
HCM Lane LOS	F	B	A			B			F	B
HCM 95th %tile Q(veh)	31.807	1.116	0.653	-	-	1.409	-	-	17.588	0.701

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Weekday Evening Peak *with Mitylen*
 22: Main Street & Westbrook Crossing Drive

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	430	97	208	723	86	135	0	200	50	6	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3468	0	1770	3521	0	0	1770	1583	0	1798	1599
Flt Permitted	0.950			0.950				0.715			0.591	
Satd. Flow (perm)	1805	3468	0	1770	3521	0	0	1332	1583	0	1111	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			16				134			85
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		826			546			276			216	
Travel Time (s)		18.8			12.4			6.3			4.9	
Peak Hour Factor	0.87	0.87	0.87	0.93	0.93	0.93	0.92	0.92	0.92	0.87	0.87	0.87
Heavy Vehicles (%)	0%	1%	2%	2%	1%	0%	2%	2%	2%	1%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	605	0	224	869	0	0	147	217	0	64	205
Turn Type	Prot	NA		Prot	NA		Perm	NA	pm+ov	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2	3		6	7
Permitted Phases							2		2	6		6
Detector Phase	7	4		3	8		2	2	3	6	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	21.0		8.0	21.0		21.0	21.0	8.0	31.0	31.0	8.0
Total Split (s)	20.0	33.0		25.0	38.0		32.0	32.0	25.0	32.0	32.0	20.0
Total Split (%)	22.2%	36.7%		27.8%	42.2%		35.6%	35.6%	27.8%	35.6%	35.6%	22.2%
Yellow Time (s)	3.5	4.0		3.5	4.0		4.0	4.0	3.5	4.0	4.0	3.5
All-Red Time (s)	0.5	1.0		0.5	1.0		1.0	1.0	0.5	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0			5.0	4.0		5.0	4.0
Lead/Lag	Lead	Lead		Lag	Lag				Lag			Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	12.4	39.8		21.0	48.4			15.2	41.2		15.2	32.6
Actuated g/C Ratio	0.14	0.44		0.23	0.54			0.17	0.46		0.17	0.36
v/c Ratio	0.58	0.39		0.54	0.46			0.65	0.27		0.34	0.32
Control Delay	39.0	10.6		19.3	1.9			47.8	6.1		36.1	11.4
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	39.0	10.6		19.3	1.9			47.8	6.1		36.1	11.4
LOS	D	B		B	A			D	A		D	B
Approach Delay		16.1			5.4			23.0			17.3	
Approach LOS		B			A			C			B	
Queue Length 50th (ft)	60	48		121	12			79	26		32	46
Queue Length 95th (ft)	m50	m87		147	21			131	57		63	73
Internal Link Dist (ft)		746			466			196			136	
Turn Bay Length (ft)	100			125								
Base Capacity (vph)	324	1550		413	1900			399	797		333	697
Starvation Cap Reductn	0	0		0	0			0	0		0	0

2021 Build Weekday Evening Peak
 22: Main Street & Westbrook Crossing Drive

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.44	0.39		0.54	0.46			0.37	0.27		0.19	0.29

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 12.5
 Intersection Capacity Utilization 55.5%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Main Street & Westbrook Crossing Drive

 ø2	 ø4 (R)	 ø3
32 s	33 s	25 s
 ø6	 ø7	 ø8 (R)
32 s	20 s	38 s

2021 Build Saturday Midday Peak *with Mitigation*
 22: Site Drive/Westbrook Crossing Drive & Main Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	169	390	151	300	472	100	151	0	272	72	7	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	3415	0	1770	3487	0	0	1770	1583	0	1815	1615
Flt Permitted	0.950			0.950				0.701			0.540	
Satd. Flow (perm)	1805	3415	0	1770	3487	0	0	1306	1583	0	1024	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		62			33				150			198
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		826			546			296			216	
Travel Time (s)		18.8			12.4			6.7			4.9	
Peak Hour Factor	0.97	0.97	0.97	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	2%	1%	0%	2%	2%	2%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	558	0	326	622	0	0	164	296	0	86	198
Turn Type	Prot	NA		Prot	NA		Perm	NA	pm+ov	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2	3		6	7
Permitted Phases							2		2	6		6
Detector Phase	7	4		3	8		2	2	3	6	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0		14.5	21.0		21.0	21.0	14.5	21.0	21.0	9.0
Total Split (s)	22.0	29.0		34.0	41.0		27.0	27.0	34.0	27.0	27.0	22.0
Total Split (%)	24.4%	32.2%		37.8%	45.6%		30.0%	30.0%	37.8%	30.0%	30.0%	24.4%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	13.5	36.8		22.0	45.3			16.2	43.2		16.2	34.7
Actuated g/C Ratio	0.15	0.41		0.24	0.50			0.18	0.48		0.18	0.39
v/c Ratio	0.64	0.39		0.76	0.35			0.70	0.35		0.47	0.27
Control Delay	51.7	3.9		54.0	3.7			49.7	6.5		40.1	3.0
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	51.7	3.9		54.0	3.7			49.7	6.5		40.1	3.0
LOS	D	A		D	A			D	A		D	A
Approach Delay		15.3			21.0			21.9			14.2	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	0	21		200	14			88	45		44	0
Queue Length 95th (ft)	m115	m30		199	23			145	66		84	33
Internal Link Dist (ft)		746			466			216			136	
Turn Bay Length (ft)												
Base Capacity (vph)	340	1434		570	1772			319	949		250	799
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.51	0.39		0.57	0.35			0.51	0.31		0.34	0.25

2021 Build Saturday Midday Peak
 22: Site Drive/Westbrook Crossing Drive & Main Street

1/27/2016

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 18.6
 Intersection Capacity Utilization 59.8%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Site Drive/Westbrook Crossing Drive & Main Street

 Ø2	 Ø3	 Ø4 (R)
27 s	34 s	29 s
 Ø6	 Ø7	 Ø8 (R)
27 s	22 s	41 s

Main Street at Harnois Avenue

2021 No-Build Weekday Evening Peak Hour

7: Main Street & Connector

1/26/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	0	546	400	743
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	16	12
Satd. Flow (prot)	0	0	0	1863	2025	1900
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	1863	2025	1900
Right Turn on Red		Yes		Yes	Yes	
Satd. Flow (RTOR)				396	100	
Link Speed (mph)	30		30			30
Link Distance (ft)	136		409			430
Travel Time (s)	3.1		9.3			9.8
Peak Hour Factor	0.92	0.92	0.90	0.90	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	607	421	782
Turn Type				custom	Perm	NA
Protected Phases						6
Permitted Phases				5	6	5
Detector Phase				5	6	6
Switch Phase						
Minimum Initial (s)				4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0
Total Split (s)				32.0	48.0	48.0
Total Split (%)				40.0%	60.0%	60.0%
Yellow Time (s)				4.0	4.0	4.0
All-Red Time (s)				1.0	1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0
Lead/Lag				Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes
Recall Mode				None	C-Max	C-Max
Act Effct Green (s)				16.6	53.4	80.0
Actuated g/C Ratio				0.21	0.67	1.00
v/c Ratio				0.87	0.30	0.41
Control Delay				23.1	4.2	0.6
Queue Delay				0.0	0.2	0.0
Total Delay				23.1	4.4	0.6
LOS				C	A	A
Approach Delay						1.9
Approach LOS						A
Stops (vph)				201	129	1
Fuel Used(gal)				6	2	3
CO Emissions (g/hr)				421	167	181
NOx Emissions (g/hr)				82	33	35
VOC Emissions (g/hr)				98	39	42
Dilemma Vehicles (#)				0	0	0
Queue Length 50th (ft)				100	26	1
Queue Length 95th (ft)				196	113	0

2021 No-Build Weekday Evening Peak Hour
7: Main Street & Connector

1/26/2016

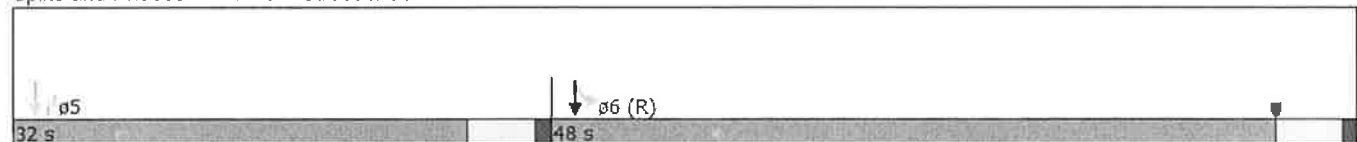
	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	56		329			350
Turn Bay Length (ft)						
Base Capacity (vph)				891	1385	1900
Starvation Cap Reductn				0	407	0
Spillback Cap Reductn				0	0	0
Storage Cap Reductn				0	0	0
Reduced v/c Ratio				0.68	0.43	0.41

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 43 (54%), Referenced to phase 6:SBTL, Start of Yellow
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 9.0
 Intersection Capacity Utilization 64.3%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 7: Main Street & Connector



2021 No-Build Saturday Midday Peak Hour
7: Main Street & Connector

1/26/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	0	678	481	913
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	16	12
Satd. Flow (prot)	0	0	0	1826	2006	1863
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	1826	2006	1863
Right Turn on Red		Yes		Yes	Yes	
Satd. Flow (RTOR)				186	157	
Link Speed (mph)	30		30			30
Link Distance (ft)	136		409			430
Travel Time (s)	3.1		9.3			9.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	737	506	961
Turn Type				custom	Perm	NA
Protected Phases						6
Permitted Phases				5	6	5
Detector Phase				5	6	6
Switch Phase						
Minimum Initial (s)				4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0
Total Split (s)				45.0	35.0	35.0
Total Split (%)				56.3%	43.8%	43.8%
Yellow Time (s)				4.0	4.0	4.0
All-Red Time (s)				1.0	1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0
Lead/Lag				Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes
Recall Mode				None	C-Max	C-Max
Act Effct Green (s)				32.5	37.5	80.0
Actuated g/C Ratio				0.41	0.47	1.00
v/c Ratio				0.87	0.49	0.52
Control Delay				26.8	12.0	0.8
Queue Delay				0.1	0.2	0.0
Total Delay				26.9	12.2	0.8
LOS				C	B	A
Approach Delay						4.8
Approach LOS						A
Stops (vph)				469	272	6
Fuel Used(gal)				9	4	3
CO Emissions (g/hr)				643	300	227
NOx Emissions (g/hr)				125	58	44
VOC Emissions (g/hr)				149	70	53
Dilemma Vehicles (#)				0	0	0
Queue Length 50th (ft)				244	121	0
Queue Length 95th (ft)				345	m225	2

2021 No-Build Saturday Midday Peak Hour
7: Main Street & Connector

1/26/2016

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	56		329			350
Turn Bay Length (ft)						
Base Capacity (vph)				1006	1024	1863
Starvation Cap Reductn				16	99	0
Spillback Cap Reductn				0	0	0
Storage Cap Reductn				0	0	0
Reduced v/c Ratio				0.74	0.55	0.52

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 12.2

Intersection LOS: B

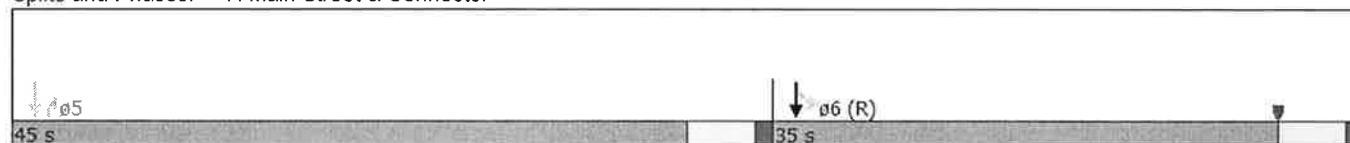
Intersection Capacity Utilization 77.0%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Main Street & Connector



2021 Build Weekday Evening Peak Hour

7: Main Street & Connector

1/26/2016

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations				↗	↖	↑
Volume (vph)	0	0	0	558	457	756
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	16	12
Satd. Flow (prot)	0	0	0	1863	2025	1900
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	1863	2025	1900
Right Turn on Red		Yes		Yes	Yes	
Satd. Flow (RTOR)				342	95	
Link Speed (mph)	30		30			30
Link Distance (ft)	136		409			430
Travel Time (s)	3.1		9.3			9.8
Peak Hour Factor	0.92	0.92	0.90	0.90	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	620	481	796
Turn Type				custom	Perm	NA
Protected Phases						6
Permitted Phases				5	6	5
Detector Phase				5	6	6
Switch Phase						
Minimum Initial (s)				4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0
Total Split (s)				32.0	48.0	48.0
Total Split (%)				40.0%	60.0%	60.0%
Yellow Time (s)				4.0	4.0	4.0
All-Red Time (s)				1.0	1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0
Lead/Lag				Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes
Recall Mode				None	C-Max	C-Max
Act Effct Green (s)				19.0	51.0	80.0
Actuated g/C Ratio				0.24	0.64	1.00
v/c Ratio				0.88	0.36	0.42
Control Delay				27.0	5.8	0.6
Queue Delay				0.0	0.3	0.0
Total Delay				27.0	6.1	0.6
LOS				C	A	A
Approach Delay						2.6
Approach LOS						A
Stops (vph)				263	194	1
Fuel Used(gal)				7	3	3
CO Emissions (g/hr)				483	219	184
NOx Emissions (g/hr)				94	43	36
VOC Emissions (g/hr)				112	51	43
Dilemma Vehicles (#)				0	0	0
Queue Length 50th (ft)				136	48	0
Queue Length 95th (ft)				242	152	0

2021 Build Weekday Evening Peak Hour
7: Main Street & Connector

1/26/2016

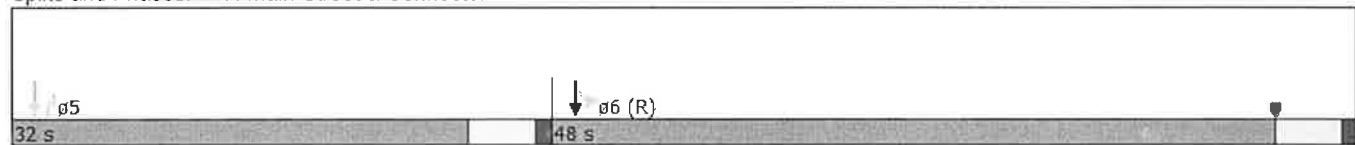
	↖	↗	↑	↘	↙	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	56		329			350
Turn Bay Length (ft)						
Base Capacity (vph)				855	1324	1900
Starvation Cap Reductn				0	355	0
Spillback Cap Reductn				0	0	0
Storage Cap Reductn				0	0	0
Reduced v/c Ratio				0.73	0.50	0.42

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 43 (54%), Referenced to phase 6:SBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 10.6
 Intersection Capacity Utilization 68.2%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 7: Main Street & Connector



2021 Build Saturday Midday Peak Hour
7: Main Street & Connector

1/27/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	0	697	579	930
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	16	12
Satd. Flow (prot)	0	0	0	1826	2006	1863
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	1826	2006	1863
Right Turn on Red		Yes		Yes	Yes	
Satd. Flow (RTOR)				128	148	
Link Speed (mph)	30		30			30
Link Distance (ft)	136		409			430
Travel Time (s)	3.1		9.3			9.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	758	609	979
Turn Type				custom	Perm	NA
Protected Phases						6
Permitted Phases				5	6	5
Detector Phase				5	6	6
Switch Phase						
Minimum Initial (s)				4.0	4.0	4.0
Minimum Split (s)				21.0	21.0	21.0
Total Split (s)				45.0	35.0	35.0
Total Split (%)				56.3%	43.8%	43.8%
Yellow Time (s)				4.0	4.0	4.0
All-Red Time (s)				1.0	1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0
Lead/Lag				Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes
Recall Mode				None	C-Max	C-Max
Act Effct Green (s)				34.7	35.3	80.0
Actuated g/C Ratio				0.43	0.44	1.00
v/c Ratio				0.88	0.63	0.53
Control Delay				29.1	14.6	0.7
Queue Delay				0.3	0.3	0.0
Total Delay				29.3	14.9	0.7
LOS				C	B	A
Approach Delay						6.2
Approach LOS						A
Stops (vph)				523	372	5
Fuel Used(gal)				10	6	3
CO Emissions (g/hr)				699	400	230
NOx Emissions (g/hr)				136	78	45
VOC Emissions (g/hr)				162	93	53
Dilemma Vehicles (#)				0	0	0
Queue Length 50th (ft)				271	179	0
Queue Length 95th (ft)				400	m253	m0

2021 Build Saturday Midday Peak Hour
7: Main Street & Connector

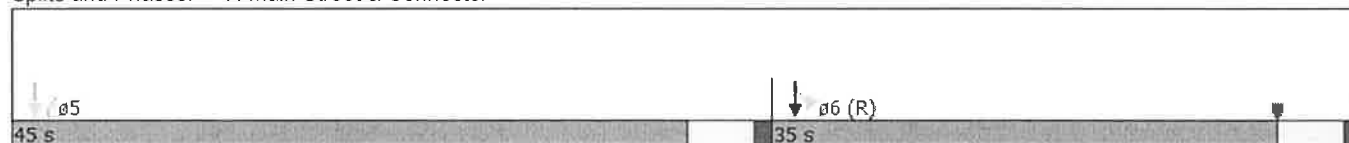
1/27/2016

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	56		329			350
Turn Bay Length (ft)						
Base Capacity (vph)				977	968	1863
Starvation Cap Reductn				25	70	0
Spillback Cap Reductn				0	0	0
Storage Cap Reductn				0	0	0
Reduced v/c Ratio				0.80	0.68	0.53

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 13.7
 Intersection LOS: B
 Intersection Capacity Utilization 83.6%
 ICU Level of Service E
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Main Street & Connector



Main Street at Westbrook Arterial

2021 No-Build Weekday Evening Peak Hour

8: Westbrook Arterial & Route 25 B

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Volume (vph)	360	91	207	503	93	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	13	12	12	13	12
Storage Length (ft)		115	150		0	90
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	2027	1669	1805	1900	1847	1599
Flt Permitted			0.318		0.950	
Satd. Flow (perm)	2027	1669	604	1900	1847	1599
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		95				321
Link Speed (mph)	30			30	30	
Link Distance (ft)	280			141	294	
Travel Time (s)	6.4			3.2	6.7	
Peak Hour Factor	0.96	0.96	0.93	0.93	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	375	95	223	541	111	321
Turn Type	NA	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	20.0	64.0	21.0	21.0
Total Split (%)	51.8%	51.8%	23.5%	75.3%	24.7%	24.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	13.9	13.9	26.0	26.0	8.3	8.3
Actuated g/C Ratio	0.33	0.33	0.61	0.61	0.19	0.19
v/c Ratio	0.57	0.16	0.38	0.47	0.31	0.56
Control Delay	15.9	3.8	5.7	6.2	19.0	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	3.8	5.7	6.2	19.0	7.2
LOS	B	A	A	A	B	A
Approach Delay	13.4			6.0	10.2	
Approach LOS	B			A	B	
Stops (vph)	263	16	75	230	74	42
Fuel Used(gal)	3	0	2	4	1	1
CO Emissions (g/hr)	238	25	108	284	69	87
NOx Emissions (g/hr)	46	5	21	55	13	17
VOC Emissions (g/hr)	55	6	25	66	16	20

2021 No-Build Weekday Evening Peak Hour
8: Westbrook Arterial & Route 25 B

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Dilemma Vehicles (#)	0	0	0	0	0	0
Queue Length 50th (ft)	69	0	18	53	23	0
Queue Length 95th (ft)	154	22	46	124	63	43
Internal Link Dist (ft)	200			61	214	
Turn Bay Length (ft)		115	150			90
Base Capacity (vph)	1844	1527	835	1900	762	848
Starvation Cap Reductn	0	0	0	13	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.06	0.27	0.29	0.15	0.38

Intersection Summary

Area Type: Other
 Cycle Length: 85
 Actuated Cycle Length: 42.6
 Natural Cycle: 50
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 9.2
 Intersection Capacity Utilization 45.6%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 8: Westbrook Arterial & Route 25 B

↖ ø2	↖ ø3	→ ø4
21 s	20 s	44 s
	← ø8	
	64 s	

2021 No-Build Saturday Midday Peak Hour
8: Westbrook Arterial & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Volume (vph)	433	70	197	657	42	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	13	12	12	13	12
Storage Length (ft)		115	150		0	90
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	2027	1652	1787	1900	1811	1599
Flt Permitted			0.262		0.950	
Satd. Flow (perm)	2027	1652	493	1900	1811	1599
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		72				286
Link Speed (mph)	30			30	30	
Link Distance (ft)	280			141	294	
Travel Time (s)	6.4			3.2	6.7	
Peak Hour Factor	0.93	0.93	0.94	0.94	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	0%	3%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	466	75	210	699	47	286
Turn Type	NA	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	20.0	64.0	21.0	21.0
Total Split (%)	51.8%	51.8%	23.5%	75.3%	24.7%	24.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	16.1	16.1	28.0	28.0	7.4	7.4
Actuated g/C Ratio	0.37	0.37	0.64	0.64	0.17	0.17
v/c Ratio	0.63	0.12	0.39	0.58	0.15	0.56
Control Delay	15.7	3.7	5.4	6.8	19.2	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	3.7	5.4	6.8	19.2	8.1
LOS	B	A	A	A	B	A
Approach Delay	14.1			6.5	9.7	
Approach LOS	B			A	A	
Stops (vph)	315	14	64	312	36	41
Fuel Used(gal)	4	0	1	5	0	1
CO Emissions (g/hr)	285	20	99	381	32	87
NOx Emissions (g/hr)	55	4	19	74	6	17
VOC Emissions (g/hr)	66	5	23	88	7	20

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbsatWestbrook.syn

2021 No-Build Saturday Midday Peak Hour
8: Westbrook Arterial & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Dilemma Vehicles (#)	0	0	0	0	0	0
Queue Length 50th (ft)	84	1	14	66	10	0
Queue Length 95th (ft)	193	20	44	179	38	54
Internal Link Dist (ft)	200			61	214	
Turn Bay Length (ft)		115	150			90
Base Capacity (vph)	1819	1490	808	1896	733	817
Starvation Cap Reductn	0	0	0	33	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.05	0.26	0.38	0.06	0.35

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 43.8

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 9.4

Intersection LOS: A

Intersection Capacity Utilization 47.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Westbrook Arterial & Route 25 B

↖ ø2	↖ ø3	→ ø4
21 s	20 s	44 s
	← ø8	
	64 s	

2021 Build Weekday Evening Peak Hour
8: Westbrook Arterial & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Volume (vph)	372	108	207	516	113	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	13	12	12	13	12
Storage Length (ft)		115	150		0	90
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	2027	1669	1805	1900	1847	1599
Flt Permitted			0.305		0.950	
Satd. Flow (perm)	2027	1669	580	1900	1847	1599
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		112				321
Link Speed (mph)	30			30	30	
Link Distance (ft)	280			141	294	
Travel Time (s)	6.4			3.2	6.7	
Peak Hour Factor	0.96	0.96	0.93	0.93	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	388	112	223	555	135	321
Turn Type	NA	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	20.0	64.0	21.0	21.0
Total Split (%)	51.8%	51.8%	23.5%	75.3%	24.7%	24.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	14.5	14.5	26.8	26.8	8.9	8.9
Actuated g/C Ratio	0.33	0.33	0.61	0.61	0.20	0.20
v/c Ratio	0.58	0.18	0.39	0.48	0.36	0.56
Control Delay	16.3	3.7	6.0	6.5	20.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	3.7	6.0	6.5	20.0	7.0
LOS	B	A	A	A	B	A
Approach Delay	13.5			6.3	10.9	
Approach LOS	B			A	B	
Stops (vph)	274	18	75	240	89	40
Fuel Used(gal)	4	0	2	4	1	1
CO Emissions (g/hr)	249	29	109	295	85	86
NOx Emissions (g/hr)	48	6	21	57	16	17
VOC Emissions (g/hr)	58	7	25	68	20	20

2021 Build Weekday Evening Peak Hour
8: Westbrook Arterial & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Dilemma Vehicles (#)	0	0	0	0	0	0
Queue Length 50th (ft)	75	0	19	58	28	0
Queue Length 95th (ft)	164	24	49	134	75	43
Internal Link Dist (ft)	200			61	214	
Turn Bay Length (ft)		115	150			90
Base Capacity (vph)	1809	1501	816	1900	741	833
Starvation Cap Reductn	0	0	0	20	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.07	0.27	0.30	0.18	0.39

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 43.9

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 9.6

Intersection LOS: A

Intersection Capacity Utilization 47.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Westbrook Arterial & Route 25 B

↙ ø2	↙ ø3	→ ø4
21 s	20 s	44 s
	← ø8	
	64 s	

2021 Build Saturday Midday Peak Hour
8: Westbrook Arterial & Route 25 B

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Volume (vph)	452	99	197	674	68	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	13	12	12	13	12
Storage Length (ft)		115	150		0	90
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	2027	1652	1787	1900	1811	1599
Flt Permitted			0.250		0.950	
Satd. Flow (perm)	2027	1652	470	1900	1811	1599
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		98				286
Link Speed (mph)	30			30	30	
Link Distance (ft)	280			141	294	
Travel Time (s)	6.4			3.2	6.7	
Peak Hour Factor	0.93	0.93	0.94	0.94	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	0%	3%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	486	106	210	717	76	286
Turn Type	NA	Perm	pm+pt	NA	NA	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	20.0	64.0	21.0	21.0
Total Split (%)	51.8%	51.8%	23.5%	75.3%	24.7%	24.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.1	17.1	29.1	29.1	7.9	7.9
Actuated g/C Ratio	0.38	0.38	0.64	0.64	0.17	0.17
v/c Ratio	0.64	0.16	0.40	0.59	0.24	0.56
Control Delay	16.1	3.7	5.7	7.1	20.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.1	3.7	5.7	7.1	20.5	8.0
LOS	B	A	A	A	C	A
Approach Delay	13.8			6.8	10.6	
Approach LOS	B			A	B	
Stops (vph)	327	18	64	325	56	40
Fuel Used(gal)	4	0	1	6	1	1
CO Emissions (g/hr)	299	27	100	396	52	86
NOx Emissions (g/hr)	58	5	19	77	10	17
VOC Emissions (g/hr)	69	6	23	92	12	20

2021 Build Saturday Midday Peak Hour
8: Westbrook Arterial & Route 25 B

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Dilemma Vehicles (#)	0	0	0	0	0	0
Queue Length 50th (ft)	93	1	16	75	16	0
Queue Length 95th (ft)	205	24	44	189	56	55
Internal Link Dist (ft)	200			61	214	
Turn Bay Length (ft)		115	150			90
Base Capacity (vph)	1781	1464	785	1888	707	799
Starvation Cap Reductn	0	0	0	37	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.07	0.27	0.39	0.11	0.36

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 45.4

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 9.7

Intersection LOS: A

Intersection Capacity Utilization 48.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Westbrook Arterial & Route 25 B

↙ ø2	↘ ø3	→ ø4
21 s	20 s	44 s
	← ø8	
	64 s	

Main Street at Stroudwater Street

2021 No-Build Weekday Evening Peak Hour

9: Stroudwater Street & Route 25 B

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Volume (vph)	353	89	38	545	108	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Satd. Flow (prot)	2095	0	0	2147	1958	0
Flt Permitted				0.997	0.972	
Satd. Flow (perm)	2095	0	0	2147	1958	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	291			280	297	
Travel Time (s)	6.6			6.4	6.8	
Peak Hour Factor	0.95	0.95	0.92	0.92	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	466	0	0	633	210	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 75.8%

ICU Level of Service D

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak Hour
9: Stroudwater Street & Route 25 B

1/25/2016

Intersection

Intersection Delay, s/veh 6.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	353	89	38	545	108	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	92	92	91	91
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	372	94	41	592	119	91

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	1093	418
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	675	-
Follow-up Headway	-	-	2.2	-	3.509	3.3
Pot Capacity-1 Maneuver	-	-	1107	-	238	639
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	508	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	-	-	1107	-	225	639
Mov Capacity-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	480	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	37.1
HCM LOS			E

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	313	-	-	1107	-
HCM Lane V/C Ratio	0.671	-	-	0.037	-
HCM Control Delay (s)	37.1	-	-	8.378	0
HCM Lane LOS	E			A	A
HCM 95th %tile Q(veh)	4.521	-	-	0.116	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 No-Build Saturday Midday Peak Hour
9: Stroudwater Street & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰↱	
Volume (vph)	405	77	62	636	81	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Satd. Flow (prot)	2106	0	0	2125	1957	0
Flt Permitted				0.996	0.976	
Satd. Flow (perm)	2106	0	0	2125	1957	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	291			280	297	
Travel Time (s)	6.6			6.4	6.8	
Peak Hour Factor	0.87	0.87	0.92	0.92	0.78	0.78
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	555	0	0	758	212	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 82.5%

ICU Level of Service E

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak Hour
9: Stroudwater Street & Route 25 B

1/26/2016

Intersection

Intersection Delay, s/veh 10.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	405	77	62	636	81	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	92	92	78	78
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	466	89	67	691	104	108

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	554
Stage 1	-	-	-
Stage 2	-	-	-
Follow-up Headway	-	-	2.2
Pot Capacity-1 Maneuver	-	-	1026
Stage 1	-	-	-
Stage 2	-	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	-	-	1026
Mov Capacity-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	71.4
HCM LOS			F

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	244	-	-	1026	-
HCM Lane V/C Ratio	0.867	-	-	0.066	-
HCM Control Delay (s)	71.4	-	-	8.755	0
HCM Lane LOS	F			A	A
HCM 95th %tile Q(veh)	7.106	-	-	0.211	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Weekday Evening Peak Hour
9: Stroudwater Street & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	
Volume (vph)	382	89	38	578	108	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Satd. Flow (prot)	2097	0	0	2147	1958	0
Flt Permitted				0.997	0.972	
Satd. Flow (perm)	2097	0	0	2147	1958	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	291			280	297	
Travel Time (s)	6.6			6.4	6.8	
Peak Hour Factor	0.95	0.95	0.92	0.92	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	496	0	0	669	210	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 79.1%

ICU Level of Service D

Analysis Period (min) 15

2021 Build Weekday Evening Peak Hour
9: Stroudwater Street & Route 25 B

1/26/2016

Intersection						
Intersection Delay, s/veh		7.2				
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	382	89	38	578	108	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	92	92	91	91
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	402	94	41	628	119	91
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	496	0	1160	449
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	711	-
Follow-up Headway	-	-	2.2	-	3.509	3.3
Pot Capacity-1 Maneuver	-	-	1078	-	217	614
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	489	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	-	-	1078	-	204	614
Mov Capacity-2 Maneuver	-	-	-	-	204	-
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	461	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		45.3	
HCM LOS					E	
Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	287	-	-	1078	-	
HCM Lane V/C Ratio	0.731	-	-	0.038	-	
HCM Control Delay (s)	45.3	-	-	8.473	0	
HCM Lane LOS	E			A	A	
HCM 95th %tile Q(veh)	5.277	-	-	0.119	-	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

2021 Build Saturday Midday Peak Hour
9: Stroudwater Street & Route 25 B

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Volume (vph)	453	77	62	679	81	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Satd. Flow (prot)	2110	0	0	2125	1957	0
Flt Permitted				0.996	0.976	
Satd. Flow (perm)	2110	0	0	2125	1957	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	291			280	297	
Travel Time (s)	6.6			6.4	6.8	
Peak Hour Factor	0.87	0.87	0.92	0.92	0.78	0.78
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	610	0	0	805	212	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 87.3%

ICU Level of Service E

Analysis Period (min) 15

2021 Build Saturday Midday Peak Hour
9: Stroudwater Street & Route 25 B

1/27/2016

Intersection

Intersection Delay, s/veh 14.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	453	77	62	679	81	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	92	92	78	78
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	521	89	67	738	104	108

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	609
Stage 1	-	-	-
Stage 2	-	-	-
Follow-up Headway	-	-	2.2
Pot Capacity-1 Maneuver	-	-	979
Stage 1	-	-	-
Stage 2	-	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	-	-	979
Mov Capacity-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	108.8
HCM LOS			F

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	212	-	-	979	-
HCM Lane V/C Ratio	0.998	-	-	0.069	-
HCM Control Delay (s)	108.8	-	-	8.949	0
HCM Lane LOS	F			A	A
HCM 95th %tile Q(veh)	8.878	-	-	0.221	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Main Street at Spring Street

2021 No-Build Weekday Evening Peak Hour

10: Spring Street & Route 25 B

1/25/2016

	→	↘	↙	←	↖	↗	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
Lane Configurations	↑	↗	↙	↑	↙	↗	
Volume (vph)	373	147	106	614	311	131	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	14	12	13	10	11	
Storage Length (ft)		85	80		0	75	
Storage Lanes		1	1		1	1	
Taper Length (ft)			25		25		
Satd. Flow (prot)	1818	1723	1805	1944	1678	1555	
Flt Permitted			0.294		0.950		
Satd. Flow (perm)	1818	1723	559	1944	1678	1555	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		104				83	
Link Speed (mph)	30			30	30		
Link Distance (ft)	209			291	274		
Travel Time (s)	4.8			6.6	6.2		
Peak Hour Factor	0.88	0.88	0.91	0.91	0.96	0.96	
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%	
Bus Blockages (#/hr)	0	0	0	0	1	1	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	424	167	116	675	324	136	
Turn Type	NA	Perm	pm+pt	NA	NA	Perm	
Protected Phases	4		3	8	2		9
Permitted Phases		4	8			2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	8.0
Total Split (s)	39.0	39.0	16.0	55.0	26.0	26.0	14.0
Total Split (%)	41.1%	41.1%	16.8%	57.9%	27.4%	27.4%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	21.7	21.7	30.3	30.3	18.0	18.0	
Actuated g/C Ratio	0.38	0.38	0.53	0.53	0.32	0.32	
v/c Ratio	0.61	0.23	0.25	0.65	0.61	0.25	
Control Delay	20.3	7.1	8.1	12.9	24.5	9.7	
Queue Delay	0.3	0.1	0.0	0.0	0.4	0.1	
Total Delay	20.6	7.2	8.1	12.9	24.9	9.8	
LOS	C	A	A	B	C	A	
Approach Delay	16.8			12.2	20.4		
Approach LOS	B			B	C		
Stops (vph)	279	40	43	383	246	42	
Fuel Used(gal)	4	1	1	5	4	1	
CO Emissions (g/hr)	258	47	46	358	250	54	
NOx Emissions (g/hr)	50	9	9	70	49	10	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpmWestbrook.syn

2021 No-Build Weekday Evening Peak Hour
10: Spring Street & Route 25 B

1/25/2016

	→	↘	↙	←	↖	↗	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
VOC Emissions (g/hr)	60	11	11	83	58	12	
Dilemma Vehicles (#)	0	0	0	0	0	0	
Queue Length 50th (ft)	123	15	18	149	93	13	
Queue Length 95th (ft)	221	50	41	265	215	57	
Internal Link Dist (ft)	129			211	194		
Turn Bay Length (ft)		85	80			75	
Base Capacity (vph)	1195	1168	580	1683	697	694	
Starvation Cap Reductn	278	307	0	42	95	74	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.46	0.19	0.20	0.41	0.54	0.22	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 56.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 15.7

Intersection LOS: B

Intersection Capacity Utilization 56.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Spring Street & Route 25 B

↖ ø2	↖ ø3	→ ø4	Ⓜ ø9
26 s	16 s	39 s	14 s
	↖ ø8		
	55 s		

2021 No-Build Saturday Middy Peak Hour
10: Spring Street & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
Lane Configurations	↑	↗	↙	↑	↙	↗	
Volume (vph)	387	186	154	527	149	109	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	14	12	13	10	11	
Storage Length (ft)		85	80		0	75	
Storage Lanes		1	1		1	1	
Taper Length (ft)			25		25		
Satd. Flow (prot)	1818	1723	1805	1944	1685	1561	
Flt Permitted			0.326		0.950		
Satd. Flow (perm)	1818	1723	619	1944	1685	1561	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		127				112	
Link Speed (mph)	30			30	30		
Link Distance (ft)	209			291	274		
Travel Time (s)	4.8			6.6	6.2		
Peak Hour Factor	0.95	0.95	0.93	0.93	0.97	0.97	
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	407	196	166	567	154	112	
Turn Type	NA	Perm	pm+pt	NA	NA	Perm	
Protected Phases	4		3	8	2		9
Permitted Phases		4	8			2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	8.0
Total Split (s)	39.0	39.0	16.0	55.0	26.0	26.0	14.0
Total Split (%)	41.1%	41.1%	16.8%	57.9%	27.4%	27.4%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	18.2	18.2	26.9	26.9	11.0	11.0	
Actuated g/C Ratio	0.39	0.39	0.57	0.57	0.24	0.24	
v/c Ratio	0.58	0.26	0.30	0.51	0.39	0.25	
Control Delay	16.3	5.7	5.9	7.5	21.6	6.5	
Queue Delay	0.1	0.0	0.0	0.0	0.0	0.0	
Total Delay	16.4	5.8	5.9	7.5	21.6	6.5	
LOS	B	A	A	A	C	A	
Approach Delay	12.9			7.1	15.2		
Approach LOS	B			A	B		
Stops (vph)	272	47	54	250	114	22	
Fuel Used(gal)	3	1	1	3	2	0	
CO Emissions (g/hr)	239	54	58	236	112	35	
NOx Emissions (g/hr)	46	11	11	46	22	7	
VOC Emissions (g/hr)	55	13	13	55	26	8	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbsatWestbrook.syn

2021 No-Build Saturday Midday Peak Hour
10: Spring Street & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
Dilemma Vehicles (#)	0	0	0	0	0	0	
Queue Length 50th (ft)	86	12	16	69	36	0	
Queue Length 95th (ft)	192	51	44	162	101	35	
Internal Link Dist (ft)	129			211	194		
Turn Bay Length (ft)		85	80			75	
Base Capacity (vph)	1369	1328	705	1829	885	873	
Starvation Cap Reductn	258	272	0	42	9	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.37	0.19	0.24	0.32	0.18	0.13	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 46.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 10.7

Intersection LOS: B

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Spring Street & Route 25 B

↖ ø2	↘ ø3	→ ø4	Ⓜ ø9
26 s	16 s	39 s	14 s
	↙ ø8		
	55 s		

2021 Build Weekday Evening Peak Hour
10: Spring Street & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
Lane Configurations	↑	↗	↙	↑	↙	↗	
Volume (vph)	402	147	106	647	311	131	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	14	12	13	10	11	
Storage Length (ft)		85	80		0	75	
Storage Lanes		1	1		1	1	
Taper Length (ft)			25		25		
Satd. Flow (prot)	1818	1723	1805	1944	1678	1555	
Flt Permitted			0.275		0.950		
Satd. Flow (perm)	1818	1723	522	1944	1678	1555	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		96				83	
Link Speed (mph)	30			30	30		
Link Distance (ft)	209			291	274		
Travel Time (s)	4.8			6.6	6.2		
Peak Hour Factor	0.88	0.88	0.91	0.91	0.96	0.96	
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%	
Bus Blockages (#/hr)	0	0	0	0	1	1	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	457	167	116	711	324	136	
Turn Type	NA	Perm	pm+pt	NA	NA	Perm	
Protected Phases	4		3	8	2		9
Permitted Phases		4	8			2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	8.0
Total Split (s)	39.0	39.0	16.0	55.0	26.0	26.0	14.0
Total Split (%)	41.1%	41.1%	16.8%	57.9%	27.4%	27.4%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	23.3	23.3	31.9	31.9	18.2	18.2	
Actuated g/C Ratio	0.40	0.40	0.54	0.54	0.31	0.31	
v/c Ratio	0.64	0.23	0.26	0.67	0.62	0.25	
Control Delay	20.5	7.4	8.0	13.3	26.1	10.3	
Queue Delay	0.4	0.1	0.0	0.0	0.5	0.1	
Total Delay	20.9	7.5	8.0	13.3	26.5	10.4	
LOS	C	A	A	B	C	B	
Approach Delay	17.3			12.5	21.8		
Approach LOS	B			B	C		
Stops (vph)	298	42	43	405	247	42	
Fuel Used(gal)	4	1	1	5	4	1	
CO Emissions (g/hr)	278	48	45	381	257	55	
NOx Emissions (g/hr)	54	9	9	74	50	11	

2021 Build Weekday Evening Peak Hour
10: Spring Street & Route 25 B

1/26/2016

	→	↘	↙	←	↖	↗	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
VOC Emissions (g/hr)	64	11	11	88	60	13	
Dilemma Vehicles (#)	0	0	0	0	0	0	
Queue Length 50th (ft)	138	17	18	165	97	13	
Queue Length 95th (ft)	239	52	40	285	227	60	
Internal Link Dist (ft)	129			211	194		
Turn Bay Length (ft)		85	80			75	
Base Capacity (vph)	1165	1138	565	1642	675	676	
Starvation Cap Reductn	300	342	0	53	99	80	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.53	0.21	0.21	0.45	0.56	0.23	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 58.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 16.3

Intersection LOS: B

Intersection Capacity Utilization 57.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Spring Street & Route 25 B

↙ ø2	↘ ø3	→ ø4	Ⓜ ø9
26 s	16 s	39 s	14 s
	← ø8		
	55 s		

2021 Build Saturday Midday Peak Hour
10: Spring Street & Route 25 B

1/27/2016

	→	↘	↙	←	↖	↗	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
Lane Configurations	↑	↗	↙	↑	↙	↗	
Volume (vph)	435	186	154	570	149	109	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	14	12	13	10	11	
Storage Length (ft)		85	80		0	75	
Storage Lanes		1	1		1	1	
Taper Length (ft)			25		25		
Satd. Flow (prot)	1818	1723	1805	1944	1685	1561	
Flt Permitted			0.296		0.950		
Satd. Flow (perm)	1818	1723	562	1944	1685	1561	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		113				112	
Link Speed (mph)	30			30	30		
Link Distance (ft)	209			291	274		
Travel Time (s)	4.8			6.6	6.2		
Peak Hour Factor	0.95	0.95	0.93	0.93	0.97	0.97	
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	458	196	166	613	154	112	
Turn Type	NA	Perm	pm+pt	NA	NA	Perm	
Protected Phases	4		3	8	2		9
Permitted Phases		4	8			2	
Detector Phase	4	4	3	8	2	2	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	8.0
Total Split (s)	39.0	39.0	16.0	55.0	26.0	26.0	14.0
Total Split (%)	41.1%	41.1%	16.8%	57.9%	27.4%	27.4%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	20.4	20.4	29.1	29.1	11.2	11.2	
Actuated g/C Ratio	0.41	0.41	0.59	0.59	0.23	0.23	
v/c Ratio	0.61	0.25	0.31	0.53	0.40	0.25	
Control Delay	16.4	6.0	5.9	7.6	23.4	6.9	
Queue Delay	0.2	0.1	0.0	0.0	0.0	0.0	
Total Delay	16.7	6.1	5.9	7.7	23.4	6.9	
LOS	B	A	A	A	C	A	
Approach Delay	13.5			7.3	16.4		
Approach LOS	B			A	B		
Stops (vph)	304	51	52	271	115	21	
Fuel Used(gal)	4	1	1	4	2	1	
CO Emissions (g/hr)	269	57	57	257	116	35	
NOx Emissions (g/hr)	52	11	11	50	23	7	
VOC Emissions (g/hr)	62	13	13	60	27	8	

2021 Build Saturday Midday Peak Hour
10: Spring Street & Route 25 B

1/27/2016

	→	↘	↙	←	↖	↗	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
Dilemma Vehicles (#)	0	0	0	0	0	0	
Queue Length 50th (ft)	102	15	16	79	39	0	
Queue Length 95th (ft)	218	54	43	178	109	36	
Internal Link Dist (ft)	129			211	194		
Turn Bay Length (ft)		85	80			75	
Base Capacity (vph)	1317	1279	675	1793	843	837	
Starvation Cap Reductn	305	340	0	60	8	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.45	0.21	0.25	0.35	0.18	0.13	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 49.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 11.1

Intersection LOS: B

Intersection Capacity Utilization 49.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Spring Street & Route 25 B

↖ ø2	↘ ø3	→ ø4	Ⓜ ø9
26 s	16 s	39 s	14 s
	↙ ø8		
	55 s		

Main Street at Bridge Street

2021 No-Build Weekday Evening Peak Hour

11: Route 25 B & Bridge Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	253	225	8	2	394	410	24	71	22	262	18	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11	12	14	12	12	15	12
Storage Length (ft)	75		0	0		100	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1890	0	0	1756	1561	0	1956	0	0	1913	0
Flt Permitted	0.205				0.999			0.870			0.770	
Satd. Flow (perm)	390	1890	0	0	1754	1561	0	1719	0	0	1511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				212		9			30	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			209			146			634	
Travel Time (s)		15.5			4.8			3.3			14.4	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	272	251	0	0	430	446	0	133	0	0	567	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	25.0	75.0		50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Split (%)	18.8%	56.4%		37.6%	37.6%	37.6%	30.1%	30.1%		30.1%	30.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None		None	None	
Act Effect Green (s)	54.0	54.0			30.9	30.9		35.5			35.5	
Actuated g/C Ratio	0.54	0.54			0.31	0.31		0.36			0.36	
v/c Ratio	0.58	0.24			0.79	0.71		0.22			1.02	
Control Delay	17.0	12.0			42.5	21.7		25.0			76.2	
Queue Delay	0.0	0.0			5.0	2.0		0.0			0.0	
Total Delay	17.0	12.0			47.5	23.6		25.0			76.2	
LOS	B	B			D	C		C			E	
Approach Delay		14.6			35.3			25.0			76.2	
Approach LOS		B			D			C			E	
Stops (vph)	123	110			342	189		76			380	
Fuel Used(gal)	3	2			6	4		1			13	
CO Emissions (g/hr)	203	169			417	246		80			876	
NOx Emissions (g/hr)	39	33			81	48		16			170	
VOC Emissions (g/hr)	47	39			97	57		19			203	

2021 No-Build Weekday Evening Peak Hour
11: Route 25 B & Bridge Street

1/25/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	18.0
Total Split (%)	14%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 No-Build Weekday Evening Peak Hour

11: Route 25 B & Bridge Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0			0	0		0			0	
Queue Length 50th (ft)	87	78			253	133		56			~384	
Queue Length 95th (ft)	131	119			365	242		117			#709	
Internal Link Dist (ft)		601			129			66			554	
Turn Bay Length (ft)	75					100						
Base Capacity (vph)	499	1346			802	829		617			556	
Starvation Cap Reductn	0	0			299	237		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.55	0.19			0.85	0.75		0.22			1.02	

Intersection Summary

Area Type: Other

Cycle Length: 133

Actuated Cycle Length: 99.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 40.6

Intersection LOS: D

Intersection Capacity Utilization 83.6%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Route 25 B & Bridge Street

 ø2	 ø4	 ø9
40 s	75 s	18 s
 ø6	 ø7	 ø8
40 s	25 s	50 s

2021 No-Build Saturday Middy Peak Hour

11: Route 25 B & Bridge Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	174	311	10	5	371	248	6	36	38	261	25	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11	12	14	12	12	15	12
Storage Length (ft)	75		0	0		100	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	1872	0	0	1754	1561	0	1889	0	0	1934	0
Flt Permitted	0.208				0.994			0.960			0.776	
Satd. Flow (perm)	391	1872	0	0	1745	1561	0	1821	0	0	1546	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				135		33			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			209			146			634	
Travel Time (s)		15.5			4.8			3.3			14.4	
Peak Hour Factor	0.82	0.82	0.82	0.90	0.90	0.90	0.78	0.78	0.78	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	391	0	0	418	276	0	103	0	0	522	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	25.0	75.0		50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Split (%)	18.8%	56.4%		37.6%	37.6%	37.6%	30.1%	30.1%		30.1%	30.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None		None	None	
Act Effct Green (s)	49.4	49.4			28.5	28.5		35.6			35.6	
Actuated g/C Ratio	0.52	0.52			0.30	0.30		0.37			0.37	
v/c Ratio	0.49	0.40			0.80	0.49		0.15			0.88	
Control Delay	15.7	14.5			43.0	16.3		17.7			48.3	
Queue Delay	0.0	0.0			2.2	0.6		0.0			0.0	
Total Delay	15.7	14.5			45.1	16.9		17.7			48.3	
LOS	B	B			D	B		B			D	
Approach Delay		14.9			33.9			17.7			48.3	
Approach LOS		B			C			B			D	
Stops (vph)	83	174			327	95		37			331	
Fuel Used(gal)	2	4			6	2		1			8	
CO Emissions (g/hr)	135	252			399	123		41			581	
NOx Emissions (g/hr)	26	49			78	24		8			113	
VOC Emissions (g/hr)	31	59			92	28		9			135	

2021 No-Build Saturday Midday Peak Hour
11: Route 25 B & Bridge Street

1/26/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	18.0
Total Split (%)	14%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 No-Build Saturday Midday Peak Hour
11: Route 25 B & Bridge Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0			0	0		0			0	
Queue Length 50th (ft)	65	133			231	65		27			283	
Queue Length 95th (ft)	92	170			354	142		64			#551	
Internal Link Dist (ft)		601			129			66			554	
Turn Bay Length (ft)	75					100						
Base Capacity (vph)	501	1400			839	820		701			590	
Starvation Cap Reductn	0	0			281	259		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.42	0.28			0.75	0.49		0.15			0.88	

Intersection Summary

Area Type: Other

Cycle Length: 133

Actuated Cycle Length: 95.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 31.0

Intersection LOS: C

Intersection Capacity Utilization 81.0%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Route 25 B & Bridge Street

 ø2	 ø4	 ø9
40 s	75 s	18 s
 ø6	 ø7	 ø8
40 s	25 s	50 s

2021 Build Weekday Evening Peak Hour

11: Route 25 B & Bridge Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	253	242	8	2	414	423	24	71	22	274	18	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11	12	14	12	12	15	12
Storage Length (ft)	75		0	0		100	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1890	0	0	1756	1561	0	1956	0	0	1914	0
Flt Permitted	0.196				0.999			0.870			0.764	
Satd. Flow (perm)	372	1890	0	0	1754	1561	0	1719	0	0	1501	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				208		9			29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			209			146			634	
Travel Time (s)		15.5			4.8			3.3			14.4	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	272	269	0	0	452	460	0	133	0	0	580	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	25.0	75.0		50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Split (%)	18.8%	56.4%		37.6%	37.6%	37.6%	30.1%	30.1%		30.1%	30.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None		None	None	
Act Effct Green (s)	55.9	55.9			32.7	32.7		35.4			35.4	
Actuated g/C Ratio	0.55	0.55			0.32	0.32		0.35			0.35	
v/c Ratio	0.59	0.26			0.80	0.72		0.22			1.07	
Control Delay	17.5	12.0			42.7	22.5		25.8			91.5	
Queue Delay	0.0	0.0			12.2	3.1		0.0			0.0	
Total Delay	17.5	12.0			54.9	25.5		25.8			91.5	
LOS	B	B			D	C		C			F	
Approach Delay		14.8			40.1			25.8			91.5	
Approach LOS		B			D			C			F	
Stops (vph)	122	115			360	204		76			385	
Fuel Used(gal)	3	3			6	4		1			14	
CO Emissions (g/hr)	204	180			439	262		82			1009	
NOx Emissions (g/hr)	40	35			85	51		16			196	
VOC Emissions (g/hr)	47	42			102	61		19			234	

2021 Build Weekday Evening Peak Hour
11: Route 25 B & Bridge Street

1/26/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	18.0
Total Split (%)	14%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 Build Weekday Evening Peak Hour
11: Route 25 B & Bridge Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0			0	0		0			0	
Queue Length 50th (ft)	87	84			271	147		58			~425	
Queue Length 95th (ft)	136	127			388	260		117			#736	
Internal Link Dist (ft)		601			129			66			554	
Turn Bay Length (ft)	75					100						
Base Capacity (vph)	490	1320			787	815		606			543	
Starvation Cap Reductn	0	0			310	248		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.56	0.20			0.95	0.81		0.22			1.07	

Intersection Summary

Area Type: Other

Cycle Length: 133

Actuated Cycle Length: 101.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 46.6

Intersection LOS: D

Intersection Capacity Utilization 85.3%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Route 25 B & Bridge Street

 ø2	 ø4	 ø9
40 s	75 s	18 s
 ø6	 ø7	 ø8
40 s	25 s	50 s

2021 Build Saturday Midday Peak Hour
11: Route 25 B & Bridge Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	174	340	10	5	397	265	6	36	38	280	25	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11	12	14	12	12	15	12
Storage Length (ft)	75		0	0		100	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	1874	0	0	1754	1561	0	1889	0	0	1936	0
Flt Permitted	0.197				0.994			0.959			0.770	
Satd. Flow (perm)	371	1874	0	0	1745	1561	0	1819	0	0	1537	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				135		33			18	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			209			146			634	
Travel Time (s)		15.5			4.8			3.3			14.4	
Peak Hour Factor	0.82	0.82	0.82	0.90	0.90	0.90	0.78	0.78	0.78	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	427	0	0	447	294	0	103	0	0	544	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	25.0	75.0		50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Split (%)	18.8%	56.4%		37.6%	37.6%	37.6%	30.1%	30.1%		30.1%	30.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None		None	None	
Act Effct Green (s)	51.9	51.9			30.9	30.9		35.6			35.6	
Actuated g/C Ratio	0.53	0.53			0.32	0.32		0.36			0.36	
v/c Ratio	0.50	0.43			0.81	0.50		0.15			0.95	
Control Delay	15.6	14.6			43.1	17.0		18.4			60.4	
Queue Delay	0.0	0.0			4.8	0.9		0.0			0.0	
Total Delay	15.6	14.6			47.9	17.9		18.4			60.4	
LOS	B	B			D	B		B			E	
Approach Delay		14.9			36.0			18.4			60.4	
Approach LOS		B			D			B			E	
Stops (vph)	82	189			350	107		37			345	
Fuel Used(gal)	2	4			6	2		1			10	
CO Emissions (g/hr)	135	276			427	136		42			684	
NOx Emissions (g/hr)	26	54			83	26		8			133	
VOC Emissions (g/hr)	31	64			99	31		10			158	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	18.0
Total Split (%)	14%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 Build Saturday Midday Peak Hour
11: Route 25 B & Bridge Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0			0	0		0			0	
Queue Length 50th (ft)	65	149			253	75		28			315	
Queue Length 95th (ft)	92	187			384	156		66			#608	
Internal Link Dist (ft)		601			129			66			554	
Turn Bay Length (ft)	75					100						
Base Capacity (vph)	492	1366			817	803		683			571	
Starvation Cap Reductn	0	0			294	275		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.43	0.31			0.85	0.56		0.15			0.95	

Intersection Summary

Area Type: Other

Cycle Length: 133

Actuated Cycle Length: 97.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 35.0

Intersection LOS: C

Intersection Capacity Utilization 85.0%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Route 25 B & Bridge Street

 p2	 p4	 p9
40 s	75 s	18 s
 p6	 p7	 p8
40 s	25 s	50 s

2021 Build Weekday Evening Peak Hour with Mitigation
11: Route 25 B & Bridge Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	253	242	8	2	414	423	24	71	22	274	18	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11	12	14	12	12	15	12
Storage Length (ft)	75		0	0		100	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1890	0	0	1756	1561	0	1956	0	0	1914	0
Flt Permitted	0.204				0.999			0.867			0.769	
Satd. Flow (perm)	388	1890	0	0	1754	1561	0	1713	0	0	1511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				213		9			30	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			209			146			634	
Travel Time (s)		15.5			4.8			3.3			14.4	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	272	269	0	0	452	460	0	133	0	0	580	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	19.0	71.0		52.0	52.0	52.0	44.0	44.0		44.0	44.0	
Total Split (%)	14.3%	53.4%		39.1%	39.1%	39.1%	33.1%	33.1%		33.1%	33.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None		None	None	
Act Effct Green (s)	52.7	52.7			33.6	33.6		39.3			39.3	
Actuated g/C Ratio	0.52	0.52			0.33	0.33		0.38			0.38	
v/c Ratio	0.69	0.28			0.78	0.70		0.20			0.97	
Control Delay	23.2	14.2			40.8	21.1		22.7			61.4	
Queue Delay	0.0	0.0			9.3	2.7		0.0			0.0	
Total Delay	23.2	14.2			50.2	23.8		22.7			61.4	
LOS	C	B			D	C		C			E	
Approach Delay		18.7			36.8			22.7			61.4	
Approach LOS		B			D			C			E	
Stops (vph)	133	128			356	197		70			402	
Fuel Used(gal)	3	3			6	4		1			11	
CO Emissions (g/hr)	229	193			427	251		74			792	
NOx Emissions (g/hr)	44	37			83	49		14			154	
VOC Emissions (g/hr)	53	45			99	58		17			184	

2021 Build Weekday Evening Peak Hour with Mitigation
11: Route 25 B & Bridge Street

2/1/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	18.0
Total Split (%)	14%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 Build Weekday Evening Peak Hour with Mitigation
11: Route 25 B & Bridge Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0			0	0		0			0	
Queue Length 50th (ft)	96	93			262	138		53			351	
Queue Length 95th (ft)	145	140			376	248		111			#693	
Internal Link Dist (ft)		601			129			66			554	
Turn Bay Length (ft)	75					100						
Base Capacity (vph)	396	1231			813	837		664			599	
Starvation Cap Reductn	0	0			323	258		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.69	0.22			0.92	0.79		0.20			0.97	

Intersection Summary

Area Type: Other

Cycle Length: 133

Actuated Cycle Length: 102.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 38.0

Intersection LOS: D

Intersection Capacity Utilization 85.3%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Route 25 B & Bridge Street

 Ø2	 Ø4	 Ø9
44 s	71 s	18 s
 Ø6	 Ø7	 Ø8
44 s	19 s	52 s

2021 Build Saturday Midday Peak Hour with Mitigation

11: Route 25 B & Bridge Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	174	340	10	5	397	265	6	36	38	280	25	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11	12	14	12	12	15	12
Storage Length (ft)	75		0	0		100	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	1874	0	0	1754	1561	0	1889	0	0	1936	0
Flt Permitted	0.195				0.994			0.960			0.769	
Satd. Flow (perm)	367	1874	0	0	1745	1561	0	1821	0	0	1535	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				135		35			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			209			146			634	
Travel Time (s)		15.5			4.8			3.3			14.4	
Peak Hour Factor	0.82	0.82	0.82	0.90	0.90	0.90	0.78	0.78	0.78	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	427	0	0	447	294	0	103	0	0	544	0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	7	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	21.0	71.0		50.0	50.0	50.0	44.0	44.0		44.0	44.0	
Total Split (%)	15.8%	53.4%		37.6%	37.6%	37.6%	33.1%	33.1%		33.1%	33.1%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None		None	None	
Act Effct Green (s)	51.6	51.6			32.0	32.0		39.4			39.4	
Actuated g/C Ratio	0.51	0.51			0.32	0.32		0.39			0.39	
v/c Ratio	0.54	0.45			0.81	0.50		0.14			0.89	
Control Delay	18.6	16.7			43.8	17.2		16.6			49.0	
Queue Delay	0.0	0.0			9.1	1.1		0.0			0.0	
Total Delay	18.6	16.7			52.9	18.4		16.6			49.0	
LOS	B	B			D	B		B			D	
Approach Delay		17.4			39.2			16.6			49.0	
Approach LOS		B			D			B			D	
Stops (vph)	88	202			350	108		35			355	
Fuel Used(gal)	2	4			6	2		1			9	
CO Emissions (g/hr)	145	291			432	137		39			613	
NOx Emissions (g/hr)	28	57			84	27		8			119	
VOC Emissions (g/hr)	34	68			100	32		9			142	

2021 Build Saturday Midday Peak Hour with Mitigation
11: Route 25 B & Bridge Street

2/1/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	18.0
Total Split (%)	14%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	

2021 Build Saturday Midday Peak Hour with Mitigation
11: Route 25 B & Bridge Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0			0	0		0			0	
Queue Length 50th (ft)	72	164			267	80		28			320	
Queue Length 95th (ft)	101	206			384	156		61			#566	
Internal Link Dist (ft)		601			129			66			554	
Turn Bay Length (ft)	75					100						
Base Capacity (vph)	414	1237			784	776		731			610	
Starvation Cap Reductn	0	0			298	280		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.51	0.35			0.92	0.59		0.14			0.89	

Intersection Summary

Area Type: Other

Cycle Length: 133

Actuated Cycle Length: 101.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 33.8

Intersection LOS: C

Intersection Capacity Utilization 85.0%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Route 25 B & Bridge Street

 Ø2	 Ø4	 Ø9
44 s	71 s	18 s
 Ø6	 Ø7	 Ø8
44 s	21 s	50 s

William Clarke Drive at New Gorham Road

2021 No-Build Weekday Evening Peak Hour
12: Route 25 & New Gorham Road/Route 25 B

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	137	145	6	234	312	197	791	14	185	411	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	15	15	14	12	13	14	12
Storage Length (ft)	0		175	0		150	85		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	2086	1615	0	1898	1777	1986	2021	0	1865	3724	0
Flt Permitted		0.987			0.991		0.950			0.950		
Satd. Flow (perm)	0	2063	1615	0	1883	1777	1986	2021	0	1865	3724	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158			299		1			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		55			681			207			431	
Travel Time (s)		1.3			15.5			4.7			9.8	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	158	0	264	343	205	839	0	197	453	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0		9.0	21.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	14.0	47.0		21.0	54.0	
Total Split (%)	28.4%	28.4%	28.4%	28.4%	28.4%	28.4%	14.7%	49.5%		22.1%	56.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		17.4	17.4		17.4	17.4	9.2	39.0		13.3	43.1	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.11	0.46		0.16	0.51	
v/c Ratio		0.37	0.35		0.69	0.57	0.95	0.91		0.67	0.24	
Control Delay		33.0	7.5		42.3	10.2	93.9	37.9		48.0	12.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	49.5		0.0	0.0	
Total Delay		33.0	7.5		42.3	10.2	93.9	87.4		48.0	12.2	
LOS		C	A		D	B	F	F		D	B	
Approach Delay		20.1			24.2			88.7			23.0	
Approach LOS		C			C			F			C	
Stops (vph)		112	20		210	56	150	648		165	215	
Fuel Used(gal)		2	0		5	3	5	12		3	4	
CO Emissions (g/hr)		114	28		315	183	360	841		234	257	
NOx Emissions (g/hr)		22	5		61	36	70	164		45	50	
VOC Emissions (g/hr)		26	6		73	42	83	195		54	60	

2021 No-Build Weekday Evening Peak Hour
12: Route 25 & New Gorham Road/Route 25 B

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0	0	0		0	0	
Queue Length 50th (ft)		76	0		140	21	~127	421		107	67	
Queue Length 95th (ft)		134	49		226	97	#279	#726		185	103	
Internal Link Dist (ft)		1			601			127			351	
Turn Bay Length (ft)			175			150	85			100		
Base Capacity (vph)		546	544		499	690	215	1023		359	2201	
Starvation Cap Reductn		0	0		0	0	0	270		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.28	0.29		0.53	0.50	0.95	1.11		0.55	0.21	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 85.1

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 49.2

Intersection LOS: D

Intersection Capacity Utilization 82.4%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 25 & New Gorham Road/Route 25 B

 ø1	 ø2	 ø4
21 s	47 s	27 s
 ø5	 ø6	 ø8
14 s	54 s	27 s

2021 No-Build Saturday Midday Peak Hour
12: Route 25 & New Gorham Road/Route 25 B

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	213	198	10	185	275	98	507	11	162	521	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	15	15	14	12	13	14	12
Storage Length (ft)	0		175	0		150	85		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	2088	1583	0	1894	1777	1986	1944	0	1847	3732	0
Flt Permitted		0.989			0.975		0.950			0.950		
Satd. Flow (perm)	0	2067	1583	0	1852	1777	1986	1944	0	1847	3732	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			244			335		1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		55			681			207			431	
Travel Time (s)		1.3			15.5			4.7			9.8	
Peak Hour Factor	0.81	0.81	0.81	0.82	0.82	0.82	0.93	0.93	0.93	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	4%	0%	1%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	270	244	0	238	335	105	557	0	169	550	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0		9.0	21.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	14.0	47.0		21.0	54.0	
Total Split (%)	28.4%	28.4%	28.4%	28.4%	28.4%	28.4%	14.7%	49.5%		22.1%	56.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		15.3	15.3		15.3	15.3	8.4	26.6		11.9	33.4	
Actuated g/C Ratio		0.22	0.22		0.22	0.22	0.12	0.38		0.17	0.48	
v/c Ratio		0.60	0.46		0.59	0.52	0.44	0.75		0.54	0.31	
Control Delay		33.0	7.2		33.6	6.7	40.7	26.5		37.3	12.8	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.2		0.0	0.0	
Total Delay		33.0	7.2		33.6	6.7	40.7	26.7		37.3	12.8	
LOS		C	A		C	A	D	C		D	B	
Approach Delay		20.8			17.9			28.9			18.5	
Approach LOS		C			B			C			B	
Stops (vph)		179	24		160	31	84	407		135	291	
Fuel Used(gal)		3	1		3	2	2	6		3	5	
CO Emissions (g/hr)		179	36		227	140	108	454		176	332	
NOx Emissions (g/hr)		35	7		44	27	21	88		34	65	
VOC Emissions (g/hr)		41	8		53	33	25	105		41	77	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbsatWestbrook.syn

2021 No-Build Saturday Midday Peak Hour
12: Route 25 & New Gorham Road/Route 25 B

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0	0	0		0	0	
Queue Length 50th (ft)		101	0		89	0	41	196		65	78	
Queue Length 95th (ft)		198	40		181	45	115	370		160	127	
Internal Link Dist (ft)		1			601			127			351	
Turn Bay Length (ft)			175			150	85			100		
Base Capacity (vph)		699	696		626	822	274	1255		454	2746	
Starvation Cap Reductn		0	0		0	0	0	166		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.39	0.35		0.38	0.41	0.38	0.51		0.37	0.20	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 69.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 21.6

Intersection LOS: C

Intersection Capacity Utilization 68.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: Route 25 & New Gorham Road/Route 25 B

 Ø1	 Ø2	 Ø4
21 s	47 s	27 s
 Ø5	 Ø6	 Ø8
14 s	54 s	27 s

2021 Build Weekday Evening Peak Hour
12: Route 25 & New Gorham Road/Route 25 B

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	148	151	6	247	319	203	805	14	191	422	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	15	15	14	12	13	14	12
Storage Length (ft)	0		175	0		150	85		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	2086	1615	0	1898	1777	1986	2021	0	1865	3724	0
Flt Permitted		0.988			0.992		0.950			0.950		
Satd. Flow (perm)	0	2065	1615	0	1885	1777	1986	2021	0	1865	3724	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			296		1			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		55			681			207			431	
Travel Time (s)		1.3			15.5			4.7			9.8	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	166	164	0	278	351	211	854	0	203	465	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0		9.0	21.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	14.0	47.0		21.0	54.0	
Total Split (%)	28.4%	28.4%	28.4%	28.4%	28.4%	28.4%	14.7%	49.5%		22.1%	56.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		17.8	17.8		17.8	17.8	9.2	39.8		13.6	44.2	
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.11	0.46		0.16	0.51	
v/c Ratio		0.39	0.35		0.72	0.58	1.00	0.92		0.70	0.24	
Control Delay		33.5	7.4		44.0	10.9	107.1	39.6		49.4	12.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	49.0		0.0	0.0	
Total Delay		33.5	7.4		44.0	10.9	107.1	88.5		49.4	12.2	
LOS		C	A		D	B	F	F		D	B	
Approach Delay		20.5			25.6			92.2			23.5	
Approach LOS		C			C			F			C	
Stops (vph)		123	21		224	63	154	661		173	222	
Fuel Used(gal)		2	0		5	3	6	13		4	4	
CO Emissions (g/hr)		125	29		339	192	408	877		246	265	
NOx Emissions (g/hr)		24	6		66	37	79	171		48	51	
VOC Emissions (g/hr)		29	7		79	45	95	203		57	61	

2021 Build Weekday Evening Peak Hour
12: Route 25 & New Gorham Road/Route 25 B

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0	0	0		0	0	
Queue Length 50th (ft)		83	0		150	26	~138	447		112	72	
Queue Length 95th (ft)		142	50		238	106	#288	#747		190	106	
Internal Link Dist (ft)		1			601			127			351	
Turn Bay Length (ft)			175			150	85			100		
Base Capacity (vph)		535	540		488	679	210	1000		351	2152	
Starvation Cap Reductn		0	0		0	0	0	264		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.31	0.30		0.57	0.52	1.00	1.16		0.58	0.22	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 86.5

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 50.8

Intersection LOS: D

Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 25 & New Gorham Road/Route 25 B

 ø1	 ø2	 ø4
21 s	47 s	27 s
 ø5	 ø6	 ø8
14 s	54 s	27 s

2021 Build Saturday Midday Peak Hour
12: Route 25 & New Gorham Road/Route 25 B

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	232	208	10	232	284	107	525	11	172	540	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	15	15	14	12	13	14	12
Storage Length (ft)	0		175	0		150	85		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	2088	1583	0	1896	1777	1986	1944	0	1847	3732	0
Flt Permitted		0.989			0.980		0.950			0.950		
Satd. Flow (perm)	0	2067	1583	0	1862	1777	1986	1944	0	1847	3732	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			257			346		1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		55			681			207			431	
Travel Time (s)		1.3			15.5			4.7			9.8	
Peak Hour Factor	0.81	0.81	0.81	0.82	0.82	0.82	0.93	0.93	0.93	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	4%	0%	1%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	257	0	295	346	115	577	0	179	569	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0		9.0	21.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	14.0	47.0		21.0	54.0	
Total Split (%)	28.4%	28.4%	28.4%	28.4%	28.4%	28.4%	14.7%	49.5%		22.1%	56.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		17.2	17.2		17.2	17.2	8.6	28.1		12.4	35.4	
Actuated g/C Ratio		0.23	0.23		0.23	0.23	0.12	0.38		0.17	0.48	
v/c Ratio		0.61	0.45		0.68	0.51	0.50	0.78		0.58	0.32	
Control Delay		33.6	7.0		36.9	6.5	44.5	28.7		40.0	13.4	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.3		0.0	0.0	
Total Delay		33.6	7.0		36.9	6.5	44.5	29.0		40.0	13.4	
LOS		C	A		D	A	D	C		D	B	
Approach Delay		21.1			20.5			31.6			19.8	
Approach LOS		C			C			C			B	
Stops (vph)		196	25		205	31	91	431		146	303	
Fuel Used(gal)		3	1		4	2	2	7		3	5	
CO Emissions (g/hr)		196	37		296	143	124	491		195	349	
NOx Emissions (g/hr)		38	7		58	28	24	95		38	68	
VOC Emissions (g/hr)		45	8		69	33	29	114		45	81	

2021 Build Saturday Midday Peak Hour
12: Route 25 & New Gorham Road/Route 25 B

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0	0	0		0	0	
Queue Length 50th (ft)		120	0		123	0	51	232		78	90	
Queue Length 95th (ft)		215	40		226	45	#136	388		169	132	
Internal Link Dist (ft)		1			601			127			351	
Turn Bay Length (ft)			175			150	85			100		
Base Capacity (vph)		656	678		591	800	258	1180		426	2615	
Starvation Cap Reductn		0	0		0	0	0	191		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.45	0.38		0.50	0.43	0.45	0.58		0.42	0.22	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 73.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 23.3

Intersection LOS: C

Intersection Capacity Utilization 70.9%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 25 & New Gorham Road/Route 25 B

 ø1	 ø2	 ø4
21 s	47 s	27 s
 ø5	 ø6	 ø8
14 s	54 s	27 s

2021 Build Weekday Evening Peak Hour with Mitigation
12: Route 25 & New Gorham Road/Route 25 B

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	148	151	6	247	319	203	805	14	191	422	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15		12	12	15	15	14	12	13	14	12
Storage Length (ft)	0		175	0		150	85		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	2086	1615	0	1898	1777	1986	2021	0	1865	3724	0
Flt Permitted		0.988			0.992		0.950			0.950		
Satd. Flow (perm)	0	2065	1615	0	1885	1777	1986	2021	0	1865	3724	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			351		1			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		55			681			207			431	
Travel Time (s)		1.3			15.5			4.7			9.8	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	166	164	0	278	351	211	854	0	203	465	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0		9.0	21.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	20.0	50.0		20.0	50.0	
Total Split (%)	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	21.1%	52.6%		21.1%	52.6%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		17.3	17.3		17.3	17.3	13.2	40.0		13.3	40.1	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.15	0.47		0.15	0.47	
v/c Ratio		0.40	0.36		0.74	0.55	0.69	0.91		0.71	0.27	
Control Delay		34.8	7.8		46.4	7.4	49.6	36.9		51.1	14.7	
Queue Delay		0.0	0.0		0.0	0.0	0.0	38.5		0.0	0.0	
Total Delay		34.8	7.8		46.4	7.4	49.6	75.4		51.1	14.7	
LOS		C	A		D	A	D	E		D	B	
Approach Delay		21.4			24.6			70.3			25.7	
Approach LOS		C			C			E			C	
Stops (vph)		124	21		223	35	180	681		169	242	
Fuel Used(gal)		2	0		5	2	4	12		4	4	
CO Emissions (g/hr)		128	30		347	165	252	854		249	287	
NOx Emissions (g/hr)		25	6		68	32	49	166		48	56	
VOC Emissions (g/hr)		30	7		80	38	58	198		58	67	

2021 Build Weekday Evening Peak Hour with Mitigation
12: Route 25 & New Gorham Road/Route 25 B

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0	0	0		0	0	
Queue Length 50th (ft)		87	0		156	0	121	451		117	84	
Queue Length 95th (ft)		146	52		#249	71	#209	#705		#208	117	
Internal Link Dist (ft)		1			601			127			351	
Turn Bay Length (ft)			175			150	85			100		
Base Capacity (vph)		494	511		450	692	356	1088		334	2007	
Starvation Cap Reductn		0	0		0	0	0	291		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.34	0.32		0.62	0.51	0.59	1.07		0.61	0.23	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 86

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 42.6

Intersection LOS: D

Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 25 & New Gorham Road/Route 25 B

 p1	 p2	 p4
20 s	50 s	25 s
 p5	 p6	 p8
20 s	50 s	25 s

2021 Build Saturday Midday Peak Hour with Mitigation
12: Route 25 & New Gorham Road/Route 25 B

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	232	208	10	232	284	107	525	11	172	540	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	15	15	14	12	13	14	12
Storage Length (ft)	0		175	0		150	85		0	100		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	2088	1583	0	1896	1777	1986	1944	0	1847	3732	0
Flt Permitted		0.990			0.980		0.950			0.950		
Satd. Flow (perm)	0	2069	1583	0	1862	1777	1986	1944	0	1847	3732	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			257			346		1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		55			681			207			431	
Travel Time (s)		1.3			15.5			4.7			9.8	
Peak Hour Factor	0.81	0.81	0.81	0.82	0.82	0.82	0.93	0.93	0.93	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	4%	0%	1%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	257	0	295	346	115	577	0	179	569	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0		9.0	21.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	17.0	49.0		19.0	51.0	
Total Split (%)	28.4%	28.4%	28.4%	28.4%	28.4%	28.4%	17.9%	51.6%		20.0%	53.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Act Effct Green (s)		17.2	17.2		17.2	17.2	9.6	28.0		11.8	33.7	
Actuated g/C Ratio		0.24	0.24		0.24	0.24	0.13	0.38		0.16	0.46	
v/c Ratio		0.60	0.45		0.67	0.51	0.44	0.77		0.60	0.33	
Control Delay		32.7	6.8		36.0	6.3	39.5	27.9		41.4	14.6	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.2		0.0	0.0	
Total Delay		32.7	6.8		36.0	6.3	39.5	28.1		41.4	14.6	
LOS		C	A		D	A	D	C		D	B	
Approach Delay		20.6			20.0			30.0			21.0	
Approach LOS		C			B			C			C	
Stops (vph)		195	25		203	31	89	429		146	320	
Fuel Used(gal)		3	1		4	2	2	7		3	5	
CO Emissions (g/hr)		193	36		292	143	115	484		198	366	
NOx Emissions (g/hr)		38	7		57	28	22	94		39	71	
VOC Emissions (g/hr)		45	8		68	33	27	112		46	85	

2021 Build Saturday Midday Peak Hour with Mitigation
12: Route 25 & New Gorham Road/Route 25 B

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)		0	0		0	0	0	0		0	0	
Queue Length 50th (ft)		120	0		123	0	51	232		78	92	
Queue Length 95th (ft)		210	40		221	45	118	373		#181	143	
Internal Link Dist (ft)		1			601			127			351	
Turn Bay Length (ft)			175			150	85			100		
Base Capacity (vph)		661	681		595	803	346	1243		376	2496	
Starvation Cap Reductn		0	0		0	0	0	193		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.44	0.38		0.50	0.43	0.33	0.55		0.48	0.23	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 72.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 23.1

Intersection LOS: C

Intersection Capacity Utilization 70.9%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 25 & New Gorham Road/Route 25 B

		
ø1	ø2	ø4
19 s	49 s	27 s
		
ø5	ø6	ø8
17 s	51 s	27 s

New Gorham Road at Longfellow Street

2021 No-Build Weekday Evening Peak Hour

13: longfellow Street & New Gorham Road

1/28/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Volume (vph)	210	1	156	290	3	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	14	12
Satd. Flow (prot)	1879	0	0	2103	1760	0
Flt Permitted				0.983	0.998	
Satd. Flow (perm)	1879	0	0	2103	1760	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	281			55	249	
Travel Time (s)	6.4			1.3	5.7	
Peak Hour Factor	0.92	0.92	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	229	0	0	557	100	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 49.9%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak Hour
13: longfellow Street & New Gorham Road

1/28/2016

Intersection						
Intersection Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	210	1	156	290	3	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	80	80	80	80
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	228	1	195	362	4	96
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	229	0	982	229
Stage 1	-	-	-	-	229	-
Stage 2	-	-	-	-	753	-
Follow-up Headway	-	-	2.2	-	3.5	3.3
Pot Capacity-1 Maneuver	-	-	1351	-	279	815
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	469	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	-	-	1351	-	229	815
Mov Capacity-2 Maneuver	-	-	-	-	229	-
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	384	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	2.8		10.6		
HCM LOS				B		
Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	744	-	-	1351	-	
HCM Lane V/C Ratio	0.134	-	-	0.144	-	
HCM Control Delay (s)	10.6	-	-	8.114	0	
HCM Lane LOS	B			A	A	
HCM 95th %tile Q(veh)	0.463	-	-	0.504	-	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

2021 No-Build Saturday Midday Peak Hour
13: longfellow Street & New Gorham Road

1/28/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Volume (vph)	305	3	90	200	2	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	14	12
Satd. Flow (prot)	1898	0	0	2114	1738	0
Flt Permitted				0.985	0.999	
Satd. Flow (perm)	1898	0	0	2114	1738	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	281			55	249	
Travel Time (s)	6.4			1.3	5.7	
Peak Hour Factor	0.85	0.85	0.95	0.95	0.85	0.85
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	363	0	0	306	134	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 48.8%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak Hour
13: longfellow Street & New Gorham Road

1/28/2016

Intersection

Intersection Delay, s/veh 2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	305	3	90	200	2	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	95	95	85	85
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	359	4	95	211	2	132

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	362
Stage 1	-	-	-
Stage 2	-	-	-
Follow-up Headway	-	-	2.209
Pot Capacity-1 Maneuver	-	-	1202
Stage 1	-	-	-
Stage 2	-	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	-	-	1202
Mov Capacity-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	11.7
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	674	-	-	1202	-
HCM Lane V/C Ratio	0.199	-	-	0.079	-
HCM Control Delay (s)	11.7	-	-	8.251	0
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.737	-	-	0.256	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Weekday Evening Peak Hour
13: longfellow Street & New Gorham Road

1/28/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Volume (vph)	221	1	162	303	3	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	14	12
Satd. Flow (prot)	1879	0	0	2103	1760	0
Flt Permitted				0.983	0.998	
Satd. Flow (perm)	1879	0	0	2103	1760	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	281			55	249	
Travel Time (s)	6.4			1.3	5.7	
Peak Hour Factor	0.92	0.92	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	241	0	0	581	108	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 51.9%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Weekday Evening Peak Hour
13: longfellow Street & New Gorham Road

1/28/2016

Intersection	
Intersection Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	221	1	162	303	3	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	80	80	80	80
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	240	1	202	379	4	104

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	241
Stage 1	-	-	-
Stage 2	-	-	-
Follow-up Headway	-	-	2.2
Pot Capacity-1 Maneuver	-	-	1337
Stage 1	-	-	-
Stage 2	-	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	-	-	1337
Mov Capacity-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	10.8
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	732	-	-	1337	-
HCM Lane V/C Ratio	0.147	-	-	0.151	-
HCM Control Delay (s)	10.8	-	-	8.173	0
HCM Lane LOS	B			A	A
HCM 95th %ile Q(veh)	0.513	-	-	0.533	-

Notes
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Saturday Midday Peak Hour
13: longfellow Street & New Gorham Road

1/28/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Volume (vph)	324	3	99	217	2	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	14	12
Satd. Flow (prot)	1898	0	0	2114	1738	0
Flt Permitted				0.985	0.999	
Satd. Flow (perm)	1898	0	0	2114	1738	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	281			55	249	
Travel Time (s)	6.4			1.3	5.7	
Peak Hour Factor	0.85	0.85	0.95	0.95	0.85	0.85
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	385	0	0	332	146	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 51.8%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Saturday Midday Peak Hour
13: longfellow Street & New Gorham Road

1/28/2016

Intersection

Intersection Delay, s/veh 3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	324	3	99	217	2	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	95	95	85	85
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	381	4	104	228	2	144

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	385
Stage 1	-	-	-
Stage 2	-	-	-
Follow-up Headway	-	-	2.209
Pot Capacity-1 Maneuver	-	-	1179
Stage 1	-	-	-
Stage 2	-	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	-	-	1179
Mov Capacity-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	12.1
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	655	-	-	1179	-
HCM Lane V/C Ratio	0.223	-	-	0.088	-
HCM Control Delay (s)	12.1	-	-	8.349	0
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.848	-	-	0.29	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

William Clarke Drive at Saco Street

2021 No-Build Weekday Evening Peak Hour

16 14: Saco Street & Route 25

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑	↘	↗
Volume (vph)	480	82	249	723	279	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	11	10	10
Storage Length (ft)		0	210		0	100
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3667	0	1787	1818	1668	1478
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3667	0	1787	1818	1668	1478
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	25					153
Link Speed (mph)	30			30	30	
Link Distance (ft)	151			663	306	
Travel Time (s)	3.4			15.1	7.0	
Peak Hour Factor	0.93	0.93	0.94	0.94	0.93	0.93
Heavy Vehicles (%)	3%	1%	1%	1%	1%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	604	0	265	769	300	224
Turn Type	NA		Prot	NA	NA	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Detector Phase	4		3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		9.0	21.0	21.0	21.0
Total Split (s)	55.0		28.0	83.0	22.0	22.0
Total Split (%)	52.4%		26.7%	79.0%	21.0%	21.0%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	None	None
Act Effct Green (s)	17.0		14.7	36.8	17.3	17.3
Actuated g/C Ratio	0.26		0.23	0.57	0.27	0.27
v/c Ratio	0.61		0.65	0.74	0.67	0.44
Control Delay	22.9		31.1	14.8	33.0	11.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	22.9		31.1	14.8	33.0	11.8
LOS	C		C	B	C	B
Approach Delay	22.9			19.0	23.9	
Approach LOS	C			B	C	
Stops (vph)	436		210	477	222	65
Fuel Used(gal)	7		4	9	4	1
CO Emissions (g/hr)	462		281	597	263	95
NOx Emissions (g/hr)	90		55	116	51	18
VOC Emissions (g/hr)	107		65	138	61	22

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpmWestbrook.syn

2021 No-Build Weekday Evening Peak Hour
14: Saco Street & Route 25

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Dilemma Vehicles (#)	0		0	0	0	0
Queue Length 50th (ft)	102		92	195	102	21
Queue Length 95th (ft)	169		180	306	#267	91
Internal Link Dist (ft)	71			583	226	
Turn Bay Length (ft)			210			100
Base Capacity (vph)	2906		650	1818	448	509
Starvation Cap Reductn	26		0	16	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.21		0.41	0.43	0.67	0.44

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 64.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 21.3

Intersection LOS: C

Intersection Capacity Utilization 61.8%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 14: Saco Street & Route 25

↖ ø2	↖ ø3	→ ø4
22 s	28 s	55 s
	← ø8	
	83 s	

2021 No-Build Saturday Midday Peak Hour
14: Saco Street & Route 25

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑	↘	↗
Volume (vph)	635	94	176	538	78	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	11	10	10
Storage Length (ft)		0	210		0	100
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3641	0	1787	1783	1685	1507
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3641	0	1787	1783	1685	1507
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	21					182
Link Speed (mph)	30			30	30	
Link Distance (ft)	151			663	306	
Travel Time (s)	3.4			15.1	7.0	
Peak Hour Factor	0.92	0.92	0.91	0.91	0.93	0.93
Heavy Vehicles (%)	4%	2%	1%	3%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	792	0	193	591	84	182
Turn Type	NA		Prot	NA	NA	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Detector Phase	4		3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		9.0	21.0	21.0	21.0
Total Split (s)	55.0		28.0	83.0	22.0	22.0
Total Split (%)	52.4%		26.7%	79.0%	21.0%	21.0%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	None	None
Act Effct Green (s)	20.3		12.0	37.5	8.7	8.7
Actuated g/C Ratio	0.36		0.21	0.66	0.15	0.15
v/c Ratio	0.60		0.51	0.50	0.33	0.47
Control Delay	17.0		26.9	6.5	28.2	9.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	17.0		26.9	6.5	28.2	9.6
LOS	B		C	A	C	A
Approach Delay	17.0			11.5	15.5	
Approach LOS	B			B	B	
Stops (vph)	522		141	228	66	30
Fuel Used(gal)	7		3	5	1	1
CO Emissions (g/hr)	520		186	332	70	63
NOx Emissions (g/hr)	101		36	65	14	12
VOC Emissions (g/hr)	121		43	77	16	15

2021 No-Build Saturday Midday Peak Hour
14: Saco Street & Route 25

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Dilemma Vehicles (#)	0		0	0	0	0
Queue Length 50th (ft)	104		57	77	25	0
Queue Length 95th (ft)	195		139	160	75	52
Internal Link Dist (ft)	71			583	226	
Turn Bay Length (ft)			210			100
Base Capacity (vph)	3178		758	1783	528	597
Starvation Cap Reductn	101		0	32	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.26		0.25	0.34	0.16	0.30

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 56.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 14.4

Intersection LOS: B

Intersection Capacity Utilization 47.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Saco Street & Route 25

↖ ø2	↙ ø3	→ ø4
22 s	28 s	55 s
	← ø8	
	83 s	

2021 Build Weekday Evening Peak Hour

14: Saco Street & Route 25

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑	↘	↗
Volume (vph)	497	82	255	743	279	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	11	10	10
Storage Length (ft)		0	210		0	100
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3670	0	1787	1818	1668	1478
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3670	0	1787	1818	1668	1478
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	24					157
Link Speed (mph)	30			30	30	
Link Distance (ft)	151			663	306	
Travel Time (s)	3.4			15.1	7.0	
Peak Hour Factor	0.93	0.93	0.94	0.94	0.93	0.93
Heavy Vehicles (%)	3%	1%	1%	1%	1%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	622	0	271	790	300	230
Turn Type	NA		Prot	NA	NA	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Detector Phase	4		3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		9.0	21.0	21.0	21.0
Total Split (s)	55.0		28.0	83.0	22.0	22.0
Total Split (%)	52.4%		26.7%	79.0%	21.0%	21.0%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	None	None
Act Effect Green (s)	17.4		15.1	37.6	17.3	17.3
Actuated g/C Ratio	0.27		0.23	0.58	0.27	0.27
v/c Ratio	0.62		0.65	0.75	0.68	0.45
Control Delay	23.3		31.4	15.1	33.9	12.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	23.3		31.4	15.1	33.9	12.1
LOS	C		C	B	C	B
Approach Delay	23.3			19.3	24.4	
Approach LOS	C			B	C	
Stops (vph)	451		215	494	222	68
Fuel Used(gal)	7		4	9	4	1
CO Emissions (g/hr)	479		289	619	267	99
NOx Emissions (g/hr)	93		56	120	52	19
VOC Emissions (g/hr)	111		67	143	62	23

2021 Build Weekday Evening Peak Hour
14: Saco Street & Route 25

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Dilemma Vehicles (#)	0		0	0	0	0
Queue Length 50th (ft)	107		96	204	105	22
Queue Length 95th (ft)	176		186	321	#272	94
Internal Link Dist (ft)	71			583	226	
Turn Bay Length (ft)			210			100
Base Capacity (vph)	2872		642	1817	443	507
Starvation Cap Reductn	31		0	19	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.22		0.42	0.44	0.68	0.45

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 65.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 21.6

Intersection LOS: C

Intersection Capacity Utilization 62.9%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 14: Saco Street & Route 25

↖ ø2	↖ ø3	→ ø4
22 s	28 s	55 s
	← ø8	
	83 s	

2021 Build Saturday Midday Peak Hour

14: Saco Street & Route 25

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑	↘	↗
Volume (vph)	664	94	185	565	78	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	11	10	10
Storage Length (ft)		0	210		0	100
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3641	0	1787	1783	1685	1507
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3641	0	1787	1783	1685	1507
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	20					192
Link Speed (mph)	30			30	30	
Link Distance (ft)	151			663	306	
Travel Time (s)	3.4			15.1	7.0	
Peak Hour Factor	0.92	0.92	0.91	0.91	0.93	0.93
Heavy Vehicles (%)	4%	2%	1%	3%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	824	0	203	621	84	192
Turn Type	NA		Prot	NA	NA	Perm
Protected Phases	4		3	8	2	
Permitted Phases						2
Detector Phase	4		3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		9.0	21.0	21.0	21.0
Total Split (s)	55.0		28.0	83.0	22.0	22.0
Total Split (%)	52.4%		26.7%	79.0%	21.0%	21.0%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	None	None
Act Effct Green (s)	21.3		12.5	39.1	8.8	8.8
Actuated g/C Ratio	0.36		0.21	0.67	0.15	0.15
v/c Ratio	0.61		0.53	0.52	0.33	0.49
Control Delay	17.4		27.9	6.6	29.3	9.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	17.4		27.9	6.7	29.3	9.8
LOS	B		C	A	C	A
Approach Delay	17.4			11.9	15.8	
Approach LOS	B			B	B	
Stops (vph)	543		149	237	66	31
Fuel Used(gal)	8		3	5	1	1
CO Emissions (g/hr)	545		198	349	71	67
NOx Emissions (g/hr)	106		38	68	14	13
VOC Emissions (g/hr)	126		46	81	16	16

2021 Build Saturday Midday Peak Hour
14: Saco Street & Route 25

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Dilemma Vehicles (#)	0		0	0	0	0
Queue Length 50th (ft)	112		61	83	26	0
Queue Length 95th (ft)	210		148	173	77	54
Internal Link Dist (ft)	71			583	226	
Turn Bay Length (ft)			210			100
Base Capacity (vph)	3122		737	1779	514	593
Starvation Cap Reductn	110		0	39	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.27		0.28	0.36	0.16	0.32

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 58.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 14.8

Intersection LOS: B

Intersection Capacity Utilization 48.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Saco Street & Route 25

↖ ø2	↖ ø3	→ ø4
22 s	28 s	55 s
	← ø8	
	83 s	

William Clarke Drive at Spring Street

2021 No-Build Weekday Evening Peak Hour

15: Route 25 & Spring Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	621	109	147	989	87	183	319	212	55	175	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	13	12	11	12
Storage Length (ft)	80		0	235		0	100		130	90		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3471	0	1745	3416	0	1728	1837	1652	1805	1793	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3471	0	1745	3416	0	1728	1837	1652	1805	1793	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			9				185		8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			304			339			274	
Travel Time (s)		15.1			6.9			7.7			6.2	
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.91	0.91	0.91	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	839	0	152	1110	0	201	351	233	59	221	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		9.0	21.0	21.0	9.0	21.0	
Total Split (s)	20.0	35.0		20.0	35.0		20.0	25.0	25.0	20.0	25.0	
Total Split (%)	20.0%	35.0%		20.0%	35.0%		20.0%	25.0%	25.0%	20.0%	25.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	None	None	None	Max	
Act Effct Green (s)	7.6	26.9		12.5	36.7		13.9	28.1	28.1	8.5	20.2	
Actuated g/C Ratio	0.08	0.29		0.13	0.39		0.15	0.30	0.30	0.09	0.22	
v/c Ratio	0.27	0.83		0.66	0.83		0.79	0.64	0.37	0.36	0.56	
Control Delay	47.0	38.8		53.6	33.4		62.1	38.4	10.1	47.9	39.8	
Queue Delay	0.0	0.0		0.0	48.9		0.0	0.0	0.0	0.0	2.9	
Total Delay	47.0	38.8		53.6	82.2		62.1	38.4	10.1	47.9	42.8	
LOS	D	D		D	F		E	D	B	D	D	
Approach Delay		39.2			78.8			36.1			43.9	
Approach LOS		D			E			D			D	
Stops (vph)	32	640		134	886		160	261	48	50	175	
Fuel Used(gal)	1	13		3	15		4	5	1	1	3	
CO Emissions (g/hr)	47	914		188	1032		257	334	88	65	217	
NOx Emissions (g/hr)	9	178		37	201		50	65	17	13	42	
VOC Emissions (g/hr)	11	212		44	239		60	77	20	15	50	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpmWestbrook.syn

2021 No-Build Weekday Evening Peak Hour
15: Route 25 & Spring Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0	0	0	0	
Queue Length 50th (ft)	24	247		91	336		123	200	23	36	122	
Queue Length 95th (ft)	54	312		158	#487		#237	#359	90	75	203	
Internal Link Dist (ft)		583			224			259			194	
Turn Bay Length (ft)	80			235			100		130	90		
Base Capacity (vph)	291	1136		282	1344		279	551	625	291	393	
Starvation Cap Reductn	0	0		0	425		0	0	0	0	91	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.13	0.74		0.54	1.21		0.72	0.64	0.37	0.20	0.73	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 93.6

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 54.4

Intersection LOS: D

Intersection Capacity Utilization 71.5%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: Route 25 & Spring Street

 Ø1	 Ø2	 Ø3	 Ø4
20 s	25 s	20 s	35 s
 Ø5	 Ø6	 Ø7	 Ø8
20 s	25 s	20 s	35 s

2021 No-Build Saturday Midday Peak Hour
15: Route 25 & Spring Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	725	135	144	616	47	100	175	188	41	268	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	13	12	11	12
Storage Length (ft)	80		0	235		0	100		130	90		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3478	0	1745	3388	0	1728	1837	1669	1805	1813	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3478	0	1745	3388	0	1728	1837	1669	1805	1813	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			8				209		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			304			339			274	
Travel Time (s)		15.1			6.9			7.7			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	3%	0%	2%	0%	1%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	905	0	158	729	0	111	194	209	44	315	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		9.0	21.0	21.0	9.0	21.0	
Total Split (s)	20.0	35.0		20.0	35.0		20.0	25.0	25.0	20.0	25.0	
Total Split (%)	20.0%	35.0%		20.0%	35.0%		20.0%	25.0%	25.0%	20.0%	25.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	None	None	None	Max	
Act Effct Green (s)	7.7	28.1		12.5	38.2		11.0	25.7	25.7	7.8	20.5	
Actuated g/C Ratio	0.09	0.31		0.14	0.43		0.12	0.29	0.29	0.09	0.23	
v/c Ratio	0.27	0.82		0.65	0.50		0.52	0.37	0.33	0.28	0.75	
Control Delay	45.9	36.1		51.6	22.7		48.3	31.0	6.1	46.0	47.8	
Queue Delay	0.0	0.0		0.0	1.5		0.0	0.0	0.0	0.0	15.9	
Total Delay	45.9	36.1		51.6	24.2		48.3	31.0	6.1	46.0	63.7	
LOS	D	D		D	C		D	C	A	D	E	
Approach Delay		36.5			29.1			24.6			61.6	
Approach LOS		D			C			C			E	
Stops (vph)	36	726		130	467		87	134	23	38	246	
Fuel Used(gal)	1	15		3	7		2	2	1	1	5	
CO Emissions (g/hr)	53	1033		180	505		121	161	60	48	338	
NOx Emissions (g/hr)	10	201		35	98		24	31	12	9	66	
VOC Emissions (g/hr)	12	239		42	117		28	37	14	11	78	

2021 No-Build Saturday Midday Peak Hour
15: Route 25 & Spring Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0	0	0	0	
Queue Length 50th (ft)	24	257		91	177		64	99	0	26	181	
Queue Length 95th (ft)	58	#382		163	261		120	172	56	60	#344	
Internal Link Dist (ft)		583			224			259			194	
Turn Bay Length (ft)	80			235			100		130	90		
Base Capacity (vph)	310	1211		300	1450		297	528	628	310	418	
Starvation Cap Reductn	0	0		0	502		0	0	0	0	91	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.13	0.75		0.53	0.77		0.37	0.37	0.33	0.14	0.96	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 89.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 35.1

Intersection LOS: D

Intersection Capacity Utilization 70.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: Route 25 & Spring Street

 Ø1	 Ø2	 Ø3	 Ø4
20 s	25 s	20 s	35 s
 Ø5	 Ø6	 Ø7	 Ø8
20 s	25 s	20 s	35 s

2021 Build Weekday Evening Peak Hour
15: Route 25 & Spring Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	644	109	197	1015	87	183	319	258	55	175	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	13	12	11	12
Storage Length (ft)	80		0	235		0	100		130	90		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3471	0	1745	3416	0	1728	1837	1652	1805	1793	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3471	0	1745	3416	0	1728	1837	1652	1805	1793	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			9				226		8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			304			339			274	
Travel Time (s)		15.1			6.9			7.7			6.2	
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.91	0.91	0.91	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	865	0	203	1136	0	201	351	284	59	221	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		9.0	21.0	21.0	9.0	21.0	
Total Split (s)	20.0	35.0		20.0	35.0		20.0	25.0	25.0	20.0	25.0	
Total Split (%)	20.0%	35.0%		20.0%	35.0%		20.0%	25.0%	25.0%	20.0%	25.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	None	None	None	Max	
Act Effct Green (s)	7.6	27.9		14.0	39.0		14.0	28.0	28.0	8.5	20.1	
Actuated g/C Ratio	0.08	0.29		0.15	0.41		0.15	0.29	0.29	0.09	0.21	
v/c Ratio	0.27	0.85		0.80	0.82		0.80	0.66	0.44	0.37	0.58	
Control Delay	47.6	40.7		64.2	32.8		64.4	39.9	10.4	48.7	41.2	
Queue Delay	0.0	0.0		0.0	48.8		0.0	0.0	0.0	0.0	3.6	
Total Delay	47.6	40.7		64.2	81.6		64.4	39.9	10.4	48.7	44.8	
LOS	D	D		E	F		E	D	B	D	D	
Approach Delay		41.0			79.0			35.8			45.6	
Approach LOS		D			E			D			D	
Stops (vph)	32	663		175	894		162	264	58	50	177	
Fuel Used(gal)	1	14		4	15		4	5	2	1	3	
CO Emissions (g/hr)	48	964		280	1042		264	342	108	66	221	
NOx Emissions (g/hr)	9	188		55	203		51	67	21	13	43	
VOC Emissions (g/hr)	11	223		65	242		61	79	25	15	51	

2021 Build Weekday Evening Peak Hour
15: Route 25 & Spring Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0	0	0	0	
Queue Length 50th (ft)	24	263		126	348		125	204	28	36	125	
Queue Length 95th (ft)	54	324		#239	#507		#237	#359	104	75	203	
Internal Link Dist (ft)		583			224			259			194	
Turn Bay Length (ft)	80			235			100		130	90		
Base Capacity (vph)	282	1101		273	1391		271	535	641	282	381	
Starvation Cap Reductn	0	0		0	432		0	0	0	0	90	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.14	0.79		0.74	1.18		0.74	0.66	0.44	0.21	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 96.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 55.2

Intersection LOS: E

Intersection Capacity Utilization 72.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: Route 25 & Spring Street

 p1	 p2	 p3	 p4
20 s	25 s	20 s	35 s
 p5	 p6	 p7	 p8
20 s	25 s	20 s	35 s

2021 Build Saturday Midday Peak Hour
15: Route 25 & Spring Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	764	135	214	652	47	100	175	267	41	268	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	13	12	11	12
Storage Length (ft)	80		0	235		0	100		130	90		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3482	0	1745	3392	0	1728	1837	1669	1805	1813	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3482	0	1745	3392	0	1728	1837	1669	1805	1813	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			8				297		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			304			339			274	
Travel Time (s)		15.1			6.9			7.7			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	3%	0%	2%	0%	1%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	946	0	235	768	0	111	194	297	44	315	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		9.0	21.0	21.0	9.0	21.0	
Total Split (s)	20.0	35.0		20.0	35.0		20.0	25.0	25.0	20.0	25.0	
Total Split (%)	20.0%	35.0%		20.0%	35.0%		20.0%	25.0%	25.0%	20.0%	25.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	None	None	None	Max	
Act Effct Green (s)	7.7	29.0		14.8	41.1		11.1	25.5	25.5	7.8	20.3	
Actuated g/C Ratio	0.08	0.31		0.16	0.44		0.12	0.28	0.28	0.08	0.22	
v/c Ratio	0.28	0.85		0.84	0.51		0.54	0.38	0.44	0.29	0.79	
Control Delay	46.7	39.2		66.3	22.7		49.5	31.9	6.0	46.8	51.5	
Queue Delay	0.0	0.0		0.0	1.4		0.0	0.0	0.0	0.0	27.3	
Total Delay	46.7	39.2		66.3	24.0		49.5	31.9	6.0	46.8	78.8	
LOS	D	D		E	C		D	C	A	D	E	
Approach Delay		39.5			33.9			22.4			74.9	
Approach LOS		D			C			C			E	
Stops (vph)	36	767		181	491		89	137	30	38	249	
Fuel Used(gal)	1	16		4	8		2	2	1	1	5	
CO Emissions (g/hr)	54	1122		307	531		123	165	84	48	355	
NOx Emissions (g/hr)	10	218		60	103		24	32	16	9	69	
VOC Emissions (g/hr)	12	260		71	123		29	38	19	11	82	

2021 Build Saturday Midday Peak Hour
15: Route 25 & Spring Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0	0	0	0	
Queue Length 50th (ft)	24	280		142	190		65	100	0	26	184	
Queue Length 95th (ft)	58	#413		#288	278		120	172	64	60	#344	
Internal Link Dist (ft)		583			224			259			194	
Turn Bay Length (ft)	80			235			100		130	90		
Base Capacity (vph)	296	1158		286	1512		283	506	675	296	400	
Starvation Cap Reductn	0	0		0	511		0	0	0	0	90	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.14	0.82		0.82	0.77		0.39	0.38	0.44	0.15	1.02	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 92.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 38.4

Intersection LOS: D

Intersection Capacity Utilization 75.1%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: Route 25 & Spring Street

 ϕ1	 ϕ2	 ϕ3	 ϕ4
20 s	25 s	20 s	35 s
 ϕ5	 ϕ6	 ϕ7	 ϕ8
20 s	25 s	20 s	35 s

2021 Build Weekday Evening Peak Hour with Mitigation
15: Route 25 & Spring Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	644	109	197	1015	87	183	319	258	55	175	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	13	12	11	12
Storage Length (ft)	80		0	235		0	100		130	90		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3471	0	1745	3416	0	1728	1837	1652	1805	1793	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3471	0	1745	3416	0	1728	1837	1652	1805	1793	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			10				218		8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			304			339			274	
Travel Time (s)		15.1			6.9			7.7			6.2	
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.91	0.91	0.91	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	865	0	203	1136	0	201	351	284	59	221	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		9.0	21.0	21.0	9.0	21.0	
Total Split (s)	20.0	35.0		23.0	38.0		21.0	22.0	22.0	20.0	21.0	
Total Split (%)	20.0%	35.0%		23.0%	38.0%		21.0%	22.0%	22.0%	20.0%	21.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	None	None	None	Max	
Act Effct Green (s)	7.6	27.4		15.0	39.7		14.3	24.5	24.5	8.5	16.2	
Actuated g/C Ratio	0.08	0.29		0.16	0.43		0.15	0.26	0.26	0.09	0.17	
v/c Ratio	0.27	0.84		0.72	0.78		0.76	0.73	0.48	0.36	0.69	
Control Delay	46.9	38.9		53.4	28.9		58.0	45.0	12.3	47.7	49.8	
Queue Delay	0.0	0.0		0.2	49.1		0.0	0.0	0.0	0.0	2.0	
Total Delay	46.9	38.9		53.6	78.0		58.0	45.0	12.3	47.7	51.8	
LOS	D	D		D	E		E	D	B	D	D	
Approach Delay		39.3			74.3			37.0			50.9	
Approach LOS		D			E			D			D	
Stops (vph)	32	656		181	882		163	262	65	50	176	
Fuel Used(gal)	1	13		4	14		4	5	2	1	4	
CO Emissions (g/hr)	47	942		252	976		248	364	118	65	246	
NOx Emissions (g/hr)	9	183		49	190		48	71	23	13	48	
VOC Emissions (g/hr)	11	218		58	226		57	84	27	15	57	

2021 Build Weekday Evening Peak Hour with Mitigation
15: Route 25 & Spring Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0	0	0	0	
Queue Length 50th (ft)	24	257		121	329		121	209	33	36	129	
Queue Length 95th (ft)	54	324		199	#451		#225	#396	115	75	#242	
Internal Link Dist (ft)		583			224			259			194	
Turn Bay Length (ft)	80			235			100		130	90		
Base Capacity (vph)	294	1144		341	1462		300	484	596	294	318	
Starvation Cap Reductn	0	0		8	484		0	0	0	0	29	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.13	0.76		0.61	1.16		0.67	0.73	0.48	0.20	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 93

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 53.7

Intersection LOS: D

Intersection Capacity Utilization 72.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: Route 25 & Spring Street

 p1	 p2	 p3	 p4
20 s	22 s	23 s	35 s
 p5	 p6	 p7	 p8
21 s	21 s	20 s	38 s

2021 Build Saturday Midday Peak Hour with Mitigation
15: Route 25 & Spring Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	764	135	214	652	47	100	175	267	41	268	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	13	12	11	12
Storage Length (ft)	80		0	235		0	100		130	90		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3482	0	1745	3392	0	1728	1837	1669	1805	1813	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3482	0	1745	3392	0	1728	1837	1669	1805	1813	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			7				297		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		663			304			339			274	
Travel Time (s)		15.1			6.9			7.7			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	3%	0%	2%	0%	1%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	946	0	235	768	0	111	194	297	44	315	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		9.0	21.0	21.0	9.0	21.0	
Total Split (s)	20.0	34.0		20.0	34.0		18.0	28.0	28.0	18.0	28.0	
Total Split (%)	20.0%	34.0%		20.0%	34.0%		18.0%	28.0%	28.0%	18.0%	28.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	None	None	None	None	
Act Effct Green (s)	7.7	28.4		14.9	40.8		10.7	24.7	24.7	7.9	20.0	
Actuated g/C Ratio	0.08	0.31		0.16	0.45		0.12	0.27	0.27	0.09	0.22	
v/c Ratio	0.27	0.86		0.82	0.50		0.55	0.39	0.44	0.28	0.79	
Control Delay	46.7	40.3		64.2	23.2		51.3	31.3	6.0	46.8	49.8	
Queue Delay	0.0	0.0		0.0	1.1		0.0	0.0	0.0	0.0	9.9	
Total Delay	46.7	40.3		64.2	24.3		51.3	31.3	6.0	46.8	59.8	
LOS	D	D		E	C		D	C	A	D	E	
Approach Delay		40.5			33.7			22.5			58.2	
Approach LOS		D			C			C			E	
Stops (vph)	36	756		178	493		89	136	29	38	255	
Fuel Used(gal)	1	16		4	8		2	2	1	1	5	
CO Emissions (g/hr)	54	1132		300	537		126	163	83	48	350	
NOx Emissions (g/hr)	10	220		58	105		24	32	16	9	68	
VOC Emissions (g/hr)	12	262		69	125		29	38	19	11	81	

2021 Build Saturday Midday Peak Hour with Mitigation
15: Route 25 & Spring Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0	0	0	0	
Queue Length 50th (ft)	25	291		145	199		66	99	0	26	182	
Queue Length 95th (ft)	58	#426		#288	283		123	170	63	60	#307	
Internal Link Dist (ft)		583			224			259			194	
Turn Bay Length (ft)	80			235			100		130	90		
Base Capacity (vph)	304	1149		294	1521		252	549	707	263	472	
Starvation Cap Reductn	0	0		0	481		0	0	0	0	126	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.13	0.82		0.80	0.74		0.44	0.35	0.42	0.17	0.91	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 91.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 36.7

Intersection LOS: D

Intersection Capacity Utilization 75.1%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: Route 25 & Spring Street

 p1	 p2	 p3	 p4
18 s	28 s	20 s	34 s
 p5	 p6	 p7	 p8
18 s	28 s	20 s	34 s

William Clarke Drive at Stroudwater Street

2021 No-Build Weekday Evening Peak Hour

16: Route 25 & Stroudwater Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	725	111	53	860	57	308	104	71	41	74	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	13	14	12	10	10	12
Storage Length (ft)	100		0	110		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3329	0	1805	3426	0	1754	1802	0	1685	1711	0
Flt Permitted	0.950			0.950			0.950	0.987		0.950		
Satd. Flow (perm)	1787	3329	0	1805	3426	0	1754	1802	0	1685	1711	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			7			18			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			297			357			297	
Travel Time (s)		6.9			6.8			8.1			6.8	
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.80	0.80	0.80	0.81	0.81	0.81
Heavy Vehicles (%)	1%	3%	1%	0%	1%	0%	1%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)							21%					
Lane Group Flow (vph)	23	861	0	55	955	0	304	300	0	51	119	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	15.0	40.0		15.0	40.0		25.0	25.0		25.0	25.0	
Total Split (%)	14.3%	38.1%		14.3%	38.1%		23.8%	23.8%		23.8%	23.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.2	29.4		8.3	34.9		19.8	19.8		11.2	11.2	
Actuated g/C Ratio	0.09	0.36		0.10	0.42		0.24	0.24		0.14	0.14	
v/c Ratio	0.15	0.72		0.30	0.66		0.72	0.67		0.22	0.49	
Control Delay	44.1	28.9		45.3	23.9		45.4	40.4		39.2	41.6	
Queue Delay	0.0	0.7		0.0	3.3		0.0	0.0		0.0	0.0	
Total Delay	44.1	29.6		45.3	27.1		45.4	40.4		39.2	41.6	
LOS	D	C		D	C		D	D		D	D	
Approach Delay		30.0			28.1			43.0			40.9	
Approach LOS		C			C			D			D	
Stops (vph)	22	668		48	683		197	184		36	74	
Fuel Used(gal)	0	11		1	10		6	6		1	1	
CO Emissions (g/hr)	26	740		61	724		452	425		43	101	
NOx Emissions (g/hr)	5	144		12	141		88	83		8	20	
VOC Emissions (g/hr)	6	172		14	168		105	99		10	23	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpmWestbrook.syn

2021 No-Build Weekday Evening Peak Hour

16: Route 25 & Stroudwater Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (ft)	12	221		30	192		169	154		26	57	
Queue Length 95th (ft)	39	324		73	362		#294	#253		57	104	
Internal Link Dist (ft)		224			217			277			217	
Turn Bay Length (ft)	100			110			100			100		
Base Capacity (vph)	238	1566		241	1705		468	494		450	466	
Starvation Cap Reductn	0	361		0	628		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.10	0.71		0.23	0.89		0.65	0.61		0.11	0.26	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 82.4

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 32.9

Intersection LOS: C

Intersection Capacity Utilization 64.3%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 25 & Stroudwater Street

 Ø2	 Ø6	 Ø3	 Ø4
25 s	25 s	15 s	40 s
		 Ø7	 Ø8
		15 s	40 s

2021 No-Build Saturday Midday Peak Hour
16: Route 25 & Stroudwater Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	768	134	58	625	35	145	89	67	36	103	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	13	14	12	10	10	12
Storage Length (ft)	100		0	110		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3379	0	1805	3366	0	1772	1804	0	1685	1706	0
Flt Permitted	0.950			0.950			0.950	0.996		0.950		
Satd. Flow (perm)	1805	3379	0	1805	3366	0	1772	1804	0	1685	1706	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			6			27			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			297			357			297	
Travel Time (s)		6.9			6.8			8.1			6.8	
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.76	0.76	0.76	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	1%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							10%					
Lane Group Flow (vph)	30	970	0	64	725	0	172	224	0	41	157	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	15.0	40.0		15.0	40.0		25.0	25.0		25.0	25.0	
Total Split (%)	14.3%	38.1%		14.3%	38.1%		23.8%	23.8%		23.8%	23.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.4	30.2		8.4	33.6		14.9	14.9		13.1	13.1	
Actuated g/C Ratio	0.09	0.36		0.10	0.40		0.18	0.18		0.15	0.15	
v/c Ratio	0.19	0.80		0.36	0.54		0.55	0.66		0.16	0.57	
Control Delay	45.6	31.7		47.6	23.6		42.8	41.6		36.9	42.6	
Queue Delay	0.0	2.9		0.0	0.7		0.0	0.0		0.0	0.0	
Total Delay	45.6	34.6		47.6	24.3		42.8	41.6		36.9	42.6	
LOS	D	C		D	C		D	D		D	D	
Approach Delay		34.9			26.2			42.1			41.4	
Approach LOS		C			C			D			D	
Stops (vph)	27	733		52	472		110	129		31	106	
Fuel Used(gal)	0	12		1	7		3	4		1	2	
CO Emissions (g/hr)	33	840		69	510		240	303		37	147	
NOx Emissions (g/hr)	6	163		13	99		47	59		7	29	
VOC Emissions (g/hr)	8	195		16	118		56	70		9	34	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbsatWestbrook.syn

2021 No-Build Saturday Midday Peak Hour

16: Route 25 & Stroudwater Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (ft)	17	248		35	165		97	114		21	79	
Queue Length 95th (ft)	49	#394		84	276		149	170		53	147	
Internal Link Dist (ft)		224			217			277			217	
Turn Bay Length (ft)	100			110			100			100		
Base Capacity (vph)	231	1527		231	1581		454	482		431	448	
Starvation Cap Reductn	0	430		0	507		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.88		0.28	0.68		0.38	0.46		0.10	0.35	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 84.6

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 33.8

Intersection LOS: C

Intersection Capacity Utilization 61.4%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 25 & Stroudwater Street

 Ø2	 Ø6	 Ø3	 Ø4
25 s	25 s	15 s	40 s
		 Ø7	 Ø8
		15 s	40 s

2021 Build Weekday Evening Peak Hour
16: Route 25 & Stroudwater Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	794	111	53	936	57	308	104	71	41	74	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	13	14	12	10	10	12
Storage Length (ft)	100		0	110		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3335	0	1805	3426	0	1754	1802	0	1685	1711	0
Flt Permitted	0.950			0.950			0.950	0.987		0.950		
Satd. Flow (perm)	1787	3335	0	1805	3426	0	1754	1802	0	1685	1711	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			6			18			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			297			357			297	
Travel Time (s)		6.9			6.8			8.1			6.8	
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.80	0.80	0.80	0.81	0.81	0.81
Heavy Vehicles (%)	1%	3%	1%	0%	1%	0%	1%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)							21%					
Lane Group Flow (vph)	23	933	0	55	1034	0	304	300	0	51	119	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	15.0	40.0		15.0	40.0		25.0	25.0		25.0	25.0	
Total Split (%)	14.3%	38.1%		14.3%	38.1%		23.8%	23.8%		23.8%	23.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	6.9	31.1		8.0	36.7		19.2	19.2		11.0	11.0	
Actuated g/C Ratio	0.08	0.36		0.09	0.42		0.22	0.22		0.13	0.13	
v/c Ratio	0.16	0.78		0.33	0.72		0.79	0.73		0.24	0.52	
Control Delay	45.0	31.1		46.9	25.8		51.1	44.3		40.1	43.0	
Queue Delay	0.0	5.9		0.0	50.0		0.0	0.0		0.0	0.0	
Total Delay	45.0	37.1		46.9	75.8		51.1	44.3		40.1	43.0	
LOS	D	D		D	E		D	D		D	D	
Approach Delay		37.3			74.4			47.7			42.2	
Approach LOS		D			E			D			D	
Stops (vph)	22	754		48	764		203	191		36	75	
Fuel Used (gal)	0	12		1	12		7	6		1	1	
CO Emissions (g/hr)	26	842		62	821		474	441		44	103	
NOx Emissions (g/hr)	5	164		12	160		92	86		9	20	
VOC Emissions (g/hr)	6	195		14	190		110	102		10	24	

2021 Build Weekday Evening Peak Hour
16: Route 25 & Stroudwater Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (ft)	13	247		31	216		180	165		28	60	
Queue Length 95th (ft)	39	361		73	403		#294	#253		57	104	
Internal Link Dist (ft)		224			217			277			217	
Turn Bay Length (ft)	100			110			100			100		
Base Capacity (vph)	213	1402		215	1588		418	443		402	418	
Starvation Cap Reductn	0	408		0	653		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.94		0.26	1.11		0.73	0.68		0.13	0.28	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 87.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 54.1

Intersection LOS: D

Intersection Capacity Utilization 66.4%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 25 & Stroudwater Street

 Ø2	 Ø6	 Ø3	 Ø4
25 s	25 s	15 s	40 s
		 Ø7	 Ø8
		15 s	40 s

2021 Build Saturday Midday Peak Hour
16: Route 25 & Stroudwater Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	886	134	58	731	35	145	89	67	36	103	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	13	14	12	10	10	12
Storage Length (ft)	100		0	110		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3386	0	1805	3369	0	1772	1804	0	1685	1706	0
Flt Permitted	0.950			0.950			0.950	0.996		0.950		
Satd. Flow (perm)	1805	3386	0	1805	3369	0	1772	1804	0	1685	1706	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			5			27			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			297			357			297	
Travel Time (s)		6.9			6.8			8.1			6.8	
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.76	0.76	0.76	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	1%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							10%					
Lane Group Flow (vph)	30	1097	0	64	841	0	172	224	0	41	157	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	15.0	40.0		15.0	40.0		25.0	25.0		25.0	25.0	
Total Split (%)	14.3%	38.1%		14.3%	38.1%		23.8%	23.8%		23.8%	23.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.3	33.6		8.3	36.9		15.0	15.0		13.1	13.1	
Actuated g/C Ratio	0.08	0.38		0.09	0.42		0.17	0.17		0.15	0.15	
v/c Ratio	0.20	0.84		0.37	0.59		0.57	0.68		0.16	0.59	
Control Delay	46.1	33.9		48.7	24.4		44.1	43.3		37.3	44.0	
Queue Delay	0.0	40.0		0.0	1.6		0.0	0.0		0.0	0.0	
Total Delay	46.1	73.9		48.7	26.0		44.1	43.3		37.3	44.0	
LOS	D	E		D	C		D	D		D	D	
Approach Delay		73.1			27.6			43.6			42.6	
Approach LOS		E			C			D			D	
Stops (vph)	27	817		53	564		113	131		31	108	
Fuel Used(gal)	0	14		1	9		3	4		1	2	
CO Emissions (g/hr)	33	977		70	607		244	308		37	150	
NOx Emissions (g/hr)	7	190		14	118		47	60		7	29	
VOC Emissions (g/hr)	8	226		16	141		56	71		9	35	

2021 Build Saturday Midday Peak Hour
16: Route 25 & Stroudwater Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (ft)	17	298		36	201		98	114		21	79	
Queue Length 95th (ft)	49	#514		84	331		149	170		53	147	
Internal Link Dist (ft)		224			217			277			217	
Turn Bay Length (ft)	100			110			100			100		
Base Capacity (vph)	216	1433		216	1546		425	454		404	420	
Starvation Cap Reductn	0	415		0	494		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.14	1.08		0.30	0.80		0.40	0.49		0.10	0.37	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 87.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 50.7

Intersection LOS: D

Intersection Capacity Utilization 64.7%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 25 & Stroudwater Street

 Ø2	 Ø6	 Ø3	 Ø4
25 s	25 s	15 s	40 s
		 Ø7	 Ø8
		15 s	40 s

2021 Build Weekday Evening Peak Hour with Mitigation
16: Route 25 & Stroudwater Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	794	111	53	936	57	308	104	71	41	74	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	13	14	12	10	10	12
Storage Length (ft)	100		0	110		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3335	0	1805	3426	0	1754	1802	0	1685	1711	0
Flt Permitted	0.950			0.950			0.950	0.987		0.950		
Satd. Flow (perm)	1787	3335	0	1805	3426	0	1754	1802	0	1685	1711	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			7			17			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			297			357			297	
Travel Time (s)		6.9			6.8			8.1			6.8	
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.80	0.80	0.80	0.81	0.81	0.81
Heavy Vehicles (%)	1%	3%	1%	0%	1%	0%	1%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)							21%					
Lane Group Flow (vph)	23	933	0	55	1034	0	304	300	0	51	119	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	14.0	45.0		14.0	45.0		23.0	23.0		23.0	23.0	
Total Split (%)	13.3%	42.9%		13.3%	42.9%		21.9%	21.9%		21.9%	21.9%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.1	32.1		7.9	37.4		19.4	19.4		11.2	11.2	
Actuated g/C Ratio	0.08	0.38		0.09	0.44		0.23	0.23		0.13	0.13	
v/c Ratio	0.15	0.73		0.33	0.68		0.76	0.71		0.23	0.50	
Control Delay	45.0	27.6		47.4	23.2		50.3	44.5		39.9	42.7	
Queue Delay	0.0	0.8		0.0	4.8		0.0	0.0		0.0	0.0	
Total Delay	45.0	28.4		47.4	28.0		50.3	44.5		39.9	42.7	
LOS	D	C		D	C		D	D		D	D	
Approach Delay		28.8			29.0			47.4			41.9	
Approach LOS		C			C			D			D	
Stops (vph)	22	717		48	739		187	182		36	73	
Fuel Used(gal)	0	11		1	11		7	6		1	1	
CO Emissions (g/hr)	26	783		63	775		465	438		44	102	
NOx Emissions (g/hr)	5	152		12	151		90	85		9	20	
VOC Emissions (g/hr)	6	181		15	180		108	102		10	24	

2021 Build Weekday Evening Peak Hour with Mitigation
16: Route 25 & Stroudwater Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (ft)	13	237		30	204		176	162		27	57	
Queue Length 95th (ft)	40	342		75	390		#328	#296		58	106	
Internal Link Dist (ft)		224			217			277			217	
Turn Bay Length (ft)	100			110			100			100		
Base Capacity (vph)	204	1705		206	1792		401	425		385	401	
Starvation Cap Reductn	0	430		0	675		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.73		0.27	0.93		0.76	0.71		0.13	0.30	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 84.5

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 33.7

Intersection LOS: C

Intersection Capacity Utilization 66.4%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 25 & Stroudwater Street

 Ø2	 Ø6	 Ø3	 Ø4
23 s	23 s	14 s	45 s
		 Ø7	 Ø8
		14 s	45 s

2021 Build Saturday Midday Peak Hour with Mitigation
16: Route 25 & Stroudwater Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	886	134	58	731	35	145	89	67	36	103	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	13	14	12	10	10	12
Storage Length (ft)	100		0	110		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3386	0	1805	3369	0	1772	1804	0	1685	1706	0
Flt Permitted	0.950			0.950			0.950	0.996		0.950		
Satd. Flow (perm)	1805	3386	0	1805	3369	0	1772	1804	0	1685	1706	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			5			27			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			297			357			297	
Travel Time (s)		6.9			6.8			8.1			6.8	
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.76	0.76	0.76	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	1%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							10%					
Lane Group Flow (vph)	30	1097	0	64	841	0	172	224	0	41	157	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases												
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	13.0	46.0		13.0	46.0		23.0	23.0		23.0	23.0	
Total Split (%)	12.4%	43.8%		12.4%	43.8%		21.9%	21.9%		21.9%	21.9%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.2	34.9		7.6	37.7		14.6	14.6		13.0	13.0	
Actuated g/C Ratio	0.08	0.40		0.09	0.43		0.17	0.17		0.15	0.15	
v/c Ratio	0.20	0.81		0.41	0.58		0.59	0.70		0.17	0.60	
Control Delay	47.8	30.2		52.8	22.8		46.6	46.0		38.8	45.5	
Queue Delay	0.0	4.2		0.0	1.1		0.0	0.0		0.0	0.0	
Total Delay	47.8	34.3		52.8	23.8		46.6	46.0		38.8	45.5	
LOS	D	C		D	C		D	D		D	D	
Approach Delay		34.7			25.9			46.3			44.1	
Approach LOS		C			C			D			D	
Stops (vph)	27	836		53	544		113	131		31	108	
Fuel Used(gal)	0	13		1	8		4	5		1	2	
CO Emissions (g/hr)	34	930		73	582		248	315		38	153	
NOx Emissions (g/hr)	7	181		14	113		48	61		7	30	
VOC Emissions (g/hr)	8	215		17	135		58	73		9	36	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\m21bsatWestbrook.syn

2021 Build Saturday Midday Peak Hour with Mitigation
16: Route 25 & Stroudwater Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Dilemma Vehicles (#)	0	0		0	0		0	0		0	0	
Queue Length 50th (ft)	18	301		39	207		106	123		23	85	
Queue Length 95th (ft)	50	426		86	303		153	175		54	151	
Internal Link Dist (ft)		224			217			277			217	
Turn Bay Length (ft)	100			110			100			100		
Base Capacity (vph)	176	1708		176	1721		390	418		371	386	
Starvation Cap Reductn	0	518		0	589		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.92		0.36	0.74		0.44	0.54		0.11	0.41	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 88

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 34.1

Intersection LOS: C

Intersection Capacity Utilization 64.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 16: Route 25 & Stroudwater Street

 Ø2	 Ø6	 Ø3	 Ø4
23 s	23 s	13 s	46 s
		 Ø7	 Ø8
		13 s	46 s

William Clarke Drive at Westbrook Arterial

2021 No-Build Weekday Evening Peak Hour

17: Route 25 & Westbrook Arterial

1/25/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	257	508	729	103	133	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	14	14
Storage Length (ft)	130			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	3628	0	1925	1706
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3628	0	1925	1706
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			18			216
Link Speed (mph)		30	30		30	
Link Distance (ft)		297	1038		294	
Travel Time (s)		6.8	23.6		6.7	
Peak Hour Factor	0.85	0.85	0.90	0.90	0.86	0.86
Heavy Vehicles (%)	2%	2%	1%	0%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	302	598	924	0	155	216
Turn Type	Prot	NA	NA		NA	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Detector Phase	7	4	8		6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	21.0
Total Split (s)	30.0	60.0	30.0		25.0	25.0
Total Split (%)	35.3%	70.6%	35.3%		29.4%	29.4%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	None	None		Max	Max
Act Effct Green (s)	18.0	46.7	23.6		20.2	20.2
Actuated g/C Ratio	0.23	0.61	0.31		0.26	0.26
v/c Ratio	0.73	0.28	0.82		0.31	0.36
Control Delay	38.3	7.3	32.2		26.8	5.9
Queue Delay	0.5	0.3	0.0		0.0	0.1
Total Delay	38.8	7.6	32.2		26.8	6.1
LOS	D	A	C		C	A
Approach Delay		18.1	32.2		14.7	
Approach LOS		B	C		B	
Stops (vph)	225	212	701		104	25
Fuel Used(gal)	4	3	16		2	1
CO Emissions (g/hr)	269	217	1123		112	55
NOx Emissions (g/hr)	52	42	218		22	11
VOC Emissions (g/hr)	62	50	260		26	13

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpmWestbrook.syn

2021 No-Build Weekday Evening Peak Hour
17: Route 25 & Westbrook Arterial

1/25/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Dilemma Vehicles (#)	0	0	0		0	0
Queue Length 50th (ft)	137	63	210		61	0
Queue Length 95th (ft)	203	81	#342		117	46
Internal Link Dist (ft)		217	958		214	
Turn Bay Length (ft)	130					
Base Capacity (vph)	579	2550	1200		504	606
Starvation Cap Reductn	70	1216	0		0	56
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.59	0.45	0.77		0.31	0.39

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 76.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 23.4

Intersection LOS: C

Intersection Capacity Utilization 57.5%

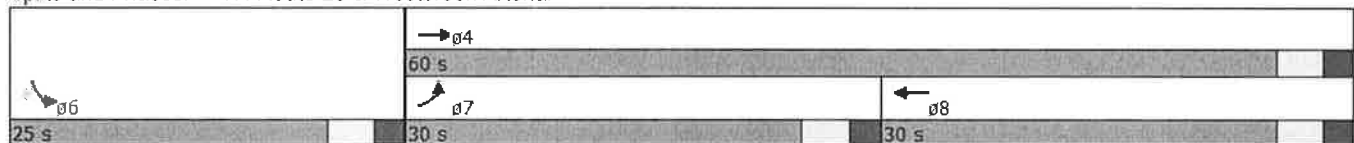
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: Route 25 & Westbrook Arterial



2021 No-Build Saturday Midday Peak Hour
17: Route 25 & Westbrook Arterial

1/27/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	238	586	522	65	83	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	14	14
Storage Length (ft)	130			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1787	3539	3572	0	1925	1689
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1787	3539	3572	0	1925	1689
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			16			191
Link Speed (mph)		30	30		30	
Link Distance (ft)		297	1038		294	
Travel Time (s)		6.8	23.6		6.7	
Peak Hour Factor	0.95	0.95	0.90	0.90	0.93	0.93
Heavy Vehicles (%)	1%	2%	3%	0%	0%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	251	617	652	0	89	191
Turn Type	Prot	NA	NA		NA	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Detector Phase	7	4	8		6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	21.0
Total Split (s)	30.0	60.0	30.0		25.0	25.0
Total Split (%)	35.3%	70.6%	35.3%		29.4%	29.4%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	None	None		Max	Max
Act Effect Green (s)	15.0	38.5	18.3		20.4	20.4
Actuated g/C Ratio	0.22	0.56	0.27		0.30	0.30
v/c Ratio	0.65	0.31	0.68		0.16	0.30
Control Delay	33.4	8.2	26.3		22.3	5.6
Queue Delay	0.1	0.1	0.0		0.0	0.1
Total Delay	33.5	8.3	26.3		22.3	5.7
LOS	C	A	C		C	A
Approach Delay		15.6	26.3		11.0	
Approach LOS		B	C		B	
Stops (vph)	202	271	478		60	24
Fuel Used(gal)	3	4	11		1	1
CO Emissions (g/hr)	230	268	737		63	52
NOx Emissions (g/hr)	45	52	143		12	10
VOC Emissions (g/hr)	53	62	171		15	12

2021 No-Build Saturday Midday Peak Hour
17: Route 25 & Westbrook Arterial

1/27/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Dilemma Vehicles (#)	0	0	0		0	0
Queue Length 50th (ft)	97	65	124		28	0
Queue Length 95th (ft)	182	90	201		75	49
Internal Link Dist (ft)		217	958		214	
Turn Bay Length (ft)	130					
Base Capacity (vph)	659	2871	1327		567	633
Starvation Cap Reductn	36	1038	0		0	58
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.40	0.34	0.49		0.16	0.33

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 69

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 18.8

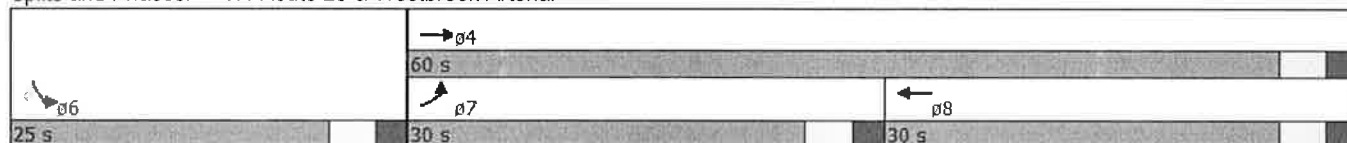
Intersection LOS: B

Intersection Capacity Utilization 46.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Route 25 & Westbrook Arterial



2021 Build Weekday Evening Peak Hour
17: Route 25 & Westbrook Arterial

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	257	577	805	123	150	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	14	14
Storage Length (ft)	130			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	3624	0	1925	1706
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3624	0	1925	1706
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			20			216
Link Speed (mph)		30	30		30	
Link Distance (ft)		297	1038		294	
Travel Time (s)		6.8	23.6		6.7	
Peak Hour Factor	0.85	0.85	0.90	0.90	0.86	0.86
Heavy Vehicles (%)	2%	2%	1%	0%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	302	679	1031	0	174	216
Turn Type	Prot	NA	NA		NA	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Detector Phase	7	4	8		6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	21.0
Total Split (s)	30.0	60.0	30.0		25.0	25.0
Total Split (%)	35.3%	70.6%	35.3%		29.4%	29.4%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	None	None		Max	Max
Act Effct Green (s)	18.1	48.0	24.8		20.1	20.1
Actuated g/C Ratio	0.23	0.61	0.32		0.26	0.26
v/c Ratio	0.74	0.31	0.89		0.35	0.36
Control Delay	39.0	7.5	36.6		27.5	6.0
Queue Delay	0.6	0.3	0.0		0.0	0.1
Total Delay	39.6	7.8	36.6		27.5	6.1
LOS	D	A	D		C	A
Approach Delay		17.6	36.6		15.7	
Approach LOS		B	D		B	
Stops (vph)	226	245	778		119	25
Fuel Used(gal)	4	4	19		2	1
CO Emissions (g/hr)	271	250	1309		129	55
NOx Emissions (g/hr)	53	49	255		25	11
VOC Emissions (g/hr)	63	58	303		30	13

2021 Build Weekday Evening Peak Hour
17: Route 25 & Westbrook Arterial

1/26/2016

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Dilemma Vehicles (#)	0	0	0		0	0
Queue Length 50th (ft)	137	73	243		69	0
Queue Length 95th (ft)	203	92	#411		129	46
Internal Link Dist (ft)		217	958		214	
Turn Bay Length (ft)	130					
Base Capacity (vph)	569	2504	1179		495	599
Starvation Cap Reductn	70	1180	0		0	56
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.61	0.51	0.87		0.35	0.40

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 78.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 25.5

Intersection LOS: C

Intersection Capacity Utilization 61.2%

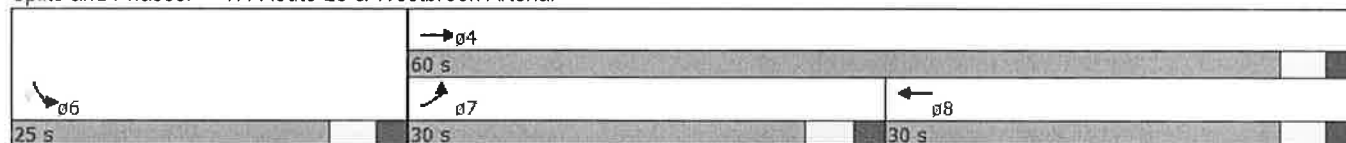
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: Route 25 & Westbrook Arterial



2021 Build Saturday Midday Peak Hour
17: Route 25 & Westbrook Arterial

1/27/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	238	704	628	91	112	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	14	14
Storage Length (ft)	130			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1787	3539	3566	0	1925	1689
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1787	3539	3566	0	1925	1689
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			19			191
Link Speed (mph)		30	30		30	
Link Distance (ft)		297	1038		294	
Travel Time (s)		6.8	23.6		6.7	
Peak Hour Factor	0.95	0.95	0.90	0.90	0.93	0.93
Heavy Vehicles (%)	1%	2%	3%	0%	0%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	251	741	799	0	120	191
Turn Type	Prot	NA	NA		NA	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Detector Phase	7	4	8		6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	21.0
Total Split (s)	30.0	60.0	30.0		25.0	25.0
Total Split (%)	35.3%	70.6%	35.3%		29.4%	29.4%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	None	None		Max	Max
Act Effct Green (s)	15.4	41.9	21.4		20.3	20.3
Actuated g/C Ratio	0.21	0.58	0.30		0.28	0.28
v/c Ratio	0.66	0.36	0.75		0.22	0.31
Control Delay	35.3	8.3	27.8		24.1	5.7
Queue Delay	0.1	0.2	0.0		0.0	0.1
Total Delay	35.4	8.5	27.8		24.1	5.8
LOS	D	A	C		C	A
Approach Delay		15.3	27.8		12.9	
Approach LOS		B	C		B	
Stops (vph)	205	326	598		84	24
Fuel Used(gal)	3	5	13		1	1
CO Emissions (g/hr)	237	323	923		89	52
NOx Emissions (g/hr)	46	63	179		17	10
VOC Emissions (g/hr)	55	75	214		21	12

2021 Build Saturday Midday Peak Hour
17: Route 25 & Westbrook Arterial

1/27/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Dilemma Vehicles (#)	0	0	0		0	0
Queue Length 50th (ft)	106	82	163		43	0
Queue Length 95th (ft)	182	111	254		95	49
Internal Link Dist (ft)		217	958		214	
Turn Bay Length (ft)	130					
Base Capacity (vph)	625	2727	1261		539	610
Starvation Cap Reductn	36	1074	0		0	55
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.43	0.45	0.63		0.22	0.34

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 72.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 19.7

Intersection LOS: B

Intersection Capacity Utilization 52.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Route 25 & Westbrook Arterial

			
25 s	60 s	30 s	30 s

Stroudwater Street at Forest Street

2021 No-Build Weekday Evening Peak Hour
20: Stroudwater Street & Forest Street

1/25/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	195	209	510	276	84	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1854	1799	0	1703	0
Flt Permitted		0.976			0.983	
Satd. Flow (perm)	0	1854	1799	0	1703	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1294	668		273	
Travel Time (s)		29.4	15.2		6.2	
Peak Hour Factor	0.93	0.93	0.81	0.81	0.94	0.94
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	435	971	0	258	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 89.9%

ICU Level of Service E

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak Hour
20: Stroudwater Street & Forest Street

1/25/2016

Intersection						
Intersection Delay, s/veh	37.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	195	209	510	276	84	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	81	81	94	94
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	210	225	630	341	89	169
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	970	0	-	0	1444	800
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	644	-
Follow-up Headway	2.2	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	719	-	-	-	147	388
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	527	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	719	-	-	-	98	388
Mov Capacity-2 Maneuver	-	-	-	-	98	-
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	351	-
Approach	EB		WB		SB	
HCM Control Delay, s	5.8		0		233.7	
HCM LOS					F	
Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	719	-	-	-	192	
HCM Lane V/C Ratio	0.292	-	-	-	1.346	
HCM Control Delay (s)	12.055	0	-	-	233.7	
HCM Lane LOS	B	A			F	
HCM 95th %tile Q(veh)	1.212	-	-	-	14.844	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

2021 No-Build Saturday Midday Peak Hour
20: Stroudwater Street & Forest Street

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	106	177	187	121	111	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1792	1788	0	1738	0
Flt Permitted		0.982			0.973	
Satd. Flow (perm)	0	1792	1788	0	1738	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1294	668		273	
Travel Time (s)		29.4	15.2		6.2	
Peak Hour Factor	0.82	0.82	0.70	0.70	0.80	0.80
Heavy Vehicles (%)	1%	6%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	345	440	0	249	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 53.9%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak Hour
20: Stroudwater Street & Forest Street

1/26/2016

Intersection

Intersection Delay, s/veh 7.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	106	177	187	121	111	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	70	70	80	80
Heavy Vehicles, %	1	6	1	0	0	0
Mvmt Flow	129	216	267	173	139	110

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	440	0	828
Stage 1	-	-	354
Stage 2	-	-	474
Follow-up Headway	2.209	-	3.5
Pot Capacity-1 Maneuver	1125	-	344
Stage 1	-	-	715
Stage 2	-	-	630
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	1125	-	299
Mov Capacity-2 Maneuver	-	-	299
Stage 1	-	-	715
Stage 2	-	-	548

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	27.7
HCM LOS			D

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1125	-	-	-	400
HCM Lane V/C Ratio	0.115	-	-	-	0.622
HCM Control Delay (s)	8.615	0	-	-	27.7
HCM Lane LOS	A	A			D
HCM 95th %tile Q(veh)	0.388	-	-	-	4.061

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Weekday Evening Peak Hour
20: Stroudwater Street & Forest Street

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	195	209	510	290	103	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1854	1795	0	1711	0
Flt Permitted		0.976			0.981	
Satd. Flow (perm)	0	1854	1795	0	1711	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1294	668		273	
Travel Time (s)		29.4	15.2		6.2	
Peak Hour Factor	0.93	0.93	0.81	0.81	0.94	0.94
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	435	988	0	279	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 91.8%

ICU Level of Service F

Analysis Period (min) 15

2021 Build Weekday Evening Peak Hour
20: Stroudwater Street & Forest Street

1/26/2016

Intersection						
Intersection Delay, s/veh	56.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	195	209	510	290	103	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	81	81	94	94
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	210	225	630	358	110	169
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	988	0	-	0	1453	809
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	644	-
Follow-up Headway	2.2	-	-	-	3.5	3.3
Pot Capacity-1 Maneuver	708	-	-	-	145	384
Stage 1	-	-	-	-	441	-
Stage 2	-	-	-	-	527	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	708	-	-	-	# 96	384
Mov Capacity-2 Maneuver	-	-	-	-	# 96	-
Stage 1	-	-	-	-	441	-
Stage 2	-	-	-	-	348	-
Approach	EB		WB		SB	
HCM Control Delay, s	5.9		0		\$ 335.2	
HCM LOS					F	
Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	708	-	-	-	176	
HCM Lane V/C Ratio	0.296	-	-	-	1.584	
HCM Control Delay (s)	12.21	0	-	-	\$ 335.2	
HCM Lane LOS	B	A			F	
HCM 95th %tile Q(veh)	1.238	-	-	-	18.493	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

2021 Build Saturday Midday Peak Hour
 20: Stroudwater Street & Forest Street

1/27/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	106	177	187	150	137	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1792	1776	0	1745	0
Flt Permitted		0.982			0.970	
Satd. Flow (perm)	0	1792	1776	0	1745	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1294	668		273	
Travel Time (s)		29.4	15.2		6.2	
Peak Hour Factor	0.82	0.82	0.70	0.70	0.80	0.80
Heavy Vehicles (%)	1%	6%	1%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	345	481	0	281	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 57.2%

ICU Level of Service B

Analysis Period (min) 15

2021 Build Saturday Midday Peak Hour
20: Stroudwater Street & Forest Street

1/27/2016

Intersection

Intersection Delay, s/veh 11

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	106	177	187	150	137	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	70	70	80	80
Heavy Vehicles, %	1	6	1	0	0	0
Mvmt Flow	129	216	267	214	171	110

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	481	0	848
Stage 1	-	-	374
Stage 2	-	-	474
Follow-up Headway	2.209	-	3.5
Pot Capacity-1 Maneuver	1087	-	334
Stage 1	-	-	700
Stage 2	-	-	630
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	1087	-	289
Mov Capacity-2 Maneuver	-	-	289
Stage 1	-	-	700
Stage 2	-	-	545

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	39.2
HCM LOS			E

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1087	-	-	-	372
HCM Lane V/C Ratio	0.119	-	-	-	0.756
HCM Control Delay (s)	8.758	0	-	-	39.2
HCM Lane LOS	A	A			E
HCM 95th %tile Q(veh)	0.404	-	-	-	6.06

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Forest Street at Westbrook Arterial Eastbound On-Ramp

2021 No-Build Weekday Evening Peak Hour

2) 19: Forest Street & Route 25 On-Ramp

1/25/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	334	137	32	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1900	1826	0	0	1889
Flt Permitted						0.994
Satd. Flow (perm)	0	1900	1826	0	0	1889
Link Speed (mph)	30		30			30
Link Distance (ft)	185		273			129
Travel Time (s)	4.2		6.2			2.9
Peak Hour Factor	0.92	0.92	0.89	0.89	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	529	0	0	312
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 43.0%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak Hour
19: Forest Street & Route 25 On-Ramp

1/25/2016

Intersection

Intersection Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	0	334	137	32	243
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	89	89	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	375	154	36	276

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	801	452	0	0	529	0
Stage 1	452	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	356	612	-	-	1048	-
Stage 1	645	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	341	612	-	-	1048	-
Mov Capacity-2 Maneuver	341	-	-	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	690	-	-	-	-	-

Approach	WB		NB		SB
HCM Control Delay, s	0		0		1
HCM LOS	A				

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	0	1048	-
HCM Lane V/C Ratio	-	-	+	0.035	-
HCM Control Delay (s)	-	-	0	8.559	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	+	0.108	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 No-Build Saturday Midday Peak Hour
19: Forest Street & Route 25 On-Ramp

1/26/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	137	90	29	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1900	1769	0	0	1872
Flt Permitted						0.994
Satd. Flow (perm)	0	1900	1769	0	0	1872
Link Speed (mph)	30		30			30
Link Distance (ft)	185		273			129
Travel Time (s)	4.2		6.2			2.9
Peak Hour Factor	0.92	0.92	0.86	0.86	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	4%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	264	0	0	278
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 31.4%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak Hour
19: Forest Street & Route 25 On-Ramp

1/26/2016

Intersection

Intersection Delay, s/veh 0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	0	137	90	29	199
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	86	86	82	82
Heavy Vehicles, %	0	0	0	4	0	1
Mvmt Flow	0	0	159	105	35	243

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	525	212	0
Stage 1	212	-	-
Stage 2	313	-	-
Follow-up Headway	3.5	3.3	2.2
Pot Capacity-1 Maneuver	516	833	1312
Stage 1	828	-	-
Stage 2	746	-	-
Time blocked-Platoon, %		-	-
Mov Capacity-1 Maneuver	500	833	1312
Mov Capacity-2 Maneuver	500	-	-
Stage 1	828	-	-
Stage 2	723	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1
HCM LOS	A		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	0	1312	-
HCM Lane V/C Ratio	-	-	+	0.027	-
HCM Control Delay (s)	-	-	0	7.82	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	+	0.083	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Weekday Evening Peak Hour
19: Forest Street & Route 25 On-Ramp

1/26/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	334	154	32	262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1900	1818	0	0	1890
Flt Permitted						0.995
Satd. Flow (perm)	0	1900	1818	0	0	1890
Link Speed (mph)	30		30			30
Link Distance (ft)	185		273			129
Travel Time (s)	4.2		6.2			2.9
Peak Hour Factor	0.92	0.92	0.89	0.89	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	548	0	0	334
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 43.9% ICU Level of Service A

Analysis Period (min) 15

2021 Build Weekday Evening Peak Hour
19: Forest Street & Route 25 On-Ramp

1/26/2016

Intersection

Intersection Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	0	334	154	32	262
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	89	89	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	375	173	36	298

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	832	462	0
Stage 1	462	-	-
Stage 2	370	-	-
Follow-up Headway	3.5	3.3	2.2
Pot Capacity-1 Maneuver	342	604	1032
Stage 1	638	-	-
Stage 2	703	-	-
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	328	604	1032
Mov Capacity-2 Maneuver	328	-	-
Stage 1	638	-	-
Stage 2	673	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0.9
HCM LOS	A		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	0	1032	-
HCM Lane V/C Ratio	-	-	+	0.035	-
HCM Control Delay (s)	-	-	0	8.616	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	+	0.109	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Saturday Midday Peak Hour
19: Forest Street & Route 25 On-Ramp

1/27/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	137	119	29	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1900	1748	0	0	1872
Flt Permitted						0.994
Satd. Flow (perm)	0	1900	1748	0	0	1872
Link Speed (mph)	30		30			30
Link Distance (ft)	185		273			129
Travel Time (s)	4.2		6.2			2.9
Peak Hour Factor	0.92	0.92	0.86	0.86	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	4%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	297	0	0	278
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 33.2%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Saturday Midday Peak Hour
19: Forest Street & Route 25 On-Ramp

1/27/2016

Intersection

Intersection Delay, s/veh 0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	0	137	119	29	199
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	86	86	82	82
Heavy Vehicles, %	0	0	0	4	0	1
Mvmt Flow	0	0	159	138	35	243

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	541	228	0
Stage 1	228	-	-
Stage 2	313	-	-
Follow-up Headway	3.5	3.3	2.2
Pot Capacity-1 Maneuver	506	816	1275
Stage 1	815	-	-
Stage 2	746	-	-
Time blocked-Platoon, %		-	-
Mov Capacity-1 Maneuver	490	816	1275
Mov Capacity-2 Maneuver	490	-	-
Stage 1	815	-	-
Stage 2	722	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1
HCM LOS	A		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	0	1275	-
HCM Lane V/C Ratio	-	-	+	0.028	-
HCM Control Delay (s)	-	-	0	7.904	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	+	0.086	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Forest Street at Westbrook Arterial Westbound Off-Ramp and Libby Avenue

2021 No-Build Weekday Evening Peak Hour

18: Forest Street & Libby Avenue/Route 25 Off-Ramp

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕			↕	
Volume (vph)	2	0	17	116	18	196	18	316	0	0	142	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	12	16	12	13	12	12	13	12
Satd. Flow (prot)	0	1660	0	0	1820	1830	0	1957	0	0	1957	0
Flt Permitted		0.995			0.958			0.997				
Satd. Flow (perm)	0	1660	0	0	1820	1830	0	1957	0	0	1957	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		160			245			143			717	
Travel Time (s)		3.6			5.6			3.3			16.3	
Peak Hour Factor	0.61	0.61	0.61	0.85	0.85	0.85	0.87	0.87	0.87	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	157	231	0	384	0	0	171	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 49.3%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak Hour
18: Forest Street & Libby Avenue/Route 25 Off-Ramp

1/25/2016

Intersection												
Intersection Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	0	17	116	18	196	18	316	0	0	142	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	85	85	85	87	87	87	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	28	136	21	231	21	363	0	0	167	4
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	584	574	169	588	576	363	171	0	0	363	0	0
Stage 1	169	169	-	405	405	-	-	-	-	-	-	-
Stage 2	415	405	-	183	171	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	426	432	880	423	431	686	1418	-	-	1207	-	-
Stage 1	838	763	-	626	602	-	-	-	-	-	-	-
Stage 2	619	602	-	823	761	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	268	424	880	404	423	686	1418	-	-	1207	-	-
Mov Capacity-2 Maneuver	268	424	-	404	423	-	-	-	-	-	-	-
Stage 1	822	763	-	614	591	-	-	-	-	-	-	-
Stage 2	389	591	-	797	761	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	10.3		16.8			0.4			0			
HCM LOS	B		C									
Minor Lane / Major Mvmt	NBL		NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1418		-	-	709	469	686	1207	-	-		
HCM Lane V/C Ratio	0.015		-	-	0.044	0.5	0.224	-	-	-		
HCM Control Delay (s)	7.576		0	-	10.3	20.1	11.8	0	-	-		
HCM Lane LOS	A		A		B	C	B	A				
HCM 95th %tile Q(veh)	0.044		-	-	0.138	2.743	0.855	0	-	-		
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

2021 No-Build Saturday Midday Peak Hour
 18: Forest Street & Libby Avenue/Route 25 Off-Ramp

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	0	15	84	8	30	13	124	0	0	129	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	12	16	12	13	12	12	13	12
Satd. Flow (prot)	0	1672	0	0	1818	1830	0	1954	0	0	1955	0
Flt Permitted		0.992			0.957			0.995				
Satd. Flow (perm)	0	1672	0	0	1818	1830	0	1954	0	0	1955	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		160			245			143			717	
Travel Time (s)		3.6			5.6			3.3			16.3	
Peak Hour Factor	0.61	0.61	0.61	0.93	0.93	0.93	0.84	0.84	0.84	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	99	32	0	163	0	0	157	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 35.8%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak Hour
18: Forest Street & Libby Avenue/Route 25 Off-Ramp

1/26/2016

Intersection												
Intersection Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	0	15	84	8	30	13	124	0	0	129	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	93	93	93	84	84	84	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	0	25	90	9	32	15	148	0	0	152	5
Major/Minor	Minor2		Minor1		Major1				Major2			
Conflicting Flow All	337	333	154	345	335	148	156	0	0	148	0	0
Stage 1	154	154	-	179	179	-	-	-	-	-	-	-
Stage 2	183	179	-	166	156	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	621	590	897	613	589	904	1436	-	-	1446	-	-
Stage 1	853	774	-	827	755	-	-	-	-	-	-	-
Stage 2	823	755	-	841	772	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	587	584	897	591	583	904	1436	-	-	1446	-	-
Mov Capacity-2 Maneuver	587	584	-	591	583	-	-	-	-	-	-	-
Stage 1	844	774	-	818	747	-	-	-	-	-	-	-
Stage 2	776	747	-	818	772	-	-	-	-	-	-	-
Approach	EB		WB		NB				SB			
HCM Control Delay, s	9.5		11.7		0.7				0			
HCM LOS	A		B									
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1436	-	-	824	611	904	1446	-	-			
HCM Lane V/C Ratio	0.011	-	-	0.036	0.18	0.024	-	-	-			
HCM Control Delay (s)	7.534	0	-	9.5	12.2	9.1	0	-	-			
HCM Lane LOS	A	A		A	B	A	A					
HCM 95th %tile Q(veh)	0.033	-	-	0.111	0.65	0.073	0	-	-			
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

2021 Build Weekday Evening Peak Hour
18: Forest Street & Libby Avenue/Route 25 Off-Ramp

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	0	17	135	18	196	18	316	0	0	142	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	12	16	12	13	12	12	13	12
Satd. Flow (prot)	0	1660	0	0	1820	1830	0	1957	0	0	1957	0
Flt Permitted		0.995			0.958			0.997				
Satd. Flow (perm)	0	1660	0	0	1820	1830	0	1957	0	0	1957	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		160			245			143			717	
Travel Time (s)		3.6			5.6			3.3			16.3	
Peak Hour Factor	0.61	0.61	0.61	0.85	0.85	0.85	0.87	0.87	0.87	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	180	231	0	384	0	0	171	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Weekday Evening Peak Hour
18: Forest Street & Libby Avenue/Route 25 Off-Ramp

1/26/2016

Intersection												
Intersection Delay, s/veh	8											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	0	17	135	18	196	18	316	0	0	142	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	85	85	85	87	87	87	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	28	159	21	231	21	363	0	0	167	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	584	574	169	588	576	363	171	0	0	363	0	0
Stage 1	169	169	-	405	405	-	-	-	-	-	-	-
Stage 2	415	405	-	183	171	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	426	432	880	423	431	686	1418	-	-	1207	-	-
Stage 1	838	763	-	626	602	-	-	-	-	-	-	-
Stage 2	619	602	-	823	761	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	268	424	880	404	423	686	1418	-	-	1207	-	-
Mov Capacity-2 Maneuver	268	424	-	404	423	-	-	-	-	-	-	-
Stage 1	822	763	-	614	591	-	-	-	-	-	-	-
Stage 2	389	591	-	797	761	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	18.2	0.4	0
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1418	-	-	709	463	686	1207	-	-
HCM Lane V/C Ratio	0.015	-	-	0.044	0.555	0.224	-	-	-
HCM Control Delay (s)	7.576	0	-	10.3	22	11.8	0	-	-
HCM Lane LOS	A	A		B	C	B	A		
HCM 95th %tile Q(veh)	0.044	-	-	0.138	3.312	0.855	0	-	-

Notes
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Saturday Midday Peak Hour

18: Forest Street & Libby Avenue/Route 25 Off-Ramp

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	0	15	110	8	30	13	124	0	0	129	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	12	16	12	13	12	12	13	12
Satd. Flow (prot)	0	1672	0	0	1816	1830	0	1954	0	0	1955	0
Flt Permitted		0.992			0.956			0.995				
Satd. Flow (perm)	0	1672	0	0	1816	1830	0	1954	0	0	1955	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		160			245			143			717	
Travel Time (s)		3.6			5.6			3.3			16.3	
Peak Hour Factor	0.61	0.61	0.61	0.93	0.93	0.93	0.84	0.84	0.84	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	127	32	0	163	0	0	157	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 37.2%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Saturday Midday Peak Hour
18: Forest Street & Libby Avenue/Route 25 Off-Ramp

1/27/2016

Intersection

Intersection Delay, s/veh 4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	0	15	110	8	30	13	124	0	0	129	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yeild	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	93	93	93	84	84	84	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	0	25	118	9	32	15	148	0	0	152	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	337	333	154	345	335	148	156	0	0	148	0	0
Stage 1	154	154	-	179	179	-	-	-	-	-	-	-
Stage 2	183	179	-	166	156	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	621	590	897	613	589	904	1436	-	-	1446	-	-
Stage 1	853	774	-	827	755	-	-	-	-	-	-	-
Stage 2	823	755	-	841	772	-	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	587	584	897	591	583	904	1436	-	-	1446	-	-
Mov Capacity-2 Maneuver	587	584	-	591	583	-	-	-	-	-	-	-
Stage 1	844	774	-	818	747	-	-	-	-	-	-	-
Stage 2	776	747	-	818	772	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	12.2	0.7	0
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1436	-	-	824	607	904	1446	-	-
HCM Lane V/C Ratio	0.011	-	-	0.036	0.227	0.024	-	-	-
HCM Control Delay (s)	7.534	0	-	9.5	12.7	9.1	0	-	-
HCM Lane LOS	A	A		A	B	A	A		
HCM 95th %tile Q(veh)	0.033	-	-	0.111	0.867	0.073	0	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Westbrook Arterial at Larrabee Road

2021 No-Build Weekday Evening Peak

23 24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

1/25/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	238	586	771	120	161	559
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	12	12	13
Satd. Flow (prot)	1829	3574	3478	0	1770	1652
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1829	3574	3478	0	1770	1652
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			21			10
Link Speed (mph)		30	30		30	
Link Distance (ft)		1106	1337		1918	
Travel Time (s)		25.1	30.4		43.6	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.88	0.88
Heavy Vehicles (%)	2%	1%	2%	0%	2%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	264	651	979	0	183	635
Turn Type	Prot	NA	NA		NA	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases						6
Detector Phase	7	4	8		6	7
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	9.0
Total Split (s)	30.0	55.0	25.0		25.0	30.0
Total Split (%)	37.5%	68.8%	31.3%		31.3%	37.5%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None		None	None
Act Effct Green (s)	18.2	43.6	20.4		11.9	35.1
Actuated g/C Ratio	0.28	0.66	0.31		0.18	0.53
v/c Ratio	0.52	0.27	0.90		0.57	0.72
Control Delay	24.4	5.2	36.6		33.0	16.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	24.4	5.2	36.6		33.0	16.0
LOS	C	A	D		C	B
Approach Delay		10.8	36.6		19.8	
Approach LOS		B	D		B	
Queue Length 50th (ft)	87	45	190		67	169
Queue Length 95th (ft)	168	89	#402		132	259
Internal Link Dist (ft)		1026	1257		1838	
Turn Bay Length (ft)						
Base Capacity (vph)	708	2771	1093		548	1070
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpm\site.syn

2021 No-Build Weekday Evening Peak

24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

1/25/2016



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Reduced v/c Ratio	0.37	0.23	0.90		0.33	0.59

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 65.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 22.8

Intersection LOS: C

Intersection Capacity Utilization 68.1%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

	→ Ø4	
	55 s	
	↙ Ø7	← Ø8
	25 s	25 s

2021 No-Build Saturday Midday Peak

24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	289	475	430	81	76	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	12	12	13
Satd. Flow (prot)	1865	3539	3494	0	1805	1652
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1865	3539	3494	0	1805	1652
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			26			66
Link Speed (mph)		30	30		30	
Link Distance (ft)		1106	1337		1918	
Travel Time (s)		25.1	30.4		43.6	
Peak Hour Factor	0.96	0.96	0.82	0.82	0.88	0.88
Heavy Vehicles (%)	0%	2%	1%	0%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	301	495	623	0	86	345
Turn Type	Prot	NA	NA		NA	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases						6
Detector Phase	7	4	8		6	7
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	9.0
Total Split (s)	30.0	55.0	25.0		25.0	30.0
Total Split (%)	37.5%	68.8%	31.3%		31.3%	37.5%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None		None	None
Act Effct Green (s)	14.8	39.3	15.5		8.7	21.9
Actuated g/C Ratio	0.30	0.81	0.32		0.18	0.45
v/c Ratio	0.53	0.17	0.55		0.27	0.44
Control Delay	20.5	3.0	17.5		24.8	8.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	20.5	3.0	17.5		24.8	8.6
LOS	C	A	B		C	A
Approach Delay		9.6	17.5		11.9	
Approach LOS		A	B		B	
Queue Length 50th (ft)	81	25	82		24	45
Queue Length 95th (ft)	171	48	144		68	99
Internal Link Dist (ft)		1026	1257		1838	
Turn Bay Length (ft)						
Base Capacity (vph)	1088	3177	1645		842	1222
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0

2021 No-Build Saturday Midday Peak

24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

1/26/2016



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Reduced v/c Ratio	0.28	0.16	0.38		0.10	0.28

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 48.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 12.8

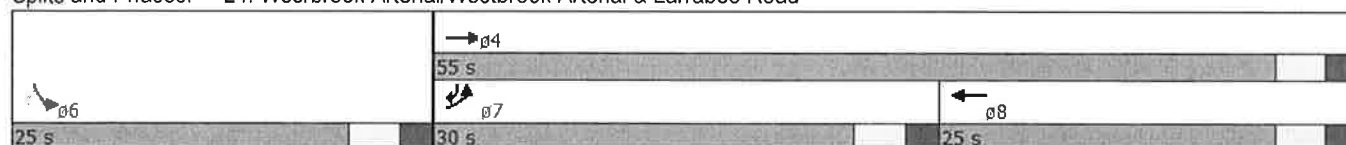
Intersection LOS: B

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road



2021 Build Weekday Evening Peak

24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

2/2/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	289	638	828	190	237	617
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	12	12	13
Satd. Flow (prot)	1829	3574	3453	0	1770	1652
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1829	3574	3453	0	1770	1652
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			33			7
Link Speed (mph)		30	30		30	
Link Distance (ft)		1106	562		834	
Travel Time (s)		25.1	12.8		19.0	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.88	0.88
Heavy Vehicles (%)	2%	1%	2%	0%	2%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	321	709	1119	0	269	701
Turn Type	Prot	NA	NA		NA	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases						6
Detector Phase	7	4	8		6	7
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	9.0
Total Split (s)	30.0	55.0	25.0		25.0	30.0
Total Split (%)	37.5%	68.8%	31.3%		31.3%	37.5%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None		None	None
Act Effct Green (s)	18.8	44.2	20.3		15.1	38.9
Actuated g/C Ratio	0.27	0.64	0.29		0.22	0.56
v/c Ratio	0.65	0.31	1.08		0.70	0.75
Control Delay	29.6	6.5	80.0		36.4	17.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	29.6	6.5	80.0		36.4	17.1
LOS	C	A	E		D	B
Approach Delay		13.7	80.0		22.4	
Approach LOS		B	E		C	
Queue Length 50th (ft)	121	63	~295		108	201
Queue Length 95th (ft)	214	106	#496		191	307
Internal Link Dist (ft)		1026	482		754	
Turn Bay Length (ft)						
Base Capacity (vph)	669	2618	1035		518	1086
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Reduced v/c Ratio	0.48	0.27	1.08		0.52	0.65

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 69.4

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 40.2

Intersection LOS: D

Intersection Capacity Utilization 75.5%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

	→ ø4	
	55 s	
	↙ ø7	← ø8
	25 s	25 s

2021 Build Saturday Midday Peak

24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

2/2/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	377	563	509	198	181	403
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	12	12	13
Satd. Flow (prot)	1865	3539	3434	0	1805	1652
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1865	3539	3434	0	1805	1652
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			68			38
Link Speed (mph)		30	30		30	
Link Distance (ft)		1106	557		849	
Travel Time (s)		25.1	12.7		19.3	
Peak Hour Factor	0.96	0.96	0.82	0.82	0.88	0.88
Heavy Vehicles (%)	0%	2%	1%	0%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	393	586	862	0	206	458
Turn Type	Prot	NA	NA		NA	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases						6
Detector Phase	7	4	8		6	7
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	9.0
Total Split (s)	30.0	55.0	25.0		25.0	30.0
Total Split (%)	37.5%	68.8%	31.3%		31.3%	37.5%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None		None	None
Act Effct Green (s)	19.1	44.0	19.7		13.1	37.3
Actuated g/C Ratio	0.28	0.65	0.29		0.19	0.55
v/c Ratio	0.74	0.25	0.82		0.59	0.49
Control Delay	31.7	5.5	30.3		33.1	9.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	31.7	5.5	30.3		33.1	9.9
LOS	C	A	C		C	A
Approach Delay		16.0	30.3		17.1	
Approach LOS		B	C		B	
Queue Length 50th (ft)	146	43	161		79	95
Queue Length 95th (ft)	264	84	#270		146	150
Internal Link Dist (ft)		1026	477		769	
Turn Bay Length (ft)						
Base Capacity (vph)	710	2694	1093		549	1088
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0

2021 Build Saturday Midday Peak

24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

2/2/2016



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Reduced v/c Ratio	0.55	0.22	0.79		0.38	0.42

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 67.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 21.2

Intersection LOS: C

Intersection Capacity Utilization 63.8%

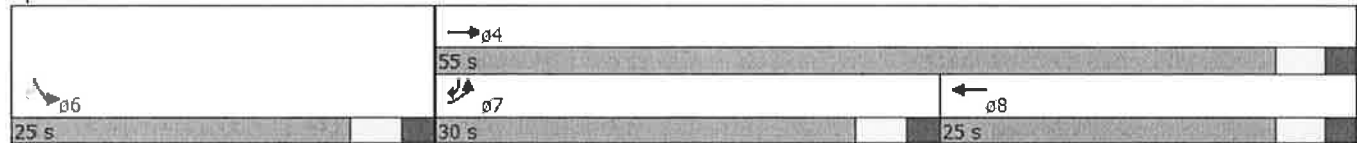
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road



2021 Build Weekday Evening Peak *with Mitigation*
 4: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	289	638	828	190	237	617
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	12	12	13
Satd. Flow (prot)	1829	3574	3453	0	1770	1652
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1829	3574	3453	0	1770	1652
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			39			37
Link Speed (mph)		30	30		30	
Link Distance (ft)		1106	509		999	
Travel Time (s)		25.1	11.6		22.7	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.88	0.88
Heavy Vehicles (%)	2%	1%	2%	0%	2%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	321	709	1119	0	269	701
Turn Type	Prot	NA	NA		NA	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases						6
Detector Phase	7	4	8		6	7
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	9.0
Total Split (s)	25.0	59.0	34.0		21.0	25.0
Total Split (%)	31.3%	73.8%	42.5%		26.3%	31.3%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	19.3	55.0	30.7		15.0	39.3
Actuated g/C Ratio	0.24	0.69	0.38		0.19	0.49
v/c Ratio	0.73	0.29	0.83		0.81	0.85
Control Delay	38.7	5.4	18.5		51.3	27.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	38.7	5.4	18.5		51.3	27.8
LOS	D	A	B		D	C
Approach Delay		15.8	18.5		34.3	
Approach LOS		B	B		C	
Queue Length 50th (ft)	146	64	189		128	262
Queue Length 95th (ft)	#242	88	#187		#231	#416
Internal Link Dist (ft)		1026	429		919	
Turn Bay Length (ft)						
Base Capacity (vph)	457	2457	1349		354	844
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0

2021 Build Weekday Evening Peak

4: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

1/26/2016



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Reduced v/c Ratio	0.70	0.29	0.83		0.76	0.83

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 22.5

Intersection LOS: C

Intersection Capacity Utilization 75.5%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

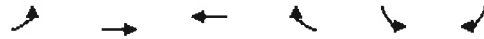
Splits and Phases: 4: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

	→ Ø4 (R)	
	59 s	
Ø6	Ø7	← Ø8 (R)
21 s	25 s	34 s

2021 Build Saturday Midday Peak *with Mitigation*
 24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

1/27/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	377	563	509	198	181	403
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	12	12	13
Satd. Flow (prot)	1865	3539	3434	0	1805	1652
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1865	3539	3434	0	1805	1652
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			68			38
Link Speed (mph)		30	30		30	
Link Distance (ft)		1106	557		849	
Travel Time (s)		25.1	12.7		19.3	
Peak Hour Factor	0.96	0.96	0.82	0.82	0.88	0.88
Heavy Vehicles (%)	0%	2%	1%	0%	0%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	393	586	862	0	206	458
Turn Type	Prot	NA	NA		NA	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases						6
Detector Phase	7	4	8		6	7
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	9.0
Total Split (s)	30.0	55.0	25.0		25.0	30.0
Total Split (%)	37.5%	68.8%	31.3%		31.3%	37.5%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	21.6	55.7	29.1		14.3	40.9
Actuated g/C Ratio	0.27	0.70	0.36		0.18	0.51
v/c Ratio	0.78	0.24	0.67		0.64	0.53
Control Delay	37.9	5.2	16.3		39.1	13.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	37.9	5.2	16.3		39.1	13.3
LOS	D	A	B		D	B
Approach Delay		18.3	16.3		21.3	
Approach LOS		B	B		C	
Queue Length 50th (ft)	177	46	176		96	127
Queue Length 95th (ft)	263	84	#274		147	149
Internal Link Dist (ft)		1026	477		769	
Turn Bay Length (ft)						
Base Capacity (vph)	589	2464	1292		451	937
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Reduced v/c Ratio	0.67	0.24	0.67		0.46	0.49

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 6 (8%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 18.4

Intersection LOS: B

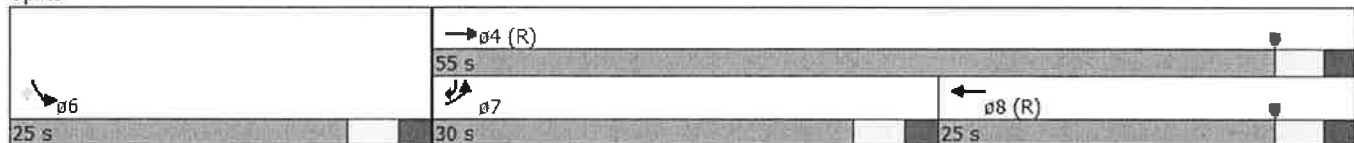
Intersection Capacity Utilization 63.8%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Wesbrook Arterial/Westbrook Arterial & Larrabee Road

Westbrook Arterial at the Project Site Driveway

2021 Build Weekday Evening Peak
26: Westbrook Arterial & Site Drive

2/2/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	106	769	887	148	139	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	3465	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3465	0	1770	1583
Link Speed (mph)		30	30		30	
Link Distance (ft)		562	887		298	
Travel Time (s)		12.8	20.2		6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	115	836	1125	0	151	142
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 52.8%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Weekday Evening Peak
26: Westbrook Arterial & Site Drive

2/2/2016

Intersection

Intersection Delay, s/veh 45.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	106	769	887	148	139	131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	836	964	161	151	142

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1125	0	1693
Stage 1	-	-	1045
Stage 2	-	-	648
Follow-up Headway	2.22	-	3.52
Pot Capacity-1 Maneuver	617	-	# 84
Stage 1	-	-	300
Stage 2	-	-	483
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	617	-	# 68
Mov Capacity-2 Maneuver	-	-	# 68
Stage 1	-	-	300
Stage 2	-	-	393

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	\$ 363.7
HCM LOS			F

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	617	-	-	-	68	470
HCM Lane V/C Ratio	0.187	-	-	-	2.222	0.303
HCM Control Delay (s)	12.17	-	-	-	\$ 691.3	16
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.681	-	-	-	14.338	1.265

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Saturday Midday Peak
26: Westbrook Arterial & Site Drive

2/2/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		 	 			
Volume (vph)	154	590	568	187	180	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	3408	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3408	0	1770	1583
Link Speed (mph)		30	30		30	
Link Distance (ft)		557	647		359	
Travel Time (s)		12.7	14.7		8.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	167	641	820	0	196	151
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 50.2%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Saturday Midday Peak
26: Westbrook Arterial & Site Drive

2/2/2016

Intersection

Intersection Delay, s/veh 47.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	154	590	568	187	180	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	167	641	617	203	196	151

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	821	0	1374
Stage 1	-	-	719
Stage 2	-	-	655
Follow-up Headway	2.22	-	3.52
Pot Capacity-1 Maneuver	804	-	# 137
Stage 1	-	-	444
Stage 2	-	-	479
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	804	-	# 109
Mov Capacity-2 Maneuver	-	-	# 109
Stage 1	-	-	444
Stage 2	-	-	380

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	264.8
HCM LOS			F

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	804	-	-	-	109	591
HCM Lane V/C Ratio	0.208	-	-	-	1.795	0.256
HCM Control Delay (s)	10.651	-	-	-	\$ 459.1	13.2
HCM Lane LOS	B				F	B
HCM 95th %tile Q(veh)	0.781	-	-	-	15.55	1.012

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

243

2021 Build Weekday Evening Peak *with Mitigation*

25: Westbrook Arterial

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	106	769	887	148	139	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	3465	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3465	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			32			142
Link Speed (mph)		30	30		30	
Link Distance (ft)		509	887		298	
Travel Time (s)		11.6	20.2		6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	115	836	1125	0	151	142
Turn Type	Prot	NA	NA		NA	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Detector Phase	7	4	8		6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	21.0
Total Split (s)	16.0	59.0	43.0		21.0	21.0
Total Split (%)	20.0%	73.8%	53.8%		26.3%	26.3%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	9.8	58.1	45.6		11.9	11.9
Actuated g/C Ratio	0.12	0.73	0.57		0.15	0.15
v/c Ratio	0.53	0.33	0.57		0.57	0.40
Control Delay	45.9	3.4	13.8		39.8	8.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	45.9	3.4	13.8		39.8	8.9
LOS	D	A	B		D	A
Approach Delay		8.6	13.8		24.8	
Approach LOS		A	B		C	
Queue Length 50th (ft)	52	40	186		71	0
Queue Length 95th (ft)	m99	83	282		122	45
Internal Link Dist (ft)		429	807		218	
Turn Bay Length (ft)	125					
Base Capacity (vph)	248	2569	1988		354	430
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0

2021 Build Weekday Evening Peak

25: Westbrook Arterial

1/26/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.46	0.33	0.57		0.43	0.33

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 13.1
 Intersection LOS: B
 Intersection Capacity Utilization 55.3%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 25: Westbrook Arterial

			
	→ p4 (R)		← p8 (R)
	59 s		
p6	p7		
21 s	16 s		43 s

2021 Build Saturday Midday Peak with Mitigation
26: Westbrook Arterial & Site Drive

1/27/2016

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↗	↗↗	↗↖		↗	↗
Volume (vph)	154	590	568	187	180	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	3408	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3408	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			63			151
Link Speed (mph)		30	30		30	
Link Distance (ft)		557	647		359	
Travel Time (s)		12.7	14.7		8.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	167	641	820	0	196	151
Turn Type	Prot	NA	NA		NA	Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Detector Phase	7	4	8		6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	21.0
Total Split (s)	21.0	55.0	34.0		25.0	25.0
Total Split (%)	26.3%	68.8%	42.5%		31.3%	31.3%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	12.6	55.9	38.4		14.1	14.1
Actuated g/C Ratio	0.16	0.70	0.48		0.18	0.18
v/c Ratio	0.60	0.26	0.49		0.63	0.38
Control Delay	42.4	3.6	15.7		39.2	7.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	42.4	3.6	15.7		39.2	7.6
LOS	D	A	B		D	A
Approach Delay		11.6	15.7		25.5	
Approach LOS		B	B		C	
Queue Length 50th (ft)	71	36	128		92	0
Queue Length 95th (ft)	131	53	223		146	44
Internal Link Dist (ft)		477	567		279	
Turn Bay Length (ft)	100					
Base Capacity (vph)	357	2474	1666		442	509
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0

2021 Build Saturday Midday Peak
 26: Westbrook Arterial & Site Drive

1/27/2016

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.47	0.26	0.49		0.44	0.30

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 75 (94%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 15.8
 Intersection Capacity Utilization 52.7%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 26: Westbrook Arterial & Site Drive

		
ø6	ø4 (R)	ø8 (R)
25 s	55 s	34 s
	ø7	
	21 s	

Larrabee Road at Terminal Street and the North Project Site Drive

2021 No-Build Weekday Evening Peak

27 23: Larrabee Road & Terminal Street/Site Drive

1/28/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	0	81	6	0	1	48	390	1	1	605	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Satd. Flow (prot)	0	1952	0	0	2028	0	0	3560	0	0	3531	0
Flt Permitted		0.978			0.958			0.995				
Satd. Flow (perm)	0	1952	0	0	2028	0	0	3560	0	0	3531	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		705			506			1918			903	
Travel Time (s)		16.0			11.5			43.6			20.5	
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.84	0.84	0.84	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	8	0	0	522	0	0	810	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 49.1%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak
23: Larrabee Road & Terminal Street/Site Drive

1/28/2016

Intersection												
Intersection Delay, s/veh		5										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	69	0	81	6	0	1	48	390	1	1	605	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	88	88	88	84	84	84	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	74	0	87	7	0	1	57	464	1	1	738	71
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1122	1356	404	950	1390	233	809	0	0	465	0	0
Stage 1	776	776	-	579	579	-	-	-	-	-	-	-
Stage 2	346	580	-	371	811	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	163	151	602	218	144	775	825	-	-	1107	-	-
Stage 1	361	410	-	473	504	-	-	-	-	-	-	-
Stage 2	649	503	-	627	396	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	151	137	602	173	130	775	825	-	-	1107	-	-
Mov Capacity-2 Maneuver	151	137	-	173	130	-	-	-	-	-	-	-
Stage 1	327	409	-	429	457	-	-	-	-	-	-	-
Stage 2	588	456	-	535	395	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	40.9		24.2			1.4			0			
HCM LOS	E		C									
Minor Lane / Major Mvmt	NBL		NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	825		-	-	254	195	1107	-	-			
HCM Lane V/C Ratio	0.069		-	-	0.635	0.041	0.001	-	-			
HCM Control Delay (s)	9.688		0.4	-	40.9	24.2	8.256	0	-			
HCM Lane LOS	A		A		E	C	A	A				
HCM 95th %tile Q(veh)	0.223		-	-	3.904	0.127	0.003	-	-			
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

2021 No-Build Saturday Midday Peak
23: Larrabee Road & Terminal Street/Site Drive

1/28/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	0	33	2	0	0	20	344	0	0	384	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Satd. Flow (prot)	0	1952	0	0	2046	0	0	3521	0	0	3496	0
Flt Permitted		0.977			0.950			0.997				
Satd. Flow (perm)	0	1952	0	0	2046	0	0	3521	0	0	3496	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		705			506			1918			903	
Travel Time (s)		16.0			11.5			43.6			20.5	
Peak Hour Factor	0.70	0.70	0.70	0.50	0.50	0.50	0.95	0.95	0.95	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	6%	2%	0%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	0	4	0	0	383	0	0	464	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.5%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak
23: Larrabee Road & Terminal Street/Site Drive

1/28/2016

Intersection

Intersection Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	29	0	33	2	0	0	20	344	0	0	384	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	50	50	50	95	95	95	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	6	2	0	0	2	0
Mvmt Flow	41	0	47	4	0	0	21	362	0	0	422	42

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	666	847	232	615	868	181	464	0	0	362	0	0
Stage 1	443	443	-	404	404	-	-	-	-	-	-	-
Stage 2	223	404	-	211	464	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.5	4	3.3	2.26	-	-	2.2	-	-
Pot Capacity-1 Maneuver	349	301	776	379	293	837	1066	-	-	1208	-	-
Stage 1	569	579	-	600	603	-	-	-	-	-	-	-
Stage 2	765	603	-	777	567	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	342	293	776	349	286	837	1066	-	-	1208	-	-
Mov Capacity-2 Maneuver	342	293	-	349	286	-	-	-	-	-	-	-
Stage 1	555	579	-	585	588	-	-	-	-	-	-	-
Stage 2	746	588	-	730	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	15.4	0.6	0
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1066	-	-	487	349	1208	-	-
HCM Lane V/C Ratio	0.02	-	-	0.182	0.011	-	-	-
HCM Control Delay (s)	8.445	0.1	-	14	15.4	0	-	-
HCM Lane LOS	A	A		B	C	A		
HCM 95th %tile Q(veh)	0.06	-	-	0.658	0.035	0	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Weekday Evening Peak

23: Larrabee Road & Terminal Street/Site Drive

2/2/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	0	81	122	0	109	48	423	63	149	582	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Satd. Flow (prot)	0	1952	0	0	2046	1615	0	3462	0	0	3512	0
Flt Permitted		0.978			0.950			0.996			0.991	
Satd. Flow (perm)	0	1952	0	0	2046	1615	0	3462	0	0	3512	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		705			506			1084			903	
Travel Time (s)		16.0			11.5			24.6			20.5	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	133	118	0	580	0	0	963	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 62.8%

ICU Level of Service B

Analysis Period (min) 15

2021 Build Weekday Evening Peak
23: Larrabee Road & Terminal Street/Site Drive

2/2/2016

Intersection												
Intersection Delay, s/veh	73.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	69	0	81	122	0	109	48	423	63	149	582	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	92	92	92	92	92	92	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	0	1	0
Mvmt Flow	74	0	87	133	0	118	52	460	68	182	710	71
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1443	1742	390	1316	1742	264	780	0	0	528	0	0
Stage 1	1109	1109	-	598	598	-	-	-	-	-	-	-
Stage 2	334	633	-	718	1144	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.5	4	3.3	2.22	-	-	2.2	-	-
Pot Capacity-1 Maneuver	95	88	614	# 118	88	741	833	-	-	1049	-	-
Stage 1	227	288	-	461	494	-	-	-	-	-	-	-
Stage 2	659	476	-	391	277	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	# 57	55	614	# 72	55	741	833	-	-	1049	-	-
Mov Capacity-2 Maneuver	# 57	55	-	# 72	55	-	-	-	-	-	-	-
Stage 1	207	198	-	420	450	-	-	-	-	-	-	-
Stage 2	504	434	-	231	191	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	\$ 311.2		\$ 357.6			1.1			2.4			
HCM LOS	F		F									
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	833	-	-	112	91	741	1049	-	-			
HCM Lane V/C Ratio	0.063	-	-	1.44	1.891	0.107	0.173	-	-			
HCM Control Delay (s)	9.61	0.3	-	\$ 311.2	\$ 516.9	10.4	9.149	0.9	-			
HCM Lane LOS	A	A	-	F	F	B	A	A	-			
HCM 95th %tile Q(veh)	0.2	-	-	11.446	14.568	0.356	0.625	-	-			
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

2021 Build Saturday Midday Peak
 23: Larrabee Road & Terminal Street/Site Drive

2/2/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	0	33	143	0	149	20	388	107	213	385	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	12	12	12	12	12
Satd. Flow (prot)	0	1952	0	0	2046	1615	0	3431	0	0	3478	0
Flt Permitted		0.977			0.950			0.998			0.984	
Satd. Flow (perm)	0	1952	0	0	2046	1615	0	3431	0	0	3478	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		705			506			1069			903	
Travel Time (s)		16.0			11.5			24.3			20.5	
Peak Hour Factor	0.70	0.70	0.70	0.92	0.92	0.92	0.95	0.95	0.95	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	6%	2%	0%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	0	155	162	0	542	0	0	699	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 57.4%

ICU Level of Service B

Analysis Period (min) 15

2021 Build Saturday Midday Peak
23: Larrabee Road & Terminal Street/Site Drive

2/2/2016

Intersection

Intersection Delay, s/veh 50.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	29	0	33	143	0	149	20	388	107	213	385	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	92	92	92	95	95	95	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	6	2	0	0	2	0
Mvmt Flow	41	0	47	155	0	162	21	408	113	234	423	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1158	1475	232	1187	1440	261	465	0	0	521	0	0
Stage 1	912	912	-	507	507	-	-	-	-	-	-	-
Stage 2	246	563	-	680	933	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.3	3.5	4	3.3	2.26	-	-	2.2	-	-
Pot Capacity-1 Maneuver	154	128	776	# 146	134	744	1065	-	-	1056	-	-
Stage 1	299	355	-	522	543	-	-	-	-	-	-	-
Stage 2	742	512	-	412	348	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	91	87	776	# 103	91	744	1065	-	-	1056	-	-
Mov Capacity-2 Maneuver	91	87	-	# 103	91	-	-	-	-	-	-	-
Stage 1	291	248	-	507	528	-	-	-	-	-	-	-
Stage 2	564	498	-	270	243	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46.3	238.7	0.4	3.6
HCM LOS	E	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1065	-	-	172	132	744	1056	-	-
HCM Lane V/C Ratio	0.02	-	-	0.515	1.587	0.145	0.222	-	-
HCM Control Delay (s)	8.448	0.1	-	46.3	\$ 356.3	10.7	9.377	0.7	-
HCM Lane LOS	A	A		E	F	B	A	A	
HCM 95th %tile Q(veh)	0.06	-	-	2.558	14.936	0.506	0.847	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Larrabee Road at Saunders Way and the South Project Site Drive

2021 Build Weekday Evening Peak

24: Larrabee Road & Saunders Way/Site Drive

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	0	15	64	0	65	5	384	90	29	790	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1717	0	0	1770	1583	0	3440	0	0	3529	0
Flt Permitted		0.970			0.950						0.998	
Satd. Flow (perm)	0	1717	0	0	1770	1583	0	3440	0	0	3529	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		482			456			999			919	
Travel Time (s)		11.0			10.4			22.7			20.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	70	71	0	520	0	0	896	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 55.4%

ICU Level of Service B

Analysis Period (min) 15

2021 Build Weekday Evening Peak
24: Larrabee Road & Saunders Way/Site Drive

1/26/2016

Intersection

Intersection Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	25	0	15	64	0	65	5	384	90	29	790	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	0	16	70	0	71	5	417	98	32	859	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1144	1450	432	969	1404	258	864	0	0	515	0	0
Stage 1	924	924	-	477	477	-	-	-	-	-	-	-
Stage 2	220	526	-	492	927	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	155	130	572	208	138	741	774	-	-	1047	-	-
Stage 1	290	346	-	538	554	-	-	-	-	-	-	-
Stage 2	762	527	-	527	345	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	133	121	572	192	129	741	774	-	-	1047	-	-
Mov Capacity-2 Maneuver	133	121	-	192	129	-	-	-	-	-	-	-
Stage 1	287	326	-	533	549	-	-	-	-	-	-	-
Stage 2	683	522	-	482	325	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30	23.3	0.1	0.5
HCM LOS	D	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	774	-	-	187	236	741	1047	-	-
HCM Lane V/C Ratio	0.007	-	-	0.233	0.395	0.064	0.03	-	-
HCM Control Delay (s)	9.684	0	-	30	29.9	10.2	8.545	0.2	-
HCM Lane LOS	A	A		D	D	B	A	A	
HCM 95th %tile Q(veh)	0.021	-	-	0.867	1.778	0.203	0.093	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Saturday Midday Peak
 25: Larrabee Road & Saunders Way/Site Drive

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕			↕	
Volume (vph)	5	0	5	88	0	87	5	429	141	48	491	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1694	0	0	1770	1583	0	3408	0	0	3522	0
Flt Permitted		0.976			0.950						0.996	
Satd. Flow (perm)	0	1694	0	0	1770	1583	0	3408	0	0	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		516			394			849			1069	
Travel Time (s)		11.7			9.0			19.3			24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	96	95	0	624	0	0	591	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 50.2%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Saturday Midday Peak
25: Larrabee Road & Saunders Way/Site Drive

1/27/2016

Intersection

Intersection Delay, s/veh 4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	0	5	88	0	87	5	429	141	48	491	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	96	0	95	5	466	153	52	534	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	885	1271	270	925	1197	310	539	0	0	620	0	0
Stage 1	641	641	-	554	554	-	-	-	-	-	-	-
Stage 2	244	630	-	371	643	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	239	167	728	224	185	686	1025	-	-	956	-	-
Stage 1	430	468	-	484	512	-	-	-	-	-	-	-
Stage 2	738	473	-	622	467	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	193	153	728	208	169	686	1025	-	-	956	-	-
Mov Capacity-2 Maneuver	193	153	-	208	169	-	-	-	-	-	-	-
Stage 1	427	431	-	480	508	-	-	-	-	-	-	-
Stage 2	631	469	-	569	431	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	25.8	0.1	1.1
HCM LOS	C	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1025	-	-	305	251	686	956	-	-
HCM Lane V/C Ratio	0.005	-	-	0.036	0.507	0.092	0.055	-	-
HCM Control Delay (s)	8.531	0	-	17.2	33.2	10.8	8.983	0.3	-
HCM Lane LOS	A	A		C	D	B	A	A	
HCM 95th %tile Q(veh)	0.016	-	-	0.111	2.633	0.302	0.173	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Riverside Street at Warren Avenue

2021 No-Build Weekday Evening Peak
12: Riverside Street & Warren Avenue

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	191	63	433	192	111	50	745	410	101	578	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	300		0	125		125	225		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1764	0	1698	1743	1599	1656	3574	1553	1805	3485	0
Flt Permitted	0.950			0.950	0.981		0.183			0.162		
Satd. Flow (perm)	1736	1764	0	1698	1743	1599	319	3574	1553	308	3485	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				129			195		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			420			1969			262	
Travel Time (s)		7.8			9.5			44.8			6.0	
Peak Hour Factor	0.78	0.78	0.78	0.86	0.86	0.86	0.88	0.88	0.88	0.91	0.91	0.91
Heavy Vehicles (%)	4%	2%	9%	1%	2%	1%	9%	1%	4%	0%	3%	0%
Shared Lane Traffic (%)				29%								
Lane Group Flow (vph)	138	326	0	357	369	129	57	847	466	111	668	0
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	21.0	21.0	9.0	21.0	
Total Split (s)	30.0	30.0		40.0	40.0	15.0	15.0	26.0	26.0	15.0	26.0	
Total Split (%)	21.9%	21.9%		29.2%	29.2%	10.9%	10.9%	19.0%	19.0%	10.9%	19.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	24.9	24.9		28.6	28.6	42.8	29.0	21.1	21.1	32.3	24.7	
Actuated g/C Ratio	0.24	0.24		0.28	0.28	0.41	0.28	0.20	0.20	0.31	0.24	
v/c Ratio	0.33	0.76		0.76	0.77	0.18	0.30	1.17	0.99	0.49	0.80	
Control Delay	37.0	49.3		46.0	46.1	3.8	29.8	128.2	65.3	33.5	48.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	37.0	49.3		46.0	46.1	3.8	29.8	128.2	65.3	33.5	48.1	
LOS	D	D		D	D	A	C	F	E	C	D	
Approach Delay		45.7			39.6			102.7			46.0	
Approach LOS		D			D			F			D	
Queue Length 50th (ft)	78	200		231	240	0	26	~366	~202	52	231	
Queue Length 95th (ft)	121	266		322	331	29	58	#506	#420	101	#383	
Internal Link Dist (ft)		265			340			1889			182	
Turn Bay Length (ft)	75			300			125		125	225		
Base Capacity (vph)	419	434		574	590	747	224	725	470	240	831	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 No-Build Weekday Evening Peak
12: Riverside Street & Warren Avenue

1/25/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	26.0
Total Split (%)	19%
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 No-Build Weekday Evening Peak
12: Riverside Street & Warren Avenue

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.75		0.62	0.63	0.17	0.25	1.17	0.99	0.46	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 137

Actuated Cycle Length: 103.9

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay: 66.8

Intersection LOS: E

Intersection Capacity Utilization 73.8%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Riverside Street & Warren Avenue

 p1	 p2	 p4	 p8	 p9
15 s	26 s	30 s	40 s	26 s
 p5	 p6			
15 s	26 s			

2021 No-Build Saturday Midday Peak
12: Riverside Street & Warren Avenue

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	234	34	365	258	129	67	503	319	168	499	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	300		0	125		125	225		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1825	0	1698	1771	1615	1805	3574	1615	1805	3533	0
Flt Permitted	0.950			0.950	0.991		0.268			0.218		
Satd. Flow (perm)	1770	1825	0	1698	1771	1615	509	3574	1615	414	3533	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				145			224		10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			420			1969			262	
Travel Time (s)		7.8			9.5			44.8			6.0	
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	3%	1%	1%	0%	0%	1%	0%	0%	0%	2%
Shared Lane Traffic (%)				16%								
Lane Group Flow (vph)	117	285	0	344	356	145	73	547	347	181	613	0
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	21.0	21.0	9.0	21.0	
Total Split (s)	30.0	30.0		40.0	40.0	15.0	15.0	26.0	26.0	15.0	26.0	
Total Split (%)	21.9%	21.9%		29.2%	29.2%	10.9%	10.9%	19.0%	19.0%	10.9%	19.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	21.2	21.2		27.0	27.0	42.1	29.5	21.2	21.2	33.4	25.7	
Actuated g/C Ratio	0.21	0.21		0.27	0.27	0.42	0.30	0.21	0.21	0.34	0.26	
v/c Ratio	0.31	0.73		0.75	0.74	0.19	0.28	0.72	0.67	0.65	0.67	
Control Delay	36.8	48.7		44.5	43.7	3.7	27.6	44.4	21.3	38.1	40.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.8	48.7		44.5	43.7	3.7	27.6	44.4	21.3	38.1	40.5	
LOS	D	D		D	D	A	C	D	C	D	D	
Approach Delay		45.2			37.2			34.9			40.0	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	64	169		214	222	0	32	177	70	84	196	
Queue Length 95th (ft)	123	280		324	331	34	72	#274	190	#171	#328	
Internal Link Dist (ft)		265			340			1889			182	
Turn Bay Length (ft)	75			300			125		125	225		
Base Capacity (vph)	448	466		603	628	766	291	761	520	279	919	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 No-Build Saturday Midday Peak
12: Riverside Street & Warren Avenue

1/26/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	26.0
Total Split (%)	19%
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 No-Build Saturday Midday Peak
12: Riverside Street & Warren Avenue

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.26	0.61		0.57	0.57	0.19	0.25	0.72	0.67	0.65	0.67	

Intersection Summary

Area Type: Other

Cycle Length: 137

Actuated Cycle Length: 99.7

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 38.2

Intersection LOS: D

Intersection Capacity Utilization 71.1%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Riverside Street & Warren Avenue

 ø1	 ø2	 ø4	 ø8	 ø9
15 s	26 s	30 s	40 s	26 s
 ø5	 ø6			
15 s	26 s			

2021 Build Weekday Evening Peak
12: Riverside Street & Warren Avenue

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	191	69	444	192	111	56	789	423	101	618	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	300		0	125		125	225		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1756	0	1698	1741	1599	1656	3574	1553	1805	3485	0
Flt Permitted	0.950			0.950	0.980		0.180			0.163		
Satd. Flow (perm)	1736	1756	0	1698	1741	1599	314	3574	1553	310	3485	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				129			190		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			420			1969			262	
Travel Time (s)		7.8			9.5			44.8			6.0	
Peak Hour Factor	0.78	0.78	0.78	0.86	0.86	0.86	0.88	0.88	0.88	0.91	0.91	0.91
Heavy Vehicles (%)	4%	2%	9%	1%	2%	1%	9%	1%	4%	0%	3%	0%
Shared Lane Traffic (%)				29%								
Lane Group Flow (vph)	138	333	0	366	373	129	64	897	481	111	712	0
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	21.0	21.0	9.0	21.0	
Total Split (s)	30.0	30.0		40.0	40.0	15.0	15.0	26.0	26.0	15.0	26.0	
Total Split (%)	21.9%	21.9%		29.2%	29.2%	10.9%	10.9%	19.0%	19.0%	10.9%	19.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	25.1	25.1		29.3	29.3	43.5	29.3	21.1	21.1	32.1	24.5	
Actuated g/C Ratio	0.24	0.24		0.28	0.28	0.42	0.28	0.20	0.20	0.31	0.23	
v/c Ratio	0.33	0.78		0.77	0.77	0.17	0.33	1.25	1.04	0.49	0.87	
Control Delay	37.2	50.8		46.4	45.8	3.7	30.7	159.3	78.2	33.9	53.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	37.2	50.8		46.4	45.8	3.7	30.7	159.3	78.2	33.9	53.5	
LOS	D	D		D	D	A	C	F	E	C	D	
Approach Delay		46.8			39.8			126.6			50.9	
Approach LOS		D			D			F			D	
Queue Length 50th (ft)	79	207		238	243	0	30	~408	~246	53	254	
Queue Length 95th (ft)	121	272		331	335	29	63	#546	#451	101	#420	
Internal Link Dist (ft)		265			340			1889			182	
Turn Bay Length (ft)	75			300			125		125	225		
Base Capacity (vph)	415	429		569	584	751	221	719	464	238	816	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	26.0
Total Split (%)	19%
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 Build Weekday Evening Peak
12: Riverside Street & Warren Avenue

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.33	0.78		0.64	0.64	0.17	0.29	1.25	1.04	0.47	0.87	

Intersection Summary

Area Type: Other

Cycle Length: 137

Actuated Cycle Length: 104.7

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.25

Intersection Signal Delay: 78.0

Intersection LOS: E

Intersection Capacity Utilization 75.7%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Riverside Street & Warren Avenue

 Ø1	 Ø2	 Ø4	 Ø8	 Ø9
15 s	26 s	30 s	40 s	26 s
 Ø5	 Ø6			
15 s	26 s			

2021 Build Saturday Midday Peak
12: Riverside Street & Warren Avenue

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	234	44	384	258	129	76	564	337	168	568	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	300		0	125		125	225		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1815	0	1698	1769	1615	1805	3574	1615	1805	3541	0
Flt Permitted	0.950			0.950	0.990		0.191			0.163		
Satd. Flow (perm)	1770	1815	0	1698	1769	1615	363	3574	1615	310	3541	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				145			211		8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			420			1969			262	
Travel Time (s)		7.8			9.5			44.8			6.0	
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	3%	1%	1%	0%	0%	1%	0%	0%	0%	2%
Shared Lane Traffic (%)				18%								
Lane Group Flow (vph)	117	296	0	353	368	145	83	613	366	181	687	0
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	21.0	21.0	9.0	21.0	
Total Split (s)	30.0	30.0		40.0	40.0	15.0	15.0	26.0	26.0	15.0	26.0	
Total Split (%)	21.9%	21.9%		29.2%	29.2%	10.9%	10.9%	19.0%	19.0%	10.9%	19.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	22.2	22.2		28.0	28.0	43.2	29.8	21.2	21.2	33.1	25.4	
Actuated g/C Ratio	0.22	0.22		0.28	0.28	0.42	0.29	0.21	0.21	0.33	0.25	
v/c Ratio	0.30	0.74		0.75	0.76	0.19	0.37	0.82	0.73	0.73	0.77	
Control Delay	36.8	49.3		45.0	44.6	3.6	29.9	50.5	26.3	45.1	45.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.8	49.3		45.0	44.6	3.6	29.9	50.5	26.3	45.1	45.4	
LOS	D	D		D	D	A	C	D	C	D	D	
Approach Delay		45.8			37.9			40.5			45.3	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	64	178		227	236	0	38	210	97	88	236	
Queue Length 95th (ft)	123	291		333	345	34	79	#331	#244	#200	#392	
Internal Link Dist (ft)		265			340			1889			182	
Turn Bay Length (ft)	75			300			125		125	225		
Base Capacity (vph)	439	454		589	614	769	254	744	503	249	889	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 Build Saturday Midday Peak
12: Riverside Street & Warren Avenue

2/3/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	26.0
Total Split (%)	19%
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 Build Saturday Midday Peak
12: Riverside Street & Warren Avenue

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.27	0.65		0.60	0.60	0.19	0.33	0.82	0.73	0.73	0.77	

Intersection Summary

Area Type: Other

Cycle Length: 137

Actuated Cycle Length: 101.7

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 41.8

Intersection LOS: D

Intersection Capacity Utilization 74.0%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Riverside Street & Warren Avenue

 Ø1	 Ø2	 Ø4	 Ø8	 Ø9
15 s	26 s	30 s	40 s	26 s
 Ø5	 Ø6			
15 s	26 s			

2021 Build Weekday Evening Peak with Mitigation
12: Riverside Street & Warren Avenue

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	191	69	444	192	111	56	789	423	101	618	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	300		0	125		125	225		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1756	0	1698	1741	1599	1656	3574	1553	1805	3485	0
Flt Permitted	0.950			0.950	0.980		0.194			0.129		
Satd. Flow (perm)	1736	1756	0	1698	1741	1599	338	3574	1553	245	3485	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				129			202		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			420			1969			262	
Travel Time (s)		7.8			9.5			44.8			6.0	
Peak Hour Factor	0.78	0.78	0.78	0.86	0.86	0.86	0.88	0.88	0.88	0.91	0.91	0.91
Heavy Vehicles (%)	4%	2%	9%	1%	2%	1%	9%	1%	4%	0%	3%	0%
Shared Lane Traffic (%)				29%								
Lane Group Flow (vph)	138	333	0	366	373	129	64	897	481	111	712	0
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	21.0	21.0	9.0	21.0	
Total Split (s)	30.0	30.0		34.0	34.0	14.0	14.0	33.0	33.0	14.0	33.0	
Total Split (%)	21.9%	21.9%		24.8%	24.8%	10.2%	10.2%	24.1%	24.1%	10.2%	24.1%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	25.0	25.0		29.0	29.0	42.6	35.8	28.0	28.0	38.1	31.0	
Actuated g/C Ratio	0.23	0.23		0.26	0.26	0.39	0.32	0.25	0.25	0.34	0.28	
v/c Ratio	0.35	0.82		0.82	0.82	0.19	0.32	0.99	0.89	0.54	0.73	
Control Delay	39.2	57.0		55.2	54.4	4.6	26.9	69.9	42.5	33.3	42.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	39.2	57.0		55.2	54.4	4.6	26.9	69.9	42.5	33.3	42.0	
LOS	D	E		E	D	A	C	E	D	C	D	
Approach Delay		51.8			47.3			58.8			40.8	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	83	219		258	264	0	29	337	204	52	248	
Queue Length 95th (ft)	121	272		#387	#389	33	58	#458	#380	92	323	
Internal Link Dist (ft)		265			340			1889			182	
Turn Bay Length (ft)	75			300			125		125	225		
Base Capacity (vph)	392	406		445	456	700	220	904	543	211	977	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 Build Weekday Evening Peak with Mitigation
12: Riverside Street & Warren Avenue

2/3/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	26.0
Total Split (%)	19%
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 Build Weekday Evening Peak with Mitigation
 12: Riverside Street & Warren Avenue

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.35	0.82		0.82	0.82	0.18	0.29	0.99	0.89	0.53	0.73	

Intersection Summary

Area Type: Other

Cycle Length: 137

Actuated Cycle Length: 110.6

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 51.0

Intersection LOS: D

Intersection Capacity Utilization 75.7%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Riverside Street & Warren Avenue

 Ø1	 Ø2	 Ø4	 Ø8	 Ø9
14 s	33 s	30 s	34 s	26 s
 Ø5	 Ø6			
14 s	33 s			

2021 Build Saturday Midday Peak with Mitigation
12: Riverside Street & Warren Avenue

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	234	44	384	258	129	76	564	337	168	568	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	300		0	125		125	225		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	1815	0	1698	1769	1615	1805	3574	1615	1805	3541	0
Flt Permitted	0.950			0.950	0.990		0.212			0.188		
Satd. Flow (perm)	1770	1815	0	1698	1769	1615	403	3574	1615	357	3541	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				145			219		9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			420			1969			262	
Travel Time (s)		7.8			9.5			44.8			6.0	
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	3%	1%	1%	0%	0%	1%	0%	0%	0%	2%
Shared Lane Traffic (%)				18%								
Lane Group Flow (vph)	117	296	0	353	368	145	83	613	366	181	687	0
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0	9.0	9.0	21.0	21.0	9.0	21.0	
Total Split (s)	30.0	30.0		36.0	36.0	15.0	15.0	30.0	30.0	15.0	30.0	
Total Split (%)	21.9%	21.9%		26.3%	26.3%	10.9%	10.9%	21.9%	21.9%	10.9%	21.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	22.5	22.5		28.7	28.7	43.7	32.9	24.3	24.3	36.2	28.5	
Actuated g/C Ratio	0.21	0.21		0.27	0.27	0.41	0.31	0.23	0.23	0.34	0.27	
v/c Ratio	0.31	0.76		0.77	0.77	0.19	0.35	0.75	0.68	0.70	0.72	
Control Delay	38.2	52.1		48.3	47.8	4.0	27.8	45.0	22.3	40.8	41.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	38.2	52.1		48.3	47.8	4.0	27.8	45.0	22.3	40.8	41.8	
LOS	D	D		D	D	A	C	D	C	D	D	
Approach Delay		48.1			40.7			35.8			41.6	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	70	192		240	250	0	39	215	94	90	241	
Queue Length 95th (ft)	123	291		352	364	37	74	282	204	#168	#340	
Internal Link Dist (ft)		265			340			1889			182	
Turn Bay Length (ft)	75			300			125		125	225		
Base Capacity (vph)	421	436		501	522	753	264	850	551	260	960	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 Build Saturday Midday Peak with Mitigation
12: Riverside Street & Warren Avenue

2/3/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	9.0
Total Split (s)	26.0
Total Split (%)	19%
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 Build Saturday Midday Peak with Mitigation

12: Riverside Street & Warren Avenue

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.28	0.68		0.70	0.70	0.19	0.31	0.72	0.66	0.70	0.72	

Intersection Summary

Area Type: Other

Cycle Length: 137

Actuated Cycle Length: 105.7

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 40.3

Intersection LOS: D

Intersection Capacity Utilization 74.0%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Riverside Street & Warren Avenue

 Ø1	 Ø2	 Ø4	 Ø8	 Ø9
15 s	30 s	30 s	36 s	26 s
 Ø5	 Ø6			
15 s	30 s			

Riverside Street at Larrabee Road and the I-95 Ramps

2021 No-Build Weekday Evening Peak

13: Riverside Street & Larrabee Road/I-95 Ramps

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	309	247	65	152	288	713	38	430	221	392	372	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		0	155		155	100		0	160		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3498	0	1787	1863	1553	1805	3574	1583	1595	3215	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1787	3498	0	1787	1863	1553	1805	3574	1583	1595	3215	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26				498			238		136	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1181			1206			1456			1969	
Travel Time (s)		26.8			27.4			33.1			44.8	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93	0.84	0.84	0.84
Heavy Vehicles (%)	1%	0%	0%	1%	2%	4%	0%	1%	2%	3%	0%	1%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	386	390	0	169	320	792	41	462	238	420	834	0
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		6	6		2	2	
Permitted Phases						8			6			
Detector Phase	7	4		3	8	8	6	6	6	2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	20.0	25.0		20.0	25.0	25.0	30.0	30.0	30.0	35.0	35.0	
Total Split (%)	18.2%	22.7%		18.2%	22.7%	22.7%	27.3%	27.3%	27.3%	31.8%	31.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effect Green (s)	15.0	21.6		13.5	20.0	20.0	19.9	19.9	19.9	30.0	30.0	
Actuated g/C Ratio	0.14	0.21		0.13	0.19	0.19	0.19	0.19	0.19	0.29	0.29	
v/c Ratio	1.51	0.53		0.74	0.90	1.13	0.12	0.68	0.48	0.92	0.82	
Control Delay	283.5	38.8		64.2	71.7	93.2	35.4	45.0	8.2	64.6	37.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	283.5	38.8		64.2	71.7	93.2	35.4	45.0	8.2	64.6	37.4	
LOS	F	D		E	E	F	D	D	A	E	D	
Approach Delay		160.5			84.0			32.7			46.6	
Approach LOS		F			F			C			D	
Queue Length 50th (ft)	~365	118		109	213	~331	23	153	0	302	245	
Queue Length 95th (ft)	#494	153		#206	#397	#589	53	207	63	#481	310	
Internal Link Dist (ft)		1101			1126			1376			1889	
Turn Bay Length (ft)	190			155		155	100			160		
Base Capacity (vph)	255	739		255	355	699	430	852	558	456	1017	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 No-Build Weekday Evening Peak
13: Riverside Street & Larrabee Road/I-95 Ramps

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.51	0.53		0.66	0.90	1.13	0.10	0.54	0.43	0.92	0.82	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 105

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 77.7

Intersection LOS: E

Intersection Capacity Utilization 85.7%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Riverside Street & Larrabee Road/I-95 Ramps

 Ø2	 Ø6	 Ø3	 Ø4
35 s	30 s	20 s	25 s
		 Ø7	 Ø8
		20 s	25 s

2021 No-Build Saturday Midday Peak
13: Riverside Street & Larrabee Road/I-95 Ramps

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	255	136	65	145	218	471	34	404	174	418	473	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		0	155		155	100		0	160		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3410	0	1805	1881	1599	1805	3574	1599	1626	3288	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1805	3410	0	1805	1881	1599	1805	3574	1599	1626	3288	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64				466			193		46	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1181			1206			1456			1969	
Travel Time (s)		26.8			27.4			33.1			44.8	
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	1%	1%	1%	0%	1%
Shared Lane Traffic (%)										12%		
Lane Group Flow (vph)	293	231	0	158	237	512	38	449	193	395	787	0
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		6	6		2	2	
Permitted Phases						8			6			
Detector Phase	7	4		3	8	8	6	6	6	2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0	25.0	29.0	29.0	29.0	31.0	31.0	
Total Split (%)	22.7%	22.7%		22.7%	22.7%	22.7%	26.4%	26.4%	26.4%	28.2%	28.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	19.1	22.7		14.2	17.8	17.8	19.2	19.2	19.2	26.2	26.2	
Actuated g/C Ratio	0.19	0.22		0.14	0.17	0.17	0.19	0.19	0.19	0.26	0.26	
v/c Ratio	0.87	0.29		0.63	0.73	0.77	0.11	0.67	0.42	0.95	0.90	
Control Delay	67.9	26.2		54.0	54.7	14.8	35.9	44.4	8.3	73.5	50.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	67.9	26.2		54.0	54.7	14.8	35.9	44.4	8.3	73.5	50.5	
LOS	E	C		D	D	B	D	D	A	E	D	
Approach Delay		49.5			32.1			33.6			58.2	
Approach LOS		D			C			C			E	
Queue Length 50th (ft)	195	47		103	151	26	22	150	0	295	274	
Queue Length 95th (ft)	#340	87		168	#248	152	50	203	59	#537	#424	
Internal Link Dist (ft)		1101			1126			1376			1889	
Turn Bay Length (ft)	190			155		155	100			160		
Base Capacity (vph)	355	811		355	370	689	426	844	525	416	876	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 No-Build Saturday Midday Peak
 13: Riverside Street & Larrabee Road/I-95 Ramps

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.83	0.28		0.45	0.64	0.74	0.09	0.53	0.37	0.95	0.90	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 102.4
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 44.5
 Intersection LOS: D
 Intersection Capacity Utilization 74.7%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Riverside Street & Larrabee Road/I-95 Ramps

 Ø2	 Ø6	 Ø3	 Ø4
31 s	29 s	25 s	25 s
		 Ø7	 Ø8
		25 s	25 s

2021 Build Weekday Evening Peak
13: Riverside Street & Larrabee Road/I-95 Ramps

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	345	65	181	374	713	38	462	253	392	400	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		0	155		155	100		0	160		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3523	0	1787	1863	1553	1805	3574	1583	1595	3212	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1787	3523	0	1787	1863	1553	1805	3574	1583	1595	3212	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				492			272		146	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1181			1206			1456			1969	
Travel Time (s)		26.8			27.4			33.1			44.8	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93	0.84	0.84	0.84
Heavy Vehicles (%)	1%	0%	0%	1%	2%	4%	0%	1%	2%	3%	0%	1%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	425	512	0	201	416	792	41	497	272	420	902	0
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		6	6		2	2	
Permitted Phases						8			6			
Detector Phase	7	4		3	8	8	6	6	6	2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	20.0	25.0		20.0	25.0	25.0	30.0	30.0	30.0	35.0	35.0	
Total Split (%)	18.2%	22.7%		18.2%	22.7%	22.7%	27.3%	27.3%	27.3%	31.8%	31.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	15.0	20.7		14.4	20.0	20.0	21.4	21.4	21.4	30.0	30.0	
Actuated g/C Ratio	0.14	0.19		0.14	0.19	0.19	0.20	0.20	0.20	0.28	0.28	
v/c Ratio	1.69	0.73		0.83	1.19	1.15	0.11	0.69	0.51	0.93	0.89	
Control Delay	357.8	46.9		73.8	149.3	98.6	35.0	44.9	7.9	67.8	43.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	357.8	46.9		73.8	149.3	98.6	35.0	44.9	7.9	67.8	43.4	
LOS	F	D		E	F	F	C	D	A	E	D	
Approach Delay		187.9			110.0			32.0			51.2	
Approach LOS		F			F			C			D	
Queue Length 50th (ft)	~433	172		136	~350	~348	23	166	0	312	282	
Queue Length 95th (ft)	#550	206		#264	#556	#596	53	223	66	#481	#350	
Internal Link Dist (ft)		1101			1126			1376			1889	
Turn Bay Length (ft)	190			155		155	100			160		
Base Capacity (vph)	251	697		251	350	691	424	840	579	450	1011	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 Build Weekday Evening Peak
13: Riverside Street & Larrabee Road/I-95 Ramps

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	1.69	0.73		0.80	1.19	1.15	0.10	0.59	0.47	0.93	0.89	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 106.5

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.69

Intersection Signal Delay: 94.8

Intersection LOS: F

Intersection Capacity Utilization 89.7%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Riverside Street & Larrabee Road/I-95 Ramps

 Ø2	 Ø6	 Ø3	 Ø4
35 s	30 s	20 s	25 s
		 Ø7	 Ø8
		20 s	25 s

2021 Build Saturday Midday Peak
13: Riverside Street & Larrabee Road/I-95 Ramps

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	290	268	65	194	364	471	34	448	218	418	522	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		0	155		155	100		0	160		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3477	0	1805	1881	1599	1805	3574	1599	1626	3274	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1805	3477	0	1805	1881	1599	1805	3574	1599	1626	3274	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24				372			242		57	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1181			1206			1456			1969	
Travel Time (s)		26.8			27.4			33.1			44.8	
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	1%	1%	1%	0%	1%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	333	383	0	211	396	512	38	498	242	404	882	0
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		6	6		2	2	
Permitted Phases						8			6			
Detector Phase	7	4		3	8	8	6	6	6	2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0	25.0	29.0	29.0	29.0	31.0	31.0	
Total Split (%)	22.7%	22.7%		22.7%	22.7%	22.7%	26.4%	26.4%	26.4%	28.2%	28.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	20.0	23.4		16.7	20.0	20.0	20.9	20.9	20.9	26.0	26.0	
Actuated g/C Ratio	0.19	0.22		0.16	0.19	0.19	0.20	0.20	0.20	0.24	0.24	
v/c Ratio	0.99	0.49		0.75	1.12	0.85	0.11	0.71	0.48	1.02	1.05	
Control Delay	91.0	38.2		60.1	127.8	26.9	35.6	46.4	8.0	92.5	83.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	91.0	38.2		60.1	127.8	26.9	35.6	46.4	8.0	92.5	83.0	
LOS	F	D		E	F	C	D	D	A	F	F	
Approach Delay		62.8			68.9			33.9			86.0	
Approach LOS		E			E			C			F	
Queue Length 50th (ft)	~236	118		141	~325	96	22	168	0	~335	~358	
Queue Length 95th (ft)	#405	167		221	#521	#293	50	226	64	#553	#500	
Internal Link Dist (ft)		1101			1126			1376			1889	
Turn Bay Length (ft)	190			155		155	100			160		
Base Capacity (vph)	337	777		337	352	601	405	802	546	395	839	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 Build Saturday Midday Peak
13: Riverside Street & Larrabee Road/I-95 Ramps

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.99	0.49		0.63	1.13	0.85	0.09	0.62	0.44	1.02	1.05	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 107

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 66.4

Intersection LOS: E

Intersection Capacity Utilization 87.5%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Riverside Street & Larrabee Road/I-95 Ramps

 Ø2	 Ø6	 Ø3	 Ø4
31 s	29 s	25 s	25 s
		 Ø7	 Ø8
		25 s	25 s

2021 Build Weekday Evening Peak with Mitigation
13: Riverside Street & Larrabee Road/I-95 Ramps

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	345	65	181	374	713	38	462	253	392	400	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		0	155		155	100		0	160		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3523	0	1787	1863	1553	1805	3574	1583	1595	3212	0
Flt Permitted	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (perm)	1787	3523	0	1787	1863	1553	1805	3574	1583	1595	3212	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				494			272		117	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1181			1206			1456			1969	
Travel Time (s)		26.8			27.4			33.1			44.8	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93	0.84	0.84	0.84
Heavy Vehicles (%)	1%	0%	0%	1%	2%	4%	0%	1%	2%	3%	0%	1%
Shared Lane Traffic (%)										20%		
Lane Group Flow (vph)	425	512	0	201	416	792	41	497	272	374	948	0
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		6	6		2	2	
Permitted Phases						8			6			
Detector Phase	7	4		3	8	8	6	6	6	2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	25.0	31.0		25.0	31.0	31.0	21.0	21.0	21.0	33.0	33.0	
Total Split (%)	22.7%	28.2%		22.7%	28.2%	28.2%	19.1%	19.1%	19.1%	30.0%	30.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	20.0	29.2		16.8	26.0	26.0	16.0	16.0	16.0	28.0	28.0	
Actuated g/C Ratio	0.18	0.27		0.15	0.24	0.24	0.15	0.15	0.15	0.25	0.25	
v/c Ratio	1.31	0.54		0.74	0.95	1.06	0.16	0.96	0.59	0.92	1.05	
Control Delay	197.8	36.5		60.7	73.5	68.0	42.9	77.6	10.9	69.7	79.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	197.8	36.5		60.7	73.5	68.0	42.9	77.6	10.9	69.7	79.0	
LOS	F	D		E	E	E	D	E	B	E	E	
Approach Delay		109.7			68.6			53.4			76.4	
Approach LOS		F			E			D			E	
Queue Length 50th (ft)	~387	158		136	290	~332	26	185	0	283	~365	
Queue Length 95th (ft)	#490	191		211	#481	#570	59	#291	75	#427	#441	
Internal Link Dist (ft)		1101			1126			1376			1889	
Turn Bay Length (ft)	190			155		155	100			160		
Base Capacity (vph)	324	949		324	440	744	262	519	462	406	904	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 Build Weekday Evening Peak with Mitigation
13: Riverside Street & Larrabee Road/I-95 Ramps

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	1.31	0.54		0.62	0.95	1.06	0.16	0.96	0.59	0.92	1.05	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.31

Intersection Signal Delay: 76.7

Intersection LOS: E

Intersection Capacity Utilization 89.7%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Riverside Street & Larrabee Road/I-95 Ramps

 Ø2	 Ø6	 Ø3	 Ø4
33 s	21 s	25 s	31 s
		 Ø7	 Ø8
		25 s	31 s

2021 Build Saturday Midday Peak with Mitigation
13: Riverside Street & Larrabee Road/I-95 Ramps

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	290	268	65	194	364	471	34	448	218	418	522	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		0	155		155	100		0	160		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3477	0	1805	1881	1599	1805	3574	1599	1626	3274	0
Flt Permitted	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (perm)	1805	3477	0	1805	1881	1599	1805	3574	1599	1626	3274	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25				390			242		58	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1181			1206			1456			1969	
Travel Time (s)		26.8			27.4			33.1			44.8	
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	1%	1%	1%	0%	1%
Shared Lane Traffic (%)										10%		
Lane Group Flow (vph)	333	383	0	211	396	512	38	498	242	404	882	0
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		6	6		2	2	
Permitted Phases						8			6			
Detector Phase	7	4		3	8	8	6	6	6	2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	27.0	29.0		27.0	29.0	29.0	21.0	21.0	21.0	33.0	33.0	
Total Split (%)	24.5%	26.4%		24.5%	26.4%	26.4%	19.1%	19.1%	19.1%	30.0%	30.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	21.7	28.2		17.5	24.0	24.0	16.0	16.0	16.0	28.0	28.0	
Actuated g/C Ratio	0.20	0.26		0.16	0.22	0.22	0.15	0.15	0.15	0.26	0.26	
v/c Ratio	0.94	0.42		0.73	0.96	0.78	0.14	0.96	0.55	0.98	1.00	
Control Delay	77.9	34.2		58.7	79.4	19.6	42.7	77.1	10.6	80.0	70.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	77.9	34.2		58.7	79.4	19.6	42.7	77.1	10.6	80.0	70.0	
LOS	E	C		E	E	B	D	E	B	E	E	
Approach Delay		54.5			48.1			54.8			73.1	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	233	111		143	279	76	24	186	0	312	~328	
Queue Length 95th (ft)	#381	158		216	#471	220	55	#292	71	#529	#475	
Internal Link Dist (ft)		1101			1126			1376			1889	
Turn Bay Length (ft)	190			155		155	100			160		
Base Capacity (vph)	362	911		362	411	654	263	521	440	414	879	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	

2021 Build Saturday Midday Peak with Mitigation
13: Riverside Street & Larrabee Road/I-95 Ramps

2/3/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.42		0.58	0.96	0.78	0.14	0.96	0.55	0.98	1.00	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 109.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 58.9

Intersection LOS: E

Intersection Capacity Utilization 87.5%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Riverside Street & Larrabee Road/I-95 Ramps

 Ø2	 Ø6	 Ø3	 Ø4
33 s	21 s	27 s	29 s
		 Ø7	 Ø8
		27 s	29 s

Main Street and Brighton Avenue at Riverside Street

2021 No-Build Weekday Evening Peak

14: Main Street & Riverside Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	443	3	9	807	534	7	5	3	377	9	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	100		75	0		0	0		50
Storage Lanes	1		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1671	3606	0	1805	3610	1599	0	1806	0	1698	1706	1583
Flt Permitted	0.950			0.950				0.978		0.950	0.954	
Satd. Flow (perm)	1671	3606	0	1805	3610	1599	0	1806	0	1698	1706	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				192		5				192
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		546			837			336			1456	
Travel Time (s)		12.4			19.0			7.6			33.1	
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.63	0.63	0.63	0.88	0.88	0.88
Heavy Vehicles (%)	8%	0%	0%	0%	0%	1%	0%	0%	0%	1%	0%	2%
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	78	479	0	10	887	587	0	24	0	218	220	68
Turn Type	Prot	NA		Prot	NA	Free	Split	NA		Split	NA	Free
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases						Free						Free
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	21.5		9.5	21.5		15.0	15.0		21.5	21.5	
Total Split (s)	20.0	68.0		12.0	60.0		15.0	15.0		30.0	30.0	
Total Split (%)	16.0%	54.4%		9.6%	48.0%		12.0%	12.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	10.3	38.1		7.1	28.3	72.1		7.5		16.7	16.7	72.1
Actuated g/C Ratio	0.14	0.53		0.10	0.39	1.00		0.10		0.23	0.23	1.00
v/c Ratio	0.33	0.25		0.06	0.63	0.37		0.12		0.55	0.56	0.04
Control Delay	40.6	11.4		44.1	22.4	0.7		37.9		36.1	36.1	0.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	40.6	11.4		44.1	22.4	0.7		37.9		36.1	36.1	0.1
LOS	D	B		D	C	A		D		D	D	A
Approach Delay		15.5			13.9			37.9			31.2	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	30	41		4	149	0		8		85	86	0
Queue Length 95th (ft)	99	147		25	336	0		27		224	226	0
Internal Link Dist (ft)		466			757			256			1376	
Turn Bay Length (ft)	150			100		75						50
Base Capacity (vph)	420	2996		211	2795	1599		307		711	715	1583
Starvation Cap Reductn	0	0		0	0	0		0		0	0	0

2021 No-Build Weekday Evening Peak

14: Main Street & Riverside Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0		0		0	0	0
Storage Cap Reductn	0	0		0	0	0		0		0	0	0
Reduced v/c Ratio	0.19	0.16		0.05	0.32	0.37		0.08		0.31	0.31	0.04

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 72.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 17.9

Intersection LOS: B

Intersection Capacity Utilization 56.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 14: Main Street & Riverside Street

 p2	 p6	 p3	 p4
15 s	30 s	12 s	68 s
		 p8	 p7
		60 s	20 s

2021 No-Build Saturday Midday Peak

14: Main Street & Riverside Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	453	10	8	572	395	13	16	0	467	5	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	100		75	0		0	0		50
Storage Lanes	1		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3599	0	1805	3574	1599	0	1858	0	1715	1720	1568
Flt Permitted	0.950			0.950				0.978		0.950	0.953	
Satd. Flow (perm)	1719	3599	0	1805	3574	1599	0	1858	0	1715	1720	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				192						192
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		546			837			336			1456	
Travel Time (s)		12.4			19.0			7.6			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.58	0.58	0.58	0.96	0.96	0.96
Heavy Vehicles (%)	5%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	3%
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	5	488	0	9	615	425	0	50	0	243	248	45
Turn Type	Prot	NA		Prot	NA	Free	Split	NA		Split	NA	Free
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases						Free						Free
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	21.5		9.5	21.5		15.0	15.0		21.5	21.5	
Total Split (s)	20.0	68.0		12.0	60.0		15.0	15.0		30.0	30.0	
Total Split (%)	16.0%	54.4%		9.6%	48.0%		12.0%	12.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	6.7	17.9		6.8	17.9	53.2		8.1		15.6	15.6	53.2
Actuated g/C Ratio	0.13	0.34		0.13	0.34	1.00		0.15		0.29	0.29	1.00
v/c Ratio	0.02	0.40		0.04	0.51	0.27		0.18		0.48	0.49	0.03
Control Delay	32.0	17.4		31.8	18.5	0.4		29.4		22.9	23.0	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	32.0	17.4		31.8	18.5	0.4		29.4		22.9	23.0	0.0
LOS	C	B		C	B	A		C		C	C	A
Approach Delay		17.5			11.3			29.4			21.0	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	2	63		3	84	0		15		68	70	0
Queue Length 95th (ft)	14	160		20	204	0		38		194	198	0
Internal Link Dist (ft)		466			757			256			1376	
Turn Bay Length (ft)	150			100		75						50
Base Capacity (vph)	570	3394		279	3241	1599		410		947	950	1568
Starvation Cap Reductn	0	0		0	0	0		0		0	0	0

2021 No-Build Saturday Midday Peak

14: Main Street & Riverside Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0		0		0	0	0
Storage Cap Reductn	0	0		0	0	0		0		0	0	0
Reduced v/c Ratio	0.01	0.14		0.03	0.19	0.27		0.12		0.26	0.26	0.03

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 53.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 15.6

Intersection LOS: B

Intersection Capacity Utilization 43.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Main Street & Riverside Street

 p2	 p6	 p3	 p4
15 s	30 s	12 s	68 s
		 p8	 p7
		60 s	20 s

2021 Build Weekday Evening Peak
14: Main Street & Riverside Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	540	3	9	893	534	7	5	3	377	9	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	100		75	0		0	0		50
Storage Lanes	1		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1671	3606	0	1805	3610	1599	0	1806	0	1698	1706	1583
Flt Permitted	0.950			0.950				0.978		0.950	0.954	
Satd. Flow (perm)	1671	3606	0	1805	3610	1599	0	1806	0	1698	1706	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				192		5				192
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		546			837			336			1456	
Travel Time (s)		12.4			19.0			7.6			33.1	
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.63	0.63	0.63	0.88	0.88	0.88
Heavy Vehicles (%)	8%	0%	0%	0%	0%	1%	0%	0%	0%	1%	0%	2%
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	147	584	0	10	981	587	0	24	0	218	220	133
Turn Type	Prot	NA		Prot	NA	Free	Split	NA		Split	NA	Free
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases						Free						Free
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	21.5		9.5	21.5		15.0	15.0		21.5	21.5	
Total Split (s)	20.0	68.0		12.0	60.0		15.0	15.0		30.0	30.0	
Total Split (%)	16.0%	54.4%		9.6%	48.0%		12.0%	12.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	13.1	49.4		6.5	32.6	83.2		7.1		17.2	17.2	83.2
Actuated g/C Ratio	0.16	0.59		0.08	0.39	1.00		0.09		0.21	0.21	1.00
v/c Ratio	0.56	0.27		0.07	0.69	0.37		0.15		0.62	0.63	0.08
Control Delay	48.0	10.9		48.7	25.3	0.7		41.3		42.6	42.6	0.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	48.0	10.9		48.7	25.3	0.7		41.3		42.6	42.6	0.1
LOS	D	B		D	C	A		D		D	D	A
Approach Delay		18.3			16.3			41.3			32.7	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	67	54		5	201	0		9		104	105	0
Queue Length 95th (ft)	#195	181		26	382	0		27		238	240	0
Internal Link Dist (ft)		466			757			256			1376	
Turn Bay Length (ft)	150			100		75						50
Base Capacity (vph)	330	2827		166	2562	1599		242		558	561	1583
Starvation Cap Reductn	0	0		0	0	0		0		0	0	0

2021 Build Weekday Evening Peak
14: Main Street & Riverside Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0		0		0	0	0
Storage Cap Reductn	0	0		0	0	0		0		0	0	0
Reduced v/c Ratio	0.45	0.21		0.06	0.38	0.37		0.10		0.39	0.39	0.08

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 83.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 20.2

Intersection LOS: C

Intersection Capacity Utilization 62.1%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 14: Main Street & Riverside Street

 Ø2	 Ø6	 Ø3	 Ø4
15 s	30 s	12 s	68 s
		 Ø8	 Ø7
		60 s	20 s

2021 Build Saturday Midday Peak
14: Main Street & Riverside Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	584	10	8	718	395	13	16	0	467	5	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	100		75	0		0	0		50
Storage Lanes	1		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3599	0	1805	3574	1599	0	1858	0	1715	1720	1568
Flt Permitted	0.950			0.950				0.978		0.950	0.953	
Satd. Flow (perm)	1719	3599	0	1805	3574	1599	0	1858	0	1715	1720	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				192						192
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		546			837			336			1456	
Travel Time (s)		12.4			19.0			7.6			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.58	0.58	0.58	0.96	0.96	0.96
Heavy Vehicles (%)	5%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	3%
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	147	626	0	9	772	425	0	50	0	243	248	147
Turn Type	Prot	NA		Prot	NA	Free	Split	NA		Split	NA	Free
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases						Free						Free
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	21.5		9.5	21.5		15.0	15.0		21.5	21.5	
Total Split (s)	20.0	68.0		12.0	60.0		15.0	15.0		30.0	30.0	
Total Split (%)	16.0%	54.4%		9.6%	48.0%		12.0%	12.0%		24.0%	24.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	12.8	42.7		6.5	26.3	80.6		8.1		18.2	18.2	80.6
Actuated g/C Ratio	0.16	0.53		0.08	0.33	1.00		0.10		0.23	0.23	1.00
v/c Ratio	0.54	0.33		0.06	0.66	0.27		0.27		0.63	0.64	0.09
Control Delay	45.1	14.0		45.4	28.3	0.4		44.8		39.5	39.9	0.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	45.1	14.0		45.4	28.3	0.4		44.8		39.5	39.9	0.1
LOS	D	B		D	C	A		D		D	D	A
Approach Delay		19.9			18.6			44.8			30.6	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	76	99		5	197	0		26		129	132	0
Queue Length 95th (ft)	163	203		22	295	0		44		244	249	0
Internal Link Dist (ft)		466			757			256			1376	
Turn Bay Length (ft)	150			100		75						50
Base Capacity (vph)	349	2840		171	2552	1599		251		581	582	1568
Starvation Cap Reductn	0	0		0	0	0		0		0	0	0

2021 Build Saturday Midday Peak
14: Main Street & Riverside Street

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0		0		0	0	0
Storage Cap Reductn	0	0		0	0	0		0		0	0	0
Reduced v/c Ratio	0.42	0.22		0.05	0.30	0.27		0.20		0.42	0.43	0.09

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 80.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 22.3

Intersection LOS: C

Intersection Capacity Utilization 59.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 14: Main Street & Riverside Street

 p2	 p6	 p3	 p4
15 s	30 s	12 s	68 s
		 p8	 p7
		60 s	20 s

2021 Build Weekday Evening Peak *with Mitigation*
 14: Main Street & Riverside Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	540	3	9	893	534	7	5	3	377	9	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	100		75	0		0	0		50
Storage Lanes	1		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1671	3606	0	1805	3610	1599	0	1806	0	1698	1706	1583
Flt Permitted	0.950			0.950				0.978		0.950	0.954	
Satd. Flow (perm)	1671	3606	0	1805	3610	1599	0	1806	0	1698	1706	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				267		5				267
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		546			837			336			1456	
Travel Time (s)		12.4			19.0			7.6			33.1	
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.63	0.63	0.63	0.88	0.88	0.88
Heavy Vehicles (%)	8%	0%	0%	0%	0%	1%	0%	0%	0%	1%	0%	2%
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	147	584	0	10	981	587	0	24	0	218	220	133
Turn Type	Prot	NA		Prot	NA	Free	Split	NA		Split	NA	Free
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases						Free						Free
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	21.5		9.5	21.5		15.0	15.0		21.5	21.5	
Total Split (s)	20.0	43.9		9.5	33.4		15.1	15.1		21.5	21.5	
Total Split (%)	22.2%	48.8%		10.6%	37.1%		16.8%	16.8%		23.9%	23.9%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?												
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	15.0	57.0		5.2	38.9	90.0		6.6		16.1	16.1	90.0
Actuated g/C Ratio	0.17	0.63		0.06	0.43	1.00		0.07		0.18	0.18	1.00
v/c Ratio	0.53	0.26		0.10	0.63	0.37		0.18		0.72	0.72	0.08
Control Delay	39.7	6.3		42.9	24.6	0.7		35.8		48.5	48.6	0.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	39.7	6.3		42.9	24.6	0.7		35.8		48.5	48.6	0.1
LOS	D	A		D	C	A		D		D	D	A
Approach Delay		13.0			15.8			35.8			37.3	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	83	28		6	202	0		10		122	124	0
Queue Length 95th (ft)	140	193		22	#381	0		23		194	195	0
Internal Link Dist (ft)		466			757			256			1376	
Turn Bay Length (ft)	150			100		75						50
Base Capacity (vph)	278	2282		104	1558	1599		207		331	332	1583
Starvation Cap Reductn	0	0		0	0	0		0		0	0	0

Proposed Commercial Development
 VAI

Synchro 8 Report
 S:\Jobs\6846\Analysis\21bpm\site.syn

2021 Build Weekday Evening Peak

14: Main Street & Riverside Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0		0		0	0	0
Storage Cap Reductn	0	0		0	0	0		0		0	0	0
Reduced v/c Ratio	0.53	0.26		0.10	0.63	0.37		0.12		0.66	0.66	0.08

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 8 (9%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 19.5

Intersection LOS: B

Intersection Capacity Utilization 62.1%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 14: Main Street & Riverside Street

 Ø2	 Ø6	 Ø3	 Ø4 (R)
15.1 s	21.5 s	9.5 s	43.9 s
		 Ø8 (R)	 Ø7
		33.4 s	20 s

2021 Build Saturday Midday Peak *with Mitigation*
 14: Main Street & Riverside Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	584	10	8	718	395	13	16	0	467	5	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	100		75	0		0	0		50
Storage Lanes	1		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3599	0	1805	3574	1599	0	1858	0	1715	1720	1568
Flt Permitted	0.950			0.950				0.978		0.950	0.953	
Satd. Flow (perm)	1719	3599	0	1805	3574	1599	0	1858	0	1715	1720	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				267						267
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		546			837			336			1456	
Travel Time (s)		12.4			19.0			7.6			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.58	0.58	0.58	0.96	0.96	0.96
Heavy Vehicles (%)	5%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	3%
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	147	626	0	9	772	425	0	50	0	243	248	147
Turn Type	Prot	NA		Prot	NA	Free	Split	NA		Split	NA	Free
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases						Free						Free
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	21.5		9.5	21.5		15.0	15.0		21.5	21.5	
Total Split (s)	20.0	40.5		9.5	30.0		16.0	16.0		24.0	24.0	
Total Split (%)	22.2%	45.0%		10.6%	33.3%		17.8%	17.8%		26.7%	26.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?												
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effect Green (s)	15.0	52.3		5.2	34.2	90.0		7.9		17.4	17.4	90.0
Actuated g/C Ratio	0.17	0.58		0.06	0.38	1.00		0.09		0.19	0.19	1.00
v/c Ratio	0.51	0.30		0.09	0.57	0.27		0.31		0.73	0.75	0.09
Control Delay	44.6	16.9		42.6	26.6	0.4		42.8		47.4	48.3	0.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	44.6	16.9		42.6	26.6	0.4		42.8		47.4	48.3	0.1
LOS	D	B		D	C	A		D		D	D	A
Approach Delay		22.2			17.5			42.8			36.9	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	72	116		5	201	0		27		134	137	0
Queue Length 95th (ft)	125	192		20	281	0		38		218	223	0
Internal Link Dist (ft)		466			757			256			1376	
Turn Bay Length (ft)	150			100		75						50
Base Capacity (vph)	286	2091		104	1357	1599		227		372	373	1568
Starvation Cap Reductn	0	0		0	0	0		0		0	0	0

2021 Build Saturday Midday Peak
14: Main Street & Riverside Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0		0	0	0		0		0	0	0
Storage Cap Reductn	0	0		0	0	0		0		0	0	0
Reduced v/c Ratio	0.51	0.30		0.09	0.57	0.27		0.22		0.65	0.66	0.09

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 65 (72%), Referenced to phase 4:EBT and 8:WBT, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 24.0

Intersection LOS: C

Intersection Capacity Utilization 59.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 14: Main Street & Riverside Street

 $\phi 2$	 $\phi 6$	 $\phi 3$	 $\phi 4 (R)$
16 s	24 s	9.5 s	40.5 s
		 $\phi 8 (R)$	 $\phi 7$
		30 s	20 s

Westbrook Arterial and Rand Road at the I-95 Ramps

2021 No-Build Weekday Evening Peak

11: I-95 Ramps & Route 25

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Volume (vph)	322	425	203	355	536	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	12	12	12
Storage Length (ft)		250	325		150	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1881	1689	1719	1881	1770	1524
Flt Permitted			0.242		0.950	
Satd. Flow (perm)	1881	1689	438	1881	1770	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		310				160
Link Speed (mph)	30			30	30	
Link Distance (ft)	453			802	506	
Travel Time (s)	10.3			18.2	11.5	
Peak Hour Factor	0.93	0.93	0.79	0.79	0.87	0.87
Heavy Vehicles (%)	1%	2%	5%	1%	2%	6%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	346	457	257	449	616	160
Turn Type	NA	pm+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4	8			2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	9.0
Total Split (s)	35.0	35.0	20.0	55.0	35.0	20.0
Total Split (%)	38.9%	38.9%	22.2%	61.1%	38.9%	22.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	19.3	54.7	36.4	36.4	30.3	47.5
Actuated g/C Ratio	0.25	0.71	0.47	0.47	0.39	0.62
v/c Ratio	0.73	0.35	0.63	0.50	0.88	0.16
Control Delay	36.4	2.2	19.2	15.7	40.7	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	2.2	19.2	15.7	40.7	1.9
LOS	D	A	B	B	D	A
Approach Delay	16.9			17.0	32.7	
Approach LOS	B			B	C	
Queue Length 50th (ft)	152	18	72	139	266	0
Queue Length 95th (ft)	246	49	99	174	#547	23
Internal Link Dist (ft)	373			722	426	
Turn Bay Length (ft)		250	325		150	
Base Capacity (vph)	742	1290	460	1236	698	1057

2021 No-Build Weekday Evening Peak

11: I-95 Ramps & Route 25

1/25/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.35	0.56	0.36	0.88	0.15

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 76.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 22.3

Intersection LOS: C

Intersection Capacity Utilization 70.4%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: I-95 Ramps & Route 25

 p2	 p3	 p4
35 s	20 s	35 s
	 p8	
	55 s	

2021 No-Build Saturday Midday Peak
11: I-95 Ramps & Route 25

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Volume (vph)	248	303	117	233	278	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		250	325		150	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1881	1583	1787	1900	1770	1568
Flt Permitted			0.369		0.950	
Satd. Flow (perm)	1881	1583	694	1900	1770	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		374				117
Link Speed (mph)	30			30	30	
Link Distance (ft)	453			802	506	
Travel Time (s)	10.3			18.2	11.5	
Peak Hour Factor	0.81	0.81	0.92	0.92	0.84	0.84
Heavy Vehicles (%)	1%	2%	1%	0%	2%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	306	374	127	253	331	117
Turn Type	NA	Perm	pm+pt	NA	NA	pm+ov
Protected Phases	4		3	8	2	3
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	3
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	9.0
Total Split (s)	30.0	30.0	25.0	55.0	25.0	25.0
Total Split (%)	37.5%	37.5%	31.3%	68.8%	31.3%	31.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	16.1	16.1	25.6	25.6	16.0	29.4
Actuated g/C Ratio	0.31	0.31	0.49	0.49	0.30	0.56
v/c Ratio	0.53	0.50	0.25	0.27	0.62	0.13
Control Delay	20.4	4.8	8.4	8.5	23.9	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	4.8	8.4	8.5	23.9	2.5
LOS	C	A	A	A	C	A
Approach Delay	11.8			8.5	18.3	
Approach LOS	B			A	B	
Queue Length 50th (ft)	83	0	19	41	93	0
Queue Length 95th (ft)	143	33	45	84	186	19
Internal Link Dist (ft)	373			722	426	
Turn Bay Length (ft)		250	325		150	
Base Capacity (vph)	986	1008	851	1681	742	1254
Starvation Cap Reductn	0	0	0	0	0	0

2021 No-Build Saturday Midday Peak
11: I-95 Ramps & Route 25

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.37	0.15	0.15	0.45	0.09

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 52.6
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 12.9
 Intersection Capacity Utilization 47.4%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 11: I-95 Ramps & Route 25

↖ ρ2 25 s	↖ ρ3 25 s	→ ρ4 30 s
	← ρ8 55 s	

2021 Build Weekday Evening Peak
11: I-95 Ramps & Route 25

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Volume (vph)	353	555	203	384	651	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	12	12	12
Storage Length (ft)		250	325		150	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1881	1689	1719	1881	1770	1524
Flt Permitted			0.217		0.950	
Satd. Flow (perm)	1881	1689	393	1881	1770	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		295				160
Link Speed (mph)	30			30	30	
Link Distance (ft)	453			802	506	
Travel Time (s)	10.3			18.2	11.5	
Peak Hour Factor	0.93	0.93	0.79	0.79	0.87	0.87
Heavy Vehicles (%)	1%	2%	5%	1%	2%	6%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	380	597	257	486	748	160
Turn Type	NA	pm+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4	8			2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	9.0
Total Split (s)	35.0	35.0	20.0	55.0	35.0	20.0
Total Split (%)	38.9%	38.9%	22.2%	61.1%	38.9%	22.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	20.7	56.1	37.9	37.9	30.3	47.5
Actuated g/C Ratio	0.26	0.72	0.48	0.48	0.39	0.61
v/c Ratio	0.76	0.46	0.65	0.53	1.09	0.16
Control Delay	37.4	3.5	20.0	16.0	89.5	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	3.5	20.0	16.0	89.5	2.0
LOS	D	A	B	B	F	A
Approach Delay	16.7			17.4	74.1	
Approach LOS	B			B	E	
Queue Length 50th (ft)	170	42	72	155	~420	0
Queue Length 95th (ft)	273	92	98	191	#722	24
Internal Link Dist (ft)	373			722	426	
Turn Bay Length (ft)		250	325		150	
Base Capacity (vph)	728	1293	446	1214	685	1040

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21bpmPortland.syn

2021 Build Weekday Evening Peak
11: I-95 Ramps & Route 25

1/26/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.46	0.58	0.40	1.09	0.15

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 78.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 36.7
 Intersection LOS: D
 Intersection Capacity Utilization 78.4%
 ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 11: I-95 Ramps & Route 25

 Ø2	 Ø3	 Ø4
35 s	20 s	35 s
	 Ø8	
	55 s	

2021 Build Saturday Midday Peak
11: I-95 Ramps & Route 25

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Volume (vph)	292	478	117	282	473	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		250	325		150	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1881	1583	1787	1900	1770	1568
Flt Permitted			0.306		0.950	
Satd. Flow (perm)	1881	1583	576	1900	1770	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		590				117
Link Speed (mph)	30			30	30	
Link Distance (ft)	453			802	506	
Travel Time (s)	10.3			18.2	11.5	
Peak Hour Factor	0.81	0.81	0.92	0.92	0.84	0.84
Heavy Vehicles (%)	1%	2%	1%	0%	2%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	590	127	307	563	117
Turn Type	NA	Perm	pm+pt	NA	NA	pm+ov
Protected Phases	4		3	8	2	3
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	3
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	9.0
Total Split (s)	30.0	30.0	25.0	55.0	25.0	25.0
Total Split (%)	37.5%	37.5%	31.3%	68.8%	31.3%	31.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	19.3	19.3	32.1	32.1	20.2	33.0
Actuated g/C Ratio	0.31	0.31	0.51	0.51	0.32	0.53
v/c Ratio	0.62	0.66	0.28	0.31	0.98	0.13
Control Delay	23.4	5.7	9.1	9.4	60.3	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	5.7	9.1	9.4	60.3	2.6
LOS	C	A	A	A	E	A
Approach Delay	12.4			9.3	50.3	
Approach LOS	B			A	D	
Queue Length 50th (ft)	114	0	23	61	211	0
Queue Length 95th (ft)	170	35	45	102	#416	19
Internal Link Dist (ft)	373			722	426	
Turn Bay Length (ft)		250	325		150	
Base Capacity (vph)	761	991	688	1537	573	1174
Starvation Cap Reductn	0	0	0	0	0	0

2021 Build Saturday Midday Peak
 11: I-95 Ramps & Route 25

1/27/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.60	0.18	0.20	0.98	0.10

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 62.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 24.2

Intersection LOS: C

Intersection Capacity Utilization 60.6%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: I-95 Ramps & Route 25

↖ p2	↖ p3	→ p4
25 s	25 s	30 s
	← p8	
	55 s	

2021 Build Weekday Evening Peak with Mitigation
11: I-95 Ramps & Route 25

2/1/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Volume (vph)	353	555	203	384	651	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	12	12	12
Storage Length (ft)		250	325		150	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1881	1689	1719	1881	1770	1524
Flt Permitted			0.170		0.950	
Satd. Flow (perm)	1881	1689	308	1881	1770	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		139				140
Link Speed (mph)	30			30	30	
Link Distance (ft)	453			802	506	
Travel Time (s)	10.3			18.2	11.5	
Peak Hour Factor	0.93	0.93	0.79	0.79	0.87	0.87
Heavy Vehicles (%)	1%	2%	5%	1%	2%	6%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	380	597	257	486	748	160
Turn Type	NA	pm+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4	8			2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	9.0
Total Split (s)	27.0	48.0	15.0	42.0	48.0	15.0
Total Split (%)	30.0%	53.3%	16.7%	46.7%	53.3%	16.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	20.0	64.0	35.2	35.2	39.0	54.2
Actuated g/C Ratio	0.24	0.76	0.42	0.42	0.46	0.64
v/c Ratio	0.85	0.45	0.86	0.62	0.91	0.16
Control Delay	51.0	3.8	48.7	24.3	39.0	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	3.8	48.7	24.3	39.0	1.9
LOS	D	A	D	C	D	A
Approach Delay	22.1			32.8	32.4	
Approach LOS	C			C	C	
Queue Length 50th (ft)	205	61	99	214	369	4
Queue Length 95th (ft)	#353	101	#175	264	#569	22
Internal Link Dist (ft)	373			722	426	
Turn Bay Length (ft)		250	325		150	
Base Capacity (vph)	496	1400	298	836	914	1028

2021 Build Weekday Evening Peak with Mitigation
 11: I-95 Ramps & Route 25

2/1/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.43	0.86	0.58	0.82	0.16

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 84.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 28.7

Intersection LOS: C

Intersection Capacity Utilization 78.4%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: I-95 Ramps & Route 25

↘ø2	↖ø3	→ø4
48 s	15 s	27 s
	←ø8	
	42 s	

2021 Build Saturday Midday Peak with Mitigation
11: I-95 Ramps & Route 25

2/1/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Volume (vph)	292	478	117	282	473	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		250	325		150	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	1881	1583	1787	1900	1770	1568
Flt Permitted			0.273		0.950	
Satd. Flow (perm)	1881	1583	514	1900	1770	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		590				117
Link Speed (mph)	30			30	30	
Link Distance (ft)	453			802	506	
Travel Time (s)	10.3			18.2	11.5	
Peak Hour Factor	0.81	0.81	0.92	0.92	0.84	0.84
Heavy Vehicles (%)	1%	2%	1%	0%	2%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	590	127	307	563	117
Turn Type	NA	Perm	pm+pt	NA	NA	pm+ov
Protected Phases	4		3	8	2	3
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	3
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	9.0
Total Split (s)	28.0	28.0	16.0	44.0	36.0	16.0
Total Split (%)	35.0%	35.0%	20.0%	55.0%	45.0%	20.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	19.4	19.4	33.0	33.0	25.9	39.4
Actuated g/C Ratio	0.28	0.28	0.48	0.48	0.37	0.57
v/c Ratio	0.68	0.68	0.32	0.34	0.85	0.12
Control Delay	30.9	6.8	13.4	13.3	34.9	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	6.8	13.4	13.3	34.9	2.0
LOS	C	A	B	B	C	A
Approach Delay	15.9			13.3	29.3	
Approach LOS	B			B	C	
Queue Length 50th (ft)	146	0	32	86	232	0
Queue Length 95th (ft)	217	40	63	144	#346	16
Internal Link Dist (ft)	373			722	426	
Turn Bay Length (ft)		250	325		150	
Base Capacity (vph)	647	932	454	1109	821	1007
Starvation Cap Reductn	0	0	0	0	0	0

2021 Build Saturday Midday Peak with Mitigation

11: I-95 Ramps & Route 25

2/1/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.63	0.28	0.28	0.69	0.12

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 69.2

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 19.8

Intersection LOS: B

Intersection Capacity Utilization 60.6%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: I-95 Ramps & Route 25

 02	 03	 04
36 s	16 s	28 s
	 08	
	44 s	

Brighton Avenue at Rand Road and Cabot Street

2021 No-Build Weekday Evening Peak

8: Rand Road/Cabot Street & Route 25B/Route 25

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	713	0	387	1164	32	73	3	419	18	1	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	11	13	12	16	12
Storage Length (ft)	85		0	275		0	0		100	0		0
Storage Lanes	1		0	2		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3574	0	3433	3596	0	0	1703	1669	0	2001	0
Flt Permitted	0.950			0.950				0.954			0.968	
Satd. Flow (perm)	1805	3574	0	3433	3596	0	0	1703	1669	0	2001	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3				281		13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		387			670			753			328	
Travel Time (s)		8.8			15.2			17.1			7.5	
Peak Hour Factor	0.92	0.90	0.92	0.91	0.91	0.91	0.89	0.89	0.89	0.63	0.63	0.63
Heavy Vehicles (%)	0%	1%	0%	2%	0%	0%	3%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	792	0	425	1314	0	0	85	471	0	44	0
Turn Type	Prot	NA		Prot	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	7	4		3	8		2	2	3	6	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		2	2	3	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0	9.0	21.0	21.0	
Total Split (s)	12.0	53.0		25.0	66.0		21.0	21.0	25.0	21.0	21.0	
Total Split (%)	10.0%	44.2%		20.8%	55.0%		17.5%	17.5%	20.8%	17.5%	17.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lead/Lag	Lag	Lag		Lead	Lead				Lead			
Lead-Lag Optimize?		Yes		Yes					Yes			
Recall Mode	None	None		None	None		None	None	None	None	None	
Act Effct Green (s)	7.1	27.1		16.7	50.8			10.5	25.6		8.0	
Actuated g/C Ratio	0.10	0.37		0.23	0.69			0.14	0.35		0.11	
v/c Ratio	0.05	0.60		0.55	0.53			0.35	0.62		0.19	
Control Delay	44.4	23.0		33.3	11.3			41.4	10.5		33.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	44.4	23.0		33.3	11.3			41.4	10.5		33.8	
LOS	D	C		C	B			D	B		C	
Approach Delay		23.2			16.7			15.2			33.8	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)	4	174		97	192			39	44		14	
Queue Length 95th (ft)	22	277		205	423			106	161		37	
Internal Link Dist (ft)		307			590			673			248	
Turn Bay Length (ft)	85			275					100			
Base Capacity (vph)	209	2431		1138	2885			451	909		540	

Proposed Commercial Development
VAI

S:\Jobs\6846\Analysis\21nbpmPortland.syn
Synchro 8 Report

2021 No-Build Weekday Evening Peak

8: Rand Road/Cabot Street & Route 25B/Route 25

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	108			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.04	0.33		0.37	0.47			0.19	0.52		0.08	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 73.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 18.3

Intersection LOS: B

Intersection Capacity Utilization 61.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Rand Road/Cabot Street & Route 25B/Route 25

 Ø2	 Ø6	 Ø3	 Ø4
21 s	21 s	25 s	53 s
		 Ø8	 Ø7
		66 s	12 s

2021 No-Build Saturday Midday Peak
8: Rand Road/Cabot Street & Route 25B/Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	790	47	213	786	15	58	5	249	13	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	11	13	12	16	12
Storage Length (ft)	85		0	275		0	0		100	0		0
Storage Lanes	1		0	2		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3577	0	3502	3564	0	0	1756	1669	0	2032	0
Flt Permitted	0.950			0.950				0.956			0.972	
Satd. Flow (perm)	1805	3577	0	3502	3564	0	0	1756	1669	0	2032	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			2				274		7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		387			670			753			328	
Travel Time (s)		8.8			15.2			17.1			7.5	
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.91	0.91	0.91	0.69	0.69	0.69
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	951	0	232	870	0	0	69	274	0	33	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0	21.0	21.0	21.0	
Total Split (s)	12.0	53.0		25.0	66.0		21.0	21.0	21.0	21.0	21.0	
Total Split (%)	10.0%	44.2%		20.8%	55.0%		17.5%	17.5%	17.5%	17.5%	17.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?		Yes		Yes								
Recall Mode	None	None		None	None		None	None	None	None	None	
Act Effct Green (s)	7.5	27.6		11.1	41.4			9.3	9.3		7.1	
Actuated g/C Ratio	0.11	0.39		0.16	0.58			0.13	0.13		0.10	
v/c Ratio	0.01	0.68		0.42	0.42			0.30	0.60		0.16	
Control Delay	36.0	21.7		33.7	11.8			37.4	11.2		34.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	36.0	21.7		33.7	11.8			37.4	11.2		34.0	
LOS	D	C		C	B			D	B		C	
Approach Delay		21.7			16.4			16.4			34.0	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)	0	188		51	101			30	0		11	
Queue Length 95th (ft)	6	311		109	286			82	72		34	
Internal Link Dist (ft)		307			590			673			248	
Turn Bay Length (ft)	85			275					100			
Base Capacity (vph)	225	2605		1089	2961			437	621		510	

2021 No-Build Saturday Midday Peak

8: Rand Road/Cabot Street & Route 25B/Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.00	0.37		0.21	0.29			0.16	0.44		0.06	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 70.8

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 18.7

Intersection LOS: B

Intersection Capacity Utilization 54.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Rand Road/Cabot Street & Route 25B/Route 25

 ρ2	 ρ6	 ρ3	 ρ4
21 s	21 s	25 s	53 s
		 ρ8	 ρ7
		66 s	12 s

2021 Build Weekday Evening Peak
8: Rand Road/Cabot Street & Route 25B/Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	810	0	416	1250	32	73	3	450	18	1	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	11	13	12	16	12
Storage Length (ft)	85		0	275		0	0		100	0		0
Storage Lanes	1		0	2		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3574	0	3433	3596	0	0	1703	1669	0	2001	0
Flt Permitted	0.950			0.950				0.954			0.968	
Satd. Flow (perm)	1805	3574	0	3433	3596	0	0	1703	1669	0	2001	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3				263		13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		387			670			753			328	
Travel Time (s)		8.8			15.2			17.1			7.5	
Peak Hour Factor	0.92	0.90	0.92	0.91	0.91	0.91	0.89	0.89	0.89	0.63	0.63	0.63
Heavy Vehicles (%)	0%	1%	0%	2%	0%	0%	3%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	900	0	457	1409	0	0	85	506	0	44	0
Turn Type	Prot	NA		Prot	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	7	4		3	8		2	2	3	6	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		2	2	3	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0	9.0	21.0	21.0	
Total Split (s)	12.0	53.0		25.0	66.0		21.0	21.0	25.0	21.0	21.0	
Total Split (%)	10.0%	44.2%		20.8%	55.0%		17.5%	17.5%	20.8%	17.5%	17.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lead/Lag	Lag	Lag		Lead	Lead				Lead			
Lead-Lag Optimize?		Yes		Yes					Yes			
Recall Mode	None	None		None	None		None	None	None	None	None	
Act Effct Green (s)	6.9	30.4		17.6	54.7			10.6	26.7		7.9	
Actuated g/C Ratio	0.09	0.39		0.23	0.70			0.14	0.34		0.10	
v/c Ratio	0.05	0.64		0.59	0.56			0.37	0.68		0.21	
Control Delay	46.0	23.9		35.4	11.6			43.5	14.0		35.1	
Queue Delay	0.0	0.0		0.0	0.1			0.0	0.0		0.0	
Total Delay	46.0	23.9		35.4	11.7			43.5	14.0		35.1	
LOS	D	C		D	B			D	B		D	
Approach Delay		24.1			17.5			18.2			35.1	
Approach LOS		C			B			B			D	
Queue Length 50th (ft)	4	215		114	217			43	67		16	
Queue Length 95th (ft)	22	325		221	472			106	200		37	
Internal Link Dist (ft)		307			590			673			248	
Turn Bay Length (ft)	85			275					100			
Base Capacity (vph)	193	2323		1051	2777			417	856		499	

2021 Build Weekday Evening Peak
 8: Rand Road/Cabot Street & Route 25B/Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	204			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.04	0.39		0.43	0.55			0.20	0.59		0.09	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 77.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 19.6
 Intersection LOS: B
 Intersection Capacity Utilization 66.1%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 8: Rand Road/Cabot Street & Route 25B/Route 25

 Ø2	 Ø6	 Ø3	 Ø4
21 s	21 s	25 s	53 s
		 Ø8	 Ø7
		66 s	12 s

2021 Build Saturday Midday Peak

8: Rand Road/Cabot Street & Route 25B/Route 25

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	921	47	262	932	15	58	5	293	13	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	11	13	12	16	12
Storage Length (ft)	85		0	275		0	0		100	0		0
Storage Lanes	1		0	2		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3581	0	3502	3568	0	0	1756	1669	0	2032	0
Flt Permitted	0.950			0.950				0.956			0.972	
Satd. Flow (perm)	1805	3581	0	3502	3568	0	0	1756	1669	0	2032	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2				322		7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		387			670			753			328	
Travel Time (s)		8.8			15.2			17.1			7.5	
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.91	0.91	0.91	0.69	0.69	0.69
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	1100	0	285	1029	0	0	69	322	0	33	0
Turn Type	Prot	NA		Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0	21.0	21.0	21.0	
Total Split (s)	12.0	53.0		25.0	66.0		21.0	21.0	21.0	21.0	21.0	
Total Split (%)	10.0%	44.2%		20.8%	55.0%		17.5%	17.5%	17.5%	17.5%	17.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?		Yes		Yes								
Recall Mode	None	None		None	None		None	None	None	None	None	
Act Effct Green (s)	7.6	33.7		12.9	49.1			9.7	9.7		7.2	
Actuated g/C Ratio	0.10	0.43		0.16	0.62			0.12	0.12		0.09	
v/c Ratio	0.01	0.72		0.50	0.46			0.32	0.66		0.17	
Control Delay	41.0	23.0		37.3	11.8			42.2	12.3		38.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	41.0	23.0		37.3	11.8			42.2	12.3		38.1	
LOS	D	C		D	B			D	B		D	
Approach Delay		23.0			17.4			17.6			38.1	
Approach LOS		C			B			B			D	
Queue Length 50th (ft)	1	245		72	130			34	0		13	
Queue Length 95th (ft)	6	394		140	360			88	82		36	
Internal Link Dist (ft)		307			590			673			248	
Turn Bay Length (ft)	85			275					100			
Base Capacity (vph)	204	2390		973	2803			390	621		457	

2021 Build Saturday Midday Peak

8: Rand Road/Cabot Street & Route 25B/Route 25

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.00	0.46		0.29	0.37			0.18	0.52		0.07	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 79.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 19.8

Intersection LOS: B

Intersection Capacity Utilization 60.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Rand Road/Cabot Street & Route 25B/Route 25

 p2	 p6	 p3	 p4
21 s	21 s	25 s	53 s
		 p8	 p7
		66 s	12 s

Brighton Avenue at Capisic Street, Kent Street and Hillcrest Avenue

2021 No-Build Weekday Evening Peak

30 7: Hillcrest Avenue/Kent Street & Capisis Street & Route 25

1/25/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBT	WBR	NBT	NBR	NBR2	SBL2	SBT
Lane Configurations		↔				↔		↔				↔
Volume (vph)	6	889	268	1	2	1116	20	0	3	1	8	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	12	14
Satd. Flow (prot)	0	3457	0	0	0	3564	0	1863	0	0	0	1868
Flt Permitted		0.946				0.953						0.922
Satd. Flow (perm)	0	3271	0	0	0	3397	0	1863	0	0	0	1742
Right Turn on Red				No			Yes			Yes		
Satd. Flow (RTOR)						2		109				25
Link Speed (mph)		30				30		30				30
Link Distance (ft)		670				949		342				398
Travel Time (s)		15.2				21.6		7.8				9.0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.93	0.93	0.93	0.50	0.50	0.50	0.72	0.72
Heavy Vehicles (%)	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1308	0	0	0	1224	0	8	0	0	0	50
Turn Type	Perm	NA			Perm	NA		NA			Perm	NA
Protected Phases		4				8		2				6
Permitted Phases	4				8						6	
Detector Phase	4	4			8	8		2			6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0		4.0			4.0	4.0
Minimum Split (s)	23.0	23.0			23.0	23.0		23.0			23.0	23.0
Total Split (s)	54.0	54.0			54.0	54.0		16.0			16.0	16.0
Total Split (%)	54.0%	54.0%			54.0%	54.0%		16.0%			16.0%	16.0%
Yellow Time (s)	3.5	3.5			3.5	3.5		3.5			3.5	3.5
All-Red Time (s)	3.5	3.5			3.5	3.5		3.5			3.5	3.5
Lost Time Adjust (s)		0.0				0.0		0.0				0.0
Total Lost Time (s)		7.0				7.0		7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None	None		None			None	None
Act Effct Green (s)		40.5				40.5		7.1				7.2
Actuated g/C Ratio		0.51				0.51		0.09				0.09
v/c Ratio		0.78				0.70		0.03				0.28
Control Delay		21.2				18.7		0.2				29.1
Queue Delay		0.0				0.0		0.0				0.0
Total Delay		21.2				18.7		0.2				29.1
LOS		C				B		A				C
Approach Delay		21.2				18.7		0.3				29.1
Approach LOS		C				B		A				C
Queue Length 50th (ft)		299				262		0				13
Queue Length 95th (ft)		452				403		0				37
Internal Link Dist (ft)		590				869		262				318
Turn Bay Length (ft)												
Base Capacity (vph)		2106				2188		325				236
Starvation Cap Reductn		0				0		0				0
Spillback Cap Reductn		0				0		0				0
Storage Cap Reductn		0				0		0				0

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpmPortland.syn

2021 No-Build Weekday Evening Peak

7: Hillcrest Avenue/Kent Street & Capisis Street & Route 25

1/25/2016

					
Lane Group	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations			LT		
Volume (vph)	18	1	361	14	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12
Satd. Flow (prot)	0	0	3362	0	0
Flt Permitted			0.956		
Satd. Flow (perm)	0	0	3362	0	0
Right Turn on Red	Yes				No
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			881		
Travel Time (s)			20.0		
Peak Hour Factor	0.72	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	0	440	0	0
Turn Type		Split	NA		
Protected Phases		9	9		
Permitted Phases					
Detector Phase		9	9		
Switch Phase					
Minimum Initial (s)		4.0	4.0		
Minimum Split (s)		22.0	22.0		
Total Split (s)		30.0	30.0		
Total Split (%)		30.0%	30.0%		
Yellow Time (s)		3.5	3.5		
All-Red Time (s)		2.5	2.5		
Lost Time Adjust (s)			0.0		
Total Lost Time (s)			6.0		
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode		None	None		
Act Effct Green (s)			16.7		
Actuated g/C Ratio			0.21		
v/c Ratio			0.62		
Control Delay			34.8		
Queue Delay			0.0		
Total Delay			34.8		
LOS			C		
Approach Delay			34.8		
Approach LOS			C		
Queue Length 50th (ft)			119		
Queue Length 95th (ft)			177		
Internal Link Dist (ft)			801		
Turn Bay Length (ft)					
Base Capacity (vph)			1105		
Starvation Cap Reductn			0		
Spillback Cap Reductn			0		
Storage Cap Reductn			0		

2021 No-Build Weekday Evening Peak

7: Hillcrest Avenue/Kent Street & Capiis Street & Route 25

1/25/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBT	WBR	NBT	NBR	NBR2	SBL2	SBT
Reduced v/c Ratio		0.62				0.56		0.02				0.21

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 78.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 22.3

Intersection LOS: C

Intersection Capacity Utilization 74.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: Hillcrest Avenue/Kent Street & Capiis Street & Route 25

 p2	 p4	 p9
16 s	54 s	30 s
 p6	 p8	
16 s	54 s	

2021 No-Build Weekday Evening Peak

7: Hillcreast Avenue/Kent Street & Capisis Street & Route 25

1/25/2016



Lane Group	SBR	NWL2	NWL	NWR	NWR2
Reduced v/c Ratio			0.40		
Intersection Summary					

2021 No-Build Saturday Midday Peak
7: Kent Street & Route 25 & Capisic Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL2	WBT	WBR	NBL	NBT	SBL2	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (vph)	7	744	232	7	779	4	1	0	14	11	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Satd. Flow (prot)	0	3457	0	0	3606	0	0	2046	0	0	1877	0
Flt Permitted		0.946			0.943							
Satd. Flow (perm)	0	3271	0	0	3401	0	0	2153	0	0	1944	0
Right Turn on Red						Yes						Yes
Satd. Flow (RTOR)					1						109	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		670			949			342			398	
Travel Time (s)		15.2			21.6			7.8			9.0	
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.25	0.25	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1081	0	0	940	0	0	4	0	0	56	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		6	6		
Detector Phase	4	4		8	8		2	2	6	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0	23.0	23.0	23.0	
Total Split (s)	54.0	54.0		54.0	54.0		16.0	16.0	16.0	16.0	16.0	
Total Split (%)	54.0%	54.0%		54.0%	54.0%		16.0%	16.0%	16.0%	16.0%	16.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		7.0			7.0			7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None	None	None	None	
Act Effct Green (s)		31.0			31.0			6.3			6.3	
Actuated g/C Ratio		0.49			0.49			0.10			0.10	
v/c Ratio		0.68			0.57			0.02			0.19	
Control Delay		15.9			13.9			35.0			2.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.9			13.9			35.0			2.6	
LOS		B			B			C			A	
Approach Delay		15.9			13.9			35.0			2.6	
Approach LOS		B			B			C			A	
Queue Length 50th (ft)		183			146			2			0	
Queue Length 95th (ft)		281			204			3			0	
Internal Link Dist (ft)		590			869			262			318	
Turn Bay Length (ft)												
Base Capacity (vph)		2490			2590			335			395	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	

2021 No-Build Saturday Midday Peak
7: Kent Street & Route 25 & Capisic Street

1/26/2016

				
Lane Group	NWL2	NWL	NWR	NWR2
Lane Configurations		TTT		
Volume (vph)	1	213	11	5
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12
Satd. Flow (prot)	0	3341	0	0
Flt Permitted		0.956		
Satd. Flow (perm)	0	3341	0	0
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		881		
Travel Time (s)		20.0		
Peak Hour Factor	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	1%	0%	0%
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	277	0	0
Turn Type	Split	NA		
Protected Phases	9	9		
Permitted Phases				
Detector Phase	9	9		
Switch Phase				
Minimum Initial (s)	4.0	4.0		
Minimum Split (s)	22.0	22.0		
Total Split (s)	30.0	30.0		
Total Split (%)	30.0%	30.0%		
Yellow Time (s)	3.5	3.5		
All-Red Time (s)	2.5	2.5		
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None		
Act Effct Green (s)		11.8		
Actuated g/C Ratio		0.19		
v/c Ratio		0.45		
Control Delay		29.1		
Queue Delay		0.0		
Total Delay		29.1		
LOS		C		
Approach Delay		29.1		
Approach LOS		C		
Queue Length 50th (ft)		54		
Queue Length 95th (ft)		100		
Internal Link Dist (ft)		801		
Turn Bay Length (ft)				
Base Capacity (vph)		1389		
Starvation Cap Reductn		0		
Spillback Cap Reductn		0		
Storage Cap Reductn		0		

2021 No-Build Saturday Midday Peak
 7: Kent Street & Route 25 & Capisic Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL2	WBT	WBR	NBL	NBT	SBL2	SBL	SBT	SBR
Reduced v/c Ratio		0.43			0.36			0.01			0.14	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 63.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 16.3

Intersection LOS: B

Intersection Capacity Utilization 59.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Kent Street & Route 25 & Capisic Street

 ϕ2	 ϕ4	 ϕ9
16 s	54 s	30 s
 ϕ6	 ϕ8	
16 s	54 s	

2021 No-Build Saturday Midday Peak
7: Kent Street & Route 25 & Capisic Street

1/26/2016



Lane Group	NWL2	NWL	NWR	NWR2
Reduced v/c Ratio		0.20		
Intersection Summary				

2021 Build Weekday Evening Peak

7: Hillcrest Avenue/Kent Street & Capisis Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBT	WBR	NBT	NBR	NBR2	SBL2	SBT
Lane Configurations		↔↔				↔↔		↕				↕
Volume (vph)	6	986	299	1	2	1202	20	0	3	1	8	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	12	14
Satd. Flow (prot)	0	3457	0	0	0	3564	0	1863	0	0	0	1868
Flt Permitted		0.946				0.953						0.922
Satd. Flow (perm)	0	3271	0	0	0	3397	0	1863	0	0	0	1742
Right Turn on Red				No			Yes			Yes		
Satd. Flow (RTOR)						2		109				25
Link Speed (mph)		30				30		30				30
Link Distance (ft)		670				949		342				398
Travel Time (s)		15.2				21.6		7.8				9.0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.93	0.93	0.93	0.50	0.50	0.50	0.72	0.72
Heavy Vehicles (%)	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1452	0	0	0	1316	0	8	0	0	0	50
Turn Type	Perm	NA			Perm	NA		NA			Perm	NA
Protected Phases		4				8		2				6
Permitted Phases	4				8						6	
Detector Phase	4	4			8	8		2			6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0		4.0			4.0	4.0
Minimum Split (s)	23.0	23.0			23.0	23.0		23.0			23.0	23.0
Total Split (s)	54.0	54.0			54.0	54.0		16.0			16.0	16.0
Total Split (%)	54.0%	54.0%			54.0%	54.0%		16.0%			16.0%	16.0%
Yellow Time (s)	3.5	3.5			3.5	3.5		3.5			3.5	3.5
All-Red Time (s)	3.5	3.5			3.5	3.5		3.5			3.5	3.5
Lost Time Adjust (s)		0.0				0.0		0.0				0.0
Total Lost Time (s)		7.0				7.0		7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None	None		None			None	None
Act Effct Green (s)		44.4				44.4		7.0				7.0
Actuated g/C Ratio		0.53				0.53		0.08				0.08
v/c Ratio		0.84				0.73		0.03				0.30
Control Delay		24.4				20.0		0.2				29.9
Queue Delay		0.0				0.0		0.0				0.0
Total Delay		24.4				20.0		0.2				29.9
LOS		C				C		A				C
Approach Delay		24.4				20.0		0.3				29.9
Approach LOS		C				C		A				C
Queue Length 50th (ft)		368				302		0				14
Queue Length 95th (ft)		#601				463		0				37
Internal Link Dist (ft)		590				869		262				318
Turn Bay Length (ft)												
Base Capacity (vph)		1924				1999		306				218
Starvation Cap Reductn		0				0		0				0
Spillback Cap Reductn		0				0		0				0
Storage Cap Reductn		0				0		0				0

2021 Build Weekday Evening Peak

7: Hillcrest Avenue/Kent Street & Capisis Street & Route 25

1/26/2016

					
Lane Group	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations			TT		
Volume (vph)	18	1	390	14	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12
Satd. Flow (prot)	0	0	3365	0	0
Flt Permitted			0.956		
Satd. Flow (perm)	0	0	3365	0	0
Right Turn on Red	Yes				No
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			881		
Travel Time (s)			20.0		
Peak Hour Factor	0.72	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	0	472	0	0
Turn Type		Split	NA		
Protected Phases		9	9		
Permitted Phases					
Detector Phase		9	9		
Switch Phase					
Minimum Initial (s)		4.0	4.0		
Minimum Split (s)		22.0	22.0		
Total Split (s)		30.0	30.0		
Total Split (%)		30.0%	30.0%		
Yellow Time (s)		3.5	3.5		
All-Red Time (s)		2.5	2.5		
Lost Time Adjust (s)			0.0		
Total Lost Time (s)			6.0		
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode		None	None		
Act Effct Green (s)			17.8		
Actuated g/C Ratio			0.21		
v/c Ratio			0.66		
Control Delay			36.7		
Queue Delay			0.0		
Total Delay			36.7		
LOS			D		
Approach Delay			36.7		
Approach LOS			D		
Queue Length 50th (ft)			132		
Queue Length 95th (ft)			189		
Internal Link Dist (ft)			801		
Turn Bay Length (ft)					
Base Capacity (vph)			1010		
Starvation Cap Reductn			0		
Spillback Cap Reductn			0		
Storage Cap Reductn			0		

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21bpmPortland.syn

2021 Build Weekday Evening Peak

7: Hillcrest Avenue/Kent Street & Capiis Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBT	WBR	NBT	NBR	NBR2	SBL2	SBT
Reduced v/c Ratio		0.75				0.66		0.03				0.23

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 83.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 24.4

Intersection LOS: C

Intersection Capacity Utilization 78.8%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Hillcrest Avenue/Kent Street & Capiis Street & Route 25

 ø2	 ø4	 ø9
16 s	54 s	30 s
 ø6	 ø8	
16 s	54 s	



Lane Group	SBR	NWL2	NWL	NWR	NWR2
Reduced v/c Ratio			0.47		
Intersection Summary					

2021 Build Saturday Midday Peak
7: Kent Street & Route 25 & Capisic Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL2	WBT	WBR	NBL	NBT	SBL2	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (vph)	7	875	276	7	925	4	1	0	14	11	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Satd. Flow (prot)	0	3454	0	0	3606	0	0	2046	0	0	1877	0
Flt Permitted		0.946			0.942							
Satd. Flow (perm)	0	3267	0	0	3397	0	0	2153	0	0	1944	0
Right Turn on Red						Yes						Yes
Satd. Flow (RTOR)					1						109	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		670			949			342			398	
Travel Time (s)		15.2			21.6			7.8			9.0	
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.25	0.25	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1273	0	0	1114	0	0	4	0	0	56	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		6	6		
Detector Phase	4	4		8	8		2	2	6	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0	23.0	23.0	23.0	
Total Split (s)	54.0	54.0		54.0	54.0		16.0	16.0	16.0	16.0	16.0	
Total Split (%)	54.0%	54.0%		54.0%	54.0%		16.0%	16.0%	16.0%	16.0%	16.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		7.0			7.0			7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None	None	None	None	
Act Effct Green (s)		38.2			38.2			6.2			6.2	
Actuated g/C Ratio		0.53			0.53			0.09			0.09	
v/c Ratio		0.74			0.62			0.02			0.21	
Control Delay		17.6			14.9			39.0			2.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.6			14.9			39.0			2.8	
LOS		B			B			D			A	
Approach Delay		17.6			14.9			39.0			2.8	
Approach LOS		B			B			D			A	
Queue Length 50th (ft)		256			203			2			0	
Queue Length 95th (ft)		381			270			3			0	
Internal Link Dist (ft)		590			869			262			318	
Turn Bay Length (ft)												
Base Capacity (vph)		2240			2329			289			355	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	

2021 Build Saturday Midday Peak
7: Kent Street & Route 25 & Capisic Street

1/27/2016

				
Lane Group	NWL2	NWL	NWR	NWR2
Lane Configurations		TTT		
Volume (vph)	1	262	11	5
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12
Satd. Flow (prot)	0	3344	0	0
Flt Permitted		0.955		
Satd. Flow (perm)	0	3344	0	0
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		881		
Travel Time (s)		20.0		
Peak Hour Factor	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	1%	0%	0%
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	336	0	0
Turn Type	Split	NA		
Protected Phases	9	9		
Permitted Phases				
Detector Phase	9	9		
Switch Phase				
Minimum Initial (s)	4.0	4.0		
Minimum Split (s)	22.0	22.0		
Total Split (s)	30.0	30.0		
Total Split (%)	30.0%	30.0%		
Yellow Time (s)	3.5	3.5		
All-Red Time (s)	2.5	2.5		
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None		
Act Effct Green (s)		13.7		
Actuated g/C Ratio		0.19		
v/c Ratio		0.53		
Control Delay		32.9		
Queue Delay		0.0		
Total Delay		32.9		
LOS		C		
Approach Delay		32.9		
Approach LOS		C		
Queue Length 50th (ft)		80		
Queue Length 95th (ft)		121		
Internal Link Dist (ft)		801		
Turn Bay Length (ft)				
Base Capacity (vph)		1197		
Starvation Cap Reductn		0		
Spillback Cap Reductn		0		
Storage Cap Reductn		0		

2021 Build Saturday Midday Peak
 7: Kent Street & Route 25 & Capisic Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL2	WBT	WBR	NBL	NBT	SBL2	SBL	SBT	SBR
Reduced v/c Ratio		0.57			0.48			0.01				0.16

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 72.6
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 18.1
 Intersection Capacity Utilization 66.1%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 7: Kent Street & Route 25 & Capisic Street

 Ø2	 Ø4	 Ø9
16 s	54 s	30 s
 Ø6	 Ø8	
16 s	54 s	

2021 Build Saturday Midday Peak
7: Kent Street & Route 25 & Capisic Street

1/27/2016



Lane Group	NWL2	NWL	NWR	NWR2
Reduced v/c Ratio		0.28		
Intersection Summary				

Brighton Avenue at Columbia Road and Colonial Road

2021 No-Build Weekday Evening Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/25/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Volume (vph)	18	237	571	42	18	765	14	6	35	57	19	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11	12	12	12	16	12	12
Satd. Flow (prot)	0	1805	3541	0	0	3472	0	0	0	2025	0	0
Flt Permitted		0.111				0.926				0.853		
Satd. Flow (perm)	0	211	3541	0	0	3219	0	0	0	1749	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			7			1				8		
Link Speed (mph)			30			30				30		
Link Distance (ft)			949			615				249		
Travel Time (s)			21.6			14.0				5.7		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.69	0.69	0.69	0.69
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	278	667	0	0	893	0	0	0	208	0	0
Turn Type	pm+pt	pm+pt	NA		Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	7	7	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0	4.0		
Minimum Split (s)	10.0	10.0	22.0		22.0	22.0			22.0	22.0		
Total Split (s)	26.0	26.0	73.0		47.0	47.0			26.0	26.0		
Total Split (%)	17.9%	17.9%	50.3%		32.4%	32.4%			17.9%	17.9%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5			2.5	2.5		
Lost Time Adjust (s)		0.0	0.0			0.0				0.0		
Total Lost Time (s)		6.0	6.0			6.0				6.0		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None		None	None			None	None		
Act Effct Green (s)		66.2	66.2			40.2				18.5		
Actuated g/C Ratio		0.54	0.54			0.33				0.15		
v/c Ratio		0.74	0.35			0.84				0.77		
Control Delay		38.8	17.3			47.4				67.9		
Queue Delay		0.0	0.0			0.0				0.0		
Total Delay		38.8	17.3			47.4				67.9		
LOS		D	B			D				E		
Approach Delay			23.6			47.4				67.9		
Approach LOS			C			D				E		
Queue Length 50th (ft)		135	142			333				149		
Queue Length 95th (ft)		#336	252			#560				200		
Internal Link Dist (ft)			869			535				169		
Turn Bay Length (ft)												
Base Capacity (vph)		377	1957			1087				294		
Starvation Cap Reductn		0	0			0				0		
Spillback Cap Reductn		0	0			0				0		
Storage Cap Reductn		0	0			0				0		

2021 No-Build Weekday Evening Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/25/2016

								
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations			↕			↕		
Volume (vph)	7	15	20	37	22	34	359	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	12	12	12	12	12
Satd. Flow (prot)	0	0	1989	0	0	3184	0	0
Flt Permitted			0.708			0.993		
Satd. Flow (perm)	0	0	1429	0	0	3184	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			25			143		
Link Speed (mph)			30			30		
Link Distance (ft)			587			697		
Travel Time (s)			13.3			15.8		
Peak Hour Factor	0.73	0.73	0.73	0.73	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	0	109	0	0	458	0	0
Turn Type	Perm	Perm	NA		Perm	NA		
Protected Phases			6			9		
Permitted Phases	6	6			9			
Detector Phase	6	6	6		9	9		
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0		
Total Split (s)	26.0	26.0	26.0		22.0	22.0		
Total Split (%)	17.9%	17.9%	17.9%		15.2%	15.2%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5		
Lost Time Adjust (s)			0.0			0.0		
Total Lost Time (s)			6.0			6.0		
Lead/Lag					Lead	Lead		Lag
Lead-Lag Optimize?					Yes	Yes		Yes
Recall Mode	None	None	None		None	None		None
Act Effct Green (s)			18.5			15.9		
Actuated g/C Ratio			0.15			0.13		
v/c Ratio			0.46			1.17dr		
Control Delay			44.6			51.9		
Queue Delay			0.0			0.0		
Total Delay			44.6			51.9		
LOS			D			D		
Approach Delay			44.6			51.9		
Approach LOS			D			D		
Queue Length 50th (ft)			59			126		
Queue Length 95th (ft)			104			#258		
Internal Link Dist (ft)			507			617		
Turn Bay Length (ft)								
Base Capacity (vph)			256			543		
Starvation Cap Reductn			0			0		
Spillback Cap Reductn			0			0		
Storage Cap Reductn			0			0		

2021 No-Build Weekday Evening Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/25/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Reduced v/c Ratio		0.74	0.34			0.82				0.71		

Intersection Summary

Area Type: Other

Cycle Length: 145

Actuated Cycle Length: 122.2

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 41.1

Intersection LOS: D

Intersection Capacity Utilization 82.8%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 6: Colonial Road/Columbia Road & Route 25 & Woodford Street

 p2	 p4	 p9	 p10
26 s	73 s	22 s	24 s
 p6	 p7	 p8	
26 s	26 s	47 s	

									
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	ø10
Reduced v/c Ratio			0.43			0.84			
Intersection Summary									

2021 No-Build Saturday Midday Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Volume (vph)	13	212	477	28	18	464	14	4	27	20	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11	12	12	12	16	12	12
Satd. Flow (prot)	0	1805	3548	0	0	3433	0	0	0	1990	0	0
Flt Permitted		0.235				0.918				0.880		
Satd. Flow (perm)	0	446	3548	0	0	3158	0	0	0	1777	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			6							10		
Link Speed (mph)			30			30				30		
Link Distance (ft)			949			615				249		
Travel Time (s)			21.6			14.0				5.7		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	244	548	0	0	556	0	0	0	103	0	0
Turn Type	pm+pt	pm+pt	NA		Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	7	7	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0	4.0		
Minimum Split (s)	10.0	10.0	22.0		22.0	22.0			22.0	22.0		
Total Split (s)	31.0	31.0	77.0		46.0	46.0			22.0	22.0		
Total Split (%)	21.4%	21.4%	53.1%		31.7%	31.7%			15.2%	15.2%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5			2.5	2.5		
Lost Time Adjust (s)		0.0	0.0			0.0				0.0		
Total Lost Time (s)		6.0	6.0			6.0				6.0		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None		None	None			None	None		
Act Effct Green (s)		47.5	47.5			22.7				11.0		
Actuated g/C Ratio		0.52	0.52			0.25				0.12		
v/c Ratio		0.49	0.30			0.71				0.47		
Control Delay		17.4	14.0			39.0				47.4		
Queue Delay		0.0	0.0			0.0				0.0		
Total Delay		17.4	14.0			39.0				47.4		
LOS		B	B			D				D		
Approach Delay			15.0			39.0				47.4		
Approach LOS			B			D				D		
Queue Length 50th (ft)		67	79			143				47		
Queue Length 95th (ft)		185	191			300				132		
Internal Link Dist (ft)			869			535				169		
Turn Bay Length (ft)												
Base Capacity (vph)		628	2845			1478				340		
Starvation Cap Reductn		0	0			0				0		
Spillback Cap Reductn		0	0			0				0		
Storage Cap Reductn		0	0			0				0		

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbsatPortland.syn

2021 No-Build Saturday Midday Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/26/2016

									
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	ø10
Lane Configurations			↕			↕↕			
Volume (vph)	5	12	29	31	4	14	228	6	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	16	12	12	12	12	12	
Satd. Flow (prot)	0	0	2015	0	0	3133	0	0	
Flt Permitted			0.906			0.996			
Satd. Flow (perm)	0	0	1846	0	0	3133	0	0	
Right Turn on Red				Yes				Yes	
Satd. Flow (RTOR)			19			143			
Link Speed (mph)			30			30			
Link Distance (ft)			587			697			
Travel Time (s)			13.3			15.8			
Peak Hour Factor	0.83	0.83	0.83	0.83	0.77	0.77	0.77	0.77	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	0	92	0	0	327	0	0	
Turn Type	Perm	Perm	NA		Perm	NA			
Protected Phases			6			9			10
Permitted Phases	6	6			9				
Detector Phase	6	6	6		9	9			
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0			20.0
Total Split (s)	22.0	22.0	22.0		22.0	22.0			24.0
Total Split (%)	15.2%	15.2%	15.2%		15.2%	15.2%			17%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5			0.5
Lost Time Adjust (s)			0.0			0.0			
Total Lost Time (s)			6.0			6.0			
Lead/Lag					Lead	Lead			Lag
Lead-Lag Optimize?					Yes	Yes			Yes
Recall Mode	None	None	None		None	None			None
Act Effct Green (s)			11.0			11.3			
Actuated g/C Ratio			0.12			0.12			
v/c Ratio			0.39			0.93dr			
Control Delay			41.3			30.1			
Queue Delay			0.0			0.0			
Total Delay			41.3			30.1			
LOS			D			C			
Approach Delay			41.3			30.1			
Approach LOS			D			C			
Queue Length 50th (ft)			37			48			
Queue Length 95th (ft)			108			102			
Internal Link Dist (ft)			507			617			
Turn Bay Length (ft)									
Base Capacity (vph)			361			702			
Starvation Cap Reductn			0			0			
Spillback Cap Reductn			0			0			
Storage Cap Reductn			0			0			

2021 No-Build Saturday Midday Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Reduced v/c Ratio		0.39	0.19			0.38				0.30		

Intersection Summary

Area Type: Other

Cycle Length: 145

Actuated Cycle Length: 91.8

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 27.9

Intersection LOS: C

Intersection Capacity Utilization 63.6%

ICU Level of Service B

Analysis Period (min) 15

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 6: Colonial Road/Columbia Road & Route 25 & Woodford Street

 ø2	 ø4	 ø9	 ø10
22 s	77 s	22 s	24 s
 ø6	 ø7	 ø8	
22 s	31 s	46 s	

									
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	ø10
Reduced v/c Ratio			0.25			0.47			
Intersection Summary									

2021 Build Weekday Evening Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Volume (vph)	18	288	610	42	18	799	14	6	35	57	19	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11	12	12	12	16	12	12
Satd. Flow (prot)	0	1805	3541	0	0	3472	0	0	0	2025	0	0
Flt Permitted		0.099				0.925				0.851		
Satd. Flow (perm)	0	188	3541	0	0	3215	0	0	0	1745	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			6			1				8		
Link Speed (mph)			30			30				30		
Link Distance (ft)			949			615				249		
Travel Time (s)			21.6			14.0				5.7		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.69	0.69	0.69	0.69
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	333	709	0	0	931	0	0	0	208	0	0
Turn Type	pm+pt	pm+pt	NA		Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	7	7	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0	4.0		
Minimum Split (s)	10.0	10.0	22.0		22.0	22.0			22.0	22.0		
Total Split (s)	26.0	26.0	73.0		47.0	47.0			26.0	26.0		
Total Split (%)	17.9%	17.9%	50.3%		32.4%	32.4%			17.9%	17.9%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5			2.5	2.5		
Lost Time Adjust (s)		0.0	0.0			0.0				0.0		
Total Lost Time (s)		6.0	6.0			6.0				6.0		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None		None	None			None	None		
Act Effct Green (s)		67.3	67.3			41.2				18.5		
Actuated g/C Ratio		0.54	0.54			0.33				0.15		
v/c Ratio		0.91	0.37			0.87				0.78		
Control Delay		61.8	17.5			49.1				68.9		
Queue Delay		0.0	0.0			0.0				0.0		
Total Delay		61.8	17.5			49.1				68.9		
LOS		E	B			D				E		
Approach Delay			31.7			49.1				68.9		
Approach LOS			C			D				E		
Queue Length 50th (ft)		194	154			354				149		
Queue Length 95th (ft)		#470	270			#602				200		
Internal Link Dist (ft)			869			535				169		
Turn Bay Length (ft)												
Base Capacity (vph)		365	1932			1072				290		
Starvation Cap Reductn		0	0			0				0		
Spillback Cap Reductn		0	0			0				0		
Storage Cap Reductn		0	0			0				0		

2021 Build Weekday Evening Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/26/2016

									
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	ø10
Lane Configurations			↕			↕			
Volume (vph)	7	15	20	37	22	34	405	2	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	16	12	12	12	12	12	
Satd. Flow (prot)	0	0	1989	0	0	3180	0	0	
Flt Permitted			0.704			0.994			
Satd. Flow (perm)	0	0	1420	0	0	3180	0	0	
Right Turn on Red				Yes				Yes	
Satd. Flow (RTOR)			25			143			
Link Speed (mph)			30			30			
Link Distance (ft)			587			697			
Travel Time (s)			13.3			15.8			
Peak Hour Factor	0.73	0.73	0.73	0.73	0.91	0.91	0.91	0.91	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	0	109	0	0	508	0	0	
Turn Type	Perm	Perm	NA		Perm	NA			
Protected Phases			6			9			10
Permitted Phases	6	6			9				
Detector Phase	6	6	6		9	9			
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0			20.0
Total Split (s)	26.0	26.0	26.0		22.0	22.0			24.0
Total Split (%)	17.9%	17.9%	17.9%		15.2%	15.2%			17%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5			0.5
Lost Time Adjust (s)			0.0			0.0			
Total Lost Time (s)			6.0			6.0			
Lead/Lag					Lead	Lead			Lag
Lead-Lag Optimize?					Yes	Yes			Yes
Recall Mode	None	None	None		None	None			None
Act Effct Green (s)			18.5			16.1			
Actuated g/C Ratio			0.15			0.13			
v/c Ratio			0.47			1.32dr			
Control Delay			44.9			65.8			
Queue Delay			0.0			0.0			
Total Delay			44.9			65.8			
LOS			D			E			
Approach Delay			44.9			65.8			
Approach LOS			D			E			
Queue Length 50th (ft)			59			150			
Queue Length 95th (ft)			104			#312			
Internal Link Dist (ft)			507			617			
Turn Bay Length (ft)									
Base Capacity (vph)			251			538			
Starvation Cap Reductn			0			0			
Spillback Cap Reductn			0			0			
Storage Cap Reductn			0			0			

2021 Build Weekday Evening Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Reduced v/c Ratio		0.91	0.37			0.87				0.72		

Intersection Summary

Area Type: Other

Cycle Length: 145

Actuated Cycle Length: 123.5

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 47.0

Intersection LOS: D

Intersection Capacity Utilization 86.2%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 6: Colonial Road/Columbia Road & Route 25 & Woodford Street

 ø2	 ø4	 ø9	 ø10
26 s	73 s	22 s	24 s
 ø6	 ø7	 ø8	
26 s	26 s	47 s	

									
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	ø10
Reduced v/c Ratio			0.43			0.94			
Intersection Summary									

2021 Build Saturday Midday Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/27/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Volume (vph)	13	282	529	28	18	522	14	4	27	20	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11	12	12	12	16	12	12
Satd. Flow (prot)	0	1805	3551	0	0	3433	0	0	0	1990	0	0
Flt Permitted		0.193				0.918				0.860		
Satd. Flow (perm)	0	367	3551	0	0	3158	0	0	0	1737	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			5							10		
Link Speed (mph)			30			30				30		
Link Distance (ft)			949			615				249		
Travel Time (s)			21.6			14.0				5.7		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	605	0	0	620	0	0	0	103	0	0
Turn Type	pm+pt	pm+pt	NA		Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	7	7	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0	4.0		
Minimum Split (s)	10.0	10.0	22.0		22.0	22.0			22.0	22.0		
Total Split (s)	31.0	31.0	77.0		46.0	46.0			22.0	22.0		
Total Split (%)	21.4%	21.4%	53.1%		31.7%	31.7%			15.2%	15.2%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5			2.5	2.5		
Lost Time Adjust (s)		0.0	0.0			0.0				0.0		
Total Lost Time (s)		6.0	6.0			6.0				6.0		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None		None	None			None	None		
Act Effct Green (s)		54.7	54.7			26.3				11.3		
Actuated g/C Ratio		0.53	0.53			0.26				0.11		
v/c Ratio		0.64	0.32			0.77				0.52		
Control Delay		22.9	14.8			43.8				53.4		
Queue Delay		0.0	0.0			0.0				0.0		
Total Delay		22.9	14.8			43.8				53.4		
LOS		C	B			D				D		
Approach Delay			17.6			43.8				53.4		
Approach LOS			B			D				D		
Queue Length 50th (ft)		106	103			197				57		
Queue Length 95th (ft)		269	212			338				135		
Internal Link Dist (ft)			869			535				169		
Turn Bay Length (ft)												
Base Capacity (vph)		561	2572			1287				291		
Starvation Cap Reductn		0	0			0				0		
Spillback Cap Reductn		0	0			0				0		
Storage Cap Reductn		0	0			0				0		

2021 Build Saturday Midday Peak

6: Colonial Road/Columbia Road & Route 25 & Woodford Street

1/27/2016

									
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	ø10
Lane Configurations			↕			↕			
Volume (vph)	5	12	29	31	4	14	306	6	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	16	12	12	12	12	12	
Satd. Flow (prot)	0	0	2015	0	0	3124	0	0	
Flt Permitted			0.887			0.997			
Satd. Flow (perm)	0	0	1807	0	0	3124	0	0	
Right Turn on Red				Yes				Yes	
Satd. Flow (RTOR)			19			143			
Link Speed (mph)			30			30			
Link Distance (ft)			587			697			
Travel Time (s)			13.3			15.8			
Peak Hour Factor	0.83	0.83	0.83	0.83	0.77	0.77	0.77	0.77	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	0	92	0	0	428	0	0	
Turn Type	Perm	Perm	NA		Perm	NA			
Protected Phases			6			9			10
Permitted Phases	6	6			9				
Detector Phase	6	6	6		9	9			
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0			20.0
Total Split (s)	22.0	22.0	22.0		22.0	22.0			24.0
Total Split (%)	15.2%	15.2%	15.2%		15.2%	15.2%			17%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5
All-Red Time (s)	2.5	2.5	2.5		2.5	2.5			0.5
Lost Time Adjust (s)			0.0			0.0			
Total Lost Time (s)			6.0			6.0			
Lead/Lag					Lead	Lead			Lag
Lead-Lag Optimize?					Yes	Yes			Yes
Recall Mode	None	None	None		None	None			None
Act Effct Green (s)			11.3			15.0			
Actuated g/C Ratio			0.11			0.15			
v/c Ratio			0.43			1.13dr			
Control Delay			45.8			38.6			
Queue Delay			0.0			0.0			
Total Delay			45.8			38.6			
LOS			D			D			
Approach Delay			45.8			38.6			
Approach LOS			D			D			
Queue Length 50th (ft)			44			90			
Queue Length 95th (ft)			110			155			
Internal Link Dist (ft)			507			617			
Turn Bay Length (ft)									
Base Capacity (vph)			310			629			
Starvation Cap Reductn			0			0			
Spillback Cap Reductn			0			0			
Storage Cap Reductn			0			0			

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Reduced v/c Ratio		0.57	0.24			0.48				0.35		

Intersection Summary

Area Type: Other

Cycle Length: 145

Actuated Cycle Length: 102.8

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 32.1

Intersection LOS: C

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 6: Colonial Road/Columbia Road & Route 25 & Woodford Street

 Ø2	 Ø4	 Ø9	 Ø10
22 s	77 s	22 s	24 s
 Ø6	 Ø7	 Ø8	
22 s	31 s	46 s	

									
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	ø10
Reduced v/c Ratio			0.30			0.68			
Intersection Summary									

Brighton Avenue at Steven Avenue

2021 No-Build Weekday Evening Peak

5: Steven Street & Route 25

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	547	54	91	721	113	117	404	73	139	314	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	12	12	12	12	11	12	12
Storage Length (ft)	125		0	80		0	220		0	105		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	1795	0	1745	1785	0	1805	1838	0	1745	1865	0
Flt Permitted	0.083			0.119			0.550			0.125		
Satd. Flow (perm)	152	1795	0	219	1785	0	1045	1838	0	230	1865	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)					9						3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		615			883			554			375	
Travel Time (s)		14.0			20.1			12.6			8.5	
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.93	0.93	0.93	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	1%	1%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	699	0	101	927	0	126	512	0	146	352	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		9.0	21.0	
Total Split (s)	13.0	53.0		13.0	53.0		32.0	32.0		12.0	44.0	
Total Split (%)	11.8%	48.2%		11.8%	48.2%		29.1%	29.1%		10.9%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	52.7	47.2		54.8	50.2		27.1	27.1		39.1	39.1	
Actuated g/C Ratio	0.50	0.44		0.52	0.47		0.25	0.25		0.37	0.37	
v/c Ratio	0.23	0.88		0.46	1.10		0.48	1.10		0.79	0.51	
Control Delay	14.8	41.9		18.9	89.5		42.0	109.0		56.9	30.1	
Queue Delay	0.0	3.3		0.0	0.0		0.0	0.0		0.0	3.3	
Total Delay	14.8	45.2		18.9	89.5		42.0	109.0		56.9	33.4	
LOS	B	D		B	F		D	F		E	C	
Approach Delay		43.6			82.5			95.8			40.3	
Approach LOS		D			F			F			D	
Queue Length 50th (ft)	13	445		32	~771		77	~422		72	194	
Queue Length 95th (ft)	27	#624		58	#1037		140	#630		#164	287	
Internal Link Dist (ft)		535			803			474			295	
Turn Bay Length (ft)	125			80			220			105		
Base Capacity (vph)	196	811		228	846		265	467		184	687	

2021 No-Build Weekday Evening Peak

5: Steven Street & Route 25

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	55		0	0		0	0		0	237	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	0.92		0.44	1.10		0.48	1.10		0.79	0.78	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 106.4

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 68.3

Intersection LOS: E

Intersection Capacity Utilization 98.2%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Steven Street & Route 25

 ø1	 ø2	 ø3	 ø4
12 s	32 s	13 s	53 s
 ø6	 ø7	 ø8	
44 s	13 s	53 s	

2021 No-Build Saturday Midday Peak

5: Steven Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	468	43	74	447	71	47	285	40	78	292	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	12	12	12	12	11	12	12
Storage Length (ft)	125		0	80		0	220		0	105		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	1792	0	1728	1783	0	1805	1864	0	1728	1857	0
Flt Permitted	0.277			0.170			0.509			0.224		
Satd. Flow (perm)	509	1792	0	309	1783	0	967	1864	0	407	1857	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)					9						5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		615			883			554			375	
Travel Time (s)		14.0			20.1			12.6			8.5	
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.94	0.94	0.94	0.83	0.83	0.83
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	608	0	81	569	0	50	346	0	94	387	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		9.0	21.0	
Total Split (s)	13.0	53.0		13.0	53.0		32.0	32.0		12.0	44.0	
Total Split (%)	11.8%	48.2%		11.8%	48.2%		29.1%	29.1%		10.9%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	40.1	35.8		43.5	41.0		22.2	22.2		30.6	30.6	
Actuated g/C Ratio	0.46	0.41		0.50	0.47		0.25	0.25		0.35	0.35	
v/c Ratio	0.05	0.83		0.28	0.68		0.20	0.73		0.36	0.59	
Control Delay	11.6	36.0		14.0	24.4		34.3	44.9		26.8	29.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.4	
Total Delay	11.6	36.0		14.0	24.4		34.3	44.9		26.8	29.9	
LOS	B	D		B	C		C	D		C	C	
Approach Delay		35.4			23.1			43.6			29.3	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	5	334		23	225		25	199		38	186	
Queue Length 95th (ft)	14	453		49	447		63	#354		76	285	
Internal Link Dist (ft)		535			803			474			295	
Turn Bay Length (ft)	125			80			220			105		
Base Capacity (vph)	377	1054		309	1072		357	688		269	959	

2021 No-Build Saturday Middy Peak

5: Steven Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	17		0	0		0	0		0	215	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.59		0.26	0.53		0.14	0.50		0.35	0.52	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 87.2

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 31.8

Intersection LOS: C

Intersection Capacity Utilization 69.8%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Steven Street & Route 25

 ø1	 ø2	 ø3	 ø4
12 s	32 s	13 s	53 s
 ø6		 ø7	 ø8
44 s		13 s	53 s

2021 Build Weekday Evening Peak

5: Steven Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	586	54	91	789	113	117	404	73	139	314	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	12	12	12	12	11	12	12
Storage Length (ft)	125		0	80		0	220		0	105		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	1796	0	1745	1786	0	1805	1838	0	1745	1865	0
Flt Permitted	0.082			0.077			0.544			0.125		
Satd. Flow (perm)	151	1796	0	141	1786	0	1034	1838	0	230	1865	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)					8						3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		615			883			554			375	
Travel Time (s)		14.0			20.1			12.6			8.5	
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.93	0.93	0.93	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	1%	1%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	744	0	101	1003	0	126	512	0	146	352	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		9.0	21.0	
Total Split (s)	13.0	53.0		13.0	53.0		32.0	32.0		12.0	44.0	
Total Split (%)	11.8%	48.2%		11.8%	48.2%		29.1%	29.1%		10.9%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	53.2	46.5		56.5	51.8		27.0	27.0		39.0	39.0	
Actuated g/C Ratio	0.49	0.43		0.52	0.48		0.25	0.25		0.36	0.36	
v/c Ratio	0.24	0.96		0.55	1.17		0.49	1.12		0.81	0.52	
Control Delay	14.8	55.5		27.3	115.7		43.0	116.1		59.4	30.8	
Queue Delay	0.0	10.3		0.0	0.0		0.0	0.0		0.0	3.9	
Total Delay	14.8	65.7		27.3	115.7		43.0	116.1		59.4	34.8	
LOS	B	E		C	F		D	F		E	C	
Approach Delay		63.1			107.6			101.6			42.0	
Approach LOS		E			F			F			D	
Queue Length 50th (ft)	13	494		32	~885		77	~422		72	194	
Queue Length 95th (ft)	27	#691		78	#1155		140	#630		#164	287	
Internal Link Dist (ft)		535			803			474			295	
Turn Bay Length (ft)	125			80			220			105		
Base Capacity (vph)	194	798		192	860		258	459		180	675	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21bpm\Portland.syn

2021 Build Weekday Evening Peak

5: Steven Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	53		0	0		0	0		0	237	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	1.00		0.53	1.17		0.49	1.12		0.81	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 108.1

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay: 84.0

Intersection LOS: F

Intersection Capacity Utilization 101.8%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Steven Street & Route 25

 ø1	 ø2	 ø3	 ø4
12 s	32 s	13 s	53 s
 ø6	 ø7	 ø8	
44 s	13 s	53 s	

2021 Build Saturday Midday Peak

5: Steven Street & Route 25

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	520	43	74	505	71	47	285	40	78	292	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	12	12	12	12	11	12	12
Storage Length (ft)	125		0	80		0	220		0	105		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	1796	0	1728	1788	0	1805	1864	0	1728	1857	0
Flt Permitted	0.232			0.139			0.484			0.212		
Satd. Flow (perm)	426	1796	0	253	1788	0	920	1864	0	386	1857	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)					8						5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		615			883			554			375	
Travel Time (s)		14.0			20.1			12.6			8.5	
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.94	0.94	0.94	0.83	0.83	0.83
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	670	0	81	633	0	50	346	0	94	387	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		9.0	21.0	
Total Split (s)	13.0	53.0		13.0	53.0		32.0	32.0		12.0	44.0	
Total Split (%)	11.8%	48.2%		11.8%	48.2%		29.1%	29.1%		10.9%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	44.2	39.8		47.6	44.9		22.8	22.8		31.3	31.3	
Actuated g/C Ratio	0.48	0.43		0.52	0.49		0.25	0.25		0.34	0.34	
v/c Ratio	0.06	0.86		0.31	0.72		0.22	0.75		0.39	0.61	
Control Delay	11.6	38.4		14.6	26.1		35.8	47.3		28.6	31.4	
Queue Delay	0.0	0.2		0.0	0.0		0.0	0.0		0.0	0.5	
Total Delay	11.6	38.6		14.6	26.1		35.8	47.3		28.6	31.9	
LOS	B	D		B	C		D	D		C	C	
Approach Delay		37.9			24.8			45.9			31.3	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	5	402		24	277		28	223		44	212	
Queue Length 95th (ft)	14	522		49	524		63	#354		76	285	
Internal Link Dist (ft)		535			803			474			295	
Turn Bay Length (ft)	125			80			220			105		
Base Capacity (vph)	344	1024		280	1073		313	635		250	917	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21bsatPortland.syn

2021 Build Saturday Midday Peak
5: Steven Street & Route 25

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	48		0	0		0	0		0	218	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.69		0.29	0.59		0.16	0.54		0.38	0.55	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 91.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 33.8

Intersection LOS: C

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Steven Street & Route 25

 ϕ1	 ϕ2	 ϕ3	 ϕ4
12 s	32 s	13 s	53 s
 ϕ6	 ϕ7	 ϕ8	
44 s	13 s	53 s	

2021 Build Weekday Evening Peak with Mitigation
5: Steven Street & Route 25

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	586	54	91	789	113	117	404	73	139	314	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	12	12	12	12	11	12	12
Storage Length (ft)	125		0	80		0	220		0	105		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	1796	0	1745	1786	0	1805	1838	0	1745	1865	0
Flt Permitted	0.079			0.105			0.522			0.129		
Satd. Flow (perm)	145	1796	0	193	1786	0	992	1838	0	237	1865	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)					9						3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		615			883			554			375	
Travel Time (s)		14.0			20.1			12.6			8.5	
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.93	0.93	0.93	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	1%	1%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	744	0	101	1003	0	126	512	0	146	352	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		9.0	21.0	
Total Split (s)	11.0	57.0		11.0	57.0		31.0	31.0		11.0	42.0	
Total Split (%)	10.0%	51.8%		10.0%	51.8%		28.2%	28.2%		10.0%	38.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	54.2	48.3		56.4	52.9		26.0	26.0		37.1	37.1	
Actuated g/C Ratio	0.51	0.45		0.53	0.50		0.24	0.24		0.35	0.35	
v/c Ratio	0.25	0.91		0.53	1.12		0.52	1.14		0.87	0.54	
Control Delay	14.4	44.1		21.9	97.5		44.9	124.5		73.7	32.1	
Queue Delay	0.0	5.1		0.0	0.0		0.0	0.0		0.0	3.6	
Total Delay	14.4	49.3		21.9	97.5		44.9	124.5		73.7	35.8	
LOS	B	D		C	F		D	F		E	D	
Approach Delay		47.4			90.6			108.8			46.9	
Approach LOS		D			F			F			D	
Queue Length 50th (ft)	12	459		30	~853		78	~434		74	200	
Queue Length 95th (ft)	26	#614		56	#1105		144	#642		#174	296	
Internal Link Dist (ft)		535			803			474			295	
Turn Bay Length (ft)	125			80			220			105		
Base Capacity (vph)	164	879		190	893		242	449		167	651	

2021 Build Weekday Evening Peak with Mitigation
5: Steven Street & Route 25

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	89		0	0		0	0		0	210	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.25	0.94		0.53	1.12		0.52	1.14		0.87	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 106.4

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 76.0

Intersection LOS: E

Intersection Capacity Utilization 101.8%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Steven Street & Route 25

 p1	 p2	 p3	 p4
11 s	31 s	11 s	57 s
 p6	 p7	 p8	
42 s	11 s	57 s	

2021 Build Saturday Midday Peak with Mitigation
5: Steven Street & Route 25

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	520	43	74	505	71	47	285	40	78	292	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	12	12	12	12	11	12	12
Storage Length (ft)	125		0	80		0	220		0	105		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	1796	0	1728	1788	0	1805	1864	0	1728	1857	0
Flt Permitted	0.225			0.141			0.491			0.216		
Satd. Flow (perm)	413	1796	0	256	1788	0	933	1864	0	393	1857	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)					8						5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		615			883			554			375	
Travel Time (s)		14.0			20.1			12.6			8.5	
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.94	0.94	0.94	0.83	0.83	0.83
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	670	0	81	633	0	50	346	0	94	387	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		9.0	21.0	
Total Split (s)	12.0	53.0		12.0	53.0		33.0	33.0		12.0	45.0	
Total Split (%)	10.9%	48.2%		10.9%	48.2%		30.0%	30.0%		10.9%	40.9%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	43.9	39.6		46.5	44.2		22.9	22.9		31.4	31.4	
Actuated g/C Ratio	0.48	0.44		0.51	0.49		0.25	0.25		0.35	0.35	
v/c Ratio	0.06	0.86		0.32	0.73		0.21	0.74		0.38	0.60	
Control Delay	11.9	38.3		15.2	26.8		34.9	46.0		27.9	30.6	
Queue Delay	0.0	0.2		0.0	0.0		0.0	0.0		0.0	0.5	
Total Delay	11.9	38.4		15.2	26.8		34.9	46.0		27.9	31.1	
LOS	B	D		B	C		C	D		C	C	
Approach Delay		37.8			25.5			44.6			30.4	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	5	392		24	274		27	218		43	207	
Queue Length 95th (ft)	15	522		50	534		63	331		75	281	
Internal Link Dist (ft)		535			803			474			295	
Turn Bay Length (ft)	125			80			220			105		
Base Capacity (vph)	320	1029		261	1065		331	662		254	945	

2021 Build Saturday Midday Peak with Mitigation

5: Steven Street & Route 25

2/1/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	44		0	0		0	0		0	220	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.68		0.31	0.59		0.15	0.52		0.37	0.53	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 91

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 33.6

Intersection LOS: C

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: Steven Street & Route 25

 p1	 p2	 p3	 p4
12 s	33 s	12 s	53 s
 p6		 p7	 p8
45 s		12 s	53 s

Brighton Avenue at St. John Street and Devonshire Street

2021 No-Build Weekday Evening Peak

3: St. John Street & Route 25

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	577	148	3	708	12	211	135	18	10	94	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	9	10	12	12	16	12
Storage Length (ft)	0		0	0		0	50		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3470	0	0	3568	0	1624	1741	0	0	2052	0
Flt Permitted		0.750			0.952		0.404				0.972	
Satd. Flow (perm)	0	2616	0	0	3397	0	691	1741	0	0	2001	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			2			8			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		883			571			335			844	
Travel Time (s)		20.1			13.0			7.6			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.89	0.89	0.89	0.91	0.91	0.91	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	870	0	0	812	0	232	168	0	0	176	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5		21.5	21.5		9.5	21.5		21.5	21.5	
Total Split (s)	55.0	55.0		55.0	55.0		13.0	45.0		32.0	32.0	
Total Split (%)	55.0%	55.0%		55.0%	55.0%		13.0%	45.0%		32.0%	32.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		28.7			28.7		24.3	24.3			10.8	
Actuated g/C Ratio		0.45			0.45		0.38	0.38			0.17	
v/c Ratio		0.72			0.53		0.60	0.25			0.49	
Control Delay		17.2			13.6		24.6	15.9			27.0	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		17.2			13.6		24.6	15.9			27.0	
LOS		B			B		C	B			C	
Approach Delay		17.2			13.6			21.0			27.0	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		124			106		59	39			51	
Queue Length 95th (ft)		213			172		#165	105			125	
Internal Link Dist (ft)		803			491			255			764	
Turn Bay Length (ft)							50					
Base Capacity (vph)		2125			2750		387	1142			897	

2021 No-Build Weekday Evening Peak

3: St. John Street & Route 25

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.41			0.30		0.60	0.15			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 63.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 17.3

Intersection LOS: B

Intersection Capacity Utilization 80.1%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: St. John Street & Route 25

 ø2	 ø4
45 s	55 s
 ø5	 ø8
13 s	55 s
 ø6	
32 s	

2021 No-Build Saturday Midday Peak

3: St. John Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↵	↵			↕	
Volume (vph)	46	440	117	1	453	18	111	81	3	3	84	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	9	10	12	12	16	12
Storage Length (ft)	0		0	0		0	50		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3459	0	0	3554	0	1624	1763	0	0	2050	0
Flt Permitted		0.874			0.954		0.459				0.992	
Satd. Flow (perm)	0	3036	0	0	3391	0	785	1763	0	0	2036	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			6			2			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		883			571			335			844	
Travel Time (s)		20.1			13.0			7.6			19.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.79	0.79	0.79	0.80	0.80	0.80
Heavy Vehicles (%)	0%	1%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	710	0	0	555	0	141	107	0	0	168	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5		21.5	21.5		9.5	21.5		21.5	21.5	
Total Split (s)	55.0	55.0		55.0	55.0		13.0	45.0		32.0	32.0	
Total Split (%)	55.0%	55.0%		55.0%	55.0%		13.0%	45.0%		32.0%	32.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		18.8			18.8		19.2	19.0			9.5	
Actuated g/C Ratio		0.39			0.39		0.40	0.39			0.20	
v/c Ratio		0.59			0.42		0.31	0.15			0.40	
Control Delay		14.3			12.8		12.3	10.5			20.1	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		14.3			12.8		12.3	10.5			20.1	
LOS		B			B		B	B			C	
Approach Delay		14.3			12.8			11.5			20.1	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		82			62		24	17			37	
Queue Length 95th (ft)		130			100		56	44			81	
Internal Link Dist (ft)		803			491			255			764	
Turn Bay Length (ft)							50					
Base Capacity (vph)		2854			3185		465	1421			1227	

2021 No-Build Saturday Middy Peak

3: St. John Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.25			0.17		0.30	0.08			0.14	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 48.6

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 14.0

Intersection LOS: B

Intersection Capacity Utilization 60.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: St. John Street & Route 25

 p2	 p4
45 s	55 s
 p5	 p8
13 s	55 s
 p6	
32 s	

2021 Build Weekday Evening Peak

3: St. John Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	596	161	3	725	12	222	135	18	10	94	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	9	10	12	12	16	12
Storage Length (ft)	0		0	0		0	50		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3463	0	0	3568	0	1624	1741	0	0	2052	0
Flt Permitted		0.752			0.953		0.394				0.972	
Satd. Flow (perm)	0	2617	0	0	3400	0	674	1741	0	0	2001	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			2			8			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		883			571			335			844	
Travel Time (s)		20.1			13.0			7.6			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.89	0.89	0.89	0.91	0.91	0.91	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	905	0	0	831	0	244	168	0	0	176	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5		21.5	21.5		9.5	21.5		21.5	21.5	
Total Split (s)	55.0	55.0		55.0	55.0		13.0	45.0		32.0	32.0	
Total Split (%)	55.0%	55.0%		55.0%	55.0%		13.0%	45.0%		32.0%	32.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		30.5			30.5		24.4	24.4			10.9	
Actuated g/C Ratio		0.47			0.47		0.37	0.37			0.17	
v/c Ratio		0.73			0.52		0.65	0.26			0.50	
Control Delay		17.1			13.3		28.5	17.0			28.2	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		17.1			13.3		28.5	17.0			28.2	
LOS		B			B		C	B			C	
Approach Delay		17.1			13.3			23.8			28.2	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		132			111		68	42			54	
Queue Length 95th (ft)		223			176		#199	110			129	
Internal Link Dist (ft)		803			491			255			764	
Turn Bay Length (ft)							50					
Base Capacity (vph)		2074			2685		373	1109			872	

2021 Build Weekday Evening Peak
3: St. John Street & Route 25

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.44			0.31		0.65	0.15			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 65.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 17.8

Intersection LOS: B

Intersection Capacity Utilization 82.2%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: St. John Street & Route 25

 Ø2		 Ø4
45 s		55 s
 Ø5	 Ø6	 Ø8
13 s	32 s	55 s

2021 Build Saturday Midday Peak
3: St. John Street & Route 25

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	466	134	1	482	18	130	81	3	3	84	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	9	10	12	12	16	12
Storage Length (ft)	0		0	0		0	50		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	3452	0	0	3558	0	1624	1763	0	0	2050	0
Flt Permitted		0.874			0.954		0.440				0.992	
Satd. Flow (perm)	0	3029	0	0	3394	0	752	1763	0	0	2036	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			5			2			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		883			571			335			844	
Travel Time (s)		20.1			13.0			7.6			19.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.79	0.79	0.79	0.80	0.80	0.80
Heavy Vehicles (%)	0%	1%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	760	0	0	589	0	165	107	0	0	168	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5		21.5	21.5		9.5	21.5		21.5	21.5	
Total Split (s)	55.0	55.0		55.0	55.0		13.0	45.0		32.0	32.0	
Total Split (%)	55.0%	55.0%		55.0%	55.0%		13.0%	45.0%		32.0%	32.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)		19.7			19.7		22.5	22.5			9.4	
Actuated g/C Ratio		0.38			0.38		0.43	0.43			0.18	
v/c Ratio		0.65			0.46		0.36	0.14			0.44	
Control Delay		15.6			13.5		13.4	10.9			21.2	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		15.6			13.5		13.4	10.9			21.2	
LOS		B			B		B	B			C	
Approach Delay		15.6			13.5			12.4			21.2	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		90			67		29	18			38	
Queue Length 95th (ft)		141			107		68	46			83	
Internal Link Dist (ft)		803			491			255			764	
Turn Bay Length (ft)							50					
Base Capacity (vph)		2808			3143		458	1376			1085	

2021 Build Saturday Midday Peak
3: St. John Street & Route 25

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.27			0.19		0.36	0.08			0.15	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 52.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 14.9

Intersection LOS: B

Intersection Capacity Utilization 63.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: St. John Street & Route 25

 Ø2	 Ø4
45 s	55 s
 Ø5	 Ø8
13 s	55 s
 Ø6	
32 s	

Woodford Street at Steven Avenue

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	240	18	71	337	160	10	452	222	92	380	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		0	0		60	0		110	95		0
Storage Lanes	1		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1875	0	0	1883	1615	0	1898	1615	1805	1832	0
Flt Permitted	0.347				0.890			0.989		0.193		
Satd. Flow (perm)	659	1875	0	0	1691	1615	0	1879	1615	367	1832	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						89			124		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		697			823			375			520	
Travel Time (s)		15.8			18.7			8.5			11.8	
Peak Hour Factor	0.84	0.84	0.84	0.94	0.94	0.94	0.96	0.96	0.96	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	307	0	0	435	170	0	481	231	97	492	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0	8.0	20.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	39.0	39.0	39.0	16.0	55.0	
Total Split (%)	30.9%	30.9%		30.9%	30.9%	30.9%	35.5%	35.5%	35.5%	14.5%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	30.9	30.9			30.9	30.9		25.5	25.5	34.5	34.5	
Actuated g/C Ratio	0.42	0.42			0.42	0.42		0.35	0.35	0.47	0.47	
v/c Ratio	0.22	0.39			0.61	0.23		0.74	0.36	0.30	0.57	
Control Delay	21.0	20.0			24.9	10.3		29.0	10.3	12.0	15.5	
Queue Delay	0.0	0.0			0.0	0.0		0.4	0.1	0.0	0.0	
Total Delay	21.0	20.0			24.9	10.3		29.4	10.3	12.0	15.5	
LOS	C	B			C	B		C	B	B	B	
Approach Delay		20.1			20.8			23.2			15.0	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	19	103			164	24		196	35	23	144	
Queue Length 95th (ft)	52	186			#320	75		308	86	45	221	
Internal Link Dist (ft)		617			743			295			440	
Turn Bay Length (ft)	80					60			110	95		
Base Capacity (vph)	276	787			709	729		920	854	413	1311	
Starvation Cap Reductn	0	0			0	0		133	77	0	0	

2021 No-Build Weekday Evening Peak
4: Steven Street & Woodford Street

1/25/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	21.0
Total Split (%)	19%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpm\Portland.syn

2021 No-Build Weekday Evening Peak

4: Steven Street & Woodford Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0	0		0	0	0	0	
Storage Cap Reductn	0	0			0	0		0	0	0	0	
Reduced v/c Ratio	0.22	0.39			0.61	0.23		0.61	0.30	0.23	0.38	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 73.7

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 19.9

Intersection LOS: B

Intersection Capacity Utilization 98.3%

ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Steven Street & Woodford Street

 ø1	 ø2	 ø4	 ø9
16 s	39 s	34 s	21 s
 ø6		 ø8	
55 s		34 s	

2021 No-Build Saturday Midday Peak
4: Steven Street & Woodford Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	192	24	46	183	89	7	291	10	96	352	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		0	0		60	0		110	95		0
Storage Lanes	1		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1841	0	0	1866	1615	0	1898	1615	1805	1856	0
Flt Permitted	0.501				0.896			0.987		0.352		
Satd. Flow (perm)	952	1841	0	0	1689	1615	0	1875	1615	669	1856	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						89			89		11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		697			823			375			520	
Travel Time (s)		15.8			18.7			8.5			11.8	
Peak Hour Factor	0.87	0.87	0.87	0.80	0.80	0.80	0.93	0.93	0.93	0.86	0.86	0.86
Heavy Vehicles (%)	0%	1%	5%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	249	0	0	287	111	0	321	11	112	483	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0	8.0	20.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	39.0	39.0	39.0	16.0	55.0	
Total Split (%)	30.9%	30.9%		30.9%	30.9%	30.9%	35.5%	35.5%	35.5%	14.5%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	18.3	18.3			18.3	18.3		16.8	16.8	25.8	25.8	
Actuated g/C Ratio	0.35	0.35			0.35	0.35		0.32	0.32	0.49	0.49	
v/c Ratio	0.20	0.39			0.49	0.18		0.54	0.02	0.22	0.53	
Control Delay	16.0	16.8			18.6	6.1		21.3	0.1	9.3	12.1	
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	16.0	16.8			18.6	6.1		21.3	0.1	9.3	12.1	
LOS	B	B			B	A		C	A	A	B	
Approach Delay		16.7			15.1			20.6			11.6	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	14	59			71	5		83	0	16	84	
Queue Length 95th (ft)	44	131			139	29		198	0	49	203	
Internal Link Dist (ft)		617			743			295			440	
Turn Bay Length (ft)	80					60			110	95		
Base Capacity (vph)	592	1145			1050	1038		1298	1145	616	1659	
Starvation Cap Reductn	0	0			0	0		20	0	0	0	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbsatPortland.syn

2021 No-Build Saturday Midday Peak
4: Steven Street & Woodford Street

1/26/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	21.0
Total Split (%)	19%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 No-Build Saturday Midday Peak

4: Steven Street & Woodford Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0	0		0	0	0	0	
Storage Cap Reductn	0	0			0	0		0	0	0	0	
Reduced v/c Ratio	0.11	0.22			0.27	0.11		0.25	0.01	0.18	0.29	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 53

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 15.2

Intersection LOS: B

Intersection Capacity Utilization 75.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 4: Steven Street & Woodford Street

 ϕ1	 ϕ2	 ϕ4	 ϕ9
16 s	39 s	34 s	21 s
 ϕ6		 ϕ8	
55 s		34 s	

2021 Build Weekday Evening Peak
4: Steven Street & Woodford Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	272	18	71	366	160	10	452	222	92	380	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		0	0		60	0		110	95		0
Storage Lanes	1		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1877	0	0	1885	1615	0	1898	1615	1805	1825	0
Flt Permitted	0.317				0.876			0.989		0.193		
Satd. Flow (perm)	602	1877	0	0	1664	1615	0	1879	1615	367	1825	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						89			124		17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		697			823			375			520	
Travel Time (s)		15.8			18.7			8.5			11.8	
Peak Hour Factor	0.84	0.84	0.84	0.94	0.94	0.94	0.96	0.96	0.96	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	345	0	0	465	170	0	481	231	97	509	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0	8.0	20.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	39.0	39.0	39.0	16.0	55.0	
Total Split (%)	30.9%	30.9%		30.9%	30.9%	30.9%	35.5%	35.5%	35.5%	14.5%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effect Green (s)	30.9	30.9			30.9	30.9		25.5	25.5	34.5	34.5	
Actuated g/C Ratio	0.42	0.42			0.42	0.42		0.35	0.35	0.47	0.47	
v/c Ratio	0.33	0.44			0.67	0.23		0.74	0.36	0.30	0.59	
Control Delay	23.9	20.7			26.9	10.3		29.0	10.3	12.0	15.9	
Queue Delay	0.0	0.0			0.0	0.0		0.4	0.1	0.0	0.0	
Total Delay	23.9	20.7			26.9	10.3		29.4	10.3	12.0	15.9	
LOS	C	C			C	B		C	B	B	B	
Approach Delay		21.3			22.5			23.2			15.3	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	27	118			181	24		196	35	23	151	
Queue Length 95th (ft)	71	210			#385	75		308	86	45	230	
Internal Link Dist (ft)		617			743			295			440	
Turn Bay Length (ft)	80					60			110	95		
Base Capacity (vph)	252	787			698	729		920	854	413	1307	
Starvation Cap Reductn	0	0			0	0		133	77	0	0	

2021 Build Weekday Evening Peak
4: Steven Street & Woodford Street

1/26/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	21.0
Total Split (%)	19%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 Build Weekday Evening Peak
4: Steven Street & Woodford Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0	0		0	0	0	0	
Storage Cap Reductn	0	0			0	0		0	0	0	0	
Reduced v/c Ratio	0.33	0.44			0.67	0.23		0.61	0.30	0.23	0.39	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 73.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 20.7

Intersection LOS: C

Intersection Capacity Utilization 102.6%

ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Steven Street & Woodford Street

 p1	 p2	 p4	 p9
16 s	39 s	34 s	21 s
 p6		 p8	
55 s		34 s	

2021 Build Saturday Midday Peak
4: Steven Street & Woodford Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	236	24	46	232	89	7	291	10	96	352	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	80		0	0		60	0		110	95		0
Storage Lanes	1		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1848	0	0	1869	1615	0	1898	1615	1805	1841	0
Flt Permitted	0.463				0.907			0.985		0.300		
Satd. Flow (perm)	880	1848	0	0	1709	1615	0	1872	1615	570	1841	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						89			89			16
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		697			823			375			520	
Travel Time (s)		15.8			18.7			8.5			11.8	
Peak Hour Factor	0.87	0.87	0.87	0.80	0.80	0.80	0.93	0.93	0.93	0.86	0.86	0.86
Heavy Vehicles (%)	0%	1%	5%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	299	0	0	348	111	0	321	11	112	517	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0	8.0	20.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	39.0	39.0	39.0	16.0	55.0	
Total Split (%)	30.9%	30.9%		30.9%	30.9%	30.9%	35.5%	35.5%	35.5%	14.5%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Recall Mode	None	None		None	None	None	None	None	None	None	None	
Act Effct Green (s)	28.9	28.9			28.9	28.9		17.7	17.7	27.1	27.1	
Actuated g/C Ratio	0.45	0.45			0.45	0.45		0.28	0.28	0.42	0.42	
v/c Ratio	0.24	0.36			0.45	0.14		0.62	0.02	0.28	0.66	
Control Delay	15.6	15.1			16.6	5.4		27.5	0.1	12.8	18.5	
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	15.6	15.1			16.6	5.4		27.5	0.1	12.8	18.5	
LOS	B	B			B	A		C	A	B	B	
Approach Delay		15.2			13.9			26.6			17.5	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	22	76			93	5		117	0	26	152	
Queue Length 95th (ft)	62	157			169	28		201	0	50	225	
Internal Link Dist (ft)		617			743			295			440	
Turn Bay Length (ft)	80					60			110	95		
Base Capacity (vph)	421	885			818	820		1046	942	477	1477	
Starvation Cap Reductn	0	0			0	0		19	0	0	0	

2021 Build Saturday Midday Peak
4: Steven Street & Woodford Street

1/27/2016

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	21.0
Total Split (%)	19%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	

2021 Build Saturday Midday Peak
4: Steven Street & Woodford Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0	0		0	0	0	0	
Storage Cap Reductn	0	0			0	0		0	0	0	0	
Reduced v/c Ratio	0.22	0.34			0.43	0.14		0.31	0.01	0.23	0.35	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 64.2
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 17.7
 Intersection Capacity Utilization 81.8%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 4: Steven Street & Woodford Street

 p1	 p2	 p4	 p9
16 s	39 s	34 s	21 s
 p6		 p8	
55 s		34 s	

Forest Avenue at Woodford Street and Deering Avenue

2021 No-Build Weekday Evening Peak

2: Woodford Street & Forest Avenue

1/26/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations												
Volume (vph)	167	175	101	7	4	20	237	14	24	167	845	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	10	11	11	12	12	12	12	12
Storage Length (ft)	75		0			65		0		195		0
Storage Lanes	1		0			1		0		1		0
Taper Length (ft)	25					25				25		
Satd. Flow (prot)	1745	1711	0	0	0	1745	1822	0	0	1805	3564	0
Flt Permitted	0.152					0.560				0.950		
Satd. Flow (perm)	279	1711	0	0	0	1029	1822	0	0	1805	3564	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)		1					2				3	
Link Speed (mph)		30					30				30	
Link Distance (ft)		823					605				844	
Travel Time (s)		18.7					13.8				19.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.82	0.82	0.82	0.82	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	196	333	0	0	0	29	306	0	0	208	936	0
Turn Type	pm+pt	NA			pm+pt	Perm	NA		Prot	Prot	NA	
Protected Phases	7	4			3		8		5	5	2	
Permitted Phases	4				8	8					2	
Detector Phase	7	4			3	8	8		5	5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0	22.0			10.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	16.0	34.0			13.0	31.0	31.0		25.0	25.0	83.0	
Total Split (%)	12.3%	26.2%			10.0%	23.8%	23.8%		19.2%	19.2%	63.8%	
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0				0.0	0.0			0.0	0.0	
Total Lost Time (s)	5.0	5.0				5.0	5.0			5.0	5.0	
Lead/Lag	Lead	Lag			Lead	Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes		Yes	Yes		
Recall Mode	None	None			None	None	None		None	None	C-Max	
Act Effct Green (s)	40.4	40.4				24.4	24.4			18.3	79.6	
Actuated g/C Ratio	0.31	0.31				0.19	0.19			0.14	0.61	
v/c Ratio	0.93	0.63				0.15	0.89			0.82	0.43	
Control Delay	83.6	43.9				45.4	78.4			78.9	14.2	
Queue Delay	0.0	0.0				0.0	0.0			0.0	0.0	
Total Delay	83.6	43.9				45.4	78.4			78.9	14.2	
LOS	F	D				D	E			E	B	
Approach Delay		58.6					75.6				26.0	
Approach LOS		E					E				C	
Queue Length 50th (ft)	126	235				20	249			170	212	
Queue Length 95th (ft)	#223	313				45	#335			#282	260	
Internal Link Dist (ft)		743					525				764	
Turn Bay Length (ft)	75					65				195		
Base Capacity (vph)	210	532				205	366			277	2182	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21nbpmPortland.syn

2021 No-Build Weekday Evening Peak
2: Woodford Street & Forest Avenue

1/26/2016

	↓	↓	↙
Lane Group	SBT	SBR	SBR2
Lane Configurations	↑	↘	
Volume (vph)	698	328	102
Ideal Flow (vphpl)	1900	1900	1900
Lane Width (ft)	13	13	13
Storage Length (ft)		0	
Storage Lanes		1	
Taper Length (ft)			
Satd. Flow (prot)	1963	1656	0
Flt Permitted			
Satd. Flow (perm)	1963	1656	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		101	
Link Speed (mph)	30		
Link Distance (ft)	509		
Travel Time (s)	11.6		
Peak Hour Factor	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%
Shared Lane Traffic (%)			
Lane Group Flow (vph)	821	506	0
Turn Type	NA	Perm	
Protected Phases	6		
Permitted Phases		6	
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	
Minimum Split (s)	22.0	22.0	
Total Split (s)	58.0	58.0	
Total Split (%)	44.6%	44.6%	
Yellow Time (s)	4.0	4.0	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.0	5.0	
Lead/Lag	Lag	Lag	
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	
Act Effct Green (s)	56.3	56.3	
Actuated g/C Ratio	0.43	0.43	
v/c Ratio	0.97	0.65	
Control Delay	54.7	23.8	
Queue Delay	28.8	1.1	
Total Delay	83.5	24.9	
LOS	F	C	
Approach Delay	61.1		
Approach LOS	E		
Queue Length 50th (ft)	~761	343	
Queue Length 95th (ft)	#920	444	
Internal Link Dist (ft)	429		
Turn Bay Length (ft)			
Base Capacity (vph)	849	773	

2021 No-Build Weekday Evening Peak

2: Woodford Street & Forest Avenue

1/26/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Starvation Cap Reductn	0	0				0	0			0	0	
Spillback Cap Reductn	0	0				0	0			0	170	
Storage Cap Reductn	0	0				0	0			0	0	
Reduced v/c Ratio	0.93	0.63				0.14	0.84			0.75	0.47	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 50.1

Intersection LOS: D

Intersection Capacity Utilization 86.6%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Woodford Street & Forest Avenue

 ø2 (R)		 ø3	 ø4
83 s		13 s	34 s
 ø5	 ø6 (R)	 ø7	 ø8
25 s	58 s	16 s	31 s

2021 No-Build Weekday Evening Peak
2: Woodford Street & Forest Avenue

1/26/2016

	↓	↓	↙
Lane Group	SBT	SBR	SBR2
Starvation Cap Reductn	81	99	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	1.07	0.75	
Intersection Summary			

2021 No-Build Saturday Midday Peak
2: Deering Avenue & Woodford Street & Forest Avenue

1/26/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations												
Volume (vph)	135	136	105	17	23	15	13	10	44	136	657	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	9	11	11	12	12	12	12	12
Storage Length (ft)	75		0			65		0		195		0
Storage Lanes	1		0			1		0		1		0
Taper Length (ft)	25					25				25		
Satd. Flow (prot)	1728	1690	0	0	0	1731	1715	0	0	1770	3529	0
Flt Permitted	0.479					0.588				0.950		
Satd. Flow (perm)	871	1690	0	0	0	1072	1715	0	0	1770	3529	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)		3					11				4	
Link Speed (mph)		30					30				30	
Link Distance (ft)		823					605				844	
Travel Time (s)		18.7					13.8				19.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.93	0.92	0.93	0.93	0.92	0.94	0.94	0.94
Heavy Vehicles (%)	1%	0%	2%	2%	0%	2%	0%	0%	2%	2%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	280	0	0	0	41	25	0	0	193	714	0
Turn Type	pm+pt	NA			pm+pt	Perm	NA		Prot	Prot	NA	
Protected Phases	7	4			3		8		5	5	2	
Permitted Phases	4				8	8					2	
Detector Phase	7	4			3	8	8		5	5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0	22.0			10.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	13.0	24.0			12.0	23.0	23.0		23.0	23.0	64.0	
Total Split (%)	13.0%	24.0%			12.0%	23.0%	23.0%		23.0%	23.0%	64.0%	
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0				0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0				6.0	6.0			6.0	6.0	
Lead/Lag	Lead	Lag			Lead	Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes		Yes	Yes		
Recall Mode	None	None			None	None	None		None	None	C-Max	
Act Effct Green (s)	24.8	24.8				12.1	12.1			14.9	63.2	
Actuated g/C Ratio	0.25	0.25				0.12	0.12			0.15	0.63	
v/c Ratio	0.50	0.67				0.32	0.12			0.73	0.32	
Control Delay	36.2	40.9				44.8	26.2			56.8	9.5	
Queue Delay	0.0	0.0				0.0	0.0			0.0	0.0	
Total Delay	36.2	40.9				44.8	26.2			56.8	9.5	
LOS	D	D				D	C			E	A	
Approach Delay		39.3					37.7				19.6	
Approach LOS		D					D				B	
Queue Length 50th (ft)	76	158				24	8			117	102	
Queue Length 95th (ft)	124	232				55	31			191	153	
Internal Link Dist (ft)		743					525				764	
Turn Bay Length (ft)	75					65				195		
Base Capacity (vph)	293	423				182	300			303	2232	

2021 No-Build Saturday Midday Peak
2: Deering Avenue & Woodford Street & Forest Avenue

1/26/2016

	↓	↘	↙
Lane Group	SBT	SBR	SBR2
Lane Configurations	↑	↘	↙
Volume (vph)	576	217	105
Ideal Flow (vphpl)	1900	1900	1900
Lane Width (ft)	13	13	12
Storage Length (ft)		0	
Storage Lanes		1	
Taper Length (ft)			
Satd. Flow (prot)	1944	1646	0
Flt Permitted			
Satd. Flow (perm)	1944	1646	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		164	
Link Speed (mph)	30		
Link Distance (ft)	509		
Travel Time (s)	11.6		
Peak Hour Factor	0.95	0.92	0.95
Heavy Vehicles (%)	1%	2%	0%
Shared Lane Traffic (%)			
Lane Group Flow (vph)	606	347	0
Turn Type	NA	Perm	
Protected Phases	6		
Permitted Phases		6	
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	
Minimum Split (s)	22.0	22.0	
Total Split (s)	41.0	41.0	
Total Split (%)	41.0%	41.0%	
Yellow Time (s)	4.0	4.0	
All-Red Time (s)	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	6.0	6.0	
Lead/Lag	Lag	Lag	
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	
Act Effct Green (s)	42.3	42.3	
Actuated g/C Ratio	0.42	0.42	
v/c Ratio	0.74	0.44	
Control Delay	23.1	4.7	
Queue Delay	0.1	0.0	
Total Delay	23.2	4.7	
LOS	C	A	
Approach Delay	16.4		
Approach LOS	B		
Queue Length 50th (ft)	355	19	
Queue Length 95th (ft)	#573	37	
Internal Link Dist (ft)	429		
Turn Bay Length (ft)			
Base Capacity (vph)	822	790	

2021 No-Build Saturday Midday Peak
2: Deering Avenue & Woodford Street & Forest Avenue

1/26/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Starvation Cap Reductn	0	0				0	0			0	0	
Spillback Cap Reductn	0	0				0	0			0	0	
Storage Cap Reductn	0	0				0	0			0	0	
Reduced v/c Ratio	0.50	0.66				0.23	0.08			0.64	0.32	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 22.4
 Intersection LOS: C
 Intersection Capacity Utilization 78.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Deering Avenue & Woodford Street & Forest Avenue

 p2 (R)		 p3	 p4
64 s		12 s	24 s
 p5	 p6 (R)	 p7	 p8
23 s	41 s	13 s	23 s

2021 No-Build Saturday Midday Peak
2: Deering Avenue & Woodford Street & Forest Avenue

1/26/2016

	↓	↓	↙
Lane Group	SBT	SBR	SBR2
Starvation Cap Reductn	8	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.74	0.44	
Intersection Summary			

2021 Build Weekday Evening Peak
2: Woodford Street & Forest Avenue

1/26/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations												
Volume (vph)	180	175	114	7	4	20	237	14	24	178	845	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	10	11	11	12	12	12	12	12
Storage Length (ft)	75		0			65		0		195		0
Storage Lanes	1		0			1		0		1		0
Taper Length (ft)	25					25				25		
Satd. Flow (prot)	1745	1704	0	0	0	1745	1822	0	0	1805	3564	0
Flt Permitted	0.152					0.541				0.950		
Satd. Flow (perm)	279	1704	0	0	0	994	1822	0	0	1805	3564	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)		1					2				3	
Link Speed (mph)		30					30				30	
Link Distance (ft)		823					605				844	
Travel Time (s)		18.7					13.8				19.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.82	0.82	0.82	0.82	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	348	0	0	0	29	306	0	0	219	936	0
Turn Type	pm+pt	NA			pm+pt	Perm	NA		Prot	Prot	NA	
Protected Phases	7	4			3		8		5	5	2	
Permitted Phases	4				8	8					2	
Detector Phase	7	4			3	8	8		5	5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0	22.0			10.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	16.0	34.0			13.0	31.0	31.0		25.0	25.0	83.0	
Total Split (%)	12.3%	26.2%			10.0%	23.8%	23.8%		19.2%	19.2%	63.8%	
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0				0.0	0.0			0.0	0.0	
Total Lost Time (s)	5.0	5.0				5.0	5.0			5.0	5.0	
Lead/Lag	Lead	Lag			Lead	Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes		Yes	Yes		
Recall Mode	None	None			None	None	None		None	None	C-Max	
Act Effct Green (s)	40.4	40.4				24.4	24.4			18.7	79.6	
Actuated g/C Ratio	0.31	0.31				0.19	0.19			0.14	0.61	
v/c Ratio	1.01	0.66				0.16	0.89			0.85	0.43	
Control Delay	101.9	45.1				45.6	78.4			81.6	14.2	
Queue Delay	0.0	0.0				0.0	0.0			0.0	0.0	
Total Delay	101.9	45.1				45.6	78.4			81.6	14.2	
LOS	F	D				D	E			F	B	
Approach Delay		66.6					75.6				27.0	
Approach LOS		E					E				C	
Queue Length 50th (ft)	137	248				20	249			180	212	
Queue Length 95th (ft)	#257	330				45	#335			#303	260	
Internal Link Dist (ft)		743					525				764	
Turn Bay Length (ft)	75					65				195		
Base Capacity (vph)	210	530				198	366			277	2182	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21bpmPortland.syn

2021 Build Weekday Evening Peak
2: Woodford Street & Forest Avenue

1/26/2016

	↓	↘	↙
Lane Group	SBT	SBR	SBR2
Lane Configurations	↑	↘	
Volume (vph)	698	328	113
Ideal Flow (vphpl)	1900	1900	1900
Lane Width (ft)	13	13	13
Storage Length (ft)		0	
Storage Lanes		1	
Taper Length (ft)			
Satd. Flow (prot)	1963	1657	0
Flt Permitted			
Satd. Flow (perm)	1963	1657	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		101	
Link Speed (mph)	30		
Link Distance (ft)	509		
Travel Time (s)	11.6		
Peak Hour Factor	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%
Shared Lane Traffic (%)			
Lane Group Flow (vph)	821	519	0
Turn Type	NA	Perm	
Protected Phases	6		
Permitted Phases		6	
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	
Minimum Split (s)	22.0	22.0	
Total Split (s)	58.0	58.0	
Total Split (%)	44.6%	44.6%	
Yellow Time (s)	4.0	4.0	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.0	5.0	
Lead/Lag	Lag	Lag	
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	
Act Effct Green (s)	55.9	55.9	
Actuated g/C Ratio	0.43	0.43	
v/c Ratio	0.97	0.67	
Control Delay	56.0	24.7	
Queue Delay	30.6	1.2	
Total Delay	86.6	25.9	
LOS	F	C	
Approach Delay	63.1		
Approach LOS	E		
Queue Length 50th (ft)	~761	357	
Queue Length 95th (ft)	#919	458	
Internal Link Dist (ft)	429		
Turn Bay Length (ft)			
Base Capacity (vph)	844	770	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21bpmPortland.syn

2021 Build Weekday Evening Peak
2: Woodford Street & Forest Avenue

1/26/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Starvation Cap Reductn	0	0				0	0			0	0	
Spillback Cap Reductn	0	0				0	0			0	176	
Storage Cap Reductn	0	0				0	0			0	0	
Reduced v/c Ratio	1.01	0.66				0.15	0.84			0.79	0.47	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 52.6
 Intersection LOS: D
 Intersection Capacity Utilization 87.9%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Woodford Street & Forest Avenue

 Ø2 (R)		 Ø3	 Ø4
83 s		13 s	34 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
25 s	58 s	16 s	31 s

2021 Build Weekday Evening Peak
2: Woodford Street & Forest Avenue

1/26/2016

	↓	↓	↙
Lane Group	SBT	SBR	SBR2
Starvation Cap Reductn	81	98	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	1.08	0.77	
Intersection Summary			

2021 Build Saturday Midday Peak

2: Deering Avenue & Woodford Street & Forest Avenue

1/27/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations												
Volume (vph)	152	136	123	17	23	15	13	10	44	155	657	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	9	11	11	12	12	12	12	12
Storage Length (ft)	75		0			65		0		195		0
Storage Lanes	1		0			1		0		1		0
Taper Length (ft)	25					25				25		
Satd. Flow (prot)	1728	1680	0	0	0	1731	1715	0	0	1770	3529	0
Flt Permitted	0.494					0.577				0.950		
Satd. Flow (perm)	898	1680	0	0	0	1052	1715	0	0	1770	3529	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)		3					11				4	
Link Speed (mph)		30					30				30	
Link Distance (ft)		823					605				844	
Travel Time (s)		18.7					13.8				19.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.93	0.92	0.93	0.93	0.92	0.94	0.94	0.94
Heavy Vehicles (%)	1%	0%	2%	2%	0%	2%	0%	0%	2%	2%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	165	300	0	0	0	41	25	0	0	213	714	0
Turn Type	pm+pt	NA			pm+pt	Perm	NA		Prot	Prot	NA	
Protected Phases	7	4			3		8		5	5	2	
Permitted Phases	4				8	8					2	
Detector Phase	7	4			3	8	8		5	5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0	22.0			10.0	22.0	22.0		22.0	22.0	22.0	
Total Split (s)	13.0	24.0			12.0	23.0	23.0		23.0	23.0	64.0	
Total Split (%)	13.0%	24.0%			12.0%	23.0%	23.0%		23.0%	23.0%	64.0%	
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0				0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0				6.0	6.0			6.0	6.0	
Lead/Lag	Lead	Lag			Lead	Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes		Yes	Yes		
Recall Mode	None	None			None	None	None		None	None	C-Max	
Act Effct Green (s)	26.8	26.8				13.2	13.2			15.6	61.2	
Actuated g/C Ratio	0.27	0.27				0.13	0.13			0.16	0.61	
v/c Ratio	0.51	0.66				0.30	0.11			0.77	0.33	
Control Delay	35.3	39.6				43.0	25.7			59.8	10.3	
Queue Delay	0.0	0.0				0.0	0.0			0.0	0.0	
Total Delay	35.3	39.6				43.0	25.7			59.8	10.3	
LOS	D	D				D	C			E	B	
Approach Delay		38.1					36.4				21.7	
Approach LOS		D					D				C	
Queue Length 50th (ft)	84	167				24	8			129	108	
Queue Length 95th (ft)	138	250				55	31			#228	153	
Internal Link Dist (ft)		743					525				764	
Turn Bay Length (ft)	75					65				195		
Base Capacity (vph)	323	452				178	300			302	2162	

Proposed Commercial Development
VAI

Synchro 8 Report
S:\Jobs\6846\Analysis\21bsatPortland.syn

2021 Build Saturday Midday Peak

2: Deering Avenue & Woodford Street & Forest Avenue

1/27/2016

	↓	↘	↗
Lane Group	SBT	SBR	SBR2
Lane Configurations	↑	↘	
Volume (vph)	576	217	124
Ideal Flow (vphpl)	1900	1900	1900
Lane Width (ft)	13	13	12
Storage Length (ft)		0	
Storage Lanes		1	
Taper Length (ft)			
Satd. Flow (prot)	1944	1648	0
Flt Permitted			
Satd. Flow (perm)	1944	1648	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		164	
Link Speed (mph)	30		
Link Distance (ft)	509		
Travel Time (s)	11.6		
Peak Hour Factor	0.95	0.92	0.95
Heavy Vehicles (%)	1%	2%	0%
Shared Lane Traffic (%)			
Lane Group Flow (vph)	606	367	0
Turn Type	NA	Perm	
Protected Phases	6		
Permitted Phases		6	
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	
Minimum Split (s)	22.0	22.0	
Total Split (s)	41.0	41.0	
Total Split (%)	41.0%	41.0%	
Yellow Time (s)	4.0	4.0	
All-Red Time (s)	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	6.0	6.0	
Lead/Lag	Lag	Lag	
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	
Act Effct Green (s)	39.6	39.6	
Actuated g/C Ratio	0.40	0.40	
v/c Ratio	0.79	0.49	
Control Delay	26.5	6.2	
Queue Delay	0.1	0.0	
Total Delay	26.6	6.2	
LOS	C	A	
Approach Delay	18.9		
Approach LOS	B		
Queue Length 50th (ft)	372	26	
Queue Length 95th (ft)	#575	47	
Internal Link Dist (ft)	429		
Turn Bay Length (ft)			
Base Capacity (vph)	770	752	

2021 Build Saturday Midday Peak

2: Deering Avenue & Woodford Street & Forest Avenue

1/27/2016

												
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Starvation Cap Reductn	0	0				0	0			0	0	
Spillback Cap Reductn	0	0				0	0			0	0	
Storage Cap Reductn	0	0				0	0			0	0	
Reduced v/c Ratio	0.51	0.66				0.23	0.08			0.71	0.33	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 24.1
 Intersection LOS: C
 Intersection Capacity Utilization 80.4%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Deering Avenue & Woodford Street & Forest Avenue

 ρ2 (R)		 ρ3	 ρ4
64 s		12 s	24 s
 ρ5	 ρ6 (R)	 ρ7	 ρ8
23 s	41 s	13 s	23 s

	↓	↓	↙
Lane Group	SBT	SBR	SBR2
Starvation Cap Reductn	4	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.79	0.49	
Intersection Summary			

Forest Avenue at Ocean Avenue, Saunders Street and Vannah Avenue

2021 No-Build Weekday Evening Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	4	11	12	14	7	3	111	7	791	222	13	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	12	12	16	12	12	12	12	12	12
Storage Length (ft)		0		0	0		0			0		
Storage Lanes		0		0	0		0			0		
Taper Length (ft)		25			25							
Satd. Flow (prot)	0	0	1897	0	0	1881	0	0	3461	0	0	0
Flt Permitted			0.687			0.983						
Satd. Flow (perm)	0	0	1327	0	0	1854	0	0	3461	0	0	0
Right Turn on Red				Yes				No			Yes	
Satd. Flow (RTOR)			18						1			
Link Speed (mph)			30			30			30			
Link Distance (ft)			195			197			509			
Travel Time (s)			4.4			4.5			11.6			
Peak Hour Factor	0.73	0.73	0.73	0.73	0.85	0.85	0.85	0.85	0.95	0.95	0.95	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	55	0	0	151	0	0	1081	0	0	0
Turn Type	Perm	Perm	NA		Perm	NA			NA			pm+pt
Protected Phases			4			8			2			1
Permitted Phases	4	4			8							6
Detector Phase	4	4	4		8	8			2			1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0			4.0
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0			22.0			10.0
Total Split (s)	31.0	31.0	31.0		31.0	31.0			54.0			13.0
Total Split (%)	23.8%	23.8%	23.8%		23.8%	23.8%			41.5%			10.0%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0			4.0			4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0			2.0
Lost Time Adjust (s)			0.0			0.0			0.0			
Total Lost Time (s)			6.0			6.0			6.0			
Lead/Lag									Lag			Lead
Lead-Lag Optimize?									Yes			Yes
Recall Mode	None	None	None		None	None			C-Max			None
Act Effct Green (s)			15.8			15.8			60.8			
Actuated g/C Ratio			0.12			0.12			0.47			
v/c Ratio			0.31			0.67			0.67			
Control Delay			40.5			68.6			23.6			
Queue Delay			0.0			0.0			0.2			
Total Delay			40.5			68.6			23.8			
LOS			D			E			C			
Approach Delay			40.5			68.6			23.8			
Approach LOS			D			E			C			
Queue Length 50th (ft)			29			124			189			
Queue Length 95th (ft)			52			176			m537			
Internal Link Dist (ft)			115			117			429			
Turn Bay Length (ft)												
Base Capacity (vph)			269			356			1620			

2021 No-Build Weekday Evening Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

							
Lane Group	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations							
Volume (vph)	29	900	5	1	207	15	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12
Storage Length (ft)	120		0		0	100	
Storage Lanes	1		0		1	1	
Taper Length (ft)	25				25		
Satd. Flow (prot)	1805	3571	0	0	1745	1615	0
Flt Permitted	0.138				0.950		
Satd. Flow (perm)	262	3571	0	0	1745	1615	0
Right Turn on Red			Yes				Yes
Satd. Flow (RTOR)		1				126	
Link Speed (mph)		30			30		
Link Distance (ft)		440			240		
Travel Time (s)		10.0			5.5		
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							
Lane Group Flow (vph)	80	1065	0	0	224	110	0
Turn Type	pm+pt	NA		Split	NA	Perm	
Protected Phases	1	6		9	9		
Permitted Phases	6					9	
Detector Phase	1	6		9	9	9	
Switch Phase							
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0	22.0		22.0	22.0	22.0	
Total Split (s)	13.0	67.0		32.0	32.0	32.0	
Total Split (%)	10.0%	51.5%		24.6%	24.6%	24.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0	6.0	
Lead/Lag	Lead						
Lead-Lag Optimize?	Yes						
Recall Mode	None	C-Max		None	None	None	
Act Effct Green (s)	74.4	74.4			21.8	21.8	
Actuated g/C Ratio	0.57	0.57			0.17	0.17	
v/c Ratio	0.33	0.52			0.77	0.29	
Control Delay	18.8	19.6			68.3	7.1	
Queue Delay	0.0	0.5			0.0	0.0	
Total Delay	18.8	20.1			68.3	7.1	
LOS	B	C			E	A	
Approach Delay		20.0			48.1		
Approach LOS		C			D		
Queue Length 50th (ft)	29	275			182	0	
Queue Length 95th (ft)	62	385			258	38	
Internal Link Dist (ft)		360			160		
Turn Bay Length (ft)	120					100	
Base Capacity (vph)	241	2042			357	430	

2021 No-Build Weekday Evening Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL2
Starvation Cap Reductn			0			0			87			
Spillback Cap Reductn			2			0			0			
Storage Cap Reductn			0			0			0			
Reduced v/c Ratio			0.21			0.42			0.71			

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 113 (87%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 27.9

Intersection LOS: C

Intersection Capacity Utilization 72.7%

ICU Level of Service C

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

 ø1	 ø2 (R)	 ø4	 ø9
13 s	54 s	31 s	32 s
 ø6 (R)		 ø8	
67 s		31 s	

2021 No-Build Weekday Evening Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

							
Lane Group	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Starvation Cap Reductn	0	0			0	0	
Spillback Cap Reductn	0	494			0	0	
Storage Cap Reductn	0	0			0	0	
Reduced v/c Ratio	0.33	0.69			0.63	0.26	
Intersection Summary							

2021 No-Build Saturday Midday Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL2
Lane Configurations			↕			↕			↕			
Volume (vph)	3	12	4	10	15	4	105	8	628	159	15	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	12	12	16	12	12	12	12	12	12
Storage Length (ft)		0		0	0		0			0		
Storage Lanes		0		0	0		0			0		
Taper Length (ft)		25			25							
Satd. Flow (prot)	0	0	1883	0	0	1894	0	0	3491	0	0	0
Flt Permitted			0.698			0.958						
Satd. Flow (perm)	0	0	1350	0	0	1826	0	0	3491	0	0	0
Right Turn on Red				Yes				No			Yes	
Satd. Flow (RTOR)			13						2			
Link Speed (mph)			30			30			30			
Link Distance (ft)			195			197			509			
Travel Time (s)			4.4			4.5			11.6			
Peak Hour Factor	0.75	0.75	0.75	0.75	0.85	0.85	0.85	0.85	0.92	0.92	0.92	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	38	0	0	156	0	0	872	0	0	0
Turn Type	Perm	Perm	NA		Perm	NA			NA			pm+pt
Protected Phases			4			8			2			1
Permitted Phases	4	4			8							6
Detector Phase	4	4	4		8	8			2			1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0			4.0
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0			22.0			10.0
Total Split (s)	23.0	23.0	23.0		23.0	23.0			38.0			14.0
Total Split (%)	23.0%	23.0%	23.0%		23.0%	23.0%			38.0%			14.0%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0			4.0			4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0			2.0
Lost Time Adjust (s)			0.0			0.0			0.0			
Total Lost Time (s)			6.0			6.0			6.0			
Lead/Lag									Lag			Lead
Lead-Lag Optimize?									Yes			Yes
Recall Mode	None	None	None		None	None			C-Max			None
Act Effct Green (s)			13.4			13.4			39.1			
Actuated g/C Ratio			0.13			0.13			0.39			
v/c Ratio			0.20			0.64			0.64			
Control Delay			29.5			52.8			25.7			
Queue Delay			0.0			0.0			0.0			
Total Delay			29.5			52.8			25.7			
LOS			C			D			C			
Approach Delay			29.5			52.8			25.7			
Approach LOS			C			D			C			
Queue Length 50th (ft)			14			95			257			
Queue Length 95th (ft)			34			146			349			
Internal Link Dist (ft)			115			117			429			
Turn Bay Length (ft)												
Base Capacity (vph)			240			310			1366			

2021 No-Build Saturday Midday Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

	↘	↓	↙	↖	↗	↘	↗
Lane Group	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations	↘	↑↓			↘	↘	
Volume (vph)	63	707	3	1	166	13	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12
Storage Length (ft)	120		0		0	100	
Storage Lanes	1		0		1	1	
Taper Length (ft)	25				25		
Satd. Flow (prot)	1805	3571	0	0	1745	1615	0
Flt Permitted	0.175				0.950		
Satd. Flow (perm)	332	3571	0	0	1745	1615	0
Right Turn on Red			Yes				Yes
Satd. Flow (RTOR)		1				164	
Link Speed (mph)		30			30		
Link Distance (ft)		440			240		
Travel Time (s)		10.0			5.5		
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							
Lane Group Flow (vph)	115	763	0	0	192	106	0
Turn Type	pm+pt	NA		Split	NA	Perm	
Protected Phases	1	6		9	9		
Permitted Phases	6					9	
Detector Phase	1	6		9	9	9	
Switch Phase							
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0	22.0		22.0	22.0	22.0	
Total Split (s)	14.0	52.0		25.0	25.0	25.0	
Total Split (%)	14.0%	52.0%		25.0%	25.0%	25.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0	6.0	
Lead/Lag	Lead						
Lead-Lag Optimize?	Yes						
Recall Mode	None	C-Max		None	None	None	
Act Effct Green (s)	53.1	53.1			15.5	15.5	
Actuated g/C Ratio	0.53	0.53			0.16	0.16	
v/c Ratio	0.39	0.40			0.71	0.27	
Control Delay	17.6	15.9			54.3	3.0	
Queue Delay	0.0	0.0			0.0	0.0	
Total Delay	17.6	15.9			54.3	3.0	
LOS	B	B			D	A	
Approach Delay		16.1			36.0		
Approach LOS		B			D		
Queue Length 50th (ft)	36	148			117	0	
Queue Length 95th (ft)	75	221			178	9	
Internal Link Dist (ft)		360			160		
Turn Bay Length (ft)	120					100	
Base Capacity (vph)	300	1896			331	439	

2021 No-Build Saturday Midday Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL2
Starvation Cap Reductn			0			0			0			
Spillback Cap Reductn			0			0			0			
Storage Cap Reductn			0			0			0			
Reduced v/c Ratio			0.16			0.50			0.64			

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 25.3

Intersection LOS: C

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

 ø1	 ø2 (R)	 ø4	 ø9
14 s	38 s	23 s	25 s
 ø6 (R)		 ø8	
52 s		23 s	

2021 No-Build Saturday Midday Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

							
Lane Group	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Starvation Cap Reductn	0	0			0	0	
Spillback Cap Reductn	0	89			0	0	
Storage Cap Reductn	0	0			0	0	
Reduced v/c Ratio	0.38	0.42			0.58	0.24	
Intersection Summary							

2021 Build Weekday Evening Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL2
Lane Configurations			↕			↕			↕			
Volume (vph)	4	11	12	14	7	3	111	7	791	235	13	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	12	12	16	12	12	12	12	12	12
Storage Length (ft)		0		0	0		0			0		
Storage Lanes		0		0	0		0			0		
Taper Length (ft)		25			25							
Satd. Flow (prot)	0	0	1897	0	0	1881	0	0	3454	0	0	0
Flt Permitted			0.687			0.983						
Satd. Flow (perm)	0	0	1327	0	0	1854	0	0	3454	0	0	0
Right Turn on Red				Yes				No			Yes	
Satd. Flow (RTOR)			18						1			
Link Speed (mph)			30			30			30			
Link Distance (ft)			195			197			509			
Travel Time (s)			4.4			4.5			11.6			
Peak Hour Factor	0.73	0.73	0.73	0.73	0.85	0.85	0.85	0.85	0.95	0.95	0.95	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	55	0	0	151	0	0	1094	0	0	0
Turn Type	Perm	Perm	NA		Perm	NA			NA			pm+pt
Protected Phases			4			8			2			1
Permitted Phases	4	4			8							6
Detector Phase	4	4	4		8	8			2			1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0			4.0
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0			22.0			10.0
Total Split (s)	31.0	31.0	31.0		31.0	31.0			54.0			13.0
Total Split (%)	23.8%	23.8%	23.8%		23.8%	23.8%			41.5%			10.0%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0			4.0			4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0			2.0
Lost Time Adjust (s)			0.0			0.0			0.0			
Total Lost Time (s)			6.0			6.0			6.0			
Lead/Lag									Lag			Lead
Lead-Lag Optimize?									Yes			Yes
Recall Mode	None	None	None		None	None			C-Max			None
Act Effct Green (s)			15.8			15.8			60.2			
Actuated g/C Ratio			0.12			0.12			0.46			
v/c Ratio			0.31			0.67			0.68			
Control Delay			40.5			68.6			24.6			
Queue Delay			0.0			0.0			0.2			
Total Delay			40.5			68.6			24.8			
LOS			D			E			C			
Approach Delay			40.5			68.6			24.8			
Approach LOS			D			E			C			
Queue Length 50th (ft)			29			124			196			
Queue Length 95th (ft)			52			176			m535			
Internal Link Dist (ft)			115			117			429			
Turn Bay Length (ft)												
Base Capacity (vph)			269			356			1600			

2021 Build Weekday Evening Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

							
Lane Group	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations							
Volume (vph)	29	900	5	1	218	15	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12
Storage Length (ft)	120		0		0	100	
Storage Lanes	1		0		1	1	
Taper Length (ft)	25				25		
Satd. Flow (prot)	1805	3571	0	0	1745	1615	0
Flt Permitted	0.132				0.950		
Satd. Flow (perm)	251	3571	0	0	1745	1615	0
Right Turn on Red			Yes				Yes
Satd. Flow (RTOR)		1				126	
Link Speed (mph)		30			30		
Link Distance (ft)		440			240		
Travel Time (s)		10.0			5.5		
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							
Lane Group Flow (vph)	80	1065	0	0	235	110	0
Turn Type	pm+pt	NA		Split	NA	Perm	
Protected Phases	1	6		9	9		
Permitted Phases	6					9	
Detector Phase	1	6		9	9	9	
Switch Phase							
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0	22.0		22.0	22.0	22.0	
Total Split (s)	13.0	67.0		32.0	32.0	32.0	
Total Split (%)	10.0%	51.5%		24.6%	24.6%	24.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0	6.0	
Lead/Lag	Lead						
Lead-Lag Optimize?	Yes						
Recall Mode	None	C-Max		None	None	None	
Act Effct Green (s)	73.7	73.7			22.5	22.5	
Actuated g/C Ratio	0.57	0.57			0.17	0.17	
v/c Ratio	0.35	0.53			0.78	0.29	
Control Delay	19.5	20.1			68.6	6.9	
Queue Delay	0.0	0.5			0.0	0.0	
Total Delay	19.5	20.6			68.6	6.9	
LOS	B	C			E	A	
Approach Delay		20.5			48.9		
Approach LOS		C			D		
Queue Length 50th (ft)	29	279			191	0	
Queue Length 95th (ft)	63	388			268	37	
Internal Link Dist (ft)		360			160		
Turn Bay Length (ft)	120					100	
Base Capacity (vph)	234	2024			358	431	

2021 Build Weekday Evening Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL2
Starvation Cap Reductn			0			0			84			
Spillback Cap Reductn			2			0			0			
Storage Cap Reductn			0			0			0			
Reduced v/c Ratio			0.21			0.42			0.72			

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 113 (87%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 28.7

Intersection LOS: C

Intersection Capacity Utilization 73.7%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

 ø1	 ø2 (R)	 ø4	 ø9
13 s	54 s	31 s	32 s
 ø6 (R)		 ø8	
67 s		31 s	

2021 Build Weekday Evening Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/26/2016

							
Lane Group	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Starvation Cap Reductn	0	0			0	0	
Spillback Cap Reductn	0	488			0	0	
Storage Cap Reductn	0	0			0	0	
Reduced v/c Ratio	0.34	0.69			0.66	0.26	
Intersection Summary							

2021 Build Saturday Midday Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/27/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	3	12	4	10	15	4	105	8	628	176	15	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	12	12	16	12	12	12	12	12	12
Storage Length (ft)		0		0	0		0			0		
Storage Lanes		0		0	0		0			0		
Taper Length (ft)		25			25							
Satd. Flow (prot)	0	0	1883	0	0	1894	0	0	3484	0	0	0
Flt Permitted			0.698			0.958						
Satd. Flow (perm)	0	0	1350	0	0	1826	0	0	3484	0	0	0
Right Turn on Red				Yes				No			Yes	
Satd. Flow (RTOR)			13						2			
Link Speed (mph)			30			30			30			
Link Distance (ft)			195			197			509			
Travel Time (s)			4.4			4.5			11.6			
Peak Hour Factor	0.75	0.75	0.75	0.75	0.85	0.85	0.85	0.85	0.92	0.92	0.92	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	38	0	0	156	0	0	890	0	0	0
Turn Type	Perm	Perm	NA		Perm	NA			NA			pm+pt
Protected Phases			4			8			2			1
Permitted Phases	4	4			8							6
Detector Phase	4	4	4		8	8			2			1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0			4.0			4.0
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0			22.0			10.0
Total Split (s)	23.0	23.0	23.0		23.0	23.0			38.0			14.0
Total Split (%)	23.0%	23.0%	23.0%		23.0%	23.0%			38.0%			14.0%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0			4.0			4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0			2.0
Lost Time Adjust (s)			0.0			0.0			0.0			
Total Lost Time (s)			6.0			6.0			6.0			
Lead/Lag									Lag			Lead
Lead-Lag Optimize?									Yes			Yes
Recall Mode	None	None	None		None	None			C-Max			None
Act Effct Green (s)			13.4			13.4			38.4			
Actuated g/C Ratio			0.13			0.13			0.38			
v/c Ratio			0.20			0.64			0.66			
Control Delay			29.5			52.8			26.5			
Queue Delay			0.0			0.0			0.0			
Total Delay			29.5			52.8			26.5			
LOS			C			D			C			
Approach Delay			29.5			52.8			26.5			
Approach LOS			C			D			C			
Queue Length 50th (ft)			14			95			270			
Queue Length 95th (ft)			34			146			358			
Internal Link Dist (ft)			115			117			429			
Turn Bay Length (ft)												
Base Capacity (vph)			240			310			1340			

2021 Build Saturday Midday Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/27/2016

							
Lane Group	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations							
Volume (vph)	63	707	3	1	185	13	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12
Storage Length (ft)	120		0		0	100	
Storage Lanes	1		0		1	1	
Taper Length (ft)	25				25		
Satd. Flow (prot)	1805	3571	0	0	1745	1615	0
Flt Permitted	0.164				0.950		
Satd. Flow (perm)	312	3571	0	0	1745	1615	0
Right Turn on Red			Yes				Yes
Satd. Flow (RTOR)		1				164	
Link Speed (mph)		30			30		
Link Distance (ft)		440			240		
Travel Time (s)		10.0			5.5		
Peak Hour Factor	0.93	0.93	0.93	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							
Lane Group Flow (vph)	115	763	0	0	214	106	0
Turn Type	pm+pt	NA		Split	NA	Perm	
Protected Phases	1	6		9	9		
Permitted Phases	6					9	
Detector Phase	1	6		9	9	9	
Switch Phase							
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0	22.0		22.0	22.0	22.0	
Total Split (s)	14.0	52.0		25.0	25.0	25.0	
Total Split (%)	14.0%	52.0%		25.0%	25.0%	25.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0	6.0	
Lead/Lag	Lead						
Lead-Lag Optimize?	Yes						
Recall Mode	None	C-Max		None	None	None	
Act Effct Green (s)	52.2	52.2			16.4	16.4	
Actuated g/C Ratio	0.52	0.52			0.16	0.16	
v/c Ratio	0.41	0.41			0.75	0.26	
Control Delay	18.6	16.4			55.8	2.9	
Queue Delay	0.0	0.0			0.0	0.0	
Total Delay	18.6	16.4			55.8	2.9	
LOS	B	B			E	A	
Approach Delay		16.7			38.3		
Approach LOS		B			D		
Queue Length 50th (ft)	37	152			130	0	
Queue Length 95th (ft)	75	221			197	9	
Internal Link Dist (ft)		360			160		
Turn Bay Length (ft)	120					100	
Base Capacity (vph)	285	1864			334	442	

2021 Build Saturday Midday Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/27/2016

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL2
Starvation Cap Reductn			0			0			0			
Spillback Cap Reductn			0			0			0			
Storage Cap Reductn			0			0			0			
Reduced v/c Ratio			0.16			0.50			0.66			

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 26.2

Intersection LOS: C

Intersection Capacity Utilization 67.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

 Ø1	 Ø2 (R)	 Ø4	 Ø9
14 s	38 s	23 s	25 s
 Ø6 (R)		 Ø8	
52 s		23 s	

2021 Build Saturday Midday Peak

1: Forest Avenue & Saunders Street/Vannah Avenue & Ocean Avenue

1/27/2016

	↘	↓	↙	↶	↷	↘	↶
Lane Group	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Starvation Cap Reductn	0	0			0	0	
Spillback Cap Reductn	0	90			0	0	
Storage Cap Reductn	0	0			0	0	
Reduced v/c Ratio	0.40	0.43			0.64	0.24	
Intersection Summary							

Steven Avenue at Capisic Street and Anson Road

2021 No-Build Weekday Evening Peak

9: Steven Street & Capisic Street/Anson Road

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	359	1	254	1	0	2	368	266	3	0	214	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	165		0	0		0	55		0	0		100
Storage Lanes	1		0	0		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1617	0	0	1688	0	1805	1896	0	0	1881	1599
Flt Permitted	0.755				0.947		0.351					
Satd. Flow (perm)	1434	1617	0	0	1618	0	667	1896	0	0	1881	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		282			95			1				266
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		289			152			279			554	
Travel Time (s)		6.6			3.5			6.3			12.6	
Peak Hour Factor	0.90	0.90	0.90	0.75	0.75	0.75	0.91	0.91	0.91	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	399	283	0	0	4	0	404	295	0	0	249	266
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	21.0		21.0	21.0	21.0
Total Split (s)	26.0	26.0		26.0	26.0		20.0	54.0		34.0	34.0	34.0
Total Split (%)	32.5%	32.5%		32.5%	32.5%		25.0%	67.5%		42.5%	42.5%	42.5%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0		5.0	5.0			5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	21.1	21.1			21.1		33.9	33.9			14.4	14.4
Actuated g/C Ratio	0.32	0.32			0.32		0.52	0.52			0.22	0.22
v/c Ratio	0.86	0.40			0.01		0.67	0.30			0.60	0.47
Control Delay	43.3	4.7			0.0		15.5	9.4			29.0	6.1
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	43.3	4.7			0.0		15.5	9.4			29.0	6.1
LOS	D	A			A		B	A			C	A
Approach Delay		27.3			0.0			12.9			17.1	
Approach LOS		C			A			B			B	
Queue Length 50th (ft)	148	0			0		90	60			90	0
Queue Length 95th (ft)	#347	52			0		145	100			144	42
Internal Link Dist (ft)		209			72			199			474	
Turn Bay Length (ft)	165						55					100
Base Capacity (vph)	465	715			589		611	1437			843	864
Starvation Cap Reductn	0	0			0		0	0			0	0

2021 No-Build Weekday Evening Peak
 9: Steven Street & Capisic Street/Anson Road

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0		0	0			0	0
Storage Cap Reductn	0	0			0		0	0			0	0
Reduced v/c Ratio	0.86	0.40			0.01		0.66	0.21			0.30	0.31

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 65.1
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 19.2
 Intersection Capacity Utilization 70.7%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 9: Steven Street & Capisic Street/Anson Road

 Ø2	 Ø4
54 s	26 s
 Ø5	 Ø6
20 s	34 s
	 Ø8
	26 s

2021 No-Build Saturday Midday Peak
9: Steven Street & Capisic Street/Anson Road

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	1	186	4	3	0	191	178	2	2	205	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	165		0	0		0	55		0	0		100
Storage Lanes	1		0	0		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1617	0	0	1847	0	1805	1878	0	0	1861	1599
Flt Permitted	0.750				0.839		0.376				0.996	
Satd. Flow (perm)	1425	1617	0	0	1594	0	714	1878	0	0	1856	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		202						1				286
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		289			152			279			554	
Travel Time (s)		6.6			3.5			6.3			12.6	
Peak Hour Factor	0.92	0.92	0.92	0.58	0.58	0.58	0.91	0.91	0.91	0.77	0.77	0.77
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	225	203	0	0	12	0	210	198	0	0	269	286
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	21.0		21.0	21.0	21.0
Total Split (s)	23.0	23.0		23.0	23.0		20.0	57.0		37.0	37.0	37.0
Total Split (%)	28.8%	28.8%		28.8%	28.8%		25.0%	71.3%		46.3%	46.3%	46.3%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0		5.0	5.0			5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	13.7	13.7			13.7		30.6	30.6			13.9	13.9
Actuated g/C Ratio	0.25	0.25			0.25		0.56	0.56			0.25	0.25
v/c Ratio	0.63	0.37			0.03		0.34	0.19			0.57	0.46
Control Delay	29.0	5.8			18.3		7.9	6.7			24.0	5.5
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	29.0	5.8			18.3		7.9	6.7			24.0	5.5
LOS	C	A			B		A	A			C	A
Approach Delay		18.0			18.3			7.3			14.5	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	65	0			3		29	27			76	0
Queue Length 95th (ft)	155	46			10		65	61			129	27
Internal Link Dist (ft)		209			72			199			474	
Turn Bay Length (ft)	165						55					100
Base Capacity (vph)	490	689			548		712	1692			1135	1089
Starvation Cap Reductn	0	0			0		0	0			0	0

2021 No-Build Saturday Midday Peak
 9: Steven Street & Capisic Street/Anson Road

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0		0	0			0	0
Storage Cap Reductn	0	0			0		0	0			0	0
Reduced v/c Ratio	0.46	0.29			0.02		0.29	0.12			0.24	0.26

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 54.7
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 13.5
 Intersection Capacity Utilization 52.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 9: Steven Street & Capisic Street/Anson Road

 p2			 p4
57 s			23 s
 p5	 p6		 p8
20 s	37 s		23 s

2021 Build Weekday Evening Peak
9: Steven Street & Capisic Street/Anson Road

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	359	1	267	1	0	2	379	266	3	0	214	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	165		0	0		0	55		0	0		100
Storage Lanes	1		0	0		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1617	0	0	1688	0	1805	1896	0	0	1881	1599
Flt Permitted	0.755				0.945		0.351					
Satd. Flow (perm)	1434	1617	0	0	1614	0	667	1896	0	0	1881	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		297			95			1				266
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		289			152			279			554	
Travel Time (s)		6.6			3.5			6.3			12.6	
Peak Hour Factor	0.90	0.90	0.90	0.75	0.75	0.75	0.91	0.91	0.91	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	399	298	0	0	4	0	416	295	0	0	249	266
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	21.0		21.0	21.0	21.0
Total Split (s)	26.0	26.0		26.0	26.0		20.0	54.0		34.0	34.0	34.0
Total Split (%)	32.5%	32.5%		32.5%	32.5%		25.0%	67.5%		42.5%	42.5%	42.5%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0		5.0	5.0			5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	21.1	21.1			21.1		34.0	34.0			14.4	14.4
Actuated g/C Ratio	0.32	0.32			0.32		0.52	0.52			0.22	0.22
v/c Ratio	0.86	0.41			0.01		0.69	0.30			0.60	0.47
Control Delay	43.6	4.8			0.0		16.1	9.4			28.9	6.1
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	43.6	4.8			0.0		16.1	9.4			28.9	6.1
LOS	D	A			A		B	A			C	A
Approach Delay		27.0			0.0			13.3			17.1	
Approach LOS		C			A			B			B	
Queue Length 50th (ft)	148	0			0		94	60			90	0
Queue Length 95th (ft)	#347	53			0		151	100			144	42
Internal Link Dist (ft)		209			72			199			474	
Turn Bay Length (ft)	165						55					100
Base Capacity (vph)	464	724			587		611	1433			841	862
Starvation Cap Reductn	0	0			0		0	0			0	0

2021 Build Weekday Evening Peak
 9: Steven Street & Capisic Street/Anson Road

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0		0	0			0	0
Storage Cap Reductn	0	0			0		0	0			0	0
Reduced v/c Ratio	0.86	0.41			0.01		0.68	0.21			0.30	0.31

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 65.2

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 19.2

Intersection LOS: B

Intersection Capacity Utilization 71.3%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 9: Steven Street & Capisic Street/Anson Road

 Ø2	 Ø4
54 s	26 s
 Ø5	 Ø6
20 s	34 s
	 Ø8
	26 s

2021 Build Saturday Midday Peak

9: Steven Street & Capisic Street/Anson Road

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	1	204	4	3	0	211	178	2	2	205	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	165		0	0		0	55		0	0		100
Storage Lanes	1		0	0		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1617	0	0	1847	0	1805	1878	0	0	1861	1599
Flt Permitted	0.750				0.833		0.374				0.996	
Satd. Flow (perm)	1425	1617	0	0	1583	0	711	1878	0	0	1856	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		222						1				286
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		289			152			279			554	
Travel Time (s)		6.6			3.5			6.3			12.6	
Peak Hour Factor	0.92	0.92	0.92	0.58	0.58	0.58	0.91	0.91	0.91	0.77	0.77	0.77
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	225	223	0	0	12	0	232	198	0	0	269	286
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	21.0	21.0		21.0	21.0		9.0	21.0		21.0	21.0	21.0
Total Split (s)	23.0	23.0		23.0	23.0		20.0	57.0		37.0	37.0	37.0
Total Split (%)	28.8%	28.8%		28.8%	28.8%		25.0%	71.3%		46.3%	46.3%	46.3%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0		5.0	5.0			5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	13.7	13.7			13.7		31.3	31.3			14.0	14.0
Actuated g/C Ratio	0.25	0.25			0.25		0.56	0.56			0.25	0.25
v/c Ratio	0.64	0.39			0.03		0.36	0.19			0.57	0.46
Control Delay	29.7	5.9			18.6		8.1	6.7			24.3	5.5
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	29.7	5.9			18.6		8.1	6.7			24.3	5.5
LOS	C	A			B		A	A			C	A
Approach Delay		17.8			18.6			7.4			14.6	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	66	0			3		33	27			78	0
Queue Length 95th (ft)	155	48			10		72	61			128	27
Internal Link Dist (ft)		209			72			199			474	
Turn Bay Length (ft)	165						55					100
Base Capacity (vph)	484	695			537		710	1680			1121	1078
Starvation Cap Reductn	0	0			0		0	0			0	0

2021 Build Saturday Midday Peak
 9: Steven Street & Capisic Street/Anson Road

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0		0	0			0	0
Storage Cap Reductn	0	0			0		0	0			0	0
Reduced v/c Ratio	0.46	0.32			0.02		0.33	0.12			0.24	0.27

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 55.4

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 13.5

Intersection LOS: B

Intersection Capacity Utilization 53.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 9: Steven Street & Capisic Street/Anson Road

 ø2		 ø4
57 s		23 s
 ø5	 ø6	 ø8
20 s	37 s	23 s

Capisic Street at Frost Street

2021 No-Build Weekday Evening Peak

38 10: Frost Street & Capisic Street

1/25/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	224	90	211	386	0	194	0	390	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	16	12	16	12	12	12
Storage Length (ft)	0		0	200		0	100		100	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1887	0	1770	1900	0	2046	0	1830	0	1900	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	1887	0	1770	1900	0	2046	0	1830	0	1900	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			289			238			121	
Travel Time (s)		15.5			6.6			5.4			2.8	
Peak Hour Factor	0.90	0.90	0.90	0.98	0.98	0.98	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	349	0	215	394	0	209	0	419	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 58.3%

ICU Level of Service B

Analysis Period (min) 15

2021 No-Build Weekday Evening Peak
10: Frost Street & Capisic Street

1/25/2016

Intersection

Intersection Delay, s/veh 35.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	224	90	211	386	0	194	0	390	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	200	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	98	98	98	93	93	93	92	92	92
Heavy Vehicles, %	0	0	0	2	0	0	0	0	0	0	0	0
Mvmt Flow	0	249	100	215	394	0	209	0	419	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	394	0	0	349	0	0	1123	1123	299	1123	1173	394
Stage 1	-	-	-	-	-	-	299	299	-	824	824	-
Stage 2	-	-	-	-	-	-	824	824	-	299	349	-
Follow-up Headway	2.2	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Capacity-1 Maneuver	1176	-	-	1210	-	-	# 185	207	745	185	194	659
Stage 1	-	-	-	-	-	-	714	670	-	370	390	-
Stage 2	-	-	-	-	-	-	370	390	-	714	637	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	1176	-	-	1210	-	-	# 160	170	745	70	160	659
Mov Capacity-2 Maneuver	-	-	-	-	-	-	# 160	170	-	70	160	-
Stage 1	-	-	-	-	-	-	714	670	-	370	321	-
Stage 2	-	-	-	-	-	-	304	321	-	312	637	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3	86.9	0
HCM LOS			F	A

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	160	745	1176	-	-	1210	-	-	0
HCM Lane V/C Ratio	1.304	0.563	-	-	-	0.178	-	-	+
HCM Control Delay (s)	229.5	15.9	0	-	-	8.618	-	-	0
HCM Lane LOS	F	C	A			A			A
HCM 95th %tile Q(veh)	12.389	3.553	0	-	-	0.646	-	-	+

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 No-Build Saturday Midday Peak
10: Frost Street & Capisic Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	187	145	221	193	0	102	0	203	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	16	12	16	12	12	12
Storage Length (ft)	0		0	200		0	0		100	0		0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1847	0	1805	1900	0	0	1770	1830	0	1805	0
Flt Permitted				0.950				0.950			0.950	
Satd. Flow (perm)	0	1847	0	1805	1900	0	0	1770	1830	0	1805	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			289			238			121	
Travel Time (s)		15.5			6.6			5.4			2.8	
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.90	0.90	0.90	0.50	0.50	0.50
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	377	0	248	217	0	0	113	226	0	8	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 46.2%

ICU Level of Service A

Analysis Period (min) 15

2021 No-Build Saturday Midday Peak
10: Frost Street & Capisic Street

1/26/2016

Intersection												
Intersection Delay, s/veh	10.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	187	145	221	193	0	102	0	203	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	200	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	89	89	89	90	90	90	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0	2	0	0	0	0	0
Mvmt Flow	0	212	165	248	217	0	113	0	226	8	0	0
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	217	0	0	377	0	0	1008	1008	295	1008	1090	217
Stage 1	-	-	-	-	-	-	295	295	-	713	713	-
Stage 2	-	-	-	-	-	-	713	713	-	295	377	-
Follow-up Headway	2.2	-	-	2.2	-	-	3.518	4	3.3	3.5	4	3.3
Pot Capacity-1 Maneuver	1365	-	-	1193	-	-	219	242	749	221	217	828
Stage 1	-	-	-	-	-	-	713	673	-	426	438	-
Stage 2	-	-	-	-	-	-	423	438	-	718	619	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	1365	-	-	1193	-	-	184	192	749	130	172	828
Mov Capacity-2 Maneuver	-	-	-	-	-	-	184	192	-	130	172	-
Stage 1	-	-	-	-	-	-	713	673	-	426	347	-
Stage 2	-	-	-	-	-	-	335	347	-	502	619	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		4.7			31			34.5			
HCM LOS						D			D			
Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	263	749	1365	-	-	1193	-	-	130			
HCM Lane V/C Ratio	0.717	0.201	-	-	-	0.208	-	-	0.062			
HCM Control Delay (s)	47	11	0	-	-	8.809	-	-	34.5			
HCM Lane LOS	E	B	A			A			D			
HCM 95th %tile Q(veh)	4.956	0.746	0	-	-	0.783	-	-	0.194			
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

2021 Build Weekday Evening Peak

10: Frost Street & Capisic Street

1/26/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	237	103	211	397	0	205	0	390	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	16	12	16	12	12	12
Storage Length (ft)	0		0	200		0	100		100	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1883	0	1770	1900	0	2046	0	1830	0	1900	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	1883	0	1770	1900	0	2046	0	1830	0	1900	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			289			238			121	
Travel Time (s)		15.5			6.6			5.4			2.8	
Peak Hour Factor	0.90	0.90	0.90	0.98	0.98	0.98	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	377	0	215	405	0	220	0	419	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 61.0%

ICU Level of Service B

Analysis Period (min) 15

2021 Build Weekday Evening Peak
10: Frost Street & Capisic Street

1/26/2016

Intersection

Intersection Delay, s/veh 45.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	237	103	211	397	0	205	0	390	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	200	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	98	98	98	93	93	93	92	92	92
Heavy Vehicles, %	0	0	0	2	0	0	0	0	0	0	0	0
Mvmt Flow	0	263	114	215	405	0	220	0	419	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	405	0	0	378	0	0	1157	1157	321	1157	1214	405
Stage 1	-	-	-	-	-	-	321	321	-	836	836	-
Stage 2	-	-	-	-	-	-	836	836	-	321	378	-
Follow-up Headway	2.2	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Capacity-1 Maneuver	1165	-	-	1180	-	-	# 175	198	724	175	183	650
Stage 1	-	-	-	-	-	-	695	655	-	364	385	-
Stage 2	-	-	-	-	-	-	364	385	-	695	619	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	1165	-	-	1180	-	-	# 150	162	724	63	150	650
Mov Capacity-2 Maneuver	-	-	-	-	-	-	# 150	162	-	63	150	-
Stage 1	-	-	-	-	-	-	695	655	-	364	315	-
Stage 2	-	-	-	-	-	-	298	315	-	292	619	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3	113.9	0
HCM LOS			F	A

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	150	724	1165	-	-	1180	-	-	0
HCM Lane V/C Ratio	1.47	0.579	-	-	-	0.182	-	-	+
HCM Control Delay (s)	299.1	16.6	0	-	-	8.73	-	-	0
HCM Lane LOS	F	C	A			A			A
HCM 95th %tile Q(veh)	14.503	3.759	0	-	-	0.666	-	-	+

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

2021 Build Saturday Midday Peak
10: Frost Street & Capisic Street

1/27/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	205	163	221	213	0	121	0	203	4	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	16	12	16	12	12	12
Storage Length (ft)	0		0	200		0	0		100	0		0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1846	0	1805	1900	0	0	1770	1830	0	1805	0
Flt Permitted				0.950				0.950			0.950	
Satd. Flow (perm)	0	1846	0	1805	1900	0	0	1770	1830	0	1805	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		681			289			238			121	
Travel Time (s)		15.5			6.6			5.4			2.8	
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.90	0.90	0.90	0.50	0.50	0.50
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	418	0	248	239	0	0	134	226	0	8	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 49.3%

ICU Level of Service A

Analysis Period (min) 15

2021 Build Saturday Midday Peak
10: Frost Street & Capisic Street

1/27/2016

Intersection

Intersection Delay, s/veh 16.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	205	163	221	213	0	121	0	203	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	200	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	89	89	89	90	90	90	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0	2	0	0	0	0	0
Mvmt Flow	0	233	185	248	239	0	134	0	226	8	0	0

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	239	0	0	418	0	0	1062	1062	326	1062	1154	239
Stage 1	-	-	-	-	-	-	326	326	-	736	736	-
Stage 2	-	-	-	-	-	-	736	736	-	326	418	-
Follow-up Headway	2.2	-	-	2.2	-	-	3.518	4	3.3	3.5	4	3.3
Pot Capacity-1 Maneuver	1340	-	-	1152	-	-	201	225	720	203	199	805
Stage 1	-	-	-	-	-	-	687	652	-	414	428	-
Stage 2	-	-	-	-	-	-	411	428	-	691	594	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1340	-	-	1152	-	-	168	177	720	116	156	805
Mov Capacity-2 Maneuver	-	-	-	-	-	-	168	177	-	116	156	-
Stage 1	-	-	-	-	-	-	687	652	-	414	336	-
Stage 2	-	-	-	-	-	-	323	336	-	475	594	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.6	52	38.3
HCM LOS			F	E

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	232	720	1340	-	-	1152	-	-	116
HCM Lane V/C Ratio	0.904	0.209	-	-	-	0.216	-	-	0.069
HCM Control Delay (s)	81.2	11.3	0	-	-	8.982	-	-	38.3
HCM Lane LOS	F	B	A			A			E
HCM 95th %tile Q(veh)	7.578	0.783	0	-	-	0.818	-	-	0.219

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

TRAFFIC SIGNAL WARRANT ANALYSIS

**Traffic Signal Warrant Analysis Summary - Westbrook Arterial/Project Site Drive
2021 Build - Average-Month Conditions**

<u>Time</u>	<u>Westbrook Arterial</u> Volume (Major Street) ^a	<u>Project Site Drive</u> Volume (Minor Street) ^b	<u>Warrant 1</u> Condition A ^c	<u>Warrant 1</u> Condition B ^d	<u>Warrant 2^e</u>	<u>Warrant 3^f</u>
7:00	1456	17	No	No	No	No
8:00	1229	23	No	No	No	No
9:00	977	38	No	No	No	No
10:00	1014	79	No	No	No	No
11:00	1063	116	No	Yes	No	No
12:00	1138	156	No	Yes	No	No
1:00	1088	161	No	Yes	No	No
2:00	1195	167	No	Yes	Yes	No
3:00	1361	166	No	Yes	Yes	No
4:00	1603	167	No	Yes	Yes	No
5:00	1565	177	No	Yes	Yes	No
6:00	1044	141	No	Yes	No	No
Warrant Satisfied?			No	Yes	Yes	No

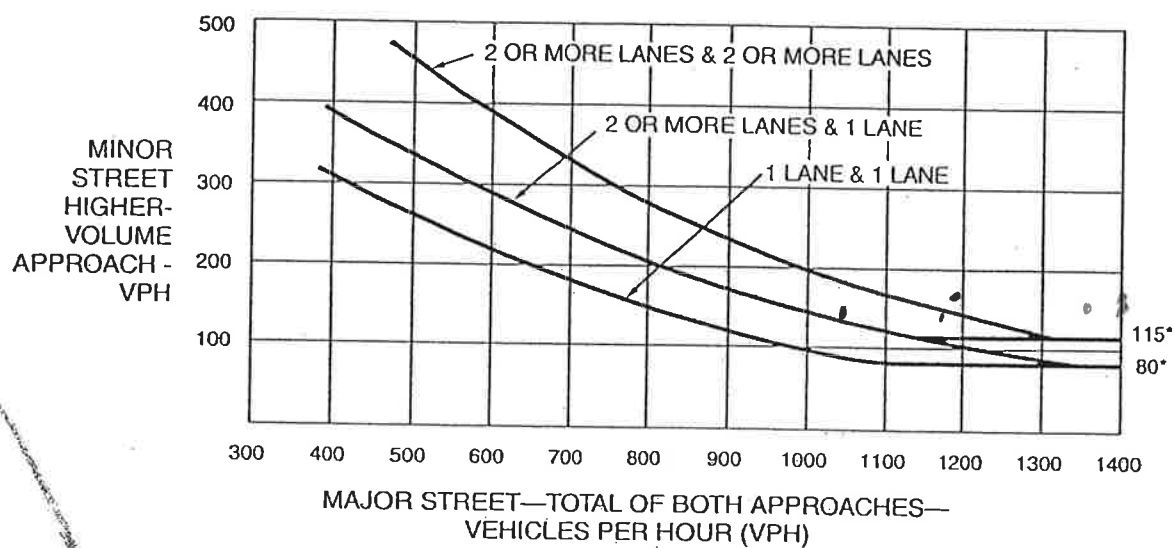
^aBased on ATR counts conducted on Westbrook Arterial by VAI in September 2015. Volume for both Westbrook Arterial directions.

^bBased on ITE weekday Shopping Center hourly distribution. A 40% reduction applied for right-turns.

^cWarrant 1 Condition A - Eight Hour Vehicular Volume, Minimum Vehicular Volume - satisfied when major street volume > 600 and minor street volume > 200.

^dWarrant 1 Condition B - Eight Hour Vehicular Volume, Interruption of Continuous Traffic - satisfied when major street volume > 900 and minor street volume > 100.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

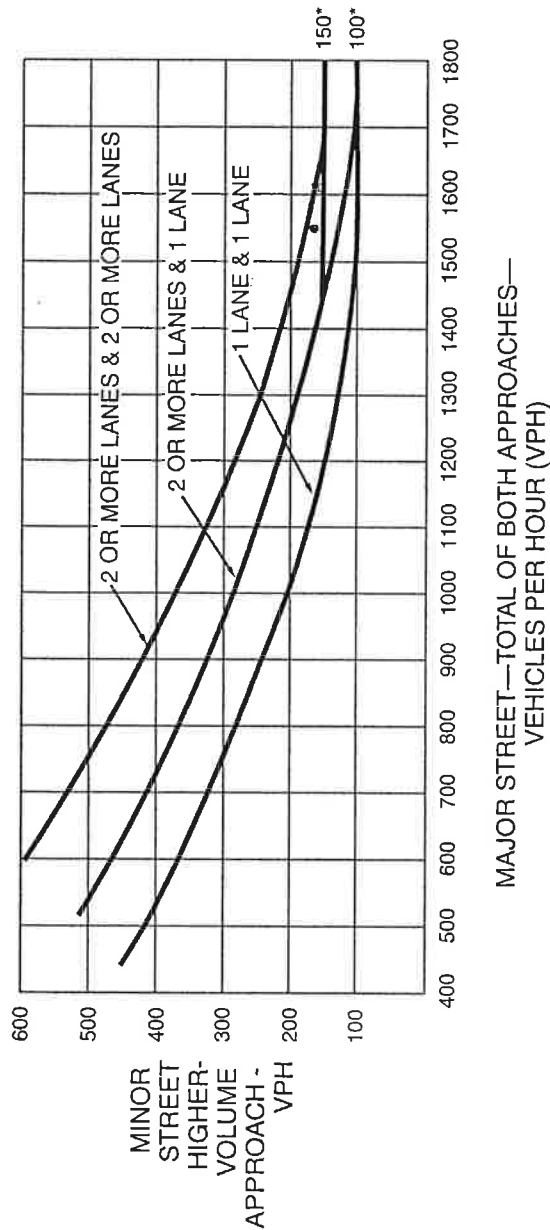


*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Mets Warrant 2

*Westbrook Arterial/Project Site Drive
2021 Build - Average Month Conditions*

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Do not meet Warrant 3

Proposed Commercial Development - Westbrook, ME

start time	Average Weekday										Total Trips
	Westbrook Arterial Site				Westbrook Arterial Site				Westbrook Arterial Site		
	Weekday Entering (From ITE LUC 820)	Weekday Entering (adjusted)	Weekday Exiting (From ITE LUC 820)	Weekday Exiting (adjusted)	Westbrook Arterial Site Drive (22%)	Westbrook Arterial Site Drive (9%)	Westbrook Arterial Site Drive (40%)	Westbrook Arterial Site Drive			
					Entering Trips	Exiting Trips	Arterial Site Drive (34%) Entering	Site Drive (22%) Exiting	Arterial Site Drive (9%) Right-Turn Exiting	Arterial Site Drive (40%) Exiting Reduction for Right-Turns	Exiting with Reduction for Right-Turns
7:00:00 AM	2.0%	2.6%	0.9%	0.9%	174	92	59	12	8	5	17
8:00:00 AM	3.1%	3.8%	1.2%	1.2%	254	122	86	16	11	7	23
9:00:00 AM	5.5%	5.2%	2.0%	2.0%	348	204	118	27	18	11	38
10:00:00 AM	7.0%	7.5%	4.3%	4.2%	501	429	170	56	39	23	79
11:00:00 AM	8.4%	7.9%	6.2%	6.2%	528	633	180	82	57	34	116
12:00:00 PM	9.4%	8.6%	8.3%	8.3%	575	847	196	110	76	46	156
1:00:00 PM	8.2%	7.8%	8.6%	8.6%	521	878	177	114	79	47	161
2:00:00 PM	7.7%	7.1%	8.9%	8.9%	477	908	162	118	82	49	167
3:00:00 PM	7.8%	6.9%	8.8%	8.8%	461	898	157	117	81	49	166
4:00:00 PM	8.0%	7.4%	8.9%	8.9%	495	908	168	118	82	49	167
5:00:00 PM	8.4%	8.8%	9.2%	9.4%	588	959	200	125	86	52	177
6:00:00 PM	8.0%	8.7%	7.5%	7.5%	581	766	198	100	69	41	141
7:00:00 PM	7.9%	7.9%	7.2%	7.2%	528	735	180	96	66	40	136
8:00:00 PM	4.3%	4.9%	7.7%	7.7%	327	786	111	102	71	43	145
9:00:00 PM	1.8%	2.4%	7.2%	7.1%	160	725	54	94	65	39	133
TOTAL	97.5%	97.5%	96.9%	96.9%	6683	10207	2272	1327	919	551	1878

**Traffic Signal Warrant Analysis Summary - Main Street/Project Site Drive
2021 Build - Average-Month Conditions**

<u>Time</u>	<u>Main Street Volume (Major Street)^a</u>	<u>Project Site Drive Volume (Minor Street)^b</u>	<u>Warrant 1 Condition A^c</u>	<u>Warrant 1 Condition B^d</u>	<u>Warrant 2^e</u>	<u>Warrant 3^f</u>
7:00	924	17	No	No	No	No
8:00	966	22	No	No	No	No
9:00	952	37	No	No	No	No
10:00	1018	77	No	No	No	No
11:00	1290	114	No	Yes	No	No
12:00	1332	152	No	Yes	Yes	No
1:00	1178	158	No	Yes	No	No
2:00	1192	163	No	Yes	Yes	No
3:00	1318	161	No	Yes	Yes	No
4:00	1431	163	No	Yes	Yes	Yes
5:00	1399	202	Yes	Yes	Yes	Yes
6:00	1117	138	No	Yes	No	No
Warrant Satisfied?			No	Yes	Yes	Yes

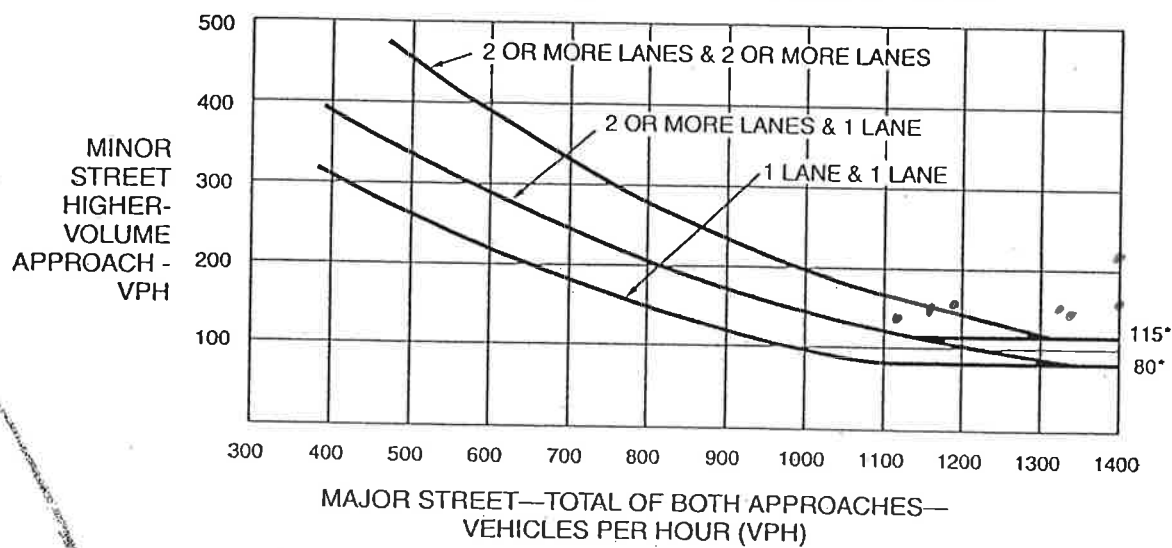
^aBased on 12-hour TMC counts conducted at the Main Street/Westbrook Crossing Driveway intersection by VAI in September 2015. Volume for both Main Street directions.

^bBased on ITE weekday Shopping Center hourly distribution. A 40% reduction applied for right-turns.

^cWarrant 1 Condition A - Eight Hour Vehicular Volume, Minimum Vehicular Volume - satisfied when major street volume > 600 and minor street volume > 200.

^dWarrant 1 Condition B - Eight Hour Vehicular Volume, Interruption of Continuous Traffic - satisfied when major street volume > 900 and minor street volume > 100.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

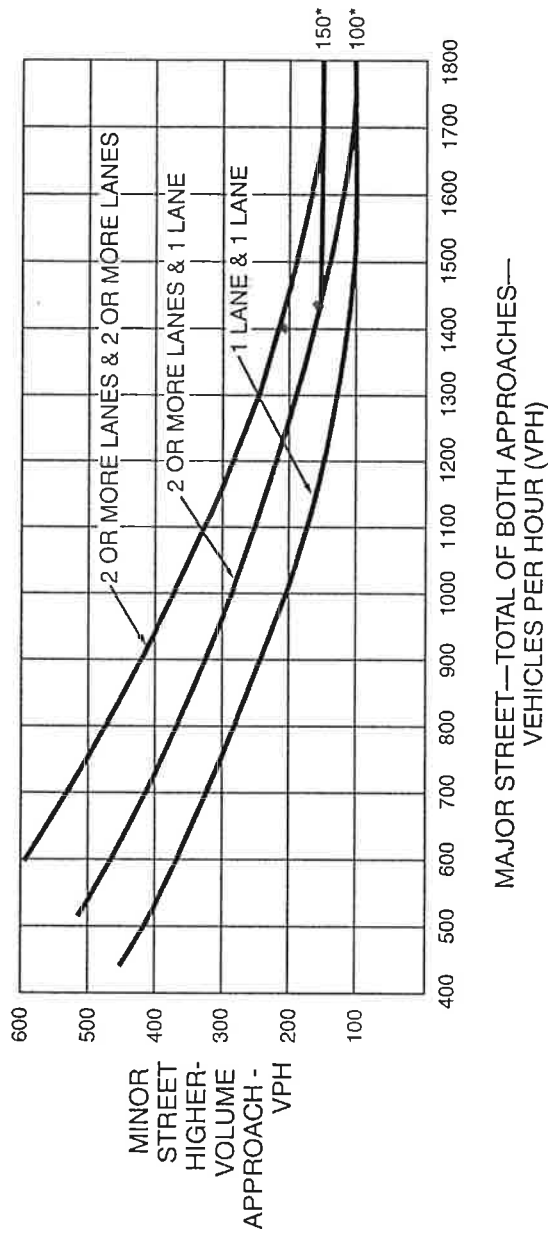


*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Meets Warrant 2

*Main Street/Project Site Drive
2021 Build - Upgrade - North Conditions*

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Proposed Commercial Development - Westbrook, ME

Average Weekday											Main Site Drive (40%) Exiting Reduction for Right- Turns	Total Trips
start time	Weekday Entering (From ITE LUC 820)		Weekday Exiting (From ITE LUC 820)		Weekday Exiting (adjusted)		Entering Trips		Exiting Trips			
	Weekday Entering (From ITE LUC 820)	Weekday Entering (adjusted)	Weekday Exiting (From ITE LUC 820)	Weekday Exiting (adjusted)	Entering Trips	Exiting Trips	Main Site Drive (30%) Entering	Main Site Drive (30%) Exiting	Main Site Drive (30%) Entering	Main Site Drive (30%) Exiting		
7:00:00 AM	2.0%	2.6%	0.9%	0.9%	174	92	52	28	17	266		
8:00:00 AM	3.1%	3.8%	1.2%	1.2%	254	122	76	37	22	376		
9:00:00 AM	5.5%	5.2%	2.0%	2.0%	348	204	104	61	37	165		
10:00:00 AM	7.0%	7.5%	4.3%	4.2%	501	429	150	129	77	279		
11:00:00 AM	8.4%	7.9%	6.2%	6.2%	528	633	158	190	114	348		
12:00:00 PM	9.4%	8.6%	8.3%	8.3%	575	847	173	254	152	427		
1:00:00 PM	8.2%	7.8%	8.6%	8.6%	521	878	156	263	158	419		
2:00:00 PM	7.7%	7.1%	8.9%	8.9%	477	908	143	272	163	415		
3:00:00 PM	7.8%	6.9%	8.8%	8.8%	461	898	138	269	161	407		
4:00:00 PM	8.0%	7.4%	8.9%	8.9%	495	908	149	272	163	421		
5:00:00 PM	8.4%	8.8%	9.2%	9.4%	588	959	176	336	202	512		
6:00:00 PM	8.0%	8.7%	7.5%	7.5%	581	766	174	230	138	404		
7:00:00 PM	7.9%	7.9%	7.2%	7.2%	528	735	158	221	133	379		
8:00:00 PM	4.3%	4.9%	7.7%	7.7%	327	786	98	236	142	334		
9:00:00 PM	1.8%	2.4%	7.2%	7.1%	160	725	48	218	131	266		
TOTAL	97.5%	97.5%	96.9%	96.9%	6683	10207	2005	3109	1865	5114		

**Traffic Signal Warrant Analysis Summary - Larrabee Road/North Project Site Drive
2021 Build - Average-Month Conditions**

Time	Larrabee Road Volume (Major Street) ^a	North Project Site Drive Volume (Minor Street) ^b	Warrant 1 Condition A ^c	Warrant 1 Condition B ^d	Warrant 2 ^e	Warrant 3 ^f
7:00	673	17	No	No	No	No
8:00	704	22	No	No	No	No
9:00	558	37	No	No	No	No
10:00	674	77	No	No	No	No
11:00	762	114	No	No	No	No
12:00	916	152	No	No	No	No
1:00	812	158	No	No	No	No
2:00	792	163	No	No	No	No
3:00	824	161	No	No	No	No
4:00	1017	163	No	Yes	No	No
5:00	1062	202	No	Yes	Yes	No
6:00	543	138	No	No	No	No
Warrant Satisfied?			No	No	No	No

^aBased on 12-hour TMC counts conducted at the Larrabee Road/Terminal Street/Site Driveway intersection by VAI in September 2015. Volume for both Larrabee Road directions.

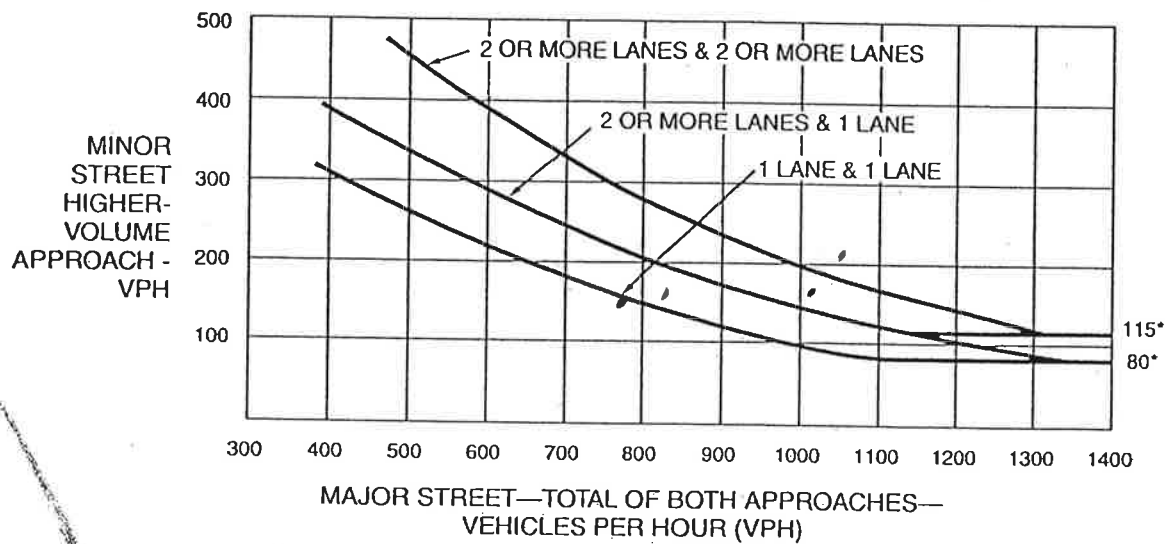
^bBased on ITE weekday Shopping Center hourly distribution. A 40% reduction applied for right-turns.

^cWarrant 1 Condition A - Eight Hour Vehicular Volume, Minimum Vehicular Volume - satisfied when major street volume > 600 and minor street volume > 200.

^dWarrant 1 Condition B - Eight Hour Vehicular Volume, Interruption of Continuous Traffic - satisfied when major street volume > 900 and minor street volume > 100.

Larabee Road/North Side Drive
2021 Build - Average - Market Conditions

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

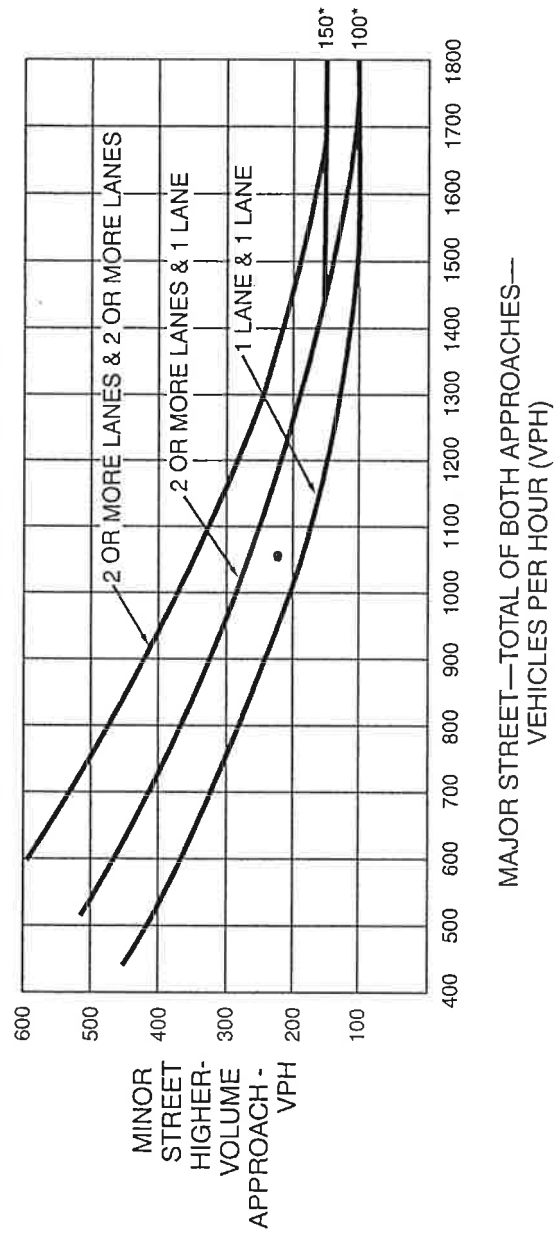


*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Do not meet Warrant 2

Lanabee Road/North Project Site Drive
2021 Build - Average Month Conditions

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Do not meet Warrant 3

Proposed Commercial Development - Westbrook, ME

Average Weekday										
start time	Weekday					North Site Drive (40%)				
	Entering (From ITE LUC 820)		Weekday Exiting (From ITE LUC 820)		Entering Trips	North Site Drive (28%)		Exiting Trips	North Site Drive (40%)	
	Entering (adjusted)	Weekday Exiting (adjusted)	Entering	Exiting						
7:00:00 AM	2.0%	2.6%	0.9%	0.9%	174	92	49	26	16	266
8:00:00 AM	3.1%	3.8%	1.2%	1.2%	254	122	71	34	20	376
9:00:00 AM	5.5%	5.2%	2.0%	2.0%	348	204	97	57	34	154
10:00:00 AM	7.0%	7.5%	4.3%	4.2%	501	429	140	120	72	260
11:00:00 AM	8.4%	7.9%	6.2%	6.2%	528	633	148	177	106	325
12:00:00 PM	9.4%	8.6%	8.3%	8.3%	575	847	161	237	142	398
1:00:00 PM	8.2%	7.8%	8.6%	8.6%	521	878	146	246	148	392
2:00:00 PM	7.7%	7.1%	8.9%	8.9%	477	908	134	254	152	388
3:00:00 PM	7.8%	6.9%	8.8%	8.8%	461	898	129	251	151	380
4:00:00 PM	8.0%	7.4%	8.9%	8.9%	495	908	139	254	152	393
5:00:00 PM	8.4%	8.8%	9.2%	9.4%	588	959	165	231	139	396
6:00:00 PM	8.0%	8.7%	7.5%	7.5%	581	766	163	214	128	377
7:00:00 PM	7.9%	7.9%	7.2%	7.2%	528	735	148	206	124	354
8:00:00 PM	4.3%	4.9%	7.7%	7.7%	327	786	92	220	132	312
9:00:00 PM	1.8%	2.4%	7.2%	7.1%	160	725	45	203	122	248
TOTAL	97.5%	97.5%	96.9%	96.9%	6683	10207	1871	2858	1715	4729

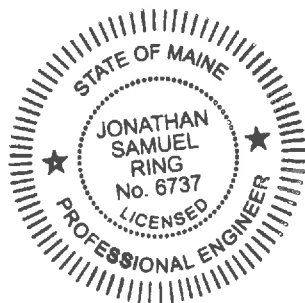
DRAINAGE ANALYSIS

SEDIMENT AND EROSION CONTROL PLAN

**Dirigo Plaza
Tax Map 42B Lots 9, 10, 11, & 14
50 & 80 Maine Street
Westbrook, ME**

Prepared for:

**J & J Gove Development
7 Swain Drive
Hampton Falls, NH 03844**



**Prepared by:
Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
P.O. Box 219
Stratham, NH 03885
(603) 772-4746
February 2, 2016
JBE Project No. 14110**

1. EXECUTIVE SUMMARY

The purpose of this project is to construct a retail site development with associated parking, drainage, and utilities located on the existing Pike Industries parcel bounded by Maine Street, Larrabee Road, the Westbrook Arterial, and U.S. Interstate 95 in Westbrook, ME.

A drainage analysis of the development site and its offsite contributing watershed areas was conducted for the purpose of estimating the peak rate of stormwater runoff and to subsequently design adequate drainage structures. Two models were compiled, one for the area in its existing (pre-development) condition, and a second for its proposed (post-development) condition. The analysis was conducted using the USDA SCS TR-20 method within the HydroCAD Stormwater Modeling System environment. A summary of the existing and proposed conditions peak rates of runoff is as follows:

COMPONENT	PEAK DISCHARGE COMPARISON									
	1 Year		2 Year		10 Year		25 Year		100 Year	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Analysis Point #1	111.48	86.87	142.99	111.15	234.47	204.17	257.50	216.99	289.38	246.31

The drainage design intent for this site is to maintain the post-development peak flow to the pre-development peak flow conditions to the extent practicable and to effectively treat stormwater from the development of this site. This has been accomplished through the use of underdrained grass swales, wet ponds, gravels wetlands, and sand filters to maintain the peak discharge and effectively treat stormwater exiting the site.

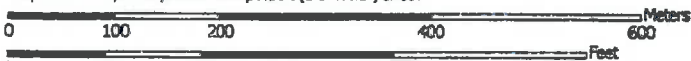
TABLE OF CONTENTS

1. Executive Summary
2. Web Soil Survey Map
3. Aerial Photograph of Site
4. Representative Photographs of Site
5. Drainage Analysis
 - 5.1. Introduction
 - 5.2. Methodology
 - 5.3. Existing Conditions Analysis
 - 5.4. Proposed Conditions Analysis
 - 5.5. Conclusion
 - 5.6. Drainage Appendix I
 - 5.6.1. 1 Year – 24 Hour Summary Analysis
 - 5.6.2. 2 Year – 24 Hour Summary Analysis
 - 5.6.3. 10 Year – 24 Hour Summary Analysis
 - 5.6.4. 25 Year – 24 Hour Complete Analysis
 - 5.6.5. 100 Year - 24 Hour Summary Analysis
 - 5.7. Drainage Appendix II – Proposed Conditions Analysis
 - 5.7.1. 1 Year – 24 Hour Summary Analysis
 - 5.7.2. 2 Year – 24 Hour Summary Analysis
 - 5.7.3. 10 Year - 24 Hour Summary Analysis
 - 5.7.4. 50 Year - 24 Hour Complete Analysis
 - 5.7.5. 100 Year – 24 Hour Summary Analysis
6. Rip-Rap Calculations
7. Soils Report
8. Operation and Maintenance Manual
9. Plans
 - 9.1. Design Plans
 - 9.2. Soil Plans
 - 9.2.1. Pre-Development Soil Plan
 - 9.2.2. Post-Development Soil Plan
 - 9.3. Drainage Plan
 - 9.3.1. Pre-Development Drainage Plan
 - 9.3.2. Post-Development Drainage Plan

Soil Map—Cumberland County and Part of Oxford County, Maine



Map Scale: 1:6,860 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

4/7/2015
Page 1 of 3

MAP LEGEND

	Area of Interest (AOI)		Soil Map Unit Polygons		Soil Map Unit Lines		Soil Map Unit Points		Special Point Features
	Blowout		Borrow Pit		Clay Spot		Closed Depression		Gravel Pit
	Gravelly Spot		Landfill		Lava Flow		Marsh or swamp		Mine or Quarry
	Miscellaneous Water		Perennial Water		Rock Outcrop		Saline Spot		Sandy Spot
	Severely Eroded Spot		Sinkhole		Slide or Slip		Sodic Spot		Special Line Features
	Streams and Canals		Transportation		Rails		Interstate Highways		US Routes
	Major Roads		Local Roads		Background		Aerial Photography		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 9, Sep 13, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 31, 2013—Aug 11, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Cumberland County and Part of Oxford County, Maine (ME005)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuB	Buxton silt loam, 3 to 8 percent slopes	16.6	6.5%
Cu	Cut and fill land	58.2	22.8%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	8.8	3.5%
HIB	Hinckley gravelly sandy loam, 3 to 8 percent slopes	16.9	6.6%
HIC	Hinckley gravelly sandy loam, 8 to 15 percent slopes	4.2	1.7%
HrB	Hollis fine sandy loam, 3 to 8 percent slopes	0.0	0.0%
Md	Made land	6.5	2.5%
Qu	Quarry	21.4	8.4%
Sn	Scantic silt loam, 0 to 3 percent slopes	114.5	44.9%
Sz	Swanton fine sandy loam	7.6	3.0%
Totals for Area of Interest		254.8	100.0%

Cumberland County and Part of Oxford County, Maine

Cu—Cut and fill land

Map Unit Composition

Cut and fill land: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cut And Fill Land

Typical profile

H1 - 0 to 65 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 35 percent

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat):

Moderately low to very high (0.06 to 20.00 in/hr)

Depth to water table: About 24 to 42 inches

Available water storage in profile: Moderate (about 6.6 inches)

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine

Survey Area Data: Version 9, Sep 13, 2014

Cumberland County and Part of Oxford County, Maine

EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: blh8

Elevation: 10 to 900 feet

Mean annual precipitation: 38 to 55 inches

Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 130 to 195 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Elmwood and similar soils: 88 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elmwood

Setting

Landform: Stream terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Coarse-loamy glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam

H2 - 8 to 25 inches: sandy loam

H3 - 25 to 65 inches: silty clay loam

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 9, Sep 13, 2014

Cumberland County and Part of Oxford County, Maine

HIB—Hinckley gravelly sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: blhp

Elevation: 10 to 2,000 feet

Mean annual precipitation: 30 to 48 inches

Mean annual air temperature: 37 to 46 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy-skeletal glaciofluvial deposits derived from granite and gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

H1 - 1 to 8 inches: gravelly sandy loam

H2 - 8 to 11 inches: gravelly sandy loam

H3 - 11 to 25 inches: gravelly loamy sand

H4 - 25 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to very high (1.42 to 14.17 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 9, Sep 13, 2014

Cumberland County and Part of Oxford County, Maine

HIC—Hinckley gravelly sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: blhq
Elevation: 10 to 2,000 feet
Mean annual precipitation: 30 to 48 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Hinckley and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy-skeletal glaciofluvial deposits derived from granite and gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
H1 - 1 to 8 inches: gravelly sandy loam
H2 - 8 to 11 inches: gravelly sandy loam
H3 - 11 to 25 inches: gravelly loamy sand
H4 - 25 to 65 inches: very gravelly sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high to very high (1.42 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 9, Sep 13, 2014

Cumberland County and Part of Oxford County, Maine

HrB—Hollis fine sandy loam, 3 to 8 percent slopes

Map Unit Composition

Hollis and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hollis

Setting

Landform: Hills

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Interfluve, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Coarse-loamy supraglacial meltout till derived from mica schist

Typical profile

H1 - 0 to 6 inches: fine sandy loam

H2 - 6 to 18 inches: fine sandy loam

R - 18 to 22 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: D

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine

Survey Area Data: Version 9, Sep 13, 2014

Cumberland County and Part of Oxford County, Maine

Md—Made land

Map Unit Composition

Made land: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Made Land

Setting

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Typical profile

H1 - 0 to 65 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine

Survey Area Data: Version 9, Sep 13, 2014

Cumberland County and Part of Oxford County, Maine

Qu—Quarry

Map Unit Composition

Quarries: 92 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Quarries

Typical profile

R - 0 to 4 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Available water storage in profile: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine

Survey Area Data: Version 9, Sep 13, 2014

Cumberland County and Part of Oxford County, Maine

Sn—Scantic silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2slv3

Elevation: 10 to 900 feet

Mean annual precipitation: 33 to 60 inches

Mean annual air temperature: 39 to 45 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Scantic and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scantic

Setting

Landform: Marine terraces, river valleys

Landform position (three-dimensional): Tread, talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Glaciomarine deposits

Typical profile

Ap - 0 to 9 inches: silt loam

Bg1 - 9 to 16 inches: silty clay loam

Bg2 - 16 to 29 inches: silty clay

Cg - 29 to 65 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: D

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 9, Sep 13, 2014

Cumberland County and Part of Oxford County, Maine

Sz—Swanton fine sandy loam

Map Unit Setting

National map unit symbol: blk4
Elevation: 10 to 900 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 39 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Swanton and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swanton

Setting

Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy glaciolacustrine deposits

Typical profile

H1 - 0 to 9 inches: fine sandy loam
H2 - 9 to 32 inches: fine sandy loam
H3 - 32 to 65 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low
to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: C/D

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 9, Sep 13, 2014



5.1 INTRODUCTION

The intent of this project is to construct a retail commercial development consisting of multiple retail and buildings and restaurants totaling 491,886 sq.ft. with associated parking, drainage, and utilities on City of Westbrook Map 42B / Lots 9, 10, 11, & 14.

5.2 METHODOLOGY

The existing and proposed watersheds were modeled utilizing HydroCad stormwater software, version 9.10. The watersheds were analyzed utilizing the SCS TR-20 methodology for hydrograph development and the TR-55 methodology for Time of Concentration (Tc) determination. The Dynamic-Storage-Indicating method for reach and pond routing was utilized. Type III, 24-hour hydrographs were developed for the 1-year, 2-year, 10-year, 25-year, and 100-year storm events corresponding to rainfall events of 2.80", 3.30", 5.00", 5.80" & 6.90" respectively.

Existing topography and site features were obtained through on-ground topography and existing conditions survey completed by Jones & Beach Engineers and Aerial Photography completed by Sewall Consulting. Existing soil conditions were derived from a combination of borings performed by Jones and Beach Engineers, a Site Specific Soil Survey conducted by Michael Cuomo, CWS, PWS, CSS, CPESC, and soils information obtained from the NRCS Web Soil Survey.

5.3 EXISTING CONDITIONS ANALYSIS

The study area consists of the subject property and upstream contributing area. The study area contains 212.789 acres including offsite contributing areas. The existing site was previously disturbed and is currently operated as a gravel quarry with concrete plant. The majority of the site is disturbed with multiple stockpiles located throughout.

Existing soil conditions were obtained from Site Specific Soils Mapping, on-site test pits, and NRCS Web Soil Survey. The existing soils are classified by the NRCS as a combination of Buxton, Elmwood, Hinckley, Hollis, Scantic, and Swanton soils. Areas of prior disturbance or prior fill were classified based upon the underlying soils.

One (1) Analysis Point (AP) is defined for this project.

Analysis Point #1 is defined as the culvert located under Interstate 95 located in the south-east portion of the site.

The existing site is divided into multiple watersheds. Drainage direction is generally from north to south with roadway drainage being directed to a closed drainage system along Maine Street and Larrabee Road and discharging to the existing stream located in the southern portion of the site.

Drainage collected in the existing quarry is pumped to an existing catch basin located in the eastern portion of the site and is discharged to the wetlands located in the southern portion of the site.

5.4 PROPOSED CONDITIONS ANALYSIS

The proposed site includes the construction of multiple retail buildings and restaurants totaling 491,886 sq.ft. Drainage from the proposed site is collected in a series of closed drainage systems and treatment features throughout the site.

The majority of the drainage on the North Campus is collected in closed drainage systems and directed to the existing quarry. Prior to discharge to the quarry, stormwater is treated via Grassed Underdrained Soil Filters, Underground Sand Filters, and/or Gravel Wetlands. The existing quarry has been designed to operate as a wet pond for stormwater treatment and detention. The discharge from the existing quarry has been designed to gravity drain to the existing wetlands on the South Campus.

North Campus drainage not directed to the existing quarry is treated via Grassed Underdrained Soil Filters and/or Underground Sand Filters and discharged to the existing closed drainage systems located within Maine Street and Larrabee Road. These systems are collected along Larrabee Road and discharged to the existing stream located on the South Campus.

South Campus drainage is collected within closed drainage systems. Stormwater is treated via Grassed Underdrained Soil Filters and/or Wet Ponds prior to discharge to the existing wetland system and stream located within the South Campus.

As the table in the Executive Summary demonstrates, the proposed peak rates of runoff have been maintained at the existing peak rates of runoff for the analyzed storms to the extent practicable.

Infiltration was deemed impractical for this site due to the underlying marine clay soils throughout the site.

5.5 CONCLUSION

This proposed site development will have minimal adverse effect on abutting infrastructures or properties by way of stormwater runoff or siltation. Peak runoff rate from the proposed site has been maintained to the existing conditions peak rate to the extent practicable. Stormwater has been treated through the use of Grassed Underdrained Soil Filters, Underground Sand Filters, Wet Ponds, and/or Gravel Wetlands.

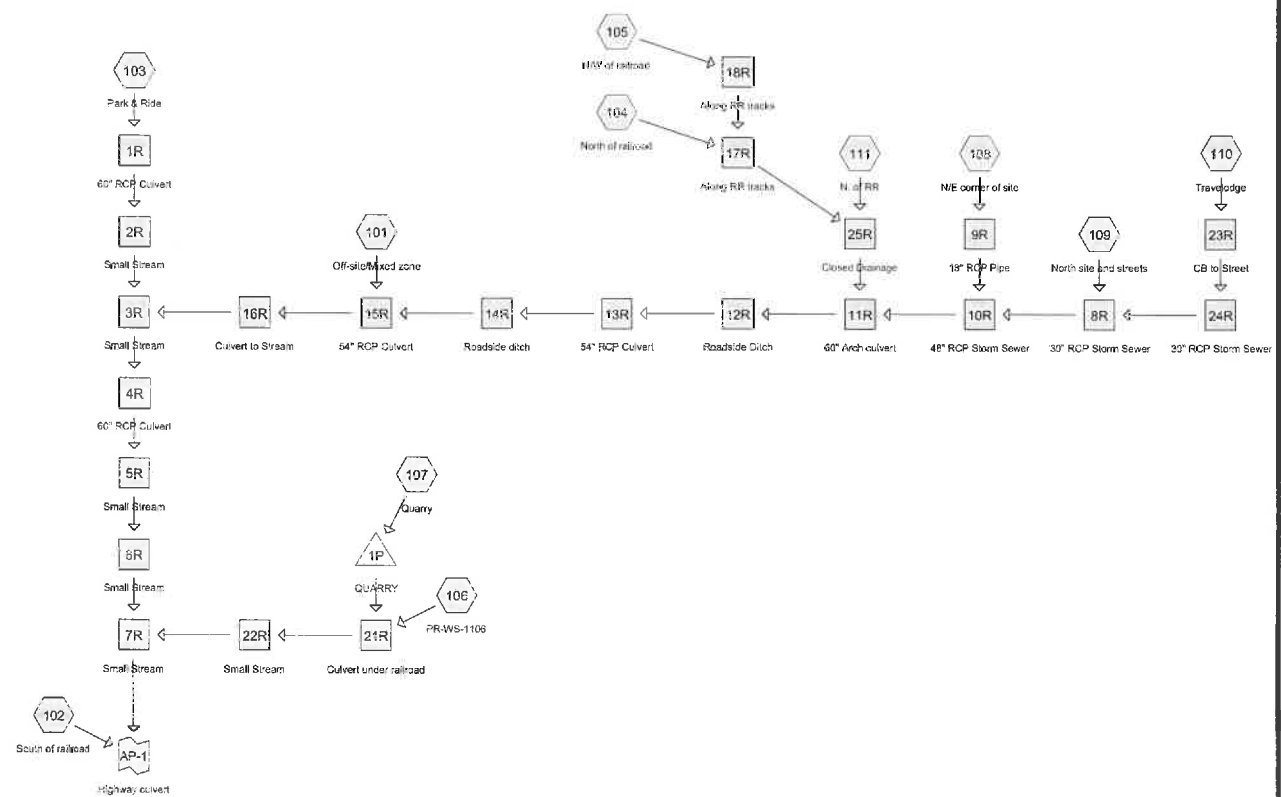
Respectfully Submitted,
JONES & BEACH ENGINEERS, INC.

Barry W. Gier, P.E.
Senior Project Manager

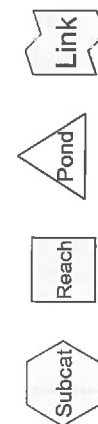
5.6 APPENDIX I

EXISTING CONDITIONS DRAINAGE ANALYSIS

- 5.6.1 2-Year 24-Hour Summary Analysis
- 5.6.2 10-Year 24-Hour Complete Analysis
- 5.6.3 25-Year 24-Hour Summary Analysis
- 5.6.4 50-Year 24-Hour Summary Analysis



Routing Diagram for 14110-EXISTING
 Prepared by Jones & Beach Engineers, Printed 1/31/2016
 HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC



Prepared by Jones & Beach Engineers, Printed 2/1/2016

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

14110-EXISTING

Prepared by Jones & Beach Engineers

Printed 1/31/2016

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
284,723	72	1/3 acre lots, 30% imp, HSG B (101)
62,231	81	1/3 acre lots, 30% imp, HSG C (101)
266,043	86	1/3 acre lots, 30% imp, HSG D (101)
61,834	39	>75% Grass cover, Good, HSG A (106, 107, 110)
12,614	61	>75% Grass cover, Good, HSG B (101)
515,734	74	>75% Grass cover, Good, HSG C (101, 102, 104, 111)
1,289,421	80	>75% Grass cover, Good, HSG D (101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111)
16,316	82	Dirt roads, HSG B (101)
141,525	87	Dirt roads, HSG C (101)
134,358	89	Dirt roads, HSG D (101)
457,153	89	Gravel roads, HSG C (102, 105)
246,866	91	Gravel roads, HSG D (102, 105)
189,590	96	Gravel surface, HSG C (104, 106, 107, 109)
1,238,321	96	Gravel surface, HSG D (104, 106, 107, 108, 109, 111)
48,220	98	Paved parking, HSG A (106, 109, 110)
19,392	98	Paved parking, HSG B (101)
407,783	98	Paved parking, HSG C (101, 102, 111)
960,507	98	Paved parking, HSG D (101, 102, 103, 104, 106, 108, 109, 110, 111)
241	98	Paved roads w/curbs & sewers, HSG C (105)
30,206	98	Paved roads w/curbs & sewers, HSG D (105)
814,116	95	Urban commercial, 85% imp, HSG D (101)
136,749	98	Water Surface, HSG D (107)
11,469	30	Woods, Good, HSG A (107, 110)
77,912	55	Woods, Good, HSG B (101)
552,703	70	Woods, Good, HSG C (101, 102, 104, 107, 109, 111)
1,293,056	77	Woods, Good, HSG D (101, 102, 103, 104, 107, 108, 109, 110, 111)
9,269,083	86	TOTAL AREA

14110-EXISTING

Prepared by Jones & Beach Engineers

Printed 1/31/2016

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

Page 3

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
121,523	HSG A	106, 107, 109, 110
410,957	HSG B	101
2,326,960	HSG C	101, 102, 104, 105, 106, 107, 109, 111
6,409,643	HSG D	101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111
0	Other	
9,269,083		TOTAL AREA

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 1/31/2016

Page 4

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth>1.37"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=68.84 cfs 431,657 cf

Subcatchment 102: South of railroad Runoff Area=2,350,542 sf 5.83% Impervious Runoff Depth>0.99"
Flow Length=1,355' Tc=67.4 min CN=80 Runoff=24.82 cfs 193,310 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth>1.25"
Flow Length=754' Tc=19.7 min CN=84 Runoff=4.64 cfs 19,718 cf

Subcatchment 104: North of railroad Runoff Area=434,206 sf 11.01% Impervious Runoff Depth>2.13"
Flow Length=915' Tc=7.4 min CN=95 Runoff=23.67 cfs 77,077 cf

Subcatchment 105: N/W of railroad Runoff Area=304,160 sf 10.01% Impervious Runoff Depth>1.76"
Flow Length=1,266' Tc=20.8 min CN=91 Runoff=10.13 cfs 44,724 cf

Subcatchment 106: PR-WS-1106 Runoff Area=220,702 sf 17.75% Impervious Runoff Depth>1.07"
Tc=0.0 min CN=81 Runoff=7.82 cfs 19,736 cf

Subcatchment 107: Quarry Runoff Area=1,012,677 sf 13.50% Impervious Runoff Depth>1.86"
Flow Length=2,523' Tc=9.5 min CN=92 Runoff=46.27 cfs 156,625 cf

Subcatchment 108: N/E corner of site Runoff Area=375,578 sf 27.88% Impervious Runoff Depth>1.53"
Flow Length=879' Tc=17.2 min CN=88 Runoff=11.83 cfs 47,844 cf

Subcatchment 109: North site and streets Runoff Area=319,906 sf 31.16% Impervious Runoff Depth>2.03"
Flow Length=693' Tc=16.2 min CN=94 Runoff=13.22 cfs 54,189 cf

Subcatchment 110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth>2.04"
Flow Length=170' Slope=0.0200 '/' Tc=1.4 min CN=94 Runoff=12.47 cfs 34,528 cf

Subcatchment 111: N. of RR Runoff Area=76,557 sf 30.20% Impervious Runoff Depth>1.07"
Flow Length=888' Slope=0.0200 '/' Tc=11.8 min CN=81 Runoff=1.93 cfs 6,815 cf

Reach 1R: 60" RCP Culvert Avg. Flow Depth=0.51' Max Vel=4.44 fps Inflow=4.64 cfs 19,718 cf
60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=4.64 cfs 19,704 cf

Reach 2R: Small Stream Avg. Flow Depth=0.45' Max Vel=1.53 fps Inflow=4.64 cfs 19,704 cf
n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=4.63 cfs 19,675 cf

Reach 3R: Small Stream Avg. Flow Depth=1.61' Max Vel=3.10 fps Inflow=94.23 cfs 714,844 cf
n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=94.11 cfs 713,426 cf

Reach 4R: 60" RCP Culvert Avg. Flow Depth=1.98' Max Vel=12.97 fps Inflow=94.11 cfs 713,426 cf
60.0" Round Pipe n=0.014 L=48.0' S=0.0137 '/' Capacity=283.58 cfs Outflow=94.11 cfs 713,386 cf

Reach 5R: Small Stream Avg. Flow Depth=24.57' Max Vel=1.22 fps Inflow=94.11 cfs 713,386 cf
n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=89.27 cfs 710,763 cf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 1/31/2016

Page 5

Reach 6R: Small Stream	Avg. Flow Depth=29.87'	Max Vel=0.74 fps	Inflow=89.27 cfs	710,763 cf
	n=0.040 L=245.0' S=0.0021 '/	Capacity=0.34 cfs	Outflow=87.65 cfs	709,209 cf
Reach 7R: Small Stream	Avg. Flow Depth=15.43'	Max Vel=1.13 fps	Inflow=88.55 cfs	730,441 cf
	n=0.040 L=419.0' S=0.0050 '/	Capacity=0.66 cfs	Outflow=86.71 cfs	728,348 cf
Reach 8R: 30" RCP Storm Sewer	Avg. Flow Depth=1.12'	Max Vel=9.39 fps	Inflow=20.54 cfs	88,588 cf
30.0" Round Pipe	n=0.011 L=1,673.0' S=0.0100 '/	Capacity=48.47 cfs	Outflow=19.95 cfs	88,351 cf
Reach 9R: 18" RCP Pipe	Avg. Flow Depth=1.17'	Max Vel=8.00 fps	Inflow=11.83 cfs	47,844 cf
18.0" Round Pipe	n=0.011 L=268.0' S=0.0100 '/	Capacity=12.41 cfs	Outflow=11.83 cfs	47,818 cf
Reach 10R: 48" RCP Storm Sewer	Avg. Flow Depth=1.16'	Max Vel=10.27 fps	Inflow=30.98 cfs	136,169 cf
48.0" Round Pipe	n=0.011 L=364.0' S=0.0100 '/	Capacity=169.76 cfs	Outflow=30.98 cfs	136,090 cf
Reach 11R: 60" Arch culvert	Avg. Flow Depth=1.70'	Max Vel=6.51 fps	Inflow=38.47 cfs	264,524 cf
60.0" Round Pipe	n=0.022 L=54.0' S=0.0100 '/	Capacity=153.90 cfs	Outflow=38.48 cfs	264,494 cf
Reach 12R: Roadside Ditch	Avg. Flow Depth=1.66'	Max Vel=3.58 fps	Inflow=38.48 cfs	264,494 cf
	n=0.030 L=321.0' S=0.0050 '/	Capacity=243.58 cfs	Outflow=38.35 cfs	264,158 cf
Reach 13R: 54" RCP Culvert	Avg. Flow Depth=0.91'	Max Vel=16.72 fps	Inflow=38.35 cfs	264,158 cf
54.0" Round Pipe	n=0.011 L=111.0' S=0.0342 '/	Capacity=430.00 cfs	Outflow=38.35 cfs	264,133 cf
Reach 14R: Roadside ditch	Avg. Flow Depth=1.12'	Max Vel=3.90 fps	Inflow=38.35 cfs	264,133 cf
	n=0.030 L=225.0' S=0.0094 '/	Capacity=591.21 cfs	Outflow=38.33 cfs	263,912 cf
Reach 15R: 54" RCP Culvert	Avg. Flow Depth=2.37'	Max Vel=10.74 fps	Inflow=91.32 cfs	695,569 cf
54.0" Round Pipe	n=0.011 L=290.0' S=0.0052 '/	Capacity=167.14 cfs	Outflow=91.31 cfs	695,293 cf
Reach 16R: Culvert to Stream	Avg. Flow Depth=16.49'	Max Vel=1.86 fps	Inflow=91.31 cfs	695,293 cf
	n=0.040 L=51.0' S=0.0137 '/	Capacity=0.65 cfs	Outflow=91.30 cfs	695,169 cf
Reach 17R: Along RR tracks	Avg. Flow Depth=0.62'	Max Vel=2.09 fps	Inflow=29.33 cfs	121,705 cf
	n=0.022 L=93.0' S=0.0080 '/	Capacity=5.24 cfs	Outflow=28.83 cfs	121,636 cf
Reach 18R: Along RR tracks	Avg. Flow Depth=0.30'	Max Vel=1.71 fps	Inflow=10.13 cfs	44,724 cf
	n=0.022 L=225.0' S=0.0067 '/	Capacity=4.80 cfs	Outflow=10.03 cfs	44,628 cf
Reach 21R: Culvert under railroad	Avg. Flow Depth=1.23'	Max Vel=3.81 fps	Inflow=7.82 cfs	21,541 cf
24.0" Round Pipe	n=0.025 L=53.0' S=0.0089 '/	Capacity=11.08 cfs	Outflow=7.76 cfs	21,520 cf
Reach 22R: Small Stream	Avg. Flow Depth=1.16'	Max Vel=2.18 fps	Inflow=7.76 cfs	21,520 cf
	n=0.040 L=630.0' S=0.0272 '/	Capacity=0.53 cfs	Outflow=5.96 cfs	21,232 cf
Reach 23R: CB to Street	Avg. Flow Depth=1.21'	Max Vel=5.93 fps	Inflow=12.47 cfs	34,528 cf
24.0" Round Pipe	n=0.012 L=761.0' S=0.0050 '/	Capacity=17.34 cfs	Outflow=11.75 cfs	34,456 cf
Reach 24R: 30" RCP Storm Sewer	Avg. Flow Depth=0.74'	Max Vel=9.24 fps	Inflow=11.75 cfs	34,456 cf
30.0" Round Pipe	n=0.012 L=900.0' S=0.0179 '/	Capacity=59.43 cfs	Outflow=11.25 cfs	34,399 cf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 1/31/2016

Page 6

Reach 25R: Closed DrainageAvg. Flow Depth=1.00' Max Vel=10.85 fps Inflow=30.65 cfs 128,450 cf
12.0" Round Pipe n=0.012 L=143.0' S=0.0377 '/ Capacity=7.49 cfs Outflow=7.49 cfs 128,434 cf**Pond 1P: QUARRY**Peak Elev=-149.00' Storage=154,807 cf Inflow=46.27 cfs 156,625 cf
Outflow=0.67 cfs 1,805 cf**Link AP-1: Highway culvert**Inflow=111.48 cfs 921,658 cf
Primary=111.48 cfs 921,658 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 1,086,222 cf Average Runoff Depth = 1.41"**
73.26% Pervious = 6,790,087 sf 26.74% Impervious = 2,478,996 sf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 1/31/2016

Page 7

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth>1.77"
 Flow Length=3,330' Tc=46.6 min CN=86 Runoff=88.78 cfs 558,388 cf

Subcatchment 102: South of railroad Runoff Area=2,350,542 sf 5.83% Impervious Runoff Depth>1.33"
 Flow Length=1,355' Tc=67.4 min CN=80 Runoff=33.84 cfs 261,312 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth>1.64"
 Flow Length=754' Tc=19.7 min CN=84 Runoff=6.10 cfs 25,849 cf

Subcatchment 104: North of railroad Runoff Area=434,206 sf 11.01% Impervious Runoff Depth>2.59"
 Flow Length=915' Tc=7.4 min CN=95 Runoff=28.49 cfs 93,741 cf

Subcatchment 105: N/W of railroad Runoff Area=304,160 sf 10.01% Impervious Runoff Depth>2.21"
 Flow Length=1,266' Tc=20.8 min CN=91 Runoff=12.55 cfs 55,935 cf

Subcatchment 106: PR-WS-1106 Runoff Area=220,702 sf 17.75% Impervious Runoff Depth>1.44"
 Tc=0.0 min CN=81 Runoff=10.52 cfs 26,429 cf

Subcatchment 107: Quarry Runoff Area=1,012,677 sf 13.50% Impervious Runoff Depth>2.31"
 Flow Length=2,523' Tc=9.5 min CN=92 Runoff=56.85 cfs 194,584 cf

Subcatchment 108: N/E corner of site Runoff Area=375,578 sf 27.88% Impervious Runoff Depth>1.95"
 Flow Length=879' Tc=17.2 min CN=88 Runoff=15.01 cfs 61,030 cf

Subcatchment 109: North site and streets Runoff Area=319,906 sf 31.16% Impervious Runoff Depth>2.49"
 Flow Length=693' Tc=16.2 min CN=94 Runoff=16.02 cfs 66,392 cf

Subcatchment 110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth>2.50"
 Flow Length=170' Slope=0.0200 '/' Tc=1.4 min CN=94 Runoff=15.10 cfs 42,286 cf

Subcatchment 111: N. of RR Runoff Area=76,557 sf 30.20% Impervious Runoff Depth>1.43"
 Flow Length=888' Slope=0.0200 '/' Tc=11.8 min CN=81 Runoff=2.60 cfs 9,128 cf

Reach 1R: 60" RCP Culvert Avg. Flow Depth=0.58' Max Vel=4.82 fps Inflow=6.10 cfs 25,849 cf
 60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=6.08 cfs 25,834 cf

Reach 2R: Small Stream Avg. Flow Depth=0.51' Max Vel=1.67 fps Inflow=6.08 cfs 25,834 cf
 n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=6.07 cfs 25,800 cf

Reach 3R: Small Stream Avg. Flow Depth=1.81' Max Vel=3.35 fps Inflow=120.91 cfs 910,803 cf
 n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=120.56 cfs 909,178 cf

Reach 4R: 60" RCP Culvert Avg. Flow Depth=2.28' Max Vel=13.85 fps Inflow=120.56 cfs 909,178 cf
 60.0" Round Pipe n=0.014 L=48.0' S=0.0137 '/' Capacity=283.58 cfs Outflow=120.56 cfs 909,132 cf

Reach 5R: Small Stream Avg. Flow Depth=30.98' Max Vel=1.22 fps Inflow=120.56 cfs 909,132 cf
 n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=112.72 cfs 905,959 cf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 1/31/2016

Page 8

Reach 6R: Small Stream	Avg. Flow Depth=37.62' Max Vel=0.74 fps Inflow=112.72 cfs 905,959 cf n=0.040 L=245.0' S=0.0021 ' Capacity=0.34 cfs Outflow=110.50 cfs 904,077 cf
Reach 7R: Small Stream	Avg. Flow Depth=19.40' Max Vel=1.13 fps Inflow=111.66 cfs 944,744 cf n=0.040 L=419.0' S=0.0050 ' Capacity=0.66 cfs Outflow=109.22 cfs 942,268 cf
Reach 8R: 30" RCP Storm Sewer	Avg. Flow Depth=1.25' Max Vel=9.87 fps Inflow=24.88 cfs 108,533 cf 30.0" Round Pipe n=0.011 L=1,673.0' S=0.0100 ' Capacity=48.47 cfs Outflow=24.18 cfs 108,265 cf
Reach 9R: 18" RCP Pipe	Avg. Flow Depth=1.50' Max Vel=8.01 fps Inflow=15.01 cfs 61,030 cf 18.0" Round Pipe n=0.011 L=268.0' S=0.0100 ' Capacity=12.41 cfs Outflow=12.48 cfs 61,000 cf
Reach 10R: 48" RCP Storm Sewer	Avg. Flow Depth=1.26' Max Vel=10.76 fps Inflow=36.93 cfs 169,265 cf 48.0" Round Pipe n=0.011 L=364.0' S=0.0100 ' Capacity=169.76 cfs Outflow=36.50 cfs 169,176 cf
Reach 11R: 60" Arch culvert	Avg. Flow Depth=1.83' Max Vel=6.76 fps Inflow=44.00 cfs 327,774 cf 60.0" Round Pipe n=0.022 L=54.0' S=0.0100 ' Capacity=153.90 cfs Outflow=44.03 cfs 327,739 cf
Reach 12R: Roadside Ditch	Avg. Flow Depth=1.77' Max Vel=3.73 fps Inflow=44.03 cfs 327,739 cf n=0.030 L=321.0' S=0.0050 ' Capacity=243.58 cfs Outflow=44.12 cfs 327,358 cf
Reach 13R: 54" RCP Culvert	Avg. Flow Depth=0.97' Max Vel=17.42 fps Inflow=44.12 cfs 327,358 cf 54.0" Round Pipe n=0.011 L=111.0' S=0.0342 ' Capacity=430.00 cfs Outflow=44.14 cfs 327,330 cf
Reach 14R: Roadside ditch	Avg. Flow Depth=1.19' Max Vel=4.07 fps Inflow=44.14 cfs 327,330 cf n=0.030 L=225.0' S=0.0094 ' Capacity=591.21 cfs Outflow=44.15 cfs 327,080 cf
Reach 15R: 54" RCP Culvert	Avg. Flow Depth=2.77' Max Vel=11.37 fps Inflow=117.03 cfs 885,469 cf 54.0" Round Pipe n=0.011 L=290.0' S=0.0052 ' Capacity=167.14 cfs Outflow=117.02 cfs 885,152 cf
Reach 16R: Culvert to Stream	Avg. Flow Depth=21.10' Max Vel=1.86 fps Inflow=117.02 cfs 885,152 cf n=0.040 L=51.0' S=0.0137 ' Capacity=0.65 cfs Outflow=116.99 cfs 885,003 cf
Reach 17R: Along RR tracks	Avg. Flow Depth=0.73' Max Vel=2.12 fps Inflow=35.60 cfs 149,567 cf n=0.022 L=93.0' S=0.0080 ' Capacity=5.24 cfs Outflow=35.00 cfs 149,488 cf
Reach 18R: Along RR tracks	Avg. Flow Depth=0.35' Max Vel=1.77 fps Inflow=12.55 cfs 55,935 cf n=0.022 L=225.0' S=0.0067 ' Capacity=4.80 cfs Outflow=12.42 cfs 55,826 cf
Reach 21R: Culvert under railroad	Avg. Flow Depth=1.54' Max Vel=4.01 fps Inflow=10.52 cfs 40,986 cf 24.0" Round Pipe n=0.025 L=53.0' S=0.0089 ' Capacity=11.08 cfs Outflow=10.44 cfs 40,964 cf
Reach 22R: Small Stream	Avg. Flow Depth=1.53' Max Vel=2.20 fps Inflow=10.44 cfs 40,964 cf n=0.040 L=630.0' S=0.0272 ' Capacity=0.53 cfs Outflow=8.04 cfs 40,667 cf
Reach 23R: CB to Street	Avg. Flow Depth=1.38' Max Vel=6.16 fps Inflow=15.10 cfs 42,286 cf 24.0" Round Pipe n=0.012 L=761.0' S=0.0050 ' Capacity=17.34 cfs Outflow=14.24 cfs 42,205 cf
Reach 24R: 30" RCP Storm Sewer	Avg. Flow Depth=0.82' Max Vel=9.78 fps Inflow=14.24 cfs 42,205 cf 30.0" Round Pipe n=0.012 L=900.0' S=0.0179 ' Capacity=59.43 cfs Outflow=13.69 cfs 42,141 cf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 1/31/2016

Page 9**Reach 25R: Closed Drainage**Avg. Flow Depth=1.00' Max Vel=10.87 fps Inflow=37.47 cfs 158,616 cf
12.0" Round Pipe n=0.012 L=143.0' S=0.0377 ' Capacity=7.49 cfs Outflow=7.49 cfs 158,598 cf**Pond 1P: QUARRY**Peak Elev=-148.84' Storage=180,000 cf Inflow=56.85 cfs 194,584 cf
Outflow=0.67 cfs 14,557 cf**Link AP-1: Highway culvert**Inflow=142.99 cfs 1,203,580 cf
Primary=142.99 cfs 1,203,580 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 1,395,075 cf Average Runoff Depth = 1.81"**
73.26% Pervious = 6,790,087 sf 26.74% Impervious = 2,478,996 sf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 1/31/2016

Page 10

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth>3.22"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=158.90 cfs 1,015,780 cf

Subcatchment 102: South of railroad Runoff Area=2,350,542 sf 5.83% Impervious Runoff Depth>2.64"
Flow Length=1,355' Tc=67.4 min CN=80 Runoff=67.05 cfs 518,079 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth>3.06"
Flow Length=754' Tc=19.7 min CN=84 Runoff=11.25 cfs 48,277 cf

Subcatchment 104: North of railroad Runoff Area=434,206 sf 11.01% Impervious Runoff Depth>4.16"
Flow Length=915' Tc=7.4 min CN=95 Runoff=44.67 cfs 150,524 cf

Subcatchment 105: N/W of railroad Runoff Area=304,160 sf 10.01% Impervious Runoff Depth>3.75"
Flow Length=1,266' Tc=20.8 min CN=91 Runoff=20.78 cfs 95,072 cf

Subcatchment 106: PR-WS-1106 Runoff Area=220,702 sf 17.75% Impervious Runoff Depth>2.80"
Tc=0.0 min CN=81 Runoff=20.35 cfs 51,453 cf

Subcatchment 107: Quarry Runoff Area=1,012,677 sf 13.50% Impervious Runoff Depth>3.86"
Flow Length=2,523' Tc=9.5 min CN=92 Runoff=92.59 cfs 325,900 cf

Subcatchment 108: N/E corner of site Runoff Area=375,578 sf 27.88% Impervious Runoff Depth>3.45"
Flow Length=879' Tc=17.2 min CN=88 Runoff=25.95 cfs 107,980 cf

Subcatchment 109: North site and streets Runoff Area=319,906 sf 31.16% Impervious Runoff Depth>4.06"
Flow Length=693' Tc=16.2 min CN=94 Runoff=25.46 cfs 108,160 cf

Subcatchment 110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth>4.07"
Flow Length=170' Slope=0.0200 '/' Tc=1.4 min CN=94 Runoff=23.96 cfs 68,825 cf

Subcatchment 111: N. of RR Runoff Area=76,557 sf 30.20% Impervious Runoff Depth>2.79"
Flow Length=888' Slope=0.0200 '/' Tc=11.8 min CN=81 Runoff=5.05 cfs 17,781 cf

Reach 1R: 60" RCP Culvert Avg. Flow Depth=0.78' Max Vel=5.78 fps Inflow=11.25 cfs 48,277 cf
60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=11.25 cfs 48,256 cf

Reach 2R: Small Stream Avg. Flow Depth=0.68' Max Vel=2.01 fps Inflow=11.25 cfs 48,256 cf
n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=11.20 cfs 48,206 cf

Reach 3R: Small Stream Avg. Flow Depth=2.18' Max Vel=3.79 fps Inflow=183.13 cfs 1,609,706 cf
n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=181.09 cfs 1,607,453 cf

Reach 4R: 60" RCP Culvert Avg. Flow Depth=2.90' Max Vel=15.31 fps Inflow=181.09 cfs 1,607,453 cf
60.0" Round Pipe n=0.014 L=48.0' S=0.0137 '/' Capacity=283.58 cfs Outflow=181.13 cfs 1,607,389 cf

Reach 5R: Small Stream Avg. Flow Depth=46.76' Max Vel=1.22 fps Inflow=181.13 cfs 1,607,389 cf
n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=170.34 cfs 1,602,268 cf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 1/31/2016

Page 11

Reach 6R: Small Stream	Avg. Flow Depth=57.78'	Max Vel=0.74 fps	Inflow=170.34 cfs	1,602,268 cf
n=0.040 L=245.0' S=0.0021 '/	Capacity=0.34 cfs	Outflow=169.94 cfs	1,599,149 cf	
Reach 7R: Small Stream	Avg. Flow Depth=30.44'	Max Vel=1.13 fps	Inflow=172.34 cfs	1,669,135 cf
n=0.040 L=419.0' S=0.0050 '/	Capacity=0.66 cfs	Outflow=171.80 cfs	1,665,044 cf	
Reach 8R: 30" RCP Storm Sewer	Avg. Flow Depth=1.72'	Max Vel=11.02 fps	Inflow=41.14 cfs	176,789 cf
30.0" Round Pipe n=0.011 L=1,673.0' S=0.0100 '/	Capacity=48.47 cfs	Outflow=39.81 cfs	176,427 cf	
Reach 9R: 18" RCP Pipe	Avg. Flow Depth=1.50'	Max Vel=7.95 fps	Inflow=25.95 cfs	107,980 cf
18.0" Round Pipe n=0.011 L=268.0' S=0.0100 '/	Capacity=12.41 cfs	Outflow=12.41 cfs	107,938 cf	
Reach 10R: 48" RCP Storm Sewer	Avg. Flow Depth=1.52'	Max Vel=11.89 fps	Inflow=52.23 cfs	284,364 cf
48.0" Round Pipe n=0.011 L=364.0' S=0.0100 '/	Capacity=169.76 cfs	Outflow=52.18 cfs	284,243 cf	
Reach 11R: 60" Arch culvert	Avg. Flow Depth=2.16'	Max Vel=7.34 fps	Inflow=59.68 cfs	547,339 cf
60.0" Round Pipe n=0.022 L=54.0' S=0.0100 '/	Capacity=153.90 cfs	Outflow=59.66 cfs	547,295 cf	
Reach 12R: Roadside Ditch	Avg. Flow Depth=2.04'	Max Vel=4.06 fps	Inflow=59.66 cfs	547,295 cf
n=0.030 L=321.0' S=0.0050 '/	Capacity=243.58 cfs	Outflow=59.21 cfs	546,774 cf	
Reach 13R: 54" RCP Culvert	Avg. Flow Depth=1.13'	Max Vel=18.94 fps	Inflow=59.21 cfs	546,774 cf
54.0" Round Pipe n=0.011 L=111.0' S=0.0342 '/	Capacity=430.00 cfs	Outflow=59.20 cfs	546,735 cf	
Reach 14R: Roadside ditch	Avg. Flow Depth=1.37'	Max Vel=4.45 fps	Inflow=59.20 cfs	546,735 cf
n=0.030 L=225.0' S=0.0094 '/	Capacity=591.21 cfs	Outflow=59.21 cfs	546,395 cf	
Reach 15R: 54" RCP Culvert	Avg. Flow Depth=4.50'	Max Vel=11.98 fps	Inflow=194.70 cfs	1,562,175 cf
54.0" Round Pipe n=0.011 L=290.0' S=0.0052 '/	Capacity=167.14 cfs	Outflow=174.79 cfs	1,561,735 cf	
Reach 16R: Culvert to Stream	Avg. Flow Depth=31.25'	Max Vel=1.86 fps	Inflow=174.79 cfs	1,561,735 cf
n=0.040 L=51.0' S=0.0137 '/	Capacity=0.65 cfs	Outflow=173.65 cfs	1,561,500 cf	
Reach 17R: Along RR tracks	Avg. Flow Depth=1.10'	Max Vel=2.17 fps	Inflow=56.77 cfs	245,447 cf
n=0.022 L=93.0' S=0.0080 '/	Capacity=5.24 cfs	Outflow=55.83 cfs	245,341 cf	
Reach 18R: Along RR tracks	Avg. Flow Depth=0.51'	Max Vel=1.88 fps	Inflow=20.78 cfs	95,072 cf
n=0.022 L=225.0' S=0.0067 '/	Capacity=4.80 cfs	Outflow=20.56 cfs	94,923 cf	
Reach 21R: Culvert under railroad	Avg. Flow Depth=2.00'	Max Vel=3.92 fps	Inflow=20.35 cfs	70,340 cf
24.0" Round Pipe n=0.025 L=53.0' S=0.0089 '/	Capacity=11.08 cfs	Outflow=11.08 cfs	70,317 cf	
Reach 22R: Small Stream	Avg. Flow Depth=2.06'	Max Vel=2.22 fps	Inflow=11.08 cfs	70,317 cf
n=0.040 L=630.0' S=0.0272 '/	Capacity=0.53 cfs	Outflow=11.05 cfs	69,986 cf	
Reach 23R: CB to Street	Avg. Flow Depth=2.00'	Max Vel=6.27 fps	Inflow=23.96 cfs	68,825 cf
24.0" Round Pipe n=0.012 L=761.0' S=0.0050 '/	Capacity=17.34 cfs	Outflow=18.85 cfs	68,715 cf	
Reach 24R: 30" RCP Storm Sewer	Avg. Flow Depth=0.95'	Max Vel=10.64 fps	Inflow=18.85 cfs	68,715 cf
30.0" Round Pipe n=0.012 L=900.0' S=0.0179 '/	Capacity=59.43 cfs	Outflow=18.26 cfs	68,629 cf	

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 1/31/2016

Page 12

Reach 25R: Closed DrainageAvg. Flow Depth=1.00' Max Vel=10.88 fps Inflow=60.68 cfs 263,122 cf
12.0" Round Pipe n=0.012 L=143.0' S=0.0377 'l' Capacity=7.49 cfs Outflow=7.74 cfs 263,096 cf**Pond 1P: QUARRY**Peak Elev=-148.04' Storage=306,936 cf Inflow=92.59 cfs 325,900 cf
Outflow=0.67 cfs 18,888 cf**Link AP-1: Highway culvert**Inflow=237.47 cfs 2,183,123 cf
Primary=237.47 cfs 2,183,123 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 2,507,830 cf Average Runoff Depth = 3.25"**
73.26% Pervious = 6,790,087 sf 26.74% Impervious = 2,478,996 sf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 1

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth>3.93"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=192.24 cfs 1,239,271 cf

Subcatchment 102: South of railroad Runoff Area=2,350,542 sf 5.83% Impervious Runoff Depth>3.31"
Flow Length=1,355' Tc=67.4 min CN=80 Runoff=83.41 cfs 647,402 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth>3.76"
Flow Length=754' Tc=19.7 min CN=84 Runoff=13.72 cfs 59,334 cf

Subcatchment 104: North of railroad Runoff Area=434,206 sf 11.01% Impervious Runoff Depth>4.90"
Flow Length=915' Tc=7.4 min CN=95 Runoff=52.22 cfs 177,216 cf

Subcatchment 105: N/W of railroad Runoff Area=304,160 sf 10.01% Impervious Runoff Depth>4.49"
Flow Length=1,266' Tc=20.8 min CN=91 Runoff=24.67 cfs 113,704 cf

Subcatchment 106: PR-WS-1106 Runoff Area=220,702 sf 17.75% Impervious Runoff Depth>3.48"
Tc=0.0 min CN=81 Runoff=25.12 cfs 63,972 cf

Subcatchment 107: Quarry Runoff Area=1,012,677 sf 13.50% Impervious Runoff Depth>4.60"
Flow Length=2,523' Tc=9.5 min CN=92 Runoff=109.26 cfs 388,143 cf

Subcatchment 108: N/E corner of site Runoff Area=375,578 sf 27.88% Impervious Runoff Depth>4.18"
Flow Length=879' Tc=17.2 min CN=88 Runoff=31.10 cfs 130,692 cf

Subcatchment 109: North site and streets Runoff Area=319,906 sf 31.16% Impervious Runoff Depth>4.80"
Flow Length=693' Tc=16.2 min CN=94 Runoff=29.86 cfs 127,845 cf

Subcatchment 110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth>4.81"
Flow Length=170' Slope=0.0200 '/' Tc=1.4 min CN=94 Runoff=28.09 cfs 81,327 cf

Subcatchment 111: N. of RR Runoff Area=76,557 sf 30.20% Impervious Runoff Depth>3.47"
Flow Length=888' Slope=0.0200 '/' Tc=11.8 min CN=81 Runoff=6.24 cfs 22,111 cf

Reach 1R: 60" RCP Culvert Avg. Flow Depth=0.86' Max Vel=6.13 fps Inflow=13.72 cfs 59,334 cf
60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=13.71 cfs 59,310 cf

Reach 2R: Small Stream Avg. Flow Depth=0.74' Max Vel=2.13 fps Inflow=13.71 cfs 59,310 cf
n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=13.67 cfs 59,255 cf

Reach 3R: Small Stream Avg. Flow Depth=2.19' Max Vel=3.79 fps Inflow=182.37 cfs 1,923,831 cf
n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=182.57 cfs 1,920,345 cf

Reach 4R: 60" RCP Culvert Avg. Flow Depth=2.92' Max Vel=15.32 fps Inflow=182.57 cfs 1,920,345 cf
60.0" Round Pipe n=0.014 L=48.0' S=0.0137 '/' Capacity=283.58 cfs Outflow=182.59 cfs 1,920,246 cf

Reach 5R: Small Stream Avg. Flow Depth=47.33' Max Vel=1.22 fps Inflow=182.59 cfs 1,920,246 cf
n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=172.43 cfs 1,910,984 cf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 2

Reach 6R: Small Stream Avg. Flow Depth=58.39' Max Vel=0.74 fps Inflow=172.43 cfs 1,910,984 cf
n=0.040 L=245.0' S=0.0021 '/' Capacity=0.34 cfs Outflow=171.73 cfs 1,905,492 cf

Reach 7R: Small Stream Avg. Flow Depth=30.86' Max Vel=1.13 fps Inflow=174.89 cfs 1,988,222 cf
n=0.040 L=419.0' S=0.0050 '/' Capacity=0.66 cfs Outflow=174.19 cfs 1,981,653 cf

Reach 8R: 30" RCP Storm Sewer Avg. Flow Depth=1.96' Max Vel=11.24 fps Inflow=47.29 cfs 208,954 cf
30.0" Round Pipe n=0.011 L=1,673.0' S=0.0100 '/' Capacity=48.47 cfs Outflow=46.54 cfs 208,551 cf

Reach 9R: 18" RCP Pipe Avg. Flow Depth=1.50' Max Vel=7.98 fps Inflow=31.10 cfs 130,692 cf
18.0" Round Pipe n=0.011 L=268.0' S=0.0100 '/' Capacity=12.41 cfs Outflow=12.41 cfs 130,645 cf

Reach 10R: 48" RCP Storm Sewer Avg. Flow Depth=1.63' Max Vel=12.28 fps Inflow=58.95 cfs 339,196 cf
48.0" Round Pipe n=0.011 L=364.0' S=0.0100 '/' Capacity=169.76 cfs Outflow=58.87 cfs 339,061 cf

Reach 11R: 60" Arch culvert Avg. Flow Depth=2.29' Max Vel=7.55 fps Inflow=66.36 cfs 628,706 cf
60.0" Round Pipe n=0.022 L=54.0' S=0.0100 '/' Capacity=153.90 cfs Outflow=66.34 cfs 628,592 cf

Reach 12R: Roadside Ditch Avg. Flow Depth=2.15' Max Vel=4.19 fps Inflow=66.34 cfs 628,592 cf
n=0.030 L=321.0' S=0.0050 '/' Capacity=243.58 cfs Outflow=66.08 cfs 627,344 cf

Reach 13R: 54" RCP Culvert Avg. Flow Depth=1.19' Max Vel=19.57 fps Inflow=66.08 cfs 627,344 cf
54.0" Round Pipe n=0.011 L=111.0' S=0.0342 '/' Capacity=430.00 cfs Outflow=66.07 cfs 627,251 cf

Reach 14R: Roadside ditch Avg. Flow Depth=1.44' Max Vel=4.59 fps Inflow=66.07 cfs 627,251 cf
n=0.030 L=225.0' S=0.0094 '/' Capacity=591.21 cfs Outflow=66.11 cfs 626,439 cf

Reach 15R: 54" RCP Culvert Avg. Flow Depth=4.50' Max Vel=11.98 fps Inflow=230.71 cfs 1,865,709 cf
54.0" Round Pipe n=0.011 L=290.0' S=0.0052 '/' Capacity=167.14 cfs Outflow=167.49 cfs 1,865,016 cf

Reach 16R: Culvert to Stream Avg. Flow Depth=30.38' Max Vel=1.86 fps Inflow=167.49 cfs 1,865,016 cf
n=0.040 L=51.0' S=0.0137 '/' Capacity=0.65 cfs Outflow=168.79 cfs 1,864,576 cf

Reach 17R: Along RR tracks Avg. Flow Depth=1.27' Max Vel=2.19 fps Inflow=66.66 cfs 290,755 cf
n=0.022 L=93.0' S=0.0080 '/' Capacity=5.24 cfs Outflow=65.56 cfs 290,636 cf

Reach 18R: Along RR tracks Avg. Flow Depth=0.58' Max Vel=1.91 fps Inflow=24.67 cfs 113,704 cf
n=0.022 L=225.0' S=0.0067 '/' Capacity=4.80 cfs Outflow=24.36 cfs 113,539 cf

Reach 21R: Culvert under railroad Avg. Flow Depth=2.00' Max Vel=4.01 fps Inflow=25.12 cfs 83,101 cf
24.0" Round Pipe n=0.025 L=53.0' S=0.0089 '/' Capacity=11.08 cfs Outflow=11.08 cfs 83,076 cf

Reach 22R: Small Stream Avg. Flow Depth=2.07' Max Vel=2.22 fps Inflow=11.08 cfs 83,076 cf
n=0.040 L=630.0' S=0.0272 '/' Capacity=0.53 cfs Outflow=11.08 cfs 82,730 cf

Reach 23R: CB to Street Avg. Flow Depth=2.00' Max Vel=6.27 fps Inflow=28.09 cfs 81,327 cf
24.0" Round Pipe n=0.012 L=761.0' S=0.0050 '/' Capacity=17.34 cfs Outflow=18.66 cfs 81,205 cf

Reach 24R: 30" RCP Storm Sewer Avg. Flow Depth=0.94' Max Vel=10.57 fps Inflow=18.66 cfs 81,205 cf
30.0" Round Pipe n=0.012 L=900.0' S=0.0179 '/' Capacity=59.43 cfs Outflow=17.74 cfs 81,109 cf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 3**Reach 25R: Closed Drainage**Avg. Flow Depth=1.00' Max Vel=10.87 fps Inflow=71.57 cfs 312,747 cf
12.0" Round Pipe n=0.012 L=143.0' S=0.0377 ' Capacity=7.49 cfs Outflow=8.01 cfs 289,645 cf**Pond 1P: QUARRY**Peak Elev=-147.66' Storage=368,916 cf Inflow=109.26 cfs 388,143 cf
Outflow=0.67 cfs 19,128 cf**Link AP-1: Highway culvert**Inflow=257.50 cfs 2,629,055 cf
Primary=257.50 cfs 2,629,055 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 3,051,016 cf Average Runoff Depth = 3.95"**
73.26% Pervious = 6,790,087 sf 26.74% Impervious = 2,478,996 sf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 4

Summary for Subcatchment 101: Off-site/Mixed zone

Runoff = 192.24 cfs @ 12.62 hrs, Volume= 1,239,271 cf, Depth> 3.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
12,614	61	>75% Grass cover, Good, HSG B
118,055	74	>75% Grass cover, Good, HSG C
333,700	80	>75% Grass cover, Good, HSG D
77,912	55	Woods, Good, HSG B
78,930	70	Woods, Good, HSG C
687,443	77	Woods, Good, HSG D
19,392	98	Paved parking, HSG B
358,213	98	Paved parking, HSG C
376,621	98	Paved parking, HSG D
16,316	82	Dirt roads, HSG B
141,525	87	Dirt roads, HSG C
134,358	89	Dirt roads, HSG D
814,116	95	Urban commercial, 85% imp, HSG D
284,723	72	1/3 acre lots, 30% imp, HSG B
62,231	81	1/3 acre lots, 30% imp, HSG C
266,043	86	1/3 acre lots, 30% imp, HSG D
3,782,192	86	Weighted Average
2,152,068		56.90% Pervious Area
1,630,124		43.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	75	0.0100	0.98		Sheet Flow, Parking Lot Smooth surfaces n= 0.011 P2= 3.19"
3.4	502	0.0150	2.49		Shallow Concentrated Flow, Parking Lot Paved Kv= 20.3 fps
0.5	62	0.0200	2.12		Shallow Concentrated Flow, Grass Grassed Waterway Kv= 15.0 fps
2.9	122	0.0200	0.71		Shallow Concentrated Flow, Trees Woodland Kv= 5.0 fps
38.5	2,569	0.0100	1.11	0.56	Parabolic Channel, Stream W=3.00' D=0.25' Area=0.5 sf Perim=3.1' n= 0.040 Winding stream, pools & shoals
46.6	3,330	Total			

Summary for Subcatchment 102: South of railroad

Runoff = 83.41 cfs @ 12.91 hrs, Volume= 647,402 cf, Depth> 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 5

Area (sf)	CN	Description
368,251	74	>75% Grass cover, Good, HSG C
757,187	80	>75% Grass cover, Good, HSG D
369,461	70	Woods, Good, HSG C
278,109	77	Woods, Good, HSG D
35,005	98	Paved parking, HSG C
102,066	98	Paved parking, HSG D
384,405	89	Gravel roads, HSG C
56,058	91	Gravel roads, HSG D
2,350,542	80	Weighted Average
2,213,471		94.17% Pervious Area
137,071		5.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	24	0.0200	1.03		Sheet Flow, Road Smooth surfaces n= 0.011 P2= 3.19"
7.1	51	0.0300	0.12		Sheet Flow, Grass Grass: Dense n= 0.240 P2= 3.19"
0.2	16	0.0300	1.21		Shallow Concentrated Flow, Grass Short Grass Pasture Kv= 7.0 fps
21.8	653	0.0100	0.50		Shallow Concentrated Flow, Trees Woodland Kv= 5.0 fps
37.1	557	0.0100	0.25		Shallow Concentrated Flow, Swampy Grass Forest w/Heavy Litter Kv= 2.5 fps
0.8	54	0.0100	1.12	0.93	Parabolic Channel, Small Stream W=5.00' D=0.25' Area=0.8 sf Perim=5.0' n= 0.040 Winding stream, pools & shoals
67.4	1,355	Total			

Summary for Subcatchment 103: Park & Ride

Runoff = 13.72 cfs @ 12.27 hrs, Volume= 59,334 cf, Depth> 3.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
49,843	80	>75% Grass cover, Good, HSG D
82,177	77	Woods, Good, HSG D
57,455	98	Paved parking, HSG D
189,475	84	Weighted Average
132,020		69.68% Pervious Area
57,455		30.32% Impervious Area

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 6

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	75	0.0300	0.13		Sheet Flow, Grass Grass: Dense n= 0.240 P2= 3.19"
1.8	132	0.0300	1.21		Shallow Concentrated Flow, Grass Short Grass Pasture Kv= 7.0 fps
8.2	547	0.0100	1.11	0.46	Parabolic Channel, Small Stream W=2.50' D=0.25' Area=0.4 sf Perim=2.6' n= 0.040 Winding stream, pools & shoals
19.7	754	Total			

Summary for Subcatchment 104: North of railroad

Runoff = 52.22 cfs @ 12.10 hrs, Volume= 177,216 cf, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
47,790	98	Paved parking, HSG D
114,479	96	Gravel surface, HSG C
249,440	96	Gravel surface, HSG D
6,834	74	>75% Grass cover, Good, HSG C
3,110	80	>75% Grass cover, Good, HSG D
12,527	70	Woods, Good, HSG C
26	77	Woods, Good, HSG D
434,206	95	Weighted Average
386,416		88.99% Pervious Area
47,790		11.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	15	0.0200	0.94		Sheet Flow, Gravel Smooth surfaces n= 0.011 P2= 3.19"
0.4	25	0.0200	1.04		Sheet Flow, Road Smooth surfaces n= 0.011 P2= 3.19"
0.5	35	0.0200	1.11		Sheet Flow, Gravel Smooth surfaces n= 0.011 P2= 3.19"
4.4	598	0.0200	2.28		Shallow Concentrated Flow, Gravel Unpaved Kv= 16.1 fps
0.5	63	0.0100	2.03		Shallow Concentrated Flow, Road Paved Kv= 20.3 fps
1.3	179	0.0200	2.28		Shallow Concentrated Flow, Gravel Unpaved Kv= 16.1 fps
7.4	915	Total			

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 7

Summary for Subcatchment 105: N/W of railroad

Runoff = 24.67 cfs @ 12.27 hrs, Volume= 113,704 cf, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
10,157	80	>75% Grass cover, Good, HSG D
241	98	Paved roads w/curbs & sewers, HSG C
30,206	98	Paved roads w/curbs & sewers, HSG D
72,748	89	Gravel roads, HSG C
190,808	91	Gravel roads, HSG D
304,160	91	Weighted Average
273,713		89.99% Pervious Area
30,447		10.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	62	0.0300	0.08		Sheet Flow, Trees Woods: Light underbrush n= 0.400 P2= 3.19"
0.2	13	0.0300	1.07		Sheet Flow, Gravel Smooth surfaces n= 0.011 P2= 3.19"
2.8	469	0.0300	2.79		Shallow Concentrated Flow, Gravel Unpaved Kv= 16.1 fps
0.3	49	0.0150	2.49		Shallow Concentrated Flow, Road Paved Kv= 20.3 fps
0.8	103	0.0200	2.28		Shallow Concentrated Flow, Gravel Unpaved Kv= 16.1 fps
0.4	57	0.0150	2.49		Shallow Concentrated Flow, Road Paved Kv= 20.3 fps
3.8	513	0.0200	2.28		Shallow Concentrated Flow, Gravel Unpaved Kv= 16.1 fps
20.8	1,266	Total			

Summary for Subcatchment 106: PR-WS-1106

Runoff = 25.12 cfs @ 12.00 hrs, Volume= 63,972 cf, Depth> 3.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 8

Area (sf)	CN	Description
9,814	98	Paved parking, HSG A
29,369	98	Paved parking, HSG D
1,086	96	Gravel surface, HSG C
102,355	96	Gravel surface, HSG D
53,306	39	>75% Grass cover, Good, HSG A
24,772	80	>75% Grass cover, Good, HSG D
220,702	81	Weighted Average
181,519		82.25% Pervious Area
39,183		17.75% Impervious Area

Summary for Subcatchment 107: Quarry

Runoff = 109.26 cfs @ 12.13 hrs, Volume= 388,143 cf, Depth> 4.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
6,562	96	Gravel surface, HSG C
684,015	96	Gravel surface, HSG D
5,744	39	>75% Grass cover, Good, HSG A
22,526	80	>75% Grass cover, Good, HSG D
9,627	30	Woods, Good, HSG A
49,442	70	Woods, Good, HSG C
98,012	77	Woods, Good, HSG D
136,749	98	Water Surface, HSG D
1,012,677	92	Weighted Average
875,928		86.50% Pervious Area
136,749		13.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	75	0.1000	2.47		Sheet Flow, Gravel Smooth surfaces n= 0.011 P2= 3.19"
9.0	2,448	0.0800	4.55		Shallow Concentrated Flow, Gravel Unpaved Kv= 16.1 fps
9.5	2,523	Total			

Summary for Subcatchment 108: N/E corner of site

Runoff = 31.10 cfs @ 12.23 hrs, Volume= 130,692 cf, Depth> 4.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 9

Area (sf)	CN	Description
57,206	80	>75% Grass cover, Good, HSG D
122,329	77	Woods, Good, HSG D
104,695	98	Paved parking, HSG D
91,348	96	Gravel surface, HSG D
375,578	88	Weighted Average
270,883		72.12% Pervious Area
104,695		27.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	66	0.0100	0.96		Sheet Flow, Gravel Smooth surfaces n= 0.011 P2= 3.19"
4.1	9	0.0100	0.04		Sheet Flow, Trees Woods: Light underbrush n= 0.400 P2= 3.19"
7.7	230	0.0100	0.50		Shallow Concentrated Flow, Trees Woodland Kv= 5.0 fps
3.2	312	0.0100	1.61		Shallow Concentrated Flow, Gravel Unpaved Kv= 16.1 fps
0.6	36	0.0200	0.99		Shallow Concentrated Flow, Grass Short Grass Pasture Kv= 7.0 fps
0.3	92		5.67		Lake or Reservoir, Narrow swale/pond Mean Depth= 1.00'
0.2	134	0.0200	9.93	17.56	Pipe Channel, 18" Storm Sewer 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011 Concrete pipe, straight & clean
17.2	879	Total			

Summary for Subcatchment 109: North site and streets

Runoff = 29.86 cfs @ 12.21 hrs, Volume= 127,845 cf, Depth> 4.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
14,484	80	>75% Grass cover, Good, HSG D
20,180	70	Woods, Good, HSG C
9,156	77	Woods, Good, HSG D
2,333	98	Paved parking, HSG A
97,347	98	Paved parking, HSG D
67,463	96	Gravel surface, HSG C
108,943	96	Gravel surface, HSG D
319,906	94	Weighted Average
220,226		68.84% Pervious Area
99,680		31.16% Impervious Area

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 10

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	75	0.0500	0.11		Sheet Flow, Trees Woods: Light underbrush n= 0.400 P2= 3.19"
1.1	75	0.0500	1.12		Shallow Concentrated Flow, Trees Woodland Kv= 5.0 fps
3.0	494	0.0300	2.79		Shallow Concentrated Flow, Gravel Unpaved Kv= 16.1 fps
0.3	49	0.0150	2.49		Shallow Concentrated Flow, Road Paved Kv= 20.3 fps
16.2	693	Total			

Summary for Subcatchment 110: Travelodge

Runoff = 28.09 cfs @ 12.02 hrs, Volume= 81,327 cf, Depth> 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,784	39	>75% Grass cover, Good, HSG A
13,449	80	>75% Grass cover, Good, HSG D
1,842	30	Woods, Good, HSG A
12,334	77	Woods, Good, HSG D
36,073	98	Paved parking, HSG A
136,606	98	Paved parking, HSG D
203,088	94	Weighted Average
30,409		14.97% Pervious Area
172,679		85.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.7	120	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.4	170	Total			

Summary for Subcatchment 111: N. of RR

Runoff = 6.24 cfs @ 12.16 hrs, Volume= 22,111 cf, Depth> 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 11

Area (sf)	CN	Description
14,565	98	Paved parking, HSG C
8,558	98	Paved parking, HSG D
2,220	96	Gravel surface, HSG D
22,594	74	>75% Grass cover, Good, HSG C
2,987	80	>75% Grass cover, Good, HSG D
22,163	70	Woods, Good, HSG C
3,470	77	Woods, Good, HSG D
76,557	81	Weighted Average
53,434		69.80% Pervious Area
23,123		30.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
1.5	266	0.0200	2.87		Shallow Concentrated Flow, Pavement
					Paved Kv= 20.3 fps
9.6	572	0.0200	0.99		Shallow Concentrated Flow, Grass
					Short Grass Pasture Kv= 7.0 fps
11.8	888	Total			

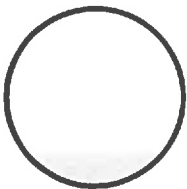
Summary for Reach 1R: 60" RCP Culvert

Inflow Area = 189,475 sf, 30.32% Impervious, Inflow Depth > 3.76" for 25-YEAR event
 Inflow = 13.72 cfs @ 12.27 hrs, Volume= 59,334 cf
 Outflow = 13.71 cfs @ 12.27 hrs, Volume= 59,310 cf, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Max. Velocity= 6.13 fps, Min. Travel Time= 0.4 min
 Avg. Velocity = 2.44 fps, Avg. Travel Time= 1.0 min

Peak Storage= 342 cf @ 12.27 hrs
 Average Depth at Peak Storage= 0.86'
 Bank-Full Depth= 5.00' Flow Area= 19.6 sf, Capacity= 215.50 cfs

60.0" Round Pipe
 n= 0.011 Concrete pipe, straight & clean
 Length= 153.0' Slope= 0.0049 '/'
 Inlet Invert= 59.00', Outlet Invert= 58.25'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 12

Summary for Reach 2R: Small Stream

Inflow Area = 189,475 sf, 30.32% Impervious, Inflow Depth > 3.76" for 25-YEAR event
Inflow = 13.71 cfs @ 12.27 hrs, Volume= 59,310 cf
Outflow = 13.67 cfs @ 12.28 hrs, Volume= 59,255 cf, Atten= 0%, Lag= 0.7 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 2.13 fps, Min. Travel Time= 0.9 min

Avg. Velocity = 0.84 fps, Avg. Travel Time= 2.3 min

Peak Storage= 748 cf @ 12.28 hrs

Average Depth at Peak Storage= 0.74'

Bank-Full Depth= 4.00' Flow Area= 80.0 sf, Capacity= 512.90 cfs

30.00' x 4.00' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 117.0' Slope= 0.0085 '/'

Inlet Invert= 58.50', Outlet Invert= 57.50'

**Summary for Reach 3R: Small Stream**

Inflow Area = 5,685,162 sf, 38.10% Impervious, Inflow Depth > 4.06" for 25-YEAR event
Inflow = 182.37 cfs @ 12.30 hrs, Volume= 1,923,831 cf
Outflow = 182.57 cfs @ 12.32 hrs, Volume= 1,920,345 cf, Atten= 0%, Lag= 1.1 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 3.79 fps, Min. Travel Time= 1.7 min

Avg. Velocity = 1.99 fps, Avg. Travel Time= 3.3 min

Peak Storage= 18,732 cf @ 12.32 hrs

Average Depth at Peak Storage= 2.19'

Bank-Full Depth= 3.25' Flow Area= 86.7 sf, Capacity= 426.71 cfs

40.00' x 3.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 390.0' Slope= 0.0064 '/'

Inlet Invert= 58.50', Outlet Invert= 56.00'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 13

Summary for Reach 4R: 60" RCP Culvert

Inflow Area = 5,685,162 sf, 38.10% Impervious, Inflow Depth > 4.05" for 25-YEAR event
Inflow = 182.57 cfs @ 12.32 hrs, Volume= 1,920,345 cf
Outflow = 182.59 cfs @ 12.32 hrs, Volume= 1,920,246 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 15.32 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 8.47 fps, Avg. Travel Time= 0.1 min

Peak Storage= 571 cf @ 12.32 hrs

Average Depth at Peak Storage= 2.92'

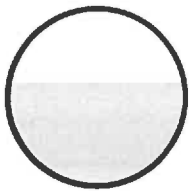
Bank-Full Depth= 5.00' Flow Area= 19.6 sf, Capacity= 283.58 cfs

60.0" Round Pipe

n= 0.014 Steel, smooth

Length= 48.0' Slope= 0.0137 '/'

Inlet Invert= 56.00', Outlet Invert= 55.34'



Summary for Reach 5R: Small Stream

Inflow Area = 5,685,162 sf, 38.10% Impervious, Inflow Depth > 4.05" for 25-YEAR event
Inflow = 182.59 cfs @ 12.32 hrs, Volume= 1,920,246 cf
Outflow = 172.43 cfs @ 12.73 hrs, Volume= 1,910,984 cf, Atten= 6%, Lag= 24.4 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 1.22 fps, Min. Travel Time= 9.4 min

Avg. Velocity = 1.17 fps, Avg. Travel Time= 9.7 min

Peak Storage= 96,845 cf @ 12.73 hrs

Average Depth at Peak Storage= 47.33'

Bank-Full Depth= 0.25' Flow Area= 0.5 sf, Capacity= 0.43 cfs

3.00' x 0.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 685.0' Slope= 0.0059 '/'

Inlet Invert= 55.34', Outlet Invert= 51.31'



†

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 14

Summary for Reach 6R: Small Stream

Inflow Area = 5,685,162 sf, 38.10% Impervious, Inflow Depth > 4.03" for 25-YEAR event
Inflow = 172.43 cfs @ 12.73 hrs, Volume= 1,910,984 cf
Outflow = 171.73 cfs @ 12.88 hrs, Volume= 1,905,492 cf, Atten= 0%, Lag= 9.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 0.74 fps, Min. Travel Time= 5.5 min

Avg. Velocity = 0.71 fps, Avg. Travel Time= 5.7 min

Peak Storage= 56,996 cf @ 12.88 hrs

Average Depth at Peak Storage= 58.39'

Bank-Full Depth= 0.25' Flow Area= 0.7 sf, Capacity= 0.34 cfs

4.00' x 0.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 245.0' Slope= 0.0021 '/'

Inlet Invert= 51.31', Outlet Invert= 50.79'

**Summary for Reach 7R: Small Stream**

Inflow Area = 6,918,541 sf, 33.85% Impervious, Inflow Depth > 3.45" for 25-YEAR event
Inflow = 174.89 cfs @ 12.83 hrs, Volume= 1,988,222 cf
Outflow = 174.19 cfs @ 12.99 hrs, Volume= 1,981,653 cf, Atten= 0%, Lag= 9.3 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 1.13 fps, Min. Travel Time= 6.2 min

Avg. Velocity = 1.08 fps, Avg. Travel Time= 6.5 min

Peak Storage= 64,318 cf @ 12.99 hrs

Average Depth at Peak Storage= 30.86'

Bank-Full Depth= 0.25' Flow Area= 0.8 sf, Capacity= 0.66 cfs

5.00' x 0.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 419.0' Slope= 0.0050 '/'

Inlet Invert= 50.79', Outlet Invert= 48.70'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 15

Summary for Reach 8R: 30" RCP Storm Sewer

Inflow Area = 522,994 sf, 52.08% Impervious, Inflow Depth > 4.79" for 25-YEAR event
Inflow = 47.29 cfs @ 12.22 hrs, Volume= 208,954 cf
Outflow = 46.54 cfs @ 12.24 hrs, Volume= 208,551 cf, Atten= 2%, Lag= 1.5 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 11.24 fps, Min. Travel Time= 2.5 min

Avg. Velocity= 5.06 fps, Avg. Travel Time= 5.5 min

Peak Storage= 6,923 cf @ 12.24 hrs

Average Depth at Peak Storage= 1.96'

Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 48.47 cfs

30.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 1,673.0' Slope= 0.0100 '/'

Inlet Invert= 0.00', Outlet Invert= -16.73'



Summary for Reach 9R: 18" RCP Pipe

Inflow Area = 375,578 sf, 27.88% Impervious, Inflow Depth > 4.18" for 25-YEAR event
Inflow = 31.10 cfs @ 12.23 hrs, Volume= 130,692 cf
Outflow = 12.41 cfs @ 12.00 hrs, Volume= 130,645 cf, Atten= 60%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 7.98 fps, Min. Travel Time= 0.6 min

Avg. Velocity= 4.43 fps, Avg. Travel Time= 1.0 min

Peak Storage= 474 cf @ 12.00 hrs

Average Depth at Peak Storage= 1.50'

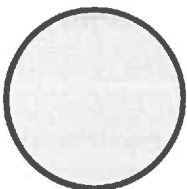
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 12.41 cfs

18.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 268.0' Slope= 0.0100 '/'

Inlet Invert= 0.00', Outlet Invert= -2.68'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 16

Summary for Reach 10R: 48" RCP Storm Sewer

Inflow Area = 898,572 sf, 41.96% Impervious, Inflow Depth > 4.53" for 25-YEAR event
Inflow = 58.95 cfs @ 12.24 hrs, Volume= 339,196 cf
Outflow = 58.87 cfs @ 12.25 hrs, Volume= 339,061 cf, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 12.28 fps, Min. Travel Time= 0.5 min
Avg. Velocity= 5.52 fps, Avg. Travel Time= 1.1 min

Peak Storage= 1,745 cf @ 12.25 hrs
Average Depth at Peak Storage= 1.63'
Bank-Full Depth= 4.00' Flow Area= 12.6 sf, Capacity= 169.76 cfs

48.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 364.0' Slope= 0.0100 '/
Inlet Invert= 0.00', Outlet Invert= -3.64'



Summary for Reach 11R: 60" Arch culvert

Inflow Area = 1,713,495 sf, 27.92% Impervious, Inflow Depth > 4.40" for 25-YEAR event
Inflow = 66.36 cfs @ 12.25 hrs, Volume= 628,706 cf
Outflow = 66.34 cfs @ 12.25 hrs, Volume= 628,592 cf, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.55 fps, Min. Travel Time= 0.1 min
Avg. Velocity= 4.25 fps, Avg. Travel Time= 0.2 min

Peak Storage= 475 cf @ 12.25 hrs
Average Depth at Peak Storage= 2.29'
Bank-Full Depth= 5.00' Flow Area= 19.6 sf, Capacity= 153.90 cfs

60.0" Round Pipe
n= 0.022 Earth, clean & straight
Length= 54.0' Slope= 0.0100 '/
Inlet Invert= 0.00', Outlet Invert= -0.54'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 17

Summary for Reach 12R: Roadside Ditch

Inflow Area = 1,713,495 sf, 27.92% Impervious, Inflow Depth > 4.40" for 25-YEAR event
Inflow = 66.34 cfs @ 12.25 hrs, Volume= 628,592 cf
Outflow = 66.08 cfs @ 12.27 hrs, Volume= 627,344 cf, Atten= 0%, Lag= 0.9 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 4.19 fps, Min. Travel Time= 1.3 min

Avg. Velocity = 2.31 fps, Avg. Travel Time= 2.3 min

Peak Storage= 5,053 cf @ 12.27 hrs

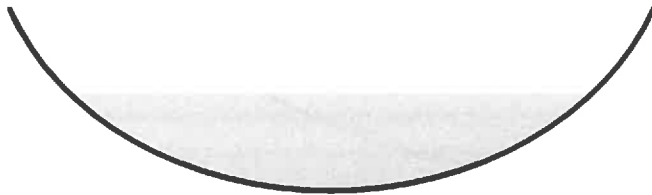
Average Depth at Peak Storage= 2.15'

Bank-Full Depth= 4.00' Flow Area= 40.0 sf, Capacity= 243.58 cfs

15.00' x 4.00' deep Parabolic Channel, n= 0.030 Earth, grassed & winding

Length= 321.0' Slope= 0.0050 '/'

Inlet Invert= 64.64', Outlet Invert= 63.03'



Summary for Reach 13R: 54" RCP Culvert

Inflow Area = 1,713,495 sf, 27.92% Impervious, Inflow Depth > 4.39" for 25-YEAR event
Inflow = 66.08 cfs @ 12.27 hrs, Volume= 627,344 cf
Outflow = 66.07 cfs @ 12.27 hrs, Volume= 627,251 cf, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 19.57 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 10.77 fps, Avg. Travel Time= 0.2 min

Peak Storage= 375 cf @ 12.27 hrs

Average Depth at Peak Storage= 1.19'

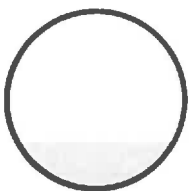
Bank-Full Depth= 4.50' Flow Area= 15.9 sf, Capacity= 430.00 cfs

54.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 111.0' Slope= 0.0342 '/'

Inlet Invert= 63.03', Outlet Invert= 59.23'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 18

Summary for Reach 14R: Roadside ditch

Inflow Area = 1,713,495 sf, 27.92% Impervious, Inflow Depth > 4.39" for 25-YEAR event
Inflow = 66.07 cfs @ 12.27 hrs, Volume= 627,251 cf
Outflow = 66.11 cfs @ 12.28 hrs, Volume= 626,439 cf, Atten= 0%, Lag= 0.6 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 4.59 fps, Min. Travel Time= 0.8 min

Avg. Velocity = 2.49 fps, Avg. Travel Time= 1.5 min

Peak Storage= 3,233 cf @ 12.28 hrs

Average Depth at Peak Storage= 1.44'

Bank-Full Depth= 4.00' Flow Area= 66.7 sf, Capacity= 591.21 cfs

25.00' x 4.00' deep Parabolic Channel, n= 0.030 Earth, grassed & winding

Length= 225.0' Slope= 0.0094 '/'

Inlet Invert= 59.23', Outlet Invert= 57.11'



Summary for Reach 15R: 54" RCP Culvert

Inflow Area = 5,495,687 sf, 38.37% Impervious, Inflow Depth > 4.07" for 25-YEAR event
Inflow = 230.71 cfs @ 12.58 hrs, Volume= 1,865,709 cf
Outflow = 167.49 cfs @ 12.25 hrs, Volume= 1,865,016 cf, Atten= 27%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 11.98 fps, Min. Travel Time= 0.4 min

Avg. Velocity = 6.94 fps, Avg. Travel Time= 0.7 min

Peak Storage= 4,612 cf @ 12.30 hrs

Average Depth at Peak Storage= 4.50'

Bank-Full Depth= 4.50' Flow Area= 15.9 sf, Capacity= 167.14 cfs

54.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 290.0' Slope= 0.0052 '/'

Inlet Invert= 60.50', Outlet Invert= 59.00'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 19

Summary for Reach 16R: Culvert to Stream

Inflow Area = 5,495,687 sf, 38.37% Impervious, Inflow Depth > 4.07" for 25-YEAR event
Inflow = 167.49 cfs @ 12.25 hrs, Volume= 1,865,016 cf
Outflow = 168.79 cfs @ 12.31 hrs, Volume= 1,864,576 cf, Atten= 0%, Lag= 3.4 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 1.86 fps, Min. Travel Time= 0.5 min

Avg. Velocity = 1.78 fps, Avg. Travel Time= 0.5 min

Peak Storage= 4,624 cf @ 12.31 hrs

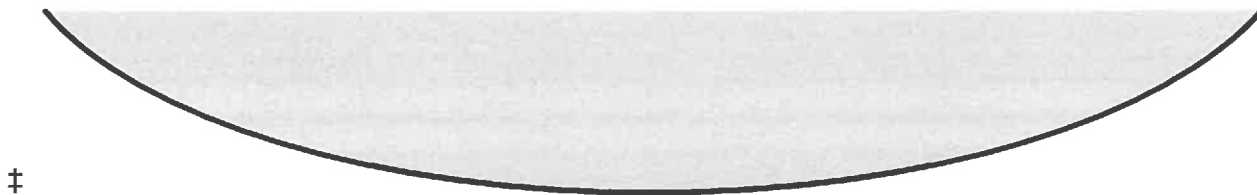
Average Depth at Peak Storage= 30.38'

Bank-Full Depth= 0.25' Flow Area= 0.5 sf, Capacity= 0.65 cfs

3.00' x 0.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 51.0' Slope= 0.0137 '/'

Inlet Invert= 59.00', Outlet Invert= 58.30'

**Summary for Reach 17R: Along RR tracks**

Inflow Area = 738,366 sf, 10.60% Impervious, Inflow Depth > 4.73" for 25-YEAR event
Inflow = 66.66 cfs @ 12.11 hrs, Volume= 290,755 cf
Outflow = 65.56 cfs @ 12.13 hrs, Volume= 290,636 cf, Atten= 2%, Lag= 0.9 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 2.19 fps, Min. Travel Time= 0.7 min

Avg. Velocity = 1.31 fps, Avg. Travel Time= 1.2 min

Peak Storage= 2,788 cf @ 12.13 hrs

Average Depth at Peak Storage= 1.27'

Bank-Full Depth= 0.20' Flow Area= 3.3 sf, Capacity= 5.24 cfs

25.00' x 0.20' deep Parabolic Channel, n= 0.022 Earth, clean & straight

Length= 93.0' Slope= 0.0080 '/'

Inlet Invert= 67.00', Outlet Invert= 66.26'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 20

Summary for Reach 18R: Along RR tracks

Inflow Area = 304,160 sf, 10.01% Impervious, Inflow Depth > 4.49" for 25-YEAR event
Inflow = 24.67 cfs @ 12.27 hrs, Volume= 113,704 cf
Outflow = 24.36 cfs @ 12.31 hrs, Volume= 113,539 cf, Atten= 1%, Lag= 2.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.91 fps, Min. Travel Time= 2.0 min
Avg. Velocity= 0.93 fps, Avg. Travel Time= 4.0 min

Peak Storage= 2,875 cf @ 12.31 hrs
Average Depth at Peak Storage= 0.58'
Bank-Full Depth= 0.20' Flow Area= 3.3 sf, Capacity= 4.80 cfs

25.00' x 0.20' deep Parabolic Channel, n= 0.022 Earth, clean & straight
Length= 225.0' Slope= 0.0067 '/'
Inlet Invert= 68.50', Outlet Invert= 67.00'

**Summary for Reach 21R: Culvert under railroad**

Inflow Area = 1,233,379 sf, 14.26% Impervious, Inflow Depth > 0.81" for 25-YEAR event
Inflow = 25.12 cfs @ 12.00 hrs, Volume= 83,101 cf
Outflow = 11.08 cfs @ 11.95 hrs, Volume= 83,076 cf, Atten= 56%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.01 fps, Min. Travel Time= 0.2 min
Avg. Velocity= 2.19 fps, Avg. Travel Time= 0.4 min

Peak Storage= 167 cf @ 11.95 hrs
Average Depth at Peak Storage= 2.00'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 11.08 cfs

24.0" Round Pipe
n= 0.025 Corrugated metal
Length= 53.0' Slope= 0.0089 '/'
Inlet Invert= 68.37', Outlet Invert= 67.90'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 21

Summary for Reach 22R: Small Stream

Inflow Area = 1,233,379 sf, 14.26% Impervious, Inflow Depth > 0.81" for 25-YEAR event
Inflow = 11.08 cfs @ 11.95 hrs, Volume= 83,076 cf
Outflow = 11.08 cfs @ 12.50 hrs, Volume= 82,730 cf, Atten= 0%, Lag= 33.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 2.22 fps, Min. Travel Time= 4.7 min

Avg. Velocity = 1.71 fps, Avg. Travel Time= 6.2 min

Peak Storage= 3,146 cf @ 12.50 hrs

Average Depth at Peak Storage= 2.07'

Bank-Full Depth= 0.20' Flow Area= 0.3 sf, Capacity= 0.53 cfs

2.50' x 0.20' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 630.0' Slope= 0.0272 '/'

Inlet Invert= 67.90', Outlet Invert= 50.79'

**Summary for Reach 23R: CB to Street**

Inflow Area = 203,088 sf, 85.03% Impervious, Inflow Depth > 4.81" for 25-YEAR event
Inflow = 28.09 cfs @ 12.02 hrs, Volume= 81,327 cf
Outflow = 18.66 cfs @ 12.23 hrs, Volume= 81,205 cf, Atten= 34%, Lag= 12.6 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.27 fps, Min. Travel Time= 2.0 min

Avg. Velocity = 2.89 fps, Avg. Travel Time= 4.4 min

Peak Storage= 2,391 cf @ 12.00 hrs

Average Depth at Peak Storage= 2.00'

Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 17.34 cfs

24.0" Round Pipe

n= 0.012

Length= 761.0' Slope= 0.0050 '/'

Inlet Invert= 93.51', Outlet Invert= 89.70'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 22

Summary for Reach 24R: 30" RCP Storm Sewer

Inflow Area = 203,088 sf, 85.03% Impervious, Inflow Depth > 4.80" for 25-YEAR event
Inflow = 18.66 cfs @ 12.23 hrs, Volume= 81,205 cf
Outflow = 17.74 cfs @ 12.25 hrs, Volume= 81,109 cf, Atten= 5%, Lag= 1.2 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 10.57 fps, Min. Travel Time= 1.4 min

Avg. Velocity = 4.42 fps, Avg. Travel Time= 3.4 min

Peak Storage= 1,511 cf @ 12.25 hrs

Average Depth at Peak Storage= 0.94'

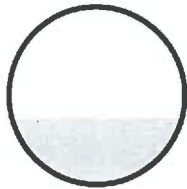
Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 59.43 cfs

30.0" Round Pipe

n= 0.012

Length= 900.0' Slope= 0.0179 '/'

Inlet Invert= 89.70', Outlet Invert= 73.60'



Summary for Reach 25R: Closed Drainage

Inflow Area = 814,923 sf, 12.44% Impervious, Inflow Depth > 4.61" for 25-YEAR event
Inflow = 71.57 cfs @ 12.13 hrs, Volume= 312,747 cf
Outflow = 8.01 cfs @ 11.35 hrs, Volume= 289,645 cf, Atten= 89%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 10.87 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 8.86 fps, Avg. Travel Time= 0.3 min

Peak Storage= 112 cf @ 11.40 hrs

Average Depth at Peak Storage= 1.00'

Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.49 cfs

12.0" Round Pipe

n= 0.012

Length= 143.0' Slope= 0.0377 '/'

Inlet Invert= 66.26', Outlet Invert= 60.87'



14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 1/31/2016

Page 23

Summary for Pond 1P: QUARRY

Inflow Area = 1,012,677 sf, 13.50% Impervious, Inflow Depth > 4.60" for 25-YEAR event
 Inflow = 109.26 cfs @ 12.13 hrs, Volume= 388,143 cf
 Outflow = 0.67 cfs @ 12.15 hrs, Volume= 19,128 cf, Atten= 99%, Lag= 1.2 min
 Primary = 0.67 cfs @ 12.15 hrs, Volume= 19,128 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= -147.66' @ 20.00 hrs Surf.Area= 163,043 sf Storage= 368,916 cf

Plug-Flow detention time= 518.0 min calculated for 19,019 cf (5% of inflow)
 Center-of-Mass det. time= 208.9 min (963.0 - 754.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	-150.00'	1,754,224 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
-150.00	152,007	2,042.0	0	0	152,007
-145.00	176,031	2,126.0	819,361	819,361	181,753
-140.00	198,132	2,209.0	934,863	1,754,224	212,368

Device	Routing	Invert	Outlet Devices
#1	Primary	-149.00'	Pump Discharges@68.50' Turns Off@-149.50' 6.0" Diam. x 540.0' Long Discharge, Hazen-Williams C= 130 Flow (gpm)= 0.0 100.0 200.0 300.0 Head (feet)= 370.00 360.00 355.00 340.00 -Loss (feet)= 0.00 0.56 2.03 4.31 =Lift (feet)= 370.00 359.44 352.97 335.69

Primary OutFlow Max=0.67 cfs @ 12.15 hrs HW=-148.87' TW=70.37' (Dynamic Tailwater)
 ↳ **1=Pump** (Pump Controls 0.67 cfs)

Summary for Link AP-1: Highway culvert

Inflow Area = 9,269,083 sf, 26.74% Impervious, Inflow Depth > 3.40" for 25-YEAR event
 Inflow = 257.50 cfs @ 12.93 hrs, Volume= 2,629,055 cf
 Primary = 257.50 cfs @ 12.93 hrs, Volume= 2,629,055 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 1/31/2016

Page 13

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth>4.92"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=238.09 cfs 1,551,393 cf

Subcatchment 102: South of railroad Runoff Area=2,350,542 sf 5.83% Impervious Runoff Depth>4.24"
Flow Length=1,355' Tc=67.4 min CN=80 Runoff=106.24 cfs 830,554 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth>4.74"
Flow Length=754' Tc=19.7 min CN=84 Runoff=17.12 cfs 74,840 cf

Subcatchment 104: North of railroad Runoff Area=434,206 sf 11.01% Impervious Runoff Depth>5.91"
Flow Length=915' Tc=7.4 min CN=95 Runoff=62.56 cfs 213,852 cf

Subcatchment 105: N/W of railroad Runoff Area=304,160 sf 10.01% Impervious Runoff Depth>5.50"
Flow Length=1,266' Tc=20.8 min CN=91 Runoff=29.93 cfs 139,399 cf

Subcatchment 106: PR-WS-1106 Runoff Area=220,702 sf 17.75% Impervious Runoff Depth>4.44"
Tc=0.0 min CN=81 Runoff=31.74 cfs 81,649 cf

Subcatchment 107: Quarry Runoff Area=1,012,677 sf 13.50% Impervious Runoff Depth>5.61"
Flow Length=2,523' Tc=9.5 min CN=92 Runoff=132.03 cfs 473,840 cf

Subcatchment 108: N/E corner of site Runoff Area=375,578 sf 27.88% Impervious Runoff Depth>5.18"
Flow Length=879' Tc=17.2 min CN=88 Runoff=38.17 cfs 162,175 cf

Subcatchment 109: North site and streets Runoff Area=319,906 sf 31.16% Impervious Runoff Depth>5.81"
Flow Length=693' Tc=16.2 min CN=94 Runoff=35.88 cfs 154,889 cf

Subcatchment 110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth>5.82"
Flow Length=170' Slope=0.0200 '/' Tc=1.4 min CN=94 Runoff=33.74 cfs 98,498 cf

Subcatchment 111: N. of RR Runoff Area=76,557 sf 30.20% Impervious Runoff Depth>4.42"
Flow Length=888' Slope=0.0200 '/' Tc=11.8 min CN=81 Runoff=7.90 cfs 28,225 cf

Reach 1R: 60" RCP Culvert Avg. Flow Depth=0.95' Max Vel=6.55 fps Inflow=17.12 cfs 74,840 cf
60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=17.12 cfs 74,812 cf

Reach 2R: Small Stream Avg. Flow Depth=0.82' Max Vel=2.28 fps Inflow=17.12 cfs 74,812 cf
n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=17.06 cfs 74,749 cf

Reach 3R: Small Stream Avg. Flow Depth=2.23' Max Vel=3.84 fps Inflow=190.73 cfs 2,341,022 cf
n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=189.25 cfs 2,337,274 cf

Reach 4R: 60" RCP Culvert Avg. Flow Depth=2.99' Max Vel=15.46 fps Inflow=189.25 cfs 2,337,274 cf
60.0" Round Pipe n=0.014 L=48.0' S=0.0137 '/' Capacity=283.58 cfs Outflow=189.31 cfs 2,337,167 cf

Reach 5R: Small Stream Avg. Flow Depth=48.29' Max Vel=1.22 fps Inflow=189.31 cfs 2,337,167 cf
n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=175.96 cfs 2,326,887 cf

14110-EXISTING

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

PREDEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 1/31/2016

Page 14

Reach 6R: Small Stream	Avg. Flow Depth=59.47'	Max Vel=0.74 fps	Inflow=175.96 cfs	2,326,887 cf
	n=0.040 L=245.0' S=0.0021 '/	Capacity=0.34 cfs	Outflow=174.94 cfs	2,320,787 cf
Reach 7R: Small Stream	Avg. Flow Depth=32.56'	Max Vel=1.13 fps	Inflow=186.06 cfs	2,421,411 cf
	n=0.040 L=419.0' S=0.0050 '/	Capacity=0.66 cfs	Outflow=183.81 cfs	2,414,130 cf
Reach 8R: 30" RCP Storm Sewer	Avg. Flow Depth=2.25'	Max Vel=11.26 fps	Inflow=53.22 cfs	253,140 cf
30.0" Round Pipe	n=0.011 L=1,673.0' S=0.0100 '/	Capacity=48.47 cfs	Outflow=51.70 cfs	252,685 cf
Reach 9R: 18" RCP Pipe	Avg. Flow Depth=1.50'	Max Vel=8.01 fps	Inflow=38.17 cfs	162,175 cf
18.0" Round Pipe	n=0.011 L=268.0' S=0.0100 '/	Capacity=12.41 cfs	Outflow=12.41 cfs	162,122 cf
Reach 10R: 48" RCP Storm Sewer	Avg. Flow Depth=1.70'	Max Vel=12.56 fps	Inflow=64.12 cfs	414,807 cf
48.0" Round Pipe	n=0.011 L=364.0' S=0.0100 '/	Capacity=169.76 cfs	Outflow=64.14 cfs	414,654 cf
Reach 11R: 60" Arch culvert	Avg. Flow Depth=2.40'	Max Vel=7.69 fps	Inflow=71.63 cfs	718,433 cf
60.0" Round Pipe	n=0.022 L=54.0' S=0.0100 '/	Capacity=153.90 cfs	Outflow=71.63 cfs	718,316 cf
Reach 12R: Roadside Ditch	Avg. Flow Depth=2.23'	Max Vel=4.29 fps	Inflow=71.63 cfs	718,316 cf
	n=0.030 L=321.0' S=0.0050 '/	Capacity=243.58 cfs	Outflow=71.52 cfs	717,038 cf
Reach 13R: 54" RCP Culvert	Avg. Flow Depth=1.24'	Max Vel=20.02 fps	Inflow=71.52 cfs	717,038 cf
54.0" Round Pipe	n=0.011 L=111.0' S=0.0342 '/	Capacity=430.00 cfs	Outflow=71.52 cfs	716,944 cf
Reach 14R: Roadside ditch	Avg. Flow Depth=1.49'	Max Vel=4.71 fps	Inflow=71.52 cfs	716,944 cf
	n=0.030 L=225.0' S=0.0094 '/	Capacity=591.21 cfs	Outflow=71.49 cfs	716,112 cf
Reach 15R: 54" RCP Culvert	Avg. Flow Depth=4.50'	Max Vel=11.97 fps	Inflow=281.97 cfs	2,267,505 cf
54.0" Round Pipe	n=0.011 L=290.0' S=0.0052 '/	Capacity=167.14 cfs	Outflow=176.41 cfs	2,266,759 cf
Reach 16R: Culvert to Stream	Avg. Flow Depth=31.40'	Max Vel=1.86 fps	Inflow=176.41 cfs	2,266,759 cf
	n=0.040 L=51.0' S=0.0137 '/	Capacity=0.65 cfs	Outflow=174.51 cfs	2,266,272 cf
Reach 17R: Along RR tracks	Avg. Flow Depth=1.50'	Max Vel=2.20 fps	Inflow=80.20 cfs	353,064 cf
	n=0.022 L=93.0' S=0.0080 '/	Capacity=5.24 cfs	Outflow=78.88 cfs	352,931 cf
Reach 18R: Along RR tracks	Avg. Flow Depth=0.68'	Max Vel=1.93 fps	Inflow=29.93 cfs	139,399 cf
	n=0.022 L=225.0' S=0.0067 '/	Capacity=4.80 cfs	Outflow=29.56 cfs	139,212 cf
Reach 21R: Culvert under railroad	Avg. Flow Depth=2.00'	Max Vel=4.02 fps	Inflow=32.43 cfs	101,018 cf
24.0" Round Pipe	n=0.025 L=53.0' S=0.0089 '/	Capacity=11.08 cfs	Outflow=11.08 cfs	100,992 cf
Reach 22R: Small Stream	Avg. Flow Depth=2.07'	Max Vel=2.22 fps	Inflow=11.08 cfs	100,992 cf
	n=0.040 L=630.0' S=0.0272 '/	Capacity=0.53 cfs	Outflow=11.08 cfs	100,624 cf
Reach 23R: CB to Street	Avg. Flow Depth=2.00'	Max Vel=6.29 fps	Inflow=33.74 cfs	98,498 cf
24.0" Round Pipe	n=0.012 L=761.0' S=0.0050 '/	Capacity=17.34 cfs	Outflow=17.44 cfs	98,360 cf
Reach 24R: 30" RCP Storm Sewer	Avg. Flow Depth=0.94'	Max Vel=10.56 fps	Inflow=17.44 cfs	98,360 cf
30.0" Round Pipe	n=0.012 L=900.0' S=0.0179 '/	Capacity=59.43 cfs	Outflow=17.79 cfs	98,251 cf

14110-EXISTINGPREDEVELOPMENT
Type III 24-hr 100-YEAR Rainfall=6.90"

Prepared by Jones & Beach Engineers

Printed 1/31/2016

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

Page 15

Reach 25R: Closed DrainageAvg. Flow Depth=1.00' Max Vel=10.88 fps Inflow=86.51 cfs 381,156 cf
12.0" Round Pipe n=0.012 L=143.0' S=0.0377 '/' Capacity=7.49 cfs Outflow=7.92 cfs 303,779 cf**Pond 1P: QUARRY**Peak Elev=-147.14' Storage=454,341 cf Inflow=132.03 cfs 473,840 cf
Outflow=0.67 cfs 19,369 cf**Link AP-1: Highway culvert**Inflow=289.38 cfs 3,244,684 cf
Primary=289.38 cfs 3,244,684 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 3,809,314 cf Average Runoff Depth = 4.93"**
73.26% Pervious = 6,790,087 sf 26.74% Impervious = 2,478,996 sf

5.7 APPENDIX II

PROPOSED CONDITIONS DRAINAGE ANALYSIS

- 5.7.1 2-Year 24-Hour Summary Analysis
- 5.7.2 10-Year 24-Hour Complete Analysis
- 5.7.3 25-Year 24-Hour Summary Analysis
- 5.7.4 50-Year 24-Hour Summary Analysis

14110-PROP

Prepared by Jones & Beach Engineers

Printed 2/1/2016

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
284,723	72	1/3 acre lots, 30% imp, HSG B (101)
62,231	81	1/3 acre lots, 30% imp, HSG C (101)
266,043	86	1/3 acre lots, 30% imp, HSG D (101)
62,941	39	>75% Grass cover, Good, HSG A (1106, 1107, 1110)
12,614	61	>75% Grass cover, Good, HSG B (101)
589,209	74	>75% Grass cover, Good, HSG C (101, 102, 1103, 1104, 1107, 1111, PR-101B, PR-102, PR-103, PR-104, PR-105, PR-106, PR-107, PR-108, PR-109, PR-110, PR-112, PR-114, PR-115, PR-116, PR-119, PR-120, PR-121, PR-122, PR-123, PR-125, PR-126, PR-135, PR-139, PR-140, PR-141, PR-148, PR-149, PR-159, PR-160, PR-161, PR-172, PR-178, PR-179, PR-180, PR-181, PR-182, PR-183, PR-184, PR-193, PR-206, PR-207, PR-208, PR-209, PR-210, PR-211, PR-212, PR-213, PR-214, PR-215, PR-217, PR-218, PR-219, PR-220, PR-221, PR-223, PR-225, PR-226, PR-228, PR-229, PR-230, PR-232, PR-234, PR-235, PR-236, PR-237, PR-238, PR-239, PR-240, PR-242, PR-243, PR-245, PR-247, PR-248, PR-252, PR-253, PR-254, PR-256, PR-257, PR-258, PR-259, PR-261, PR-262, PR-267, PR-268)
1,440,032	80	>75% Grass cover, Good, HSG D (101, 102, 103, 1100, 1101, 1103, 1104, 1105, 1106, 1107, 1110, 1111, PR-101A, PR-101B, PR-102, PR-103, PR-104, PR-106, PR-107, PR-109, PR-110, PR-111, PR-116, PR-117, PR-118, PR-122, PR-123, PR-124, PR-125, PR-126, PR-127, PR-128, PR-129, PR-130, PR-131, PR-132, PR-133, PR-135, PR-136, PR-137, PR-138, PR-139, PR-140, PR-141, PR-142, PR-143, PR-144, PR-145, PR-146, PR-147, PR-148, PR-150, PR-151, PR-152, PR-153, PR-154, PR-155, PR-156, PR-157, PR-158, PR-159, PR-162, PR-165, PR-166, PR-167, PR-168, PR-169, PR-170, PR-171, PR-172, PR-173, PR-174, PR-175, PR-176, PR-177, PR-178, PR-179, PR-180, PR-181, PR-182, PR-183, PR-186, PR-187, PR-188, PR-189, PR-190, PR-191, PR-192, PR-193, PR-194, PR-195, PR-196, PR-197, PR-198, PR-206, PR-207, PR-209, PR-211, PR-212, PR-216, PR-217, PR-221, PR-224, PR-225, PR-227, PR-228, PR-229, PR-230, PR-231, PR-232, PR-233, PR-234, PR-235, PR-236, PR-237, PR-238, PR-239, PR-240, PR-241, PR-242, PR-244, PR-245, PR-246, PR-247, PR-249, PR-252, PR-253, PR-254, PR-255, PR-256, PR-260, PR-261, PR-263, PR-266, PR-267, PR-268)
16,316	82	Dirt roads, HSG B (101)
141,525	87	Dirt roads, HSG C (101)
134,358	89	Dirt roads, HSG D (101)
54,367	91	Gravel roads, HSG D (1105)
23,619	96	Gravel surface, HSG C (102, 1103, PR-247)
61,083	96	Gravel surface, HSG D (1103, 1106, 1107, PR-247, PR-253)
46,055	98	Paved parking, HSG A (102, 1106, 1110)
19,392	98	Paved parking, HSG B (101)
1,223,805	98	Paved parking, HSG C (101, 102, 1102, 1104, 1111, PR-101A, PR-101B, PR-102, PR-103, PR-104, PR-105, PR-106, PR-107, PR-108, PR-109, PR-110, PR-112, PR-114, PR-115, PR-116, PR-117, PR-119, PR-120, PR-121, PR-122, PR-123, PR-125, PR-126, PR-135, PR-139, PR-140, PR-141, PR-148, PR-149, PR-156, PR-157, PR-158, PR-159, PR-160, PR-161, PR-172, PR-178, PR-179,

14110-PROP

POST-DEVELOPMENT

Prepared by Jones & Beach Engineers

Printed 2/1/2016

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

Page 3

Area Listing (all nodes) (continued)

Area (sq-ft)	CN	Description (subcatchment-numbers)
1,782,312	98	Paved parking, HSG D (101, 102, 103, 1100, 1101, 1102, 1104, 1107, 1110, 1111, PR-101A, PR-101B, PR-102, PR-103, PR-104, PR-106, PR-107, PR-109, PR-110, PR-111, PR-116, PR-117, PR-118, PR-121, PR-122, PR-123, PR-124, PR-125, PR-126, PR-127, PR-128, PR-129, PR-130, PR-131, PR-133, PR-135, PR-136, PR-137, PR-138, PR-139, PR-140, PR-141, PR-142, PR-143, PR-144, PR-145, PR-146, PR-147, PR-148, PR-150, PR-151, PR-152, PR-154, PR-155, PR-156, PR-157, PR-158, PR-159, PR-160, PR-161, PR-165, PR-166, PR-167, PR-168, PR-169, PR-170, PR-171, PR-172, PR-173, PR-174, PR-175, PR-176, PR-177, PR-178, PR-179, PR-180, PR-181, PR-182, PR-183, PR-185, PR-186, PR-187, PR-188, PR-189, PR-190, PR-191, PR-192, PR-193, PR-194, PR-195, PR-196, PR-197, PR-198, PR-199, PR-200, PR-201, PR-202, PR-203, PR-204, PR-205, PR-206, PR-207, PR-208, PR-209, PR-211, PR-212, PR-215, PR-216, PR-217, PR-218, PR-221, PR-224, PR-225, PR-226, PR-227, PR-228, PR-229, PR-230, PR-231, PR-232, PR-233, PR-234, PR-235, PR-236, PR-237, PR-238, PR-239, PR-240, PR-241, PR-242, PR-244, PR-245, PR-246, PR-249, PR-252, PR-253, PR-260, PR-261, PR-263, PR-266, PR-268)
2,333	98	Paved roads w/curbs & sewers, HSG A (1100)
3,982	98	Roofs, HSG C (PR-113)
814,116	95	Urban commercial, 85% imp, HSG D (101)
822,604	98	Water Surface, HSG D (1107)
10,194	30	Woods, Good, HSG A (1107)
77,912	55	Woods, Good, HSG B (101)
282,589	70	Woods, Good, HSG C (101, 102, 1107, 1111)
1,034,728	77	Woods, Good, HSG D (101, 102, 103, 1107, 1111)
9,269,083	88	TOTAL AREA

14110-PROP

Prepared by Jones & Beach Engineers

Printed 2/1/2016

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

Page 4

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
121,523	HSG A	102, 1100, 1106, 1107, 1110
410,957	HSG B	101
2,326,960	HSG C	101, 102, 1102, 1103, 1104, 1107, 1111, PR-101A, PR-101B, PR-102, PR-103, PR-104, PR-105, PR-106, PR-107, PR-108, PR-109, PR-110, PR-112, PR-113, PR-114, PR-115, PR-116, PR-117, PR-119, PR-120, PR-121, PR-122, PR-123, PR-125, PR-126, PR-135, PR-139, PR-140, PR-141, PR-148, PR-149, PR-156, PR-157, PR-158, PR-159, PR-160, PR-161, PR-172, PR-178, PR-179, PR-180, PR-181, PR-182, PR-183, PR-184, PR-185, PR-193, PR-204, PR-206, PR-207, PR-208, PR-209, PR-210, PR-211, PR-212, PR-213, PR-214, PR-215, PR-216, PR-217, PR-218, PR-219, PR-220, PR-221, PR-222, PR-223, PR-225, PR-226, PR-228, PR-229, PR-230, PR-232, PR-234, PR-235, PR-236, PR-237, PR-238, PR-239, PR-240, PR-241, PR-242, PR-243, PR-244, PR-245, PR-246, PR-247, PR-248, PR-250, PR-251, PR-252, PR-253, PR-254, PR-256, PR-257, PR-258, PR-259, PR-261, PR-262, PR-267, PR-268
6,409,643	HSG D	101, 102, 103, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1110, 1111, PR-101A, PR-101B, PR-102, PR-103, PR-104, PR-106, PR-107, PR-109, PR-110, PR-111, PR-116, PR-117, PR-118, PR-121, PR-122, PR-123, PR-124, PR-125, PR-126, PR-127, PR-128, PR-129, PR-130, PR-131, PR-132, PR-133, PR-135, PR-136, PR-137, PR-138, PR-139, PR-140, PR-141, PR-142, PR-143, PR-144, PR-145, PR-146, PR-147, PR-148, PR-150, PR-151, PR-152, PR-153, PR-154, PR-155, PR-156, PR-157, PR-158, PR-159, PR-160, PR-161, PR-162, PR-165, PR-166, PR-167, PR-168, PR-169, PR-170, PR-171, PR-172, PR-173, PR-174, PR-175, PR-176, PR-177, PR-178, PR-179, PR-180, PR-181, PR-182, PR-183, PR-185, PR-186, PR-187, PR-188, PR-189, PR-190, PR-191, PR-192, PR-193, PR-194, PR-195, PR-196, PR-197, PR-198, PR-199, PR-200, PR-201, PR-202, PR-203, PR-204, PR-205, PR-206, PR-207, PR-208, PR-209, PR-211, PR-212, PR-215, PR-216, PR-217, PR-218, PR-221, PR-224, PR-225, PR-226, PR-227, PR-228, PR-229, PR-230, PR-231, PR-232, PR-233, PR-234, PR-235, PR-236, PR-237, PR-238, PR-239, PR-240, PR-241, PR-242, PR-244, PR-245, PR-246, PR-247, PR-249, PR-252, PR-253, PR-254, PR-255, PR-256, PR-260, PR-261, PR-263, PR-266, PR-267, PR-268
0	Other	
9,269,083		TOTAL AREA

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 5

Time span=1.00-72.00 hrs, dt=0.05 hrs, 1421 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth=1.49"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=68.84 cfs 470,412 cf

Subcatchment 102: South of railroad Runoff Area=1,135,658 sf 6.62% Impervious Runoff Depth=0.99"
Flow Length=617' Tc=26.5 min CN=78 Runoff=17.28 cfs 93,568 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth=1.35"
Flow Length=754' Tc=19.7 min CN=84 Runoff=4.64 cfs 21,369 cf

Subcatchment 1100: PR-WS-1100 Runoff Area=25,136 sf 96.39% Impervious Runoff Depth=2.46"
Flow Length=249' Slope=0.0300 ' ' Tc=1.5 min CN=97 Runoff=1.67 cfs 5,153 cf

Subcatchment 1101: PR-WS-1101 Runoff Area=77,854 sf 80.46% Impervious Runoff Depth=2.16"
Flow Length=319' Slope=0.0200 ' ' Tc=2.3 min CN=94 Runoff=4.76 cfs 13,995 cf

Subcatchment 1102: PR-WS-1102 Runoff Area=14,898 sf 100.00% Impervious Runoff Depth=2.57"
Flow Length=303' Tc=2.1 min CN=98 Runoff=1.01 cfs 3,190 cf

Subcatchment 1103: N/W of railroad Runoff Area=41,085 sf 0.00% Impervious Runoff Depth=0.99"
Flow Length=556' Tc=6.6 min CN=78 Runoff=1.02 cfs 3,385 cf

Subcatchment 1104: North of railroad Runoff Area=7,693 sf 70.79% Impervious Runoff Depth=1.97"
Flow Length=180' Tc=3.2 min CN=92 Runoff=0.43 cfs 1,265 cf

Subcatchment 1105: N/E of railroad Runoff Area=81,158 sf 0.00% Impervious Runoff Depth=1.57"
Flow Length=315' Slope=0.1000 ' ' Tc=6.6 min CN=87 Runoff=3.30 cfs 10,589 cf

Subcatchment 1106: PR-WS-1106 Runoff Area=141,898 sf 6.92% Impervious Runoff Depth=0.61"
Flow Length=360' Tc=6.9 min CN=70 Runoff=1.85 cfs 7,166 cf

Subcatchment 1107: Quarry Runoff Area=944,293 sf 87.22% Impervious Runoff Depth=2.25"
Flow Length=55' Slope=0.3300 ' ' Tc=2.9 min CN=95 Runoff=59.29 cfs 177,403 cf

Subcatchment 1110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth=2.16"
Flow Length=170' Slope=0.0200 ' ' Tc=1.4 min CN=94 Runoff=12.47 cfs 36,507 cf

Subcatchment 1111: PR-WS-1111 Runoff Area=322,054 sf 17.82% Impervious Runoff Depth=1.16"
Flow Length=375' Tc=4.1 min CN=81 Runoff=10.35 cfs 31,179 cf

Subcatchment PR-101A: PR-WS-101A Runoff Area=12,140 sf 41.37% Impervious Runoff Depth=1.57"
Flow Length=205' Tc=4.2 min CN=87 Runoff=0.53 cfs 1,584 cf

Subcatchment PR-101B: PR-WS-101B Runoff Area=16,595 sf 95.33% Impervious Runoff Depth=2.46"
Flow Length=226' Tc=2.3 min CN=97 Runoff=1.10 cfs 3,402 cf

Subcatchment PR-102: PR-102 Runoff Area=11,587 sf 94.81% Impervious Runoff Depth=2.46"
Flow Length=187' Tc=2.0 min CN=97 Runoff=0.77 cfs 2,376 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 6

Subcatchment PR-103: PR-103	Runoff Area=4,529 sf 74.81% Impervious Runoff Depth=2.06" Flow Length=21' Slope=0.0200 '/' Tc=4.1 min CN=93 Runoff=0.26 cfs 779 cf
Subcatchment PR-104: PR-104	Runoff Area=9,984 sf 93.60% Impervious Runoff Depth=2.36" Flow Length=189' Slope=0.0200 '/' Tc=1.5 min CN=96 Runoff=0.65 cfs 1,960 cf
Subcatchment PR-105: PR-WS-105	Runoff Area=3,217 sf 91.79% Impervious Runoff Depth=2.36" Flow Length=96' Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.21 cfs 631 cf
Subcatchment PR-106: PR-WS-106	Runoff Area=6,892 sf 91.12% Impervious Runoff Depth=2.36" Flow Length=163' Slope=0.0150 '/' Tc=1.6 min CN=96 Runoff=0.45 cfs 1,353 cf
Subcatchment PR-107: PR-WS-107	Runoff Area=9,747 sf 84.59% Impervious Runoff Depth=2.16" Flow Length=134' Slope=0.0150 '/' Tc=1.4 min CN=94 Runoff=0.60 cfs 1,752 cf
Subcatchment PR-108: PR-WS-108	Runoff Area=3,430 sf 52.97% Impervious Runoff Depth=1.57" Flow Length=54' Tc=2.7 min CN=87 Runoff=0.16 cfs 448 cf
Subcatchment PR-109: PR-WS-109	Runoff Area=4,191 sf 87.57% Impervious Runoff Depth=2.36" Flow Length=66' Tc=2.0 min CN=96 Runoff=0.27 cfs 823 cf
Subcatchment PR-110: PR-WS-110	Runoff Area=4,653 sf 92.69% Impervious Runoff Depth=2.46" Flow Length=18' Slope=0.0200 '/' Tc=2.9 min CN=97 Runoff=0.31 cfs 954 cf
Subcatchment PR-111: PR-WS-111	Runoff Area=1,730 sf 95.32% Impervious Runoff Depth=2.46" Flow Length=94' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.12 cfs 355 cf
Subcatchment PR-112: PR-WS-112	Runoff Area=2,211 sf 94.93% Impervious Runoff Depth=2.46" Flow Length=112' Slope=0.0200 '/' Tc=1.1 min CN=97 Runoff=0.15 cfs 453 cf
Subcatchment PR-113: PR-WS-113	Runoff Area=3,982 sf 100.00% Impervious Runoff Depth=2.57" Flow Length=40' Slope=0.0200 '/' Tc=0.6 min CN=98 Runoff=0.28 cfs 853 cf
Subcatchment PR-114: PR-WS-114	Runoff Area=8,860 sf 84.37% Impervious Runoff Depth=2.16" Flow Length=93' Tc=3.0 min CN=94 Runoff=0.54 cfs 1,593 cf
Subcatchment PR-115: PR-WS-115	Runoff Area=4,830 sf 90.85% Impervious Runoff Depth=2.36" Flow Length=63' Tc=1.6 min CN=96 Runoff=0.31 cfs 948 cf
Subcatchment PR-116: PR-WS-116	Runoff Area=11,048 sf 85.47% Impervious Runoff Depth=2.25" Flow Length=92' Tc=2.2 min CN=95 Runoff=0.70 cfs 2,076 cf
Subcatchment PR-117: PR-WS-117	Runoff Area=28,987 sf 88.81% Impervious Runoff Depth=2.36" Flow Length=141' Tc=3.9 min CN=96 Runoff=1.82 cfs 5,690 cf
Subcatchment PR-118: PR-WS-118	Runoff Area=11,145 sf 83.65% Impervious Runoff Depth=2.25" Flow Length=87' Slope=0.0200 '/' Tc=4.8 min CN=95 Runoff=0.65 cfs 2,094 cf
Subcatchment PR-119: PR-WS-119	Runoff Area=9,940 sf 84.19% Impervious Runoff Depth=2.16" Flow Length=272' Slope=0.0200 '/' Tc=2.0 min CN=94 Runoff=0.61 cfs 1,787 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 7

Subcatchment PR-120: PR-WS-120	Runoff Area=5,203 sf 70.06% Impervious Runoff Depth=1.89" Flow Length=136' Tc=1.1 min CN=91 Runoff=0.29 cfs 818 cf
Subcatchment PR-121: PR-WS-121	Runoff Area=34,922 sf 92.10% Impervious Runoff Depth=2.36" Flow Length=67' Tc=2.6 min CN=96 Runoff=2.26 cfs 6,855 cf
Subcatchment PR-122: PR-WS-122	Runoff Area=34,176 sf 89.54% Impervious Runoff Depth=2.36" Flow Length=108' Tc=3.4 min CN=96 Runoff=2.18 cfs 6,708 cf
Subcatchment PR-123: PR-WS-123	Runoff Area=29,407 sf 85.16% Impervious Runoff Depth=2.25" Flow Length=109' Tc=2.2 min CN=95 Runoff=1.85 cfs 5,525 cf
Subcatchment PR-124: PR-WS-124	Runoff Area=26,584 sf 88.43% Impervious Runoff Depth=2.36" Flow Length=89' Tc=3.3 min CN=96 Runoff=1.70 cfs 5,218 cf
Subcatchment PR-125: PR-WS-125 Flow Length=185'	Runoff Area=7,219 sf 83.46% Impervious Runoff Depth=2.25" Slope=0.0200 '/' Tc=2.8 min CN=95 Runoff=0.45 cfs 1,356 cf
Subcatchment PR-126: PR-WS-126	Runoff Area=6,500 sf 57.17% Impervious Runoff Depth=1.80" Flow Length=66' Tc=3.4 min CN=90 Runoff=0.34 cfs 976 cf
Subcatchment PR-127: PR-WS-127	Runoff Area=2,495 sf 74.07% Impervious Runoff Depth=2.06" Flow Length=121' Tc=1.0 min CN=93 Runoff=0.15 cfs 429 cf
Subcatchment PR-128: PR-WS-128	Runoff Area=19,006 sf 89.37% Impervious Runoff Depth=2.36" Flow Length=94' Tc=3.3 min CN=96 Runoff=1.22 cfs 3,731 cf
Subcatchment PR-129: PR-WS-129	Runoff Area=6,545 sf 87.23% Impervious Runoff Depth=2.36" Flow Length=64' Tc=2.5 min CN=96 Runoff=0.42 cfs 1,285 cf
Subcatchment PR-130: PR-WS-130	Runoff Area=5,821 sf 44.94% Impervious Runoff Depth=1.64" Flow Length=136' Tc=4.6 min CN=88 Runoff=0.26 cfs 796 cf
Subcatchment PR-131: PR-WS-131	Runoff Area=13,655 sf 42.16% Impervious Runoff Depth=1.64" Flow Length=163' Tc=5.3 min CN=88 Runoff=0.60 cfs 1,868 cf
Subcatchment PR-132: PR-WS-132 Flow Length=186'	Runoff Area=27,639 sf 0.00% Impervious Runoff Depth=1.10" Slope=0.0300 '/' Tc=11.2 min CN=80 Runoff=0.67 cfs 2,538 cf
Subcatchment PR-133: PR-WS-133	Runoff Area=3,782 sf 78.79% Impervious Runoff Depth=2.16" Flow Length=61' Tc=2.3 min CN=94 Runoff=0.23 cfs 680 cf
Subcatchment PR-135: PR-WS-135	Runoff Area=57,274 sf 93.46% Impervious Runoff Depth=2.46" Flow Length=96' Tc=2.3 min CN=97 Runoff=3.80 cfs 11,742 cf
Subcatchment PR-136: PR-WS-136 Flow Length=152'	Runoff Area=5,021 sf 83.43% Impervious Runoff Depth=2.25" Slope=0.0200 '/' Tc=2.6 min CN=95 Runoff=0.32 cfs 943 cf
Subcatchment PR-137: PR-WS-137	Runoff Area=6,491 sf 89.29% Impervious Runoff Depth=2.36" Flow Length=79' Tc=2.0 min CN=96 Runoff=0.42 cfs 1,274 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 8

Subcatchment PR-138: PR-WS-138	Runoff Area=6,721 sf 83.34% Impervious Runoff Depth=2.25" Flow Length=154' Tc=2.2 min CN=95 Runoff=0.42 cfs 1,263 cf
Subcatchment PR-139: PR-WS-139	Runoff Area=13,664 sf 93.38% Impervious Runoff Depth=2.46" Flow Length=73' Tc=2.1 min CN=97 Runoff=0.91 cfs 2,801 cf
Subcatchment PR-140: PR-WS-140	Runoff Area=16,941 sf 86.79% Impervious Runoff Depth=2.25" Flow Length=100' Tc=2.2 min CN=95 Runoff=1.07 cfs 3,183 cf
Subcatchment PR-141: PR-WS-141	Runoff Area=63,852 sf 96.08% Impervious Runoff Depth=2.46" Flow Length=153' Slope=0.0300 '/' Tc=1.1 min CN=97 Runoff=4.32 cfs 13,091 cf
Subcatchment PR-142: PR-WS-142	Runoff Area=7,046 sf 94.68% Impervious Runoff Depth=2.46" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=0.47 cfs 1,445 cf
Subcatchment PR-143: PR-WS-143	Runoff Area=2,759 sf 93.19% Impervious Runoff Depth=2.46" Flow Length=95' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.19 cfs 566 cf
Subcatchment PR-144: PR-WS-144	Runoff Area=5,804 sf 95.35% Impervious Runoff Depth=2.46" Flow Length=141' Slope=0.0200 '/' Tc=1.2 min CN=97 Runoff=0.39 cfs 1,190 cf
Subcatchment PR-145: PR-WS-145	Runoff Area=5,741 sf 83.43% Impervious Runoff Depth=2.25" Flow Length=105' Tc=2.3 min CN=95 Runoff=0.36 cfs 1,079 cf
Subcatchment PR-146: PR-WS-146	Runoff Area=48,802 sf 78.10% Impervious Runoff Depth=2.16" Flow Length=75' Tc=3.1 min CN=94 Runoff=2.96 cfs 8,773 cf
Subcatchment PR-147: PR-WS-147	Runoff Area=2,815 sf 75.52% Impervious Runoff Depth=2.16" Flow Length=105' Slope=0.0200 '/' Tc=1.0 min CN=94 Runoff=0.18 cfs 506 cf
Subcatchment PR-148: PR-WS-148	Runoff Area=23,625 sf 95.90% Impervious Runoff Depth=2.46" Flow Length=147' Tc=2.5 min CN=97 Runoff=1.57 cfs 4,844 cf
Subcatchment PR-149: PR-149	Runoff Area=9,728 sf 57.71% Impervious Runoff Depth=1.64" Flow Length=98' Tc=7.5 min CN=88 Runoff=0.40 cfs 1,331 cf
Subcatchment PR-150: PR-WS-150	Runoff Area=3,710 sf 87.55% Impervious Runoff Depth=2.36" Flow Length=98' Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.25 cfs 728 cf
Subcatchment PR-151: PR-WS-151	Runoff Area=2,194 sf 75.89% Impervious Runoff Depth=2.16" Flow Length=67' Tc=2.3 min CN=94 Runoff=0.13 cfs 394 cf
Subcatchment PR-152: PR-WS-152	Runoff Area=1,814 sf 94.71% Impervious Runoff Depth=2.46" Flow Length=100' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.12 cfs 372 cf
Subcatchment PR-153: PR-WS-153	Runoff Area=14,695 sf 0.00% Impervious Runoff Depth=1.10" Flow Length=350' Slope=0.0200 '/' Tc=13.0 min CN=80 Runoff=0.34 cfs 1,350 cf
Subcatchment PR-154: PR-WS-154	Runoff Area=7,489 sf 92.48% Impervious Runoff Depth=2.46" Flow Length=60' Tc=2.0 min CN=97 Runoff=0.50 cfs 1,535 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 9

Subcatchment PR-155: PR-WS-155	Runoff Area=3,567 sf 91.56% Impervious Runoff Depth=2.36" Flow Length=134' Slope=0.0200 ' Tc=1.2 min CN=96 Runoff=0.23 cfs 700 cf
Subcatchment PR-156: PR-WS-156	Runoff Area=7,350 sf 93.33% Impervious Runoff Depth=2.46" Flow Length=80' Tc=3.1 min CN=97 Runoff=0.48 cfs 1,507 cf
Subcatchment PR-157: PR-WS-157	Runoff Area=6,981 sf 72.41% Impervious Runoff Depth=2.06" Flow Length=152' Tc=4.0 min CN=93 Runoff=0.40 cfs 1,200 cf
Subcatchment PR-158: PR-WS-158	Runoff Area=6,953 sf 68.78% Impervious Runoff Depth=1.97" Flow Length=127' Tc=3.8 min CN=92 Runoff=0.38 cfs 1,143 cf
Subcatchment PR-159: PR-WS-159	Runoff Area=4,186 sf 72.81% Impervious Runoff Depth=1.97" Flow Length=95' Tc=3.8 min CN=92 Runoff=0.23 cfs 688 cf
Subcatchment PR-160: PR-WS-160	Runoff Area=11,478 sf 94.39% Impervious Runoff Depth=2.46" Flow Length=156' Slope=0.0200 ' Tc=1.3 min CN=97 Runoff=0.77 cfs 2,353 cf
Subcatchment PR-161: PR-WS-161	Runoff Area=7,970 sf 81.54% Impervious Runoff Depth=2.16" Flow Length=146' Tc=3.2 min CN=94 Runoff=0.48 cfs 1,433 cf
Subcatchment PR-162: PR-WS-162	Runoff Area=7,445 sf 0.00% Impervious Runoff Depth=1.10" Flow Length=88' Slope=0.0900 ' Tc=6.3 min CN=80 Runoff=0.21 cfs 684 cf
Subcatchment PR-165: PR-WS-165	Runoff Area=11,723 sf 87.49% Impervious Runoff Depth=2.36" Flow Length=251' Tc=4.1 min CN=96 Runoff=0.73 cfs 2,301 cf
Subcatchment PR-166: PR-WS-166	Runoff Area=5,581 sf 69.88% Impervious Runoff Depth=2.06" Flow Length=163' Slope=0.0300 ' Tc=1.1 min CN=93 Runoff=0.34 cfs 960 cf
Subcatchment PR-167: PR-167	Runoff Area=5,485 sf 84.28% Impervious Runoff Depth=2.25" Flow Length=218' Slope=0.0200 ' Tc=1.7 min CN=95 Runoff=0.34 cfs 1,030 cf
Subcatchment PR-168: PR-WS-168	Runoff Area=17,098 sf 95.64% Impervious Runoff Depth=2.46" Flow Length=149' Tc=1.2 min CN=97 Runoff=1.15 cfs 3,505 cf
Subcatchment PR-169: PR-WS-169	Runoff Area=16,367 sf 97.06% Impervious Runoff Depth=2.46" Flow Length=149' Tc=1.2 min CN=97 Runoff=1.10 cfs 3,356 cf
Subcatchment PR-170: PR-WS-170	Runoff Area=3,623 sf 93.21% Impervious Runoff Depth=2.46" Flow Length=111' Slope=0.0200 ' Tc=1.1 min CN=97 Runoff=0.25 cfs 743 cf
Subcatchment PR-171: PR-WS-171	Runoff Area=10,681 sf 89.50% Impervious Runoff Depth=2.36" Flow Length=141' Slope=0.0200 ' Tc=1.2 min CN=96 Runoff=0.70 cfs 2,097 cf
Subcatchment PR-172: PR-WS-172	Runoff Area=15,933 sf 83.27% Impervious Runoff Depth=2.16" Flow Length=252' Slope=0.0200 ' Tc=1.9 min CN=94 Runoff=0.97 cfs 2,864 cf
Subcatchment PR-173: PR-WS-173	Runoff Area=9,735 sf 69.71% Impervious Runoff Depth=2.06" Flow Length=195' Slope=0.0200 ' Tc=1.5 min CN=93 Runoff=0.58 cfs 1,674 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 10

Subcatchment PR-174: PR-WS-174	Runoff Area=1,621 sf 91.12% Impervious Runoff Depth=2.36" Flow Length=73' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.11 cfs 318 cf
Subcatchment PR-175: PR-WS-175	Runoff Area=15,020 sf 93.95% Impervious Runoff Depth=2.46" Flow Length=330' Slope=0.0300 '/' Tc=1.9 min CN=97 Runoff=0.99 cfs 3,079 cf
Subcatchment PR-176: PR-WS-176	Runoff Area=4,709 sf 57.74% Impervious Runoff Depth=1.80" Flow Length=147' Tc=1.1 min CN=90 Runoff=0.25 cfs 707 cf
Subcatchment PR-177: PR-WS-177	Runoff Area=5,356 sf 66.78% Impervious Runoff Depth=1.97" Flow Length=146' Slope=0.0300 '/' Tc=3.1 min CN=92 Runoff=0.30 cfs 881 cf
Subcatchment PR-178: PR-WS-178	Runoff Area=3,537 sf 55.41% Impervious Runoff Depth=1.64" Flow Length=95' Tc=3.0 min CN=88 Runoff=0.17 cfs 484 cf
Subcatchment PR-179: PR-WS-179	Runoff Area=5,822 sf 85.66% Impervious Runoff Depth=2.25" Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=95 Runoff=0.38 cfs 1,094 cf
Subcatchment PR-180: PR-WS-180	Runoff Area=10,571 sf 67.65% Impervious Runoff Depth=1.89" Flow Length=201' Tc=3.3 min CN=91 Runoff=0.57 cfs 1,661 cf
Subcatchment PR-181: PR-WS-181	Runoff Area=5,052 sf 72.62% Impervious Runoff Depth=2.06" Flow Length=47' Tc=3.8 min CN=93 Runoff=0.29 cfs 869 cf
Subcatchment PR-182: PR-WS-182	Runoff Area=14,289 sf 83.73% Impervious Runoff Depth=2.16" Flow Length=89' Tc=3.3 min CN=94 Runoff=0.86 cfs 2,569 cf
Subcatchment PR-183: PR-WS-183	Runoff Area=10,263 sf 82.87% Impervious Runoff Depth=2.16" Flow Length=28' Tc=2.2 min CN=94 Runoff=0.63 cfs 1,845 cf
Subcatchment PR-184: PR-WS-184	Runoff Area=836 sf 56.82% Impervious Runoff Depth=1.64" Flow Length=33' Tc=2.2 min CN=88 Runoff=0.04 cfs 114 cf
Subcatchment PR-185: PR-WS-185	Runoff Area=2,440 sf 100.00% Impervious Runoff Depth=2.57" Flow Length=72' Tc=0.8 min CN=98 Runoff=0.17 cfs 522 cf
Subcatchment PR-186: PR-WS-186	Runoff Area=4,035 sf 66.27% Impervious Runoff Depth=1.97" Flow Length=126' Tc=3.4 min CN=92 Runoff=0.23 cfs 663 cf
Subcatchment PR-187: PR-WS-187	Runoff Area=2,386 sf 81.01% Impervious Runoff Depth=2.25" Flow Length=82' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.15 cfs 448 cf
Subcatchment PR-188: PR-WS-188	Runoff Area=3,760 sf 83.16% Impervious Runoff Depth=2.25" Flow Length=88' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.24 cfs 706 cf
Subcatchment PR-189: PR-189	Runoff Area=7,399 sf 76.23% Impervious Runoff Depth=2.16" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=94 Runoff=0.46 cfs 1,330 cf
Subcatchment PR-190: PR-WS-190	Runoff Area=899 sf 57.84% Impervious Runoff Depth=1.80" Flow Length=15' Slope=0.0500 '/' Tc=2.2 min CN=90 Runoff=0.05 cfs 135 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 11

Subcatchment PR-191: PR-WS-191 Runoff Area=1,261 sf 75.02% Impervious Runoff Depth=2.16"
Flow Length=38' Slope=0.0300 '/' Tc=0.5 min CN=94 Runoff=0.08 cfs 227 cf

Subcatchment PR-192: PR-192 Runoff Area=18,907 sf 76.83% Impervious Runoff Depth=2.16"
Flow Length=331' Slope=0.0300 '/' Tc=1.9 min CN=94 Runoff=1.15 cfs 3,399 cf

Subcatchment PR-193: PR-WS-193 Runoff Area=4,533 sf 78.29% Impervious Runoff Depth=2.16"
Flow Length=109' Slope=0.0300 '/' Tc=0.9 min CN=94 Runoff=0.28 cfs 815 cf

Subcatchment PR-194: PR-WS-194 Runoff Area=3,222 sf 76.66% Impervious Runoff Depth=2.16"
Flow Length=79' Tc=1.6 min CN=94 Runoff=0.20 cfs 579 cf

Subcatchment PR-195: PR-WS-195 Runoff Area=3,145 sf 72.27% Impervious Runoff Depth=2.06"
Flow Length=74' Slope=0.0200 '/' Tc=0.8 min CN=93 Runoff=0.19 cfs 541 cf

Subcatchment PR-196: PR-WS-196 Runoff Area=2,480 sf 78.35% Impervious Runoff Depth=2.16"
Flow Length=54' Slope=0.0200 '/' Tc=0.7 min CN=94 Runoff=0.16 cfs 446 cf

Subcatchment PR-197: PR-WS-197 Runoff Area=7,513 sf 54.79% Impervious Runoff Depth=1.80"
Flow Length=173' Tc=4.6 min CN=90 Runoff=0.37 cfs 1,128 cf

Subcatchment PR-198: PR-WS-198 Runoff Area=3,451 sf 67.75% Impervious Runoff Depth=1.97"
Flow Length=120' Tc=1.1 min CN=92 Runoff=0.20 cfs 567 cf

Subcatchment PR-199: PR-WS-199 Runoff Area=19,470 sf 100.00% Impervious Runoff Depth=2.57"
Flow Length=90' Slope=0.0200 '/' Tc=0.9 min CN=98 Runoff=1.36 cfs 4,168 cf

Subcatchment PR-200: PR-WS-200 Runoff Area=4,958 sf 100.00% Impervious Runoff Depth=2.57"
Flow Length=43' Slope=0.0200 '/' Tc=0.6 min CN=98 Runoff=0.35 cfs 1,061 cf

Subcatchment PR-201: PR-WS-201 Runoff Area=17,363 sf 100.00% Impervious Runoff Depth=2.57"
Flow Length=62' Slope=0.0200 '/' Tc=0.8 min CN=98 Runoff=1.21 cfs 3,717 cf

Subcatchment PR-202: PR-WS-202 Runoff Area=41,990 sf 100.00% Impervious Runoff Depth=2.57"
Flow Length=155' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=2.87 cfs 8,990 cf

Subcatchment PR-203: PR-WS-203 Runoff Area=56,320 sf 100.00% Impervious Runoff Depth=2.57"
Flow Length=173' Slope=0.0200 '/' Tc=1.4 min CN=98 Runoff=3.83 cfs 12,058 cf

Subcatchment PR-204: PR-WS-204 Runoff Area=154,953 sf 100.00% Impervious Runoff Depth=2.57"
Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=10.59 cfs 33,175 cf

Subcatchment PR-205: PR-WS-205 Runoff Area=5,000 sf 100.00% Impervious Runoff Depth=2.57"
Flow Length=57' Slope=0.0200 '/' Tc=0.8 min CN=98 Runoff=0.35 cfs 1,070 cf

Subcatchment PR-206: PR-WS-206 Runoff Area=46,931 sf 91.70% Impervious Runoff Depth=2.36"
Flow Length=258' Tc=2.0 min CN=96 Runoff=3.04 cfs 9,212 cf

Subcatchment PR-207: PR-WS-207 Runoff Area=41,939 sf 87.69% Impervious Runoff Depth=2.25"
Flow Length=203' Slope=0.0300 '/' Tc=1.3 min CN=95 Runoff=2.67 cfs 7,879 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 12

Subcatchment PR-208: PR-WS-208	Runoff Area=34,046 sf 93.22% Impervious Runoff Depth=2.36" Flow Length=133' Tc=3.9 min CN=96 Runoff=2.14 cfs 6,683 cf
Subcatchment PR-209: PR-WS-209	Runoff Area=45,267 sf 87.02% Impervious Runoff Depth=2.25" Flow Length=226' Tc=1.7 min CN=95 Runoff=2.85 cfs 8,504 cf
Subcatchment PR-210: PR-WS-210	Runoff Area=7,297 sf 92.05% Impervious Runoff Depth=2.36" Flow Length=63' Tc=1.9 min CN=96 Runoff=0.47 cfs 1,432 cf
Subcatchment PR-211: PR-WS-211	Runoff Area=5,623 sf 61.21% Impervious Runoff Depth=1.80" Flow Length=62' Tc=3.8 min CN=90 Runoff=0.29 cfs 844 cf
Subcatchment PR-212: PR-WS-212	Runoff Area=6,331 sf 86.78% Impervious Runoff Depth=2.25" Flow Length=180' Slope=0.0200 '/' Tc=1.5 min CN=95 Runoff=0.40 cfs 1,189 cf
Subcatchment PR-213: PR-WS-213	Runoff Area=6,309 sf 46.03% Impervious Runoff Depth=1.42" Flow Length=71' Tc=6.2 min CN=85 Runoff=0.24 cfs 747 cf
Subcatchment PR-214: PR-WS-214	Runoff Area=4,362 sf 74.90% Impervious Runoff Depth=1.97" Flow Length=131' Slope=0.0200 '/' Tc=1.2 min CN=92 Runoff=0.25 cfs 717 cf
Subcatchment PR-215: PR-WS-215	Runoff Area=18,724 sf 94.18% Impervious Runoff Depth=2.46" Flow Length=190' Tc=1.4 min CN=97 Runoff=1.25 cfs 3,839 cf
Subcatchment PR-216: PR-WS-216	Runoff Area=8,340 sf 92.45% Impervious Runoff Depth=2.46" Flow Length=147' Tc=1.2 min CN=97 Runoff=0.56 cfs 1,710 cf
Subcatchment PR-217: PR-WS-217	Runoff Area=12,055 sf 90.88% Impervious Runoff Depth=2.36" Flow Length=202' Tc=1.5 min CN=96 Runoff=0.78 cfs 2,366 cf
Subcatchment PR-218: PR-WS-218	Runoff Area=9,128 sf 87.71% Impervious Runoff Depth=2.25" Flow Length=150' Tc=1.2 min CN=95 Runoff=0.58 cfs 1,715 cf
Subcatchment PR-219: PR-WS-219	Runoff Area=7,197 sf 88.56% Impervious Runoff Depth=2.25" Flow Length=150' Tc=2.8 min CN=95 Runoff=0.45 cfs 1,352 cf
Subcatchment PR-220: PR-WS-220	Runoff Area=1,912 sf 82.95% Impervious Runoff Depth=2.16" Flow Length=43' Tc=1.9 min CN=94 Runoff=0.12 cfs 344 cf
Subcatchment PR-221: PR-WS-221	Runoff Area=17,250 sf 75.14% Impervious Runoff Depth=1.97" Flow Length=102' Tc=0.9 min CN=92 Runoff=1.01 cfs 2,836 cf
Subcatchment PR-222: PR-WS-222	Runoff Area=5,297 sf 100.00% Impervious Runoff Depth=2.57" Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=98 Runoff=0.37 cfs 1,134 cf
Subcatchment PR-223: PR-WS-223	Runoff Area=3,545 sf 52.67% Impervious Runoff Depth=1.57" Flow Length=47' Tc=4.8 min CN=87 Runoff=0.15 cfs 463 cf
Subcatchment PR-224: PR-WS-224	Runoff Area=2,359 sf 85.50% Impervious Runoff Depth=2.25" Flow Length=70' Slope=0.0200 '/' Tc=0.8 min CN=95 Runoff=0.15 cfs 443 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 13

Subcatchment PR-225: PR-WS-225	Runoff Area=1,992 sf 76.61% Impervious Runoff Depth=2.06" Flow Length=62' Tc=1.7 min CN=93 Runoff=0.12 cfs 343 cf
Subcatchment PR-226: PR-WS-226	Runoff Area=2,627 sf 81.35% Impervious Runoff Depth=2.16" Flow Length=84' Slope=0.0200 '/' Tc=0.9 min CN=94 Runoff=0.16 cfs 472 cf
Subcatchment PR-227: PR-WS-227	Runoff Area=5,153 sf 92.16% Impervious Runoff Depth=2.46" Flow Length=76' Slope=0.0200 '/' Tc=0.9 min CN=97 Runoff=0.35 cfs 1,056 cf
Subcatchment PR-228: PR-WS-228	Runoff Area=8,230 sf 81.12% Impervious Runoff Depth=2.16" Flow Length=94' Tc=2.5 min CN=94 Runoff=0.50 cfs 1,479 cf
Subcatchment PR-229: PR-WS-229	Runoff Area=7,929 sf 47.80% Impervious Runoff Depth=1.57" Flow Length=276' Tc=5.4 min CN=87 Runoff=0.33 cfs 1,035 cf
Subcatchment PR-230: PR-WS-230	Runoff Area=7,477 sf 54.31% Impervious Runoff Depth=1.64" Flow Length=284' Slope=0.0200 '/' Tc=2.1 min CN=88 Runoff=0.36 cfs 1,023 cf
Subcatchment PR-231: PR-WS-231	Runoff Area=939 sf 78.70% Impervious Runoff Depth=2.16" Flow Length=66' Slope=0.0200 '/' Tc=0.8 min CN=94 Runoff=0.06 cfs 169 cf
Subcatchment PR-232: PR-WS-232	Runoff Area=1,737 sf 35.87% Impervious Runoff Depth=1.35" Flow Length=112' Tc=4.5 min CN=84 Runoff=0.06 cfs 196 cf
Subcatchment PR-233: PR-WS-233	Runoff Area=6,441 sf 79.43% Impervious Runoff Depth=2.16" Flow Length=212' Slope=0.0200 '/' Tc=1.6 min CN=94 Runoff=0.39 cfs 1,158 cf
Subcatchment PR-234: PR-WS-234	Runoff Area=4,885 sf 82.25% Impervious Runoff Depth=2.16" Flow Length=138' Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.30 cfs 878 cf
Subcatchment PR-235: PR-WS-235	Runoff Area=3,350 sf 83.94% Impervious Runoff Depth=2.25" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.22 cfs 629 cf
Subcatchment PR-236: PR-WS-236	Runoff Area=4,700 sf 84.53% Impervious Runoff Depth=2.25" Flow Length=160' Slope=0.0200 '/' Tc=1.3 min CN=95 Runoff=0.30 cfs 883 cf
Subcatchment PR-237: PR-WS-237	Runoff Area=3,951 sf 78.89% Impervious Runoff Depth=2.16" Flow Length=146' Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.24 cfs 710 cf
Subcatchment PR-238: PR-WS-238	Runoff Area=3,671 sf 81.12% Impervious Runoff Depth=2.16" Flow Length=146' Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.23 cfs 660 cf
Subcatchment PR-239: PR-WS-239	Runoff Area=19,256 sf 91.62% Impervious Runoff Depth=2.36" Flow Length=89' Tc=2.6 min CN=96 Runoff=1.25 cfs 3,780 cf
Subcatchment PR-240: PR-WS-240	Runoff Area=19,732 sf 91.24% Impervious Runoff Depth=2.36" Flow Length=89' Tc=2.6 min CN=96 Runoff=1.28 cfs 3,873 cf
Subcatchment PR-241: PR-WS-241	Runoff Area=9,283 sf 97.71% Impervious Runoff Depth=2.57" Flow Length=76' Slope=0.0300 '/' Tc=0.7 min CN=98 Runoff=0.65 cfs 1,987 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 14

Subcatchment PR-242: PR-WS-242	Runoff Area=13,884 sf 95.45% Impervious Runoff Depth=2.46" Flow Length=145' Tc=2.5 min CN=97 Runoff=0.92 cfs 2,847 cf
Subcatchment PR-243: PR-WS-243	Runoff Area=7,454 sf 61.20% Impervious Runoff Depth=1.72" Flow Length=59' Tc=3.8 min CN=89 Runoff=0.36 cfs 1,068 cf
Subcatchment PR-244: PR-WS-244	Runoff Area=7,605 sf 97.20% Impervious Runoff Depth=2.46" Flow Length=96' Tc=2.2 min CN=97 Runoff=0.50 cfs 1,559 cf
Subcatchment PR-245: PR-WS-245	Runoff Area=689 sf 89.55% Impervious Runoff Depth=2.36" Flow Length=54' Slope=0.0200 '/' Tc=0.7 min CN=96 Runoff=0.05 cfs 135 cf
Subcatchment PR-246: PR-WS-246	Runoff Area=1,614 sf 90.58% Impervious Runoff Depth=2.36" Flow Length=66' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.11 cfs 317 cf
Subcatchment PR-247: PR-WS-247	Runoff Area=36,063 sf 0.00% Impervious Runoff Depth=1.16" Flow Length=452' Slope=0.0200 '/' Tc=15.0 min CN=81 Runoff=0.83 cfs 3,491 cf
Subcatchment PR-248: PR-WS-248	Runoff Area=37,567 sf 72.89% Impervious Runoff Depth=1.89" Flow Length=160' Tc=1.3 min CN=91 Runoff=2.07 cfs 5,903 cf
Subcatchment PR-249: PR-WS-249	Runoff Area=98,177 sf 45.05% Impervious Runoff Depth=1.64" Flow Length=351' Tc=5.9 min CN=88 Runoff=4.26 cfs 13,430 cf
Subcatchment PR-250: PR-WS-250	Runoff Area=153,797 sf 100.00% Impervious Runoff Depth=2.57" Flow Length=272' Slope=0.0200 '/' Tc=2.0 min CN=98 Runoff=10.38 cfs 32,927 cf
Subcatchment PR-251: PR-WS-251	Runoff Area=38,613 sf 100.00% Impervious Runoff Depth=2.57" Flow Length=145' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=2.64 cfs 8,267 cf
Subcatchment PR-252: PR-WS-252	Runoff Area=64,918 sf 65.62% Impervious Runoff Depth=1.80" Flow Length=152' Tc=2.5 min CN=90 Runoff=3.42 cfs 9,745 cf
Subcatchment PR-253: PR-WS-253	Runoff Area=35,545 sf 27.56% Impervious Runoff Depth=1.42" Flow Length=288' Slope=0.0500 '/' Tc=8.7 min CN=85 Runoff=1.21 cfs 4,211 cf
Subcatchment PR-254: PR-WS-254	Runoff Area=14,981 sf 0.00% Impervious Runoff Depth=0.78" Flow Length=20' Slope=0.3300 '/' Tc=1.3 min CN=74 Runoff=0.32 cfs 979 cf
Subcatchment PR-255: PR-WS-255	Runoff Area=6,776 sf 0.00% Impervious Runoff Depth=1.10" Flow Length=21' Slope=0.2500 '/' Tc=1.5 min CN=80 Runoff=0.22 cfs 622 cf
Subcatchment PR-256: PR-WS-256	Runoff Area=6,540 sf 0.00% Impervious Runoff Depth=0.99" Flow Length=28' Slope=0.3000 '/' Tc=1.7 min CN=78 Runoff=0.19 cfs 539 cf
Subcatchment PR-257: PR-WS-257	Runoff Area=2,263 sf 91.21% Impervious Runoff Depth=2.36" Flow Length=64' Tc=1.6 min CN=96 Runoff=0.15 cfs 444 cf
Subcatchment PR-258: PR-WS-258	Runoff Area=5,144 sf 79.92% Impervious Runoff Depth=2.06" Flow Length=52' Tc=3.0 min CN=93 Runoff=0.30 cfs 884 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 15

Subcatchment PR-259: PR-WS-259Runoff Area=4,466 sf 61.78% Impervious Runoff Depth=1.72"
Flow Length=124' Tc=2.0 min CN=89 Runoff=0.23 cfs 640 cf**Subcatchment PR-260: PR-WS-260**Runoff Area=625 sf 94.56% Impervious Runoff Depth=2.46"
Flow Length=29' Tc=1.1 min CN=97 Runoff=0.04 cfs 128 cf**Subcatchment PR-261: PR-WS-261**Runoff Area=2,208 sf 82.11% Impervious Runoff Depth=2.16"
Flow Length=139' Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.14 cfs 397 cf**Subcatchment PR-262: PR-WS-262**Runoff Area=37,086 sf 83.27% Impervious Runoff Depth=2.16"
Flow Length=199' Tc=1.5 min CN=94 Runoff=2.27 cfs 6,667 cf**Subcatchment PR-263: PR-WS-263**Runoff Area=2,613 sf 85.27% Impervious Runoff Depth=2.25"
Flow Length=121' Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.17 cfs 491 cf**Subcatchment PR-266: PR-WS-266**Runoff Area=29,645 sf 60.48% Impervious Runoff Depth=1.89"
Flow Length=80' Slope=0.0200 '/' Tc=0.9 min CN=91 Runoff=1.67 cfs 4,658 cf**Subcatchment PR-267: PR-WS-267**Runoff Area=4,744 sf 0.00% Impervious Runoff Depth=0.78"
Flow Length=15' Slope=0.3300 '/' Tc=1.0 min CN=74 Runoff=0.10 cfs 310 cf**Subcatchment PR-268: PR-WS-268**Runoff Area=764 sf 81.54% Impervious Runoff Depth=2.16"
Flow Length=43' Slope=0.0200 '/' Tc=0.6 min CN=94 Runoff=0.05 cfs 137 cf**Reach 1R: 60" RCP Culvert**Avg. Flow Depth=0.51' Max Vel=4.44 fps Inflow=4.64 cfs 21,369 cf
60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=4.61 cfs 21,369 cf**Reach 2R: Small Stream**Avg. Flow Depth=0.52' Max Vel=1.69 fps Inflow=6.35 cfs 29,375 cf
n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=6.27 cfs 29,375 cf**Reach 3R: Small Stream**Avg. Flow Depth=1.51' Max Vel=2.97 fps Inflow=81.72 cfs 613,650 cf
n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=81.44 cfs 613,649 cf**Reach 4R: Arch Culvert**Avg. Flow Depth=0.51' Max Vel=9.53 fps Inflow=82.95 cfs 646,864 cf
204.0" x 80.0", R=240.0" Arch Pipe n=0.011 L=50.3' S=0.0131 '/' Capacity=2,796.75 cfs Outflow=82.94 cfs 646,864 cf**Reach 5R: Small Stream**Avg. Flow Depth=22.17' Max Vel=1.22 fps Inflow=84.49 cfs 696,449 cf
n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=80.47 cfs 696,445 cf**Reach 6R: Small Stream**Avg. Flow Depth=27.85' Max Vel=0.74 fps Inflow=83.09 cfs 746,689 cf
n=0.040 L=245.0' S=0.0021 '/' Capacity=0.34 cfs Outflow=81.65 cfs 746,687 cf**Reach 7R: Small Stream**Avg. Flow Depth=14.67' Max Vel=2.26 fps Inflow=83.17 cfs 942,843 cf
n=0.040 L=630.0' S=0.0272 '/' Capacity=0.53 cfs Outflow=82.14 cfs 942,527 cf**Reach 8R: 30" RCP Storm Sewer**Avg. Flow Depth=1.19' Max Vel=8.44 fps Inflow=19.66 cfs 100,240 cf
30.0" Round Pipe n=0.012 L=857.0' S=0.0091 '/' Capacity=42.42 cfs Outflow=19.21 cfs 100,240 cf**Reach 9R: P-352**Avg. Flow Depth=0.65' Max Vel=4.66 fps Inflow=5.33 cfs 192,507 cf
36.0" Round Pipe n=0.012 L=358.0' S=0.0050 '/' Capacity=51.24 cfs Outflow=5.10 cfs 192,400 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 16

Reach 10R: 48" RCP Storm Sewer	Avg. Flow Depth=0.91'	Max Vel=8.95 fps	Inflow=19.21 cfs	100,240 cf
48.0" Round Pipe n=0.011 L=364.0' S=0.0100 '/'	Capacity=169.76 cfs	Outflow=19.00 cfs	100,240 cf	
Reach 11R: 60" Arch culvert	Avg. Flow Depth=1.23'	Max Vel=5.42 fps	Inflow=20.31 cfs	106,815 cf
60.0" Round Pipe n=0.022 L=54.0' S=0.0100 '/'	Capacity=153.90 cfs	Outflow=20.25 cfs	106,815 cf	
Reach 12R: Roadside Ditch	Avg. Flow Depth=1.22'	Max Vel=2.96 fps	Inflow=20.25 cfs	106,815 cf
n=0.030 L=321.0' S=0.0050 '/'	Capacity=243.58 cfs	Outflow=19.80 cfs	106,815 cf	
Reach 13R: 54" RCP Culvert	Avg. Flow Depth=0.66'	Max Vel=13.71 fps	Inflow=19.80 cfs	106,815 cf
54.0" Round Pipe n=0.011 L=111.0' S=0.0342 '/'	Capacity=430.00 cfs	Outflow=19.71 cfs	106,815 cf	
Reach 14R: Roadside ditch	Avg. Flow Depth=0.82'	Max Vel=3.18 fps	Inflow=19.71 cfs	106,815 cf
n=0.030 L=225.0' S=0.0094 '/'	Capacity=591.21 cfs	Outflow=19.46 cfs	106,815 cf	
Reach 15R: 54" RCP Culvert	Avg. Flow Depth=2.15'	Max Vel=10.31 fps	Inflow=77.63 cfs	577,227 cf
54.0" Round Pipe n=0.011 L=290.0' S=0.0052 '/'	Capacity=167.14 cfs	Outflow=77.52 cfs	577,227 cf	
Reach 16R: Culvert to Stream	Avg. Flow Depth=14.02'	Max Vel=1.86 fps	Inflow=77.52 cfs	577,227 cf
n=0.040 L=51.0' S=0.0137 '/'	Capacity=0.65 cfs	Outflow=77.41 cfs	577,227 cf	
Reach 17R: DITCH	Avg. Flow Depth=0.49'	Max Vel=1.02 fps	Inflow=2.05 cfs	8,005 cf
n=0.030 L=442.0' S=0.0018 '/'	Capacity=190.53 cfs	Outflow=1.74 cfs	8,005 cf	
Reach 18R: P-351	Avg. Flow Depth=0.63'	Max Vel=4.73 fps	Inflow=5.10 cfs	192,400 cf
36.0" Round Pipe n=0.012 L=93.0' S=0.0054 '/'	Capacity=52.98 cfs	Outflow=5.04 cfs	192,373 cf	
Reach 20R: CULVERT	Avg. Flow Depth=0.51'	Max Vel=2.74 fps	Inflow=1.75 cfs	6,747 cf
24.0" Round Pipe n=0.012 L=82.0' S=0.0024 '/'	Capacity=12.10 cfs	Outflow=1.73 cfs	6,747 cf	
Reach 21R: Culvert under railroad	Avg. Flow Depth=0.66'	Max Vel=4.68 fps	Inflow=5.43 cfs	192,537 cf
36.0" Round Pipe n=0.012 L=101.0' S=0.0050 '/'	Capacity=50.84 cfs	Outflow=5.33 cfs	192,507 cf	
Reach 22R: Small Stream	Avg. Flow Depth=1.71'	Max Vel=1.10 fps	Inflow=11.96 cfs	37,586 cf
n=0.040 L=419.0' S=0.0050 '/'	Capacity=0.66 cfs	Outflow=8.89 cfs	37,586 cf	
Reach 23R: CB to Street	Avg. Flow Depth=1.27'	Max Vel=5.56 fps	Inflow=12.47 cfs	36,507 cf
24.0" Round Pipe n=0.013 L=761.0' S=0.0050 '/'	Capacity=16.01 cfs	Outflow=11.25 cfs	36,507 cf	
Reach 24R: 30" RCP Storm Sewer?	Avg. Flow Depth=0.85'	Max Vel=8.20 fps	Inflow=12.37 cfs	41,660 cf
30.0" Round Pipe n=0.011 L=810.0' S=0.0100 '/'	Capacity=48.47 cfs	Outflow=11.67 cfs	41,660 cf	
Reach 26R: EX. DRAIN	Avg. Flow Depth=0.45'	Max Vel=5.30 fps	Inflow=1.81 cfs	6,575 cf
12.0" Round Pipe n=0.012 L=91.0' S=0.0130 '/'	Capacity=4.40 cfs	Outflow=1.79 cfs	6,575 cf	
Reach 27R: (new Reach)	Avg. Flow Depth=0.28'	Max Vel=2.80 fps	Inflow=0.50 cfs	1,465 cf
12.0" Round Pipe n=0.012 L=171.0' S=0.0059 '/'	Capacity=2.97 cfs	Outflow=0.47 cfs	1,465 cf	
Reach 28R: (new Reach)	Avg. Flow Depth=0.38'	Max Vel=2.50 fps	Inflow=0.69 cfs	2,171 cf
12.0" Round Pipe n=0.012 L=201.0' S=0.0034 '/'	Capacity=2.24 cfs	Outflow=0.64 cfs	2,171 cf	

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 17

Reach 29R: (new Reach)	Avg. Flow Depth=0.48'	Max Vel=3.43 fps	Inflow=1.30 cfs	4,473 cf
12.0" Round Pipe n=0.012 L=207.0' S=0.0050 '/	Capacity=2.74 cfs	Outflow=1.25 cfs	4,473 cf	
Reach 30R: EX. DRAIN	Avg. Flow Depth=0.21'	Max Vel=8.72 fps	Inflow=1.02 cfs	3,385 cf
12.0" Round Pipe n=0.012 L=52.0' S=0.0806 '/	Capacity=10.96 cfs	Outflow=1.01 cfs	3,385 cf	
Reach 31R: (new Reach)	Avg. Flow Depth=0.46'	Max Vel=6.52 fps	Inflow=2.32 cfs	16,078 cf
12.0" Round Pipe n=0.012 L=50.0' S=0.0188 '/	Capacity=5.29 cfs	Outflow=2.32 cfs	16,078 cf	
Reach 32R: (new Reach)	Avg. Flow Depth=0.59'	Max Vel=4.81 fps	Inflow=2.33 cfs	16,078 cf
12.0" Round Pipe n=0.012 L=237.0' S=0.0084 '/	Capacity=3.54 cfs	Outflow=2.32 cfs	16,078 cf	
Reach 33R: P-221	Avg. Flow Depth=0.63'	Max Vel=4.51 fps	Inflow=3.81 cfs	13,563 cf
24.0" Round Pipe n=0.012 L=65.0' S=0.0054 '/	Capacity=17.98 cfs	Outflow=3.76 cfs	13,563 cf	
Reach 34R: P-308	Avg. Flow Depth=0.66'	Max Vel=5.26 fps	Inflow=4.73 cfs	15,187 cf
24.0" Round Pipe n=0.012 L=22.0' S=0.0068 '/	Capacity=20.24 cfs	Outflow=4.73 cfs	15,187 cf	
Reach 35R: (new Reach)	Avg. Flow Depth=0.47'	Max Vel=10.85 fps	Inflow=6.87 cfs	38,029 cf
30.0" Round Pipe n=0.012 L=15.0' S=0.0413 '/	Capacity=90.34 cfs	Outflow=6.86 cfs	38,029 cf	
Reach P-216: P-216	Avg. Flow Depth=0.57'	Max Vel=5.13 fps	Inflow=3.14 cfs	9,580 cf
18.0" Round Pipe n=0.012 L=12.0' S=0.0083 '/	Capacity=10.39 cfs	Outflow=3.13 cfs	9,580 cf	
Reach P-223: P-223	Avg. Flow Depth=0.48'	Max Vel=5.05 fps	Inflow=2.21 cfs	10,743 cf
15.0" Round Pipe n=0.012 L=120.0' S=0.0100 '/	Capacity=7.00 cfs	Outflow=2.16 cfs	10,743 cf	
Reach P-234: P-234	Avg. Flow Depth=0.59'	Max Vel=5.82 fps	Inflow=3.81 cfs	11,742 cf
18.0" Round Pipe n=0.012 L=79.0' S=0.0101 '/	Capacity=11.45 cfs	Outflow=3.74 cfs	11,742 cf	
Reach P-240: P-240	Avg. Flow Depth=0.72'	Max Vel=5.10 fps	Inflow=5.21 cfs	16,275 cf
24.0" Round Pipe n=0.012 L=17.0' S=0.0059 '/	Capacity=18.80 cfs	Outflow=5.25 cfs	16,275 cf	
Reach P-306: P-306	Avg. Flow Depth=0.67'	Max Vel=6.11 fps	Inflow=4.63 cfs	17,554 cf
18.0" Round Pipe n=0.012 L=25.0' S=0.0100 '/	Capacity=11.38 cfs	Outflow=4.61 cfs	17,554 cf	
Pond 1P: BIORETENTION#4 - GRAVELS	Peak Elev=72.97'	Storage=368 cf	Inflow=2.28 cfs	10,508 cf
			Outflow=1.90 cfs	10,508 cf
Pond 2P: BIORETENTION#5 - GRAVELS	Peak Elev=72.69'	Storage=43 cf	Inflow=0.13 cfs	3,602 cf
			Outflow=0.12 cfs	3,602 cf
Pond 3P: BIORETENTION#3 - GRAVELS	Peak Elev=74.04'	Storage=334 cf	Inflow=0.11 cfs	3,166 cf
			Outflow=0.11 cfs	2,887 cf
Pond 4P: DMH ???	Peak Elev=67.52'	Storage=0 cf	Inflow=1.58 cfs	11,799 cf
18.0" Round Culvert n=0.012 L=92.0' S=0.0103 '/			Outflow=1.58 cfs	11,799 cf
Pond 5P: BIO #25 - GRAVELS	Peak Elev=63.66'	Storage=89 cf	Inflow=0.12 cfs	4,333 cf
			Outflow=0.12 cfs	4,333 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 18

Pond 34P: BIORETENTION#2 - GRAVELS	Peak Elev=73.15' Storage=30 cf Inflow=2.48 cfs 8,739 cf Outflow=2.51 cfs 8,739 cf
Pond 1107P: QUARRY	Peak Elev=62.85' Storage=2,314,414 cf Inflow=102.34 cfs 370,612 cf Outflow=1.18 cfs 174,782 cf
Pond 2579: EX. CB 2579	Peak Elev=66.27' Storage=14 cf Inflow=6.87 cfs 38,029 cf 30.0" Round Culvert n=0.012 L=53.0' S=0.0098 ' Inflow=6.87 cfs 38,029 cf
Pond 2723: EX. CB 2723	Inflow=0.74 cfs 2,301 cf Primary=0.74 cfs 2,301 cf
Pond BIO #1: BIORETENTION#1	Peak Elev=71.43' Storage=6,648 cf Inflow=9.37 cfs 32,508 cf Outflow=8.11 cfs 32,304 cf
Pond BIO #11: BIORETENTION#11	Peak Elev=70.20' Storage=3,381 cf Inflow=7.42 cfs 23,034 cf Outflow=7.25 cfs 22,871 cf
Pond BIO #15: BIORETENTION#15	Peak Elev=71.28' Storage=3,067 cf Inflow=2.96 cfs 8,773 cf Outflow=0.63 cfs 8,460 cf
Pond BIO #16: BIORETENTION#16	Peak Elev=69.27' Storage=13,979 cf Inflow=7.26 cfs 23,630 cf Outflow=0.54 cfs 18,115 cf
Pond BIO #17: BIORETENTION#17	Peak Elev=62.79' Storage=4,402 cf Inflow=0.90 cfs 2,702 cf Outflow=0.27 cfs 2,697 cf
Pond BIO #18: BIORETENTION#18	Peak Elev=61.60' Storage=1,659 cf Inflow=2.07 cfs 5,903 cf Outflow=0.60 cfs 5,783 cf
Pond BIO #19: BIORETENTION#19	Peak Elev=64.09' Storage=6,579 cf Inflow=5.95 cfs 18,012 cf Outflow=1.45 cfs 17,652 cf
Pond BIO #2: BIORETENTION#2 SWALE	Peak Elev=77.79' Storage=92 cf Inflow=0.70 cfs 2,076 cf Primary=0.65 cfs 841 cf Secondary=0.05 cfs 1,234 cf Outflow=0.70 cfs 2,076 cf
Pond BIO #20: BIORETENTION#20	Peak Elev=62.40' Storage=4,721 cf Inflow=3.41 cfs 14,884 cf Outflow=0.70 cfs 14,553 cf
Pond BIO #21: BIORETENTION#21	Peak Elev=64.46' Storage=22,328 cf Inflow=9.09 cfs 30,583 cf Outflow=0.32 cfs 14,081 cf
Pond BIO #22A: BIO #22 - SWALE	Peak Elev=66.24' Storage=205 cf Inflow=3.04 cfs 9,212 cf Primary=2.95 cfs 5,373 cf Secondary=0.10 cfs 3,839 cf Outflow=3.05 cfs 9,212 cf
Pond BIO #22B: BIO #22 - GRAVELS	Peak Elev=62.18' Storage=1,009 cf Inflow=2.86 cfs 12,181 cf Outflow=1.84 cfs 12,181 cf
Pond BIO #23A: BIO #23 - SWALE	Peak Elev=66.72' Storage=149 cf Inflow=2.78 cfs 8,342 cf Primary=2.68 cfs 5,154 cf Secondary=0.09 cfs 3,188 cf Outflow=2.77 cfs 8,342 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 19

Pond BIO #23B: BIO #23 - GRAVELS	Peak Elev=62.64'	Storage=85 cf	Inflow=0.09 cfs	3,188 cf	Outflow=0.08 cfs	3,188 cf
Pond BIO #25: BIO #25 - SWALE	Peak Elev=67.73'	Storage=151 cf	Inflow=2.85 cfs	8,504 cf	Primary=2.74 cfs	4,172 cf Secondary=0.12 cfs
					4,333 cf	Outflow=2.86 cfs
						8,504 cf
Pond BIO #26: BIORETENTION#26	Peak Elev=61.02'	Storage=1,766 cf	Inflow=1.52 cfs	4,734 cf	Outflow=0.43 cfs	4,351 cf
Pond BIO #27: BIORETENTION#27	Peak Elev=63.53'	Storage=1,027 cf	Inflow=1.28 cfs	3,915 cf	Outflow=0.48 cfs	3,783 cf
Pond BIO #29: BIORETENTION#29	Peak Elev=61.95'	Storage=3,077 cf	Inflow=4.16 cfs	12,330 cf	Outflow=2.26 cfs	12,256 cf
Pond BIO #3: BIORETENTION#3 - SWALE	Peak Elev=76.66'	Storage=196 cf	Inflow=1.82 cfs	5,690 cf	Primary=1.67 cfs	2,523 cf Secondary=0.11 cfs
					3,166 cf	Outflow=1.78 cfs
						5,690 cf
Pond BIO #4: BIORETENTION#4 - SWALE	Peak Elev=76.69'	Storage=247 cf	Inflow=2.26 cfs	6,855 cf	Primary=2.09 cfs	3,055 cf Secondary=0.14 cfs
					3,800 cf	Outflow=2.23 cfs
						6,855 cf
Pond BIO #5: BIORETENTION#5 - SWALE	Peak Elev=76.68'	Storage=224 cf	Inflow=2.18 cfs	6,708 cf	Primary=2.02 cfs	3,106 cf Secondary=0.13 cfs
					3,602 cf	Outflow=2.14 cfs
						6,708 cf
Pond BIO #8: BIORETENTION#8	Peak Elev=71.44'	Storage=1,574 cf	Inflow=1.15 cfs	4,247 cf	Outflow=0.21 cfs	4,151 cf
Pond BIO#10A: BIORETENTION#10 - SWALE	Peak Elev=74.65'	Storage=223 cf	Inflow=3.80 cfs	11,742 cf	Primary=3.67 cfs	6,559 cf Secondary=0.14 cfs
					5,183 cf	Outflow=3.81 cfs
						11,742 cf
Pond BIO#10B: BIORETENTION#10 - GRAVELS	Peak Elev=71.68'	Storage=41 cf	Inflow=0.14 cfs	5,183 cf	Outflow=0.13 cfs	5,183 cf
Pond BIO#12A: BIORETENTION#12 - SWALE	Peak Elev=74.07'	Storage=208 cf	Inflow=1.07 cfs	3,183 cf	Primary=1.03 cfs	1,054 cf Secondary=0.09 cfs
					2,129 cf	Outflow=1.12 cfs
						3,183 cf
Pond BIO#12B: BIORETENTION#12 -	Peak Elev=72.43'	Storage=834 cf	Inflow=4.36 cfs	15,221 cf	Outflow=4.34 cfs	15,221 cf
Pond BIO#13A: BIORETENTION#13 - SWALE	Peak Elev=74.67'	Storage=231 cf	Inflow=4.32 cfs	13,091 cf	Primary=4.13 cfs	7,621 cf Secondary=0.14 cfs
					5,471 cf	Outflow=4.27 cfs
						13,093 cf
Pond BIO#13B: BIORETENTION#13 - GRAVELS	Peak Elev=71.68'	Storage=41 cf	Inflow=0.14 cfs	5,471 cf	Outflow=0.14 cfs	5,471 cf
Pond BIO#24A: BIO #24 - SWALE	Peak Elev=68.10'	Storage=139 cf	Inflow=2.14 cfs	6,683 cf	Primary=2.00 cfs	3,020 cf Secondary=0.11 cfs
					3,663 cf	Outflow=2.11 cfs
						6,683 cf
Pond BIO#24B: BIO #24 - GRAVELS	Peak Elev=63.02'	Storage=395 cf	Inflow=2.97 cfs	12,167 cf	Outflow=2.73 cfs	12,167 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 20

Pond BIO#28: BIORETENTION#28 Peak Elev=62.10' Storage=1,568 cf Inflow=1.83 cfs 5,560 cf
Outflow=0.61 cfs 5,372 cf

Pond BIO#6A: BIORETENTION#6 - SWALE Peak Elev=76.66' Storage=226 cf Inflow=1.85 cfs 5,525 cf
Primary=1.71 cfs 2,298 cf Secondary=0.13 cfs 3,227 cf Outflow=1.84 cfs 5,525 cf

Pond BIO#6B: BIORETENTION#6 - GRAVELS Peak Elev=72.64' Storage=1,436 cf Inflow=1.79 cfs 8,445 cf
Outflow=0.63 cfs 8,445 cf

Pond BIO#7A: BIORETENTION#7 - SWALE Peak Elev=76.65' Storage=209 cf Inflow=1.70 cfs 5,218 cf
Primary=1.55 cfs 2,149 cf Secondary=0.12 cfs 3,069 cf Outflow=1.67 cfs 5,218 cf

Pond BIO#7B: BIORETENTION#7 - GRAVELS Peak Elev=72.66' Storage=98 cf Inflow=0.12 cfs 3,069 cf
Outflow=0.11 cfs 3,069 cf

Pond BIO#9B: BIORETENTION#9 - GRAVELS Peak Elev=71.53' Storage=205 cf Inflow=3.80 cfs 11,742 cf
Outflow=3.81 cfs 11,742 cf

Pond CB 101: CB 101 Peak Elev=78.70' Storage=8 cf Inflow=1.61 cfs 4,986 cf
18.0" Round Culvert n=0.012 L=31.0' S=0.0100 ' Outflow=1.62 cfs 4,986 cf

Pond CB 102: CB 102 Peak Elev=76.07' Storage=17 cf Inflow=5.82 cfs 18,174 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0050 ' Outflow=5.80 cfs 18,174 cf

Pond CB 103: CB 103 Peak Elev=76.19' Storage=14 cf Inflow=5.07 cfs 15,798 cf
24.0" Round Culvert n=0.012 L=38.0' S=0.0053 ' Outflow=5.07 cfs 15,798 cf

Pond CB 104: CB 104 Peak Elev=74.11' Storage=11 cf Inflow=3.49 cfs 10,572 cf
24.0" Round Culvert n=0.012 L=35.0' S=0.0057 ' Outflow=3.49 cfs 10,572 cf

Pond CB 105: CB 105 Peak Elev=74.50' Storage=11 cf Inflow=2.85 cfs 8,613 cf
18.0" Round Culvert n=0.012 L=57.0' S=0.0053 ' Outflow=2.85 cfs 8,613 cf

Pond CB 106: CB 106 Peak Elev=75.90' Storage=6 cf Inflow=1.24 cfs 3,672 cf
18.0" Round Culvert n=0.012 L=60.0' S=0.0100 ' Outflow=1.24 cfs 3,672 cf

Pond CB 107: CB 107 Peak Elev=76.17' Storage=7 cf Inflow=0.80 cfs 2,319 cf
12.0" Round Culvert n=0.012 L=23.0' S=0.0065 ' Outflow=0.80 cfs 2,319 cf

Pond CB 108: CB 108 Peak Elev=76.29' Storage=2 cf Inflow=0.16 cfs 448 cf
12.0" Round Culvert n=0.012 L=44.0' S=0.0295 ' Outflow=0.16 cfs 448 cf

Pond CB 109: CB 109 Peak Elev=74.96' Storage=6 cf Inflow=0.69 cfs 2,131 cf
12.0" Round Culvert n=0.012 L=151.0' S=0.0053 ' Outflow=0.69 cfs 2,131 cf

Pond CB 110: CB 110 Peak Elev=75.26' Storage=4 cf Inflow=0.31 cfs 954 cf
12.0" Round Culvert n=0.012 L=69.0' S=0.0051 ' Outflow=0.31 cfs 954 cf

Pond CB 111: CB 111 Peak Elev=75.19' Storage=2 cf Inflow=0.12 cfs 355 cf
12.0" Round Culvert n=0.012 L=82.0' S=0.0049 ' Outflow=0.12 cfs 355 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 21

Pond CB 112: CB 112

Peak Elev=70.97' Storage=13 cf Inflow=4.41 cfs 13,803 cf
24.0" Round Culvert n=0.012 L=70.0' S=0.0050 '/' Outflow=4.41 cfs 13,803 cf

Pond CB 113: CB 113

Peak Elev=71.20' Storage=13 cf Inflow=4.28 cfs 13,350 cf
24.0" Round Culvert n=0.012 L=16.0' S=0.0063 '/' Outflow=4.28 cfs 13,350 cf

Pond CB 114: CB 114

Peak Elev=71.70' Storage=10 cf Inflow=3.54 cfs 10,972 cf
24.0" Round Culvert n=0.012 L=72.0' S=0.0090 '/' Outflow=3.54 cfs 10,972 cf

Pond CB 115: CB 115

Peak Elev=72.27' Storage=11 cf Inflow=3.41 cfs 10,528 cf
24.0" Round Culvert n=0.012 L=77.0' S=0.0052 '/' Outflow=3.41 cfs 10,528 cf

Pond CB 118: CB 118

Peak Elev=73.96' Storage=5 cf Inflow=0.65 cfs 2,094 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0089 '/' Outflow=0.65 cfs 2,094 cf

Pond CB 119: CB 119

Peak Elev=71.62' Storage=13 cf Inflow=4.55 cfs 16,167 cf
24.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=4.55 cfs 16,167 cf

Pond CB 120: CB 120

Peak Elev=71.80' Storage=13 cf Inflow=3.99 cfs 14,380 cf
24.0" Round Culvert n=0.012 L=28.0' S=0.0054 '/' Outflow=3.99 cfs 14,380 cf

Pond CB 125: CB 125

Peak Elev=67.00' Storage=33 cf Inflow=17.64 cfs 55,579 cf
24.0" Round Culvert n=0.012 L=41.0' S=0.0061 '/' Outflow=17.62 cfs 55,580 cf

Pond CB 126: CB 126

Peak Elev=72.94' Storage=9 cf Inflow=1.70 cfs 5,197 cf
12.0" Round Culvert n=0.012 L=10.0' S=0.0200 '/' Outflow=1.70 cfs 5,197 cf

Pond CB 127: CB 127

Peak Elev=69.85' Storage=5 cf Inflow=0.81 cfs 2,510 cf
18.0" Round Culvert n=0.012 L=38.0' S=0.0105 '/' Outflow=0.81 cfs 2,510 cf

Pond CB 129: CB 129

Peak Elev=70.82' Storage=5 cf Inflow=0.68 cfs 2,081 cf
12.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=0.68 cfs 2,081 cf

Pond CB 130: CB 130

Peak Elev=70.93' Storage=4 cf Inflow=0.26 cfs 796 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0057 '/' Outflow=0.26 cfs 796 cf

Pond CB 131: CB 131

Peak Elev=70.74' Storage=5 cf Inflow=0.60 cfs 1,868 cf
12.0" Round Culvert n=0.012 L=43.0' S=0.0209 '/' Outflow=0.60 cfs 1,868 cf

Pond CB 133: CB 133

Peak Elev=75.54' Storage=3 cf Inflow=0.23 cfs 680 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=0.23 cfs 680 cf

Pond CB 136: CB 136

Peak Elev=73.25' Storage=6 cf Inflow=0.74 cfs 2,217 cf
12.0" Round Culvert n=0.012 L=23.0' S=0.0109 '/' Outflow=0.74 cfs 2,217 cf

Pond CB 137: CB 137

Peak Elev=73.58' Storage=4 cf Inflow=0.42 cfs 1,274 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0100 '/' Outflow=0.42 cfs 1,274 cf

Pond CB 138: CB 138

Peak Elev=69.87' Storage=6 cf Inflow=6.60 cfs 20,340 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=6.62 cfs 20,340 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 22

Pond CB 139: CB 139	Peak Elev=70.09' Storage=5 cf Inflow=6.15 cfs 19,077 cf 24.0" Round Culvert n=0.012 L=29.0' S=0.0052 '/' Outflow=6.17 cfs 19,077 cf
Pond CB 142: CB 142	Peak Elev=67.36' Storage=5 cf Inflow=0.66 cfs 2,010 cf 12.0" Round Culvert n=0.012 L=51.0' S=0.0098 '/' Outflow=0.66 cfs 2,010 cf
Pond CB 143: CB 143	Peak Elev=68.01' Storage=3 cf Inflow=0.19 cfs 566 cf 12.0" Round Culvert n=0.012 L=78.0' S=0.0096 '/' Outflow=0.19 cfs 566 cf
Pond CB 144: CB 144	Peak Elev=68.52' Storage=0 cf Inflow=1.26 cfs 10,729 cf 18.0" Round Culvert n=0.012 L=139.0' S=0.0101 '/' Outflow=1.26 cfs 10,729 cf
Pond CB 145: CB 145	Peak Elev=69.41' Storage=0 cf Inflow=0.91 cfs 9,539 cf 18.0" Round Culvert n=0.012 L=11.0' S=0.0136 '/' Outflow=0.91 cfs 9,539 cf
Pond CB 147: CB 147	Peak Elev=71.97' Storage=6 cf Inflow=0.67 cfs 2,001 cf 12.0" Round Culvert n=0.012 L=33.0' S=0.0061 '/' Outflow=0.67 cfs 2,001 cf
Pond CB 148: CB 148	Peak Elev=71.21' Storage=0 cf Inflow=1.57 cfs 4,844 cf 12.0" Round Culvert n=0.012 L=14.0' S=0.1429 '/' Outflow=1.57 cfs 4,844 cf
Pond CB 149: CB 149	Peak Elev=71.70' Storage=0 cf Inflow=0.40 cfs 1,331 cf 12.0" Round Culvert n=0.012 L=71.0' S=0.0204 '/' Outflow=0.40 cfs 1,331 cf
Pond CB 150: CB 150	Peak Elev=72.14' Storage=5 cf Inflow=0.49 cfs 1,495 cf 12.0" Round Culvert n=0.012 L=21.0' S=0.0071 '/' Outflow=0.49 cfs 1,495 cf
Pond CB 151: CB 151	Peak Elev=72.73' Storage=3 cf Inflow=0.25 cfs 766 cf 12.0" Round Culvert n=0.012 L=120.0' S=0.0050 '/' Outflow=0.25 cfs 766 cf
Pond CB 152: CB 152	Peak Elev=73.07' Storage=2 cf Inflow=0.12 cfs 372 cf 12.0" Round Culvert n=0.012 L=32.0' S=0.0109 '/' Outflow=0.12 cfs 372 cf
Pond CB 154: CB 154	Peak Elev=67.70' Storage=9 cf Inflow=2.06 cfs 6,379 cf 15.0" Round Culvert n=0.012 L=28.0' S=0.0107 '/' Outflow=2.06 cfs 6,379 cf
Pond CB 155: CB 155	Peak Elev=67.36' Storage=1 cf Inflow=2.29 cfs 7,079 cf 15.0" Round Culvert n=0.012 L=68.0' S=0.0066 '/' Outflow=2.28 cfs 7,080 cf
Pond CB 156: CB 156	Peak Elev=67.71' Storage=0 cf Inflow=4.97 cfs 15,404 cf 24.0" Round Culvert n=0.012 L=117.0' S=0.0103 '/' Outflow=4.97 cfs 15,404 cf
Pond CB 157: CB 157	Peak Elev=67.96' Storage=0 cf Inflow=2.21 cfs 6,818 cf 18.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=2.21 cfs 6,818 cf
Pond CB 158: CB 158	Peak Elev=68.67' Storage=0 cf Inflow=1.82 cfs 5,617 cf 15.0" Round Culvert n=0.012 L=112.0' S=0.0103 '/' Outflow=1.82 cfs 5,617 cf
Pond CB 159: CB 159	Peak Elev=69.37' Storage=0 cf Inflow=1.44 cfs 4,474 cf 15.0" Round Culvert n=0.012 L=112.0' S=0.0076 '/' Outflow=1.44 cfs 4,474 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 23

Pond CB 160: CB 160

Peak Elev=70.63' Storage=2 cf Inflow=1.22 cfs 3,786 cf
15.0" Round Culvert n=0.012 L=199.0' S=0.0075 '/' Outflow=1.22 cfs 3,786 cf

Pond CB 161: CB 161

Peak Elev=71.48' Storage=2 cf Inflow=0.48 cfs 1,433 cf
12.0" Round Culvert n=0.012 L=145.0' S=0.0052 '/' Outflow=0.48 cfs 1,433 cf

Pond CB 165: CB 165

Peak Elev=71.08' Storage=13 cf Inflow=0.73 cfs 2,301 cf
12.0" Round Culvert n=0.012 L=72.0' S=0.0056 '/' Outflow=0.73 cfs 2,294 cf

Pond CB 166: CB 166

Peak Elev=72.14' Storage=2 cf Inflow=5.49 cfs 16,539 cf
24.0" Round Culvert n=0.012 L=14.0' S=0.0071 '/' Outflow=5.48 cfs 16,539 cf

Pond CB 167: CB 167

Peak Elev=72.40' Storage=1 cf Inflow=5.15 cfs 15,579 cf
24.0" Round Culvert n=0.012 L=45.0' S=0.0056 '/' Outflow=5.15 cfs 15,579 cf

Pond CB 168: CB 168

Peak Elev=73.25' Storage=6 cf Inflow=4.24 cfs 12,874 cf
18.0" Round Culvert n=0.012 L=57.0' S=0.0053 '/' Outflow=4.24 cfs 12,875 cf

Pond CB 169: CB 169

Peak Elev=73.76' Storage=3 cf Inflow=3.10 cfs 9,369 cf
18.0" Round Culvert n=0.012 L=124.0' S=0.0052 '/' Outflow=3.09 cfs 9,369 cf

Pond CB 170: CB 170

Peak Elev=74.28' Storage=0 cf Inflow=1.89 cfs 5,703 cf
18.0" Round Culvert n=0.012 L=123.0' S=0.0053 '/' Outflow=1.89 cfs 5,703 cf

Pond CB 171: CB 171

Peak Elev=74.48' Storage=0 cf Inflow=1.65 cfs 4,961 cf
18.0" Round Culvert n=0.012 L=20.0' S=0.0050 '/' Outflow=1.65 cfs 4,961 cf

Pond CB 172: CB 172

Peak Elev=75.04' Storage=4 cf Inflow=0.97 cfs 2,864 cf
12.0" Round Culvert n=0.012 L=24.0' S=0.0063 '/' Outflow=0.98 cfs 2,864 cf

Pond CB 173: CB 173

Peak Elev=72.92' Storage=0 cf Inflow=0.58 cfs 1,674 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0171 '/' Outflow=0.58 cfs 1,674 cf

Pond CB 174: CB 174

Peak Elev=74.81' Storage=10 cf Inflow=0.11 cfs 318 cf
12.0" Round Culvert n=0.012 L=76.0' S=0.0191 '/' Outflow=0.11 cfs 310 cf

Pond CB 175: CB 175

Peak Elev=69.02' Storage=1 cf Inflow=2.61 cfs 7,906 cf
18.0" Round Culvert n=0.012 L=18.0' S=0.0111 '/' Outflow=2.61 cfs 7,906 cf

Pond CB 176: CB 176

Peak Elev=69.48' Storage=2 cf Inflow=1.62 cfs 4,826 cf
18.0" Round Culvert n=0.012 L=58.0' S=0.0103 '/' Outflow=1.62 cfs 4,826 cf

Pond CB 177: CB 177

Peak Elev=71.12' Storage=0 cf Inflow=0.82 cfs 2,458 cf
12.0" Round Culvert n=0.012 L=124.0' S=0.0081 '/' Outflow=0.82 cfs 2,458 cf

Pond CB 178: CB 178

Peak Elev=71.46' Storage=0 cf Inflow=0.53 cfs 1,578 cf
12.0" Round Culvert n=0.012 L=46.0' S=0.0054 '/' Outflow=0.52 cfs 1,578 cf

Pond CB 179: CB 179

Peak Elev=72.11' Storage=0 cf Inflow=0.38 cfs 1,094 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0051 '/' Outflow=0.38 cfs 1,094 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 24

Pond CB 180: CB 180	Peak Elev=70.08' Storage=5 cf Inflow=0.57 cfs 1,661 cf 12.0" Round Culvert n=0.012 L=48.0' S=0.0052 '/' Outflow=0.57 cfs 1,661 cf
Pond CB 181: CB 181	Peak Elev=66.96' Storage=3 cf Inflow=0.29 cfs 869 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0107 '/' Outflow=0.29 cfs 869 cf
Pond CB 182: CB 182	Peak Elev=66.71' Storage=8 cf Inflow=1.97 cfs 5,919 cf 18.0" Round Culvert n=0.012 L=71.0' S=0.0056 '/' Outflow=1.97 cfs 5,919 cf
Pond CB 183: CB 183	Peak Elev=67.26' Storage=6 cf Inflow=0.83 cfs 2,482 cf 12.0" Round Culvert n=0.012 L=60.0' S=0.0100 '/' Outflow=0.83 cfs 2,482 cf
Pond CB 184: CB 184	Peak Elev=68.67' Storage=3 cf Inflow=0.21 cfs 637 cf 12.0" Round Culvert n=0.012 L=154.0' S=0.0101 '/' Outflow=0.21 cfs 637 cf
Pond CB 185: CB 185	Peak Elev=69.08' Storage=3 cf Inflow=0.17 cfs 522 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0054 '/' Outflow=0.17 cfs 522 cf
Pond CB 186: CB 186	Peak Elev=73.68' Storage=0 cf Inflow=0.74 cfs 2,301 cf 12.0" Round Culvert n=0.012 L=14.0' S=0.0171 '/' Outflow=0.74 cfs 2,301 cf
Pond CB 187: CB 187	Peak Elev=74.31' Storage=0 cf Inflow=0.20 cfs 576 cf 12.0" Round Culvert n=0.012 L=54.0' S=0.0102 '/' Outflow=0.20 cfs 576 cf
Pond CB 188: CB 188	Peak Elev=74.84' Storage=3 cf Inflow=0.24 cfs 706 cf 12.0" Round Culvert n=0.012 L=41.0' S=0.0159 '/' Outflow=0.24 cfs 706 cf
Pond CB 189: CB 189	Peak Elev=75.50' Storage=4 cf Inflow=0.50 cfs 1,465 cf 12.0" Round Culvert n=0.012 L=31.0' S=0.0065 '/' Outflow=0.50 cfs 1,465 cf
Pond CB 190: CB 190	Peak Elev=75.67' Storage=2 cf Inflow=0.05 cfs 135 cf 12.0" Round Culvert n=0.012 L=62.0' S=0.0056 '/' Outflow=0.05 cfs 135 cf
Pond CB 191: CB 191	Peak Elev=76.88' Storage=13 cf Inflow=4.86 cfs 15,020 cf 24.0" Round Culvert n=0.012 L=134.0' S=0.0052 '/' Outflow=4.85 cfs 15,020 cf
Pond CB 192: CB 192	Peak Elev=77.17' Storage=13 cf Inflow=3.44 cfs 10,624 cf 18.0" Round Culvert n=0.012 L=36.0' S=0.0056 '/' Outflow=3.43 cfs 10,624 cf
Pond CB 193: CB 193	Peak Elev=77.31' Storage=10 cf Inflow=1.69 cfs 5,111 cf 12.0" Round Culvert n=0.012 L=46.0' S=0.0054 '/' Outflow=1.69 cfs 5,111 cf
Pond CB 194: CB 194	Peak Elev=77.46' Storage=9 cf Inflow=1.41 cfs 4,297 cf 12.0" Round Culvert n=0.012 L=20.0' S=0.0050 '/' Outflow=1.40 cfs 4,297 cf
Pond CB 195: CB 195	Peak Elev=78.66' Storage=5 cf Inflow=0.66 cfs 2,114 cf 12.0" Round Culvert n=0.012 L=76.0' S=0.0099 '/' Outflow=0.66 cfs 2,114 cf
Pond CB 196: CB 196	Peak Elev=79.50' Storage=4 cf Inflow=0.49 cfs 1,574 cf 12.0" Round Culvert n=0.012 L=81.0' S=0.0099 '/' Outflow=0.49 cfs 1,574 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 25

Pond CB 197: CB 197

Peak Elev=80.35' Storage=4 cf Inflow=0.37 cfs 1,128 cf
12.0" Round Culvert n=0.012 L=81.0' S=0.0099 '/' Outflow=0.37 cfs 1,128 cf

Pond CB 198: CB 198

Peak Elev=77.97' Storage=3 cf Inflow=0.20 cfs 567 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0714 '/' Outflow=0.20 cfs 567 cf

Pond CB 199: CB 199

Peak Elev=72.56' Storage=0.000 af Inflow=0.23 cfs 640 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0058 '/' Outflow=0.23 cfs 640 cf

Pond CB 200: CB 200

Peak Elev=75.03' Storage=0.000 af Inflow=0.73 cfs 2,269 cf
12.0" Round Culvert n=0.012 L=25.0' S=0.0040 '/' Outflow=0.73 cfs 2,269 cf

Pond CB 201: CB 201

Peak Elev=74.86' Storage=0.000 af Inflow=1.27 cfs 3,861 cf
18.0" Round Culvert n=0.012 L=116.0' S=0.0052 '/' Outflow=1.27 cfs 3,861 cf

Pond CB 210: CB 210

Peak Elev=63.47' Storage=6 cf Inflow=0.79 cfs 2,763 cf
12.0" Round Culvert n=0.012 L=29.0' S=0.0103 '/' Outflow=0.79 cfs 2,763 cf

Pond CB 211: CB 211

Peak Elev=64.71' Storage=3 cf Inflow=0.29 cfs 844 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=0.29 cfs 844 cf

Pond CB 212: CB 212

Peak Elev=64.38' Storage=5 cf Inflow=0.67 cfs 2,033 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.67 cfs 2,033 cf

Pond CB 213: CB 213

Peak Elev=64.96' Storage=3 cf Inflow=0.24 cfs 747 cf
12.0" Round Culvert n=0.012 L=52.0' S=0.0058 '/' Outflow=0.24 cfs 747 cf

Pond CB 214: CB 214

Peak Elev=64.67' Storage=5 cf Inflow=0.43 cfs 1,465 cf
12.0" Round Culvert n=0.012 L=80.0' S=0.0050 '/' Outflow=0.43 cfs 1,465 cf

Pond CB 215: CB 215

Peak Elev=64.83' Storage=10 cf Inflow=1.81 cfs 5,549 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0056 '/' Outflow=1.81 cfs 5,549 cf

Pond CB 216: CB 216

Peak Elev=65.57' Storage=5 cf Inflow=0.56 cfs 1,710 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0051 '/' Outflow=0.56 cfs 1,710 cf

Pond CB 217: CB 217

Peak Elev=63.00' Storage=9 cf Inflow=1.42 cfs 4,424 cf
12.0" Round Culvert n=0.012 L=183.0' S=0.0052 '/' Outflow=1.42 cfs 4,424 cf

Pond CB 218: CB 218

Peak Elev=63.90' Storage=5 cf Inflow=0.58 cfs 1,715 cf
12.0" Round Culvert n=0.012 L=112.0' S=0.0067 '/' Outflow=0.58 cfs 1,715 cf

Pond CB 219: CB 219

Peak Elev=61.45' Storage=9 cf Inflow=1.90 cfs 5,664 cf
15.0" Round Culvert n=0.012 L=91.0' S=0.0055 '/' Outflow=1.90 cfs 5,664 cf

Pond CB 220: CB 220

Peak Elev=62.10' Storage=8 cf Inflow=1.49 cfs 4,312 cf
15.0" Round Culvert n=0.012 L=129.0' S=0.0050 '/' Outflow=1.48 cfs 4,312 cf

Pond CB 221: CB 221

Peak Elev=63.82' Storage=7 cf Inflow=1.01 cfs 2,836 cf
12.0" Round Culvert n=0.012 L=137.0' S=0.0117 '/' Outflow=1.01 cfs 2,836 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 26

Pond CB 222: CB 222	Peak Elev=62.29' Storage=6 cf Inflow=0.37 cfs 1,134 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.37 cfs 1,132 cf
Pond CB 223: CB 223	Peak Elev=66.11' Storage=8 cf Inflow=2.12 cfs 24,034 cf 24.0" Round Culvert n=0.012 L=18.0' S=0.0167 '/' Outflow=2.12 cfs 24,034 cf
Pond CB 224: CB 224	Peak Elev=65.67' Storage=4 cf Inflow=0.43 cfs 1,265 cf 12.0" Round Culvert n=0.012 L=28.0' S=0.0100 '/' Outflow=0.43 cfs 1,265 cf
Pond CB 226: CB 226	Peak Elev=64.10' Storage=2 cf Inflow=0.16 cfs 472 cf 12.0" Round Culvert n=0.012 L=79.0' S=0.0101 '/' Outflow=0.16 cfs 472 cf
Pond CB 229: CB 229	Peak Elev=62.98' Storage=6 cf Inflow=0.67 cfs 2,057 cf 12.0" Round Culvert n=0.012 L=13.0' S=0.0077 '/' Outflow=0.67 cfs 2,057 cf
Pond CB 230: CB 230	Peak Elev=63.10' Storage=4 cf Inflow=0.36 cfs 1,023 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=0.36 cfs 1,023 cf
Pond CB 231: CB 231	Peak Elev=61.23' Storage=6 cf Inflow=0.69 cfs 2,080 cf 12.0" Round Culvert n=0.012 L=25.0' S=0.0060 '/' Outflow=0.69 cfs 2,080 cf
Pond CB 232: CB 232	Peak Elev=61.47' Storage=6 cf Inflow=0.63 cfs 1,911 cf 12.0" Round Culvert n=0.012 L=28.0' S=0.0054 '/' Outflow=0.63 cfs 1,911 cf
Pond CB 233: CB 233	Peak Elev=63.34' Storage=2 cf Inflow=0.15 cfs 463 cf 12.0" Round Culvert n=0.012 L=39.0' S=0.0141 '/' Outflow=0.15 cfs 463 cf
Pond CB 235: CB 235	Peak Elev=61.72' Storage=5 cf Inflow=0.51 cfs 1,512 cf 12.0" Round Culvert n=0.012 L=37.0' S=0.0095 '/' Outflow=0.51 cfs 1,512 cf
Pond CB 236: CB 236	Peak Elev=62.02' Storage=3 cf Inflow=0.30 cfs 883 cf 12.0" Round Culvert n=0.012 L=28.0' S=0.0107 '/' Outflow=0.30 cfs 883 cf
Pond CB 237: CB 237	Peak Elev=63.44' Storage=4 cf Inflow=0.47 cfs 1,370 cf 12.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=0.47 cfs 1,370 cf
Pond CB 238: CB 238	Peak Elev=63.88' Storage=3 cf Inflow=0.23 cfs 660 cf 12.0" Round Culvert n=0.012 L=44.0' S=0.0102 '/' Outflow=0.23 cfs 660 cf
Pond CB 239: CB 239	Peak Elev=61.10' Storage=8 cf Inflow=1.25 cfs 3,780 cf 12.0" Round Culvert n=0.012 L=32.0' S=0.0109 '/' Outflow=1.25 cfs 3,780 cf
Pond CB 241: CB 241	Peak Elev=62.01' Storage=8 cf Inflow=1.12 cfs 3,547 cf 12.0" Round Culvert n=0.012 L=180.0' S=0.0050 '/' Outflow=1.12 cfs 3,547 cf
Pond CB 244: CB 244	Peak Elev=62.49' Storage=5 cf Inflow=0.50 cfs 1,559 cf 12.0" Round Culvert n=0.012 L=8.0' S=0.0125 '/' Outflow=0.51 cfs 1,559 cf
Pond CB 245: CB 245	Peak Elev=62.30' Storage=1 cf Inflow=0.05 cfs 135 cf 12.0" Round Culvert n=0.012 L=33.0' S=0.0106 '/' Outflow=0.05 cfs 135 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 27

Pond CB 248: CB 248

Peak Elev=65.16' Storage=6 cf Inflow=5.53 cfs 17,066 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=5.53 cfs 17,066 cf

Pond CB 249: CB 249

Peak Elev=74.80' Storage=0.000 af Inflow=0.04 cfs 128 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0103 '/' Outflow=0.04 cfs 128 cf

Pond CB 252: CB 252

Peak Elev=69.87' Storage=9 cf Inflow=1.37 cfs 4,221 cf
12.0" Round Culvert n=0.012 L=38.0' S=0.0053 '/' Outflow=1.37 cfs 4,221 cf

Pond CB 253: CB 253

Peak Elev=70.13' Storage=8 cf Inflow=1.22 cfs 3,731 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=1.22 cfs 3,731 cf

Pond DMH 508: DMH 508

Peak Elev=60.99' Storage=17 cf Inflow=10.13 cfs 49,585 cf
36.0" Round Culvert n=0.012 L=127.0' S=0.0051 '/' Outflow=10.13 cfs 49,585 cf

Pond DMH 509: DMH 509

Peak Elev=61.35' Storage=14 cf Inflow=5.53 cfs 32,031 cf
24.0" Round Culvert n=0.012 L=90.0' S=0.0050 '/' Outflow=5.53 cfs 32,031 cf

Pond DMH 510: DMH 510

Peak Elev=62.03' Storage=14 cf Inflow=5.53 cfs 32,031 cf
24.0" Round Culvert n=0.012 L=122.0' S=0.0049 '/' Outflow=5.53 cfs 32,031 cf

Pond DMH 511: DMH 511

Peak Elev=62.59' Storage=14 cf Inflow=5.52 cfs 32,031 cf
24.0" Round Culvert n=0.012 L=83.0' S=0.0054 '/' Outflow=5.53 cfs 32,031 cf

Pond DMH 512: DMH 512

Peak Elev=62.65' Storage=5 cf Inflow=0.79 cfs 16,844 cf
24.0" Round Culvert n=0.012 L=140.0' S=0.0050 '/' Outflow=0.79 cfs 16,844 cf

Pond DMH 513: DMH 513

Peak Elev=63.05' Storage=3 cf Inflow=0.32 cfs 14,081 cf
24.0" Round Culvert n=0.012 L=82.0' S=0.0055 '/' Outflow=0.32 cfs 14,081 cf

Pond DMH 514: DMH 514

Peak Elev=65.07' Storage=5 cf Inflow=0.56 cfs 1,710 cf
12.0" Round Culvert n=0.012 L=103.0' S=0.0053 '/' Outflow=0.56 cfs 1,710 cf

Pond DMH 515: DMH 515

Peak Elev=61.70' Storage=6 cf Inflow=0.58 cfs 1,715 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=0.58 cfs 1,715 cf

Pond DMH 516: DMH 516

Peak Elev=61.03' Storage=8 cf Inflow=1.12 cfs 3,547 cf
12.0" Round Culvert n=0.012 L=58.0' S=0.0052 '/' Outflow=1.12 cfs 3,547 cf

Pond DMH 533: DMH 533

Peak Elev=67.07' Storage=29 cf Inflow=17.24 cfs 54,223 cf
24.0" Round Culvert n=0.012 L=67.0' S=0.0097 '/' Outflow=17.22 cfs 54,223 cf

Pond DMH 534: DMH 534

Peak Elev=69.28' Storage=29 cf Inflow=17.26 cfs 54,223 cf
24.0" Round Culvert n=0.012 L=208.0' S=0.0101 '/' Outflow=17.24 cfs 54,223 cf

Pond DMH 535: DMH 535

Peak Elev=71.13' Storage=29 cf Inflow=17.28 cfs 54,223 cf
24.0" Round Culvert n=0.012 L=135.0' S=0.0100 '/' Outflow=17.26 cfs 54,223 cf

Pond DMH 536: DMH 536

Peak Elev=73.46' Storage=17 cf Inflow=6.70 cfs 21,048 cf
18.0" Round Culvert n=0.012 L=300.0' S=0.0092 '/' Outflow=6.69 cfs 21,048 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 1-YEAR Rainfall=2.80"

Printed 2/1/2016

Page 28

Pond DMH 537: DMH 537Peak Elev=74.36' Storage=11 cf Inflow=2.87 cfs 8,990 cf
18.0" Round Culvert n=0.012 L=260.0' S=0.0050 ' Outflow=2.87 cfs 8,990 cf**Pond EX. CB: EX. CB 2436**Inflow=0.24 cfs 706 cf
Primary=0.24 cfs 706 cf**Pond EX. CB 2470: EX. CB 2470**Peak Elev=75.01' Storage=5 cf Inflow=0.50 cfs 1,465 cf
12.0" Round Culvert n=0.012 L=171.0' S=0.0059 ' Outflow=0.50 cfs 1,465 cf**Pond FB#1: FOREBAY #1**Peak Elev=74.70' Storage=576 cf Inflow=3.49 cfs 10,572 cf
Outflow=3.51 cfs 10,095 cf**Pond GW1-C1: GRAVEL WETLAND #1**Peak Elev=74.51' Storage=5,463 cf Inflow=3.51 cfs 10,095 cf
Outflow=0.23 cfs 10,095 cf**Pond SF#1: SAND FILTER #1**Peak Elev=74.01' Storage=3,413 cf Inflow=5.80 cfs 18,174 cf
Outflow=2.63 cfs 17,823 cf**Pond SF#2: SAND FILTER #2**Peak Elev=70.44' Storage=3,598 cf Inflow=5.48 cfs 16,539 cf
Outflow=2.33 cfs 16,078 cf**Pond SF#3: SAND FILTER #3**Peak Elev=69.72' Storage=260 cf Inflow=0.67 cfs 2,001 cf
Outflow=0.43 cfs 1,944 cf**Pond SF#4: SAND FILTER #4**Peak Elev=76.69' Storage=697 cf Inflow=1.62 cfs 4,986 cf
Outflow=1.74 cfs 4,858 cf**Pond SF#5: SAND FILTER #5**Peak Elev=67.80' Storage=1,553 cf Inflow=3.08 cfs 9,575 cf
Outflow=1.83 cfs 9,298 cf**Link AP-1: Highway culvert**Inflow=86.86 cfs 1,073,681 cf
Primary=86.86 cfs 1,073,681 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 1,296,423 cf Average Runoff Depth = 1.68"**
48.47% Pervious = 4,492,702 sf 51.53% Impervious = 4,776,381 sf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 29

Time span=1.00-72.00 hrs, dt=0.05 hrs, 1421 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth=1.92"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=88.78 cfs 605,884 cf

Subcatchment102: South of railroad Runoff Area=1,135,658 sf 6.62% Impervious Runoff Depth=1.35"
Flow Length=617' Tc=26.5 min CN=78 Runoff=24.04 cfs 127,489 cf

Subcatchment103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth=1.77"
Flow Length=754' Tc=19.7 min CN=84 Runoff=6.10 cfs 27,891 cf

Subcatchment1100: PR-WS-1100 Runoff Area=25,136 sf 96.39% Impervious Runoff Depth=2.96"
Flow Length=249' Slope=0.0300 '/' Tc=1.5 min CN=97 Runoff=1.99 cfs 6,191 cf

Subcatchment1101: PR-WS-1101 Runoff Area=77,854 sf 80.46% Impervious Runoff Depth=2.64"
Flow Length=319' Slope=0.0200 '/' Tc=2.3 min CN=94 Runoff=5.76 cfs 17,134 cf

Subcatchment1102: PR-WS-1102 Runoff Area=14,898 sf 100.00% Impervious Runoff Depth=3.07"
Flow Length=303' Tc=2.1 min CN=98 Runoff=1.19 cfs 3,808 cf

Subcatchment1103: N/W of railroad Runoff Area=41,085 sf 0.00% Impervious Runoff Depth=1.35"
Flow Length=556' Tc=6.6 min CN=78 Runoff=1.41 cfs 4,612 cf

Subcatchment1104: North of railroad Runoff Area=7,693 sf 70.79% Impervious Runoff Depth=2.45"
Flow Length=180' Tc=3.2 min CN=92 Runoff=0.53 cfs 1,568 cf

Subcatchment1105: N/E of railroad Runoff Area=81,158 sf 0.00% Impervious Runoff Depth=2.00"
Flow Length=315' Slope=0.1000 '/' Tc=6.6 min CN=87 Runoff=4.21 cfs 13,551 cf

Subcatchment1106: PR-WS-1106 Runoff Area=141,898 sf 6.92% Impervious Runoff Depth=0.89"
Flow Length=360' Tc=6.9 min CN=70 Runoff=2.93 cfs 10,487 cf

Subcatchment1107: Quarry Runoff Area=944,293 sf 87.22% Impervious Runoff Depth=2.74"
Flow Length=55' Slope=0.3300 '/' Tc=2.9 min CN=95 Runoff=71.31 cfs 215,839 cf

Subcatchment1110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth=2.64"
Flow Length=170' Slope=0.0200 '/' Tc=1.4 min CN=94 Runoff=15.10 cfs 44,696 cf

Subcatchment1111: PR-WS-1111 Runoff Area=322,054 sf 17.82% Impervious Runoff Depth=1.55"
Flow Length=375' Tc=4.1 min CN=81 Runoff=13.95 cfs 41,548 cf

SubcatchmentPR-101A: PR-WS-101A Runoff Area=12,140 sf 41.37% Impervious Runoff Depth=2.00"
Flow Length=205' Tc=4.2 min CN=87 Runoff=0.68 cfs 2,027 cf

SubcatchmentPR-101B: PR-WS-101B Runoff Area=16,595 sf 95.33% Impervious Runoff Depth=2.96"
Flow Length=226' Tc=2.3 min CN=97 Runoff=1.31 cfs 4,088 cf

SubcatchmentPR-102: PR-102 Runoff Area=11,587 sf 94.81% Impervious Runoff Depth=2.96"
Flow Length=187' Tc=2.0 min CN=97 Runoff=0.91 cfs 2,854 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 30

Subcatchment PR-103: PR-103	Runoff Area=4,529 sf 74.81% Impervious Runoff Depth=2.54" Flow Length=21' Slope=0.0200 '/' Tc=4.1 min CN=93 Runoff=0.31 cfs 959 cf
Subcatchment PR-104: PR-104	Runoff Area=9,984 sf 93.60% Impervious Runoff Depth=2.85" Flow Length=189' Slope=0.0200 '/' Tc=1.5 min CN=96 Runoff=0.78 cfs 2,369 cf
Subcatchment PR-105: PR-WS-105	Runoff Area=3,217 sf 91.79% Impervious Runoff Depth=2.85" Flow Length=96' Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.26 cfs 763 cf
Subcatchment PR-106: PR-WS-106	Runoff Area=6,892 sf 91.12% Impervious Runoff Depth=2.85" Flow Length=163' Slope=0.0150 '/' Tc=1.6 min CN=96 Runoff=0.53 cfs 1,636 cf
Subcatchment PR-107: PR-WS-107	Runoff Area=9,747 sf 84.59% Impervious Runoff Depth=2.64" Flow Length=134' Slope=0.0150 '/' Tc=1.4 min CN=94 Runoff=0.72 cfs 2,145 cf
Subcatchment PR-108: PR-WS-108	Runoff Area=3,430 sf 52.97% Impervious Runoff Depth=2.00" Flow Length=54' Tc=2.7 min CN=87 Runoff=0.20 cfs 573 cf
Subcatchment PR-109: PR-WS-109	Runoff Area=4,191 sf 87.57% Impervious Runoff Depth=2.85" Flow Length=66' Tc=2.0 min CN=96 Runoff=0.32 cfs 995 cf
Subcatchment PR-110: PR-WS-110	Runoff Area=4,653 sf 92.69% Impervious Runoff Depth=2.96" Flow Length=18' Slope=0.0200 '/' Tc=2.9 min CN=97 Runoff=0.37 cfs 1,146 cf
Subcatchment PR-111: PR-WS-111	Runoff Area=1,730 sf 95.32% Impervious Runoff Depth=2.96" Flow Length=94' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.14 cfs 426 cf
Subcatchment PR-112: PR-WS-112	Runoff Area=2,211 sf 94.93% Impervious Runoff Depth=2.96" Flow Length=112' Slope=0.0200 '/' Tc=1.1 min CN=97 Runoff=0.18 cfs 545 cf
Subcatchment PR-113: PR-WS-113	Runoff Area=3,982 sf 100.00% Impervious Runoff Depth=3.07" Flow Length=40' Slope=0.0200 '/' Tc=0.6 min CN=98 Runoff=0.33 cfs 1,018 cf
Subcatchment PR-114: PR-WS-114	Runoff Area=8,860 sf 84.37% Impervious Runoff Depth=2.64" Flow Length=93' Tc=3.0 min CN=94 Runoff=0.65 cfs 1,950 cf
Subcatchment PR-115: PR-WS-115	Runoff Area=4,830 sf 90.85% Impervious Runoff Depth=2.85" Flow Length=63' Tc=1.6 min CN=96 Runoff=0.37 cfs 1,146 cf
Subcatchment PR-116: PR-WS-116	Runoff Area=11,048 sf 85.47% Impervious Runoff Depth=2.74" Flow Length=92' Tc=2.2 min CN=95 Runoff=0.84 cfs 2,525 cf
Subcatchment PR-117: PR-WS-117	Runoff Area=28,987 sf 88.81% Impervious Runoff Depth=2.85" Flow Length=141' Tc=3.9 min CN=96 Runoff=2.17 cfs 6,879 cf
Subcatchment PR-118: PR-WS-118	Runoff Area=11,145 sf 83.65% Impervious Runoff Depth=2.74" Flow Length=87' Slope=0.0200 '/' Tc=4.8 min CN=95 Runoff=0.79 cfs 2,547 cf
Subcatchment PR-119: PR-WS-119	Runoff Area=9,940 sf 84.19% Impervious Runoff Depth=2.64" Flow Length=272' Slope=0.0200 '/' Tc=2.0 min CN=94 Runoff=0.74 cfs 2,188 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 31

Subcatchment PR-120: PR-WS-120	Runoff Area=5,203 sf 70.06% Impervious Runoff Depth=2.35" Flow Length=136' Tc=1.1 min CN=91 Runoff=0.36 cfs 1,020 cf
Subcatchment PR-121: PR-WS-121	Runoff Area=34,922 sf 92.10% Impervious Runoff Depth=2.85" Flow Length=67' Tc=2.6 min CN=96 Runoff=2.70 cfs 8,288 cf
Subcatchment PR-122: PR-WS-122	Runoff Area=34,176 sf 89.54% Impervious Runoff Depth=2.85" Flow Length=108' Tc=3.4 min CN=96 Runoff=2.61 cfs 8,110 cf
Subcatchment PR-123: PR-WS-123	Runoff Area=29,407 sf 85.16% Impervious Runoff Depth=2.74" Flow Length=109' Tc=2.2 min CN=95 Runoff=2.23 cfs 6,722 cf
Subcatchment PR-124: PR-WS-124	Runoff Area=26,584 sf 88.43% Impervious Runoff Depth=2.85" Flow Length=89' Tc=3.3 min CN=96 Runoff=2.03 cfs 6,309 cf
Subcatchment PR-125: PR-WS-125	Runoff Area=7,219 sf 83.46% Impervious Runoff Depth=2.74" Flow Length=185' Slope=0.0200 '/' Tc=2.8 min CN=95 Runoff=0.55 cfs 1,650 cf
Subcatchment PR-126: PR-WS-126	Runoff Area=6,500 sf 57.17% Impervious Runoff Depth=2.26" Flow Length=66' Tc=3.4 min CN=90 Runoff=0.42 cfs 1,225 cf
Subcatchment PR-127: PR-WS-127	Runoff Area=2,495 sf 74.07% Impervious Runoff Depth=2.54" Flow Length=121' Tc=1.0 min CN=93 Runoff=0.18 cfs 529 cf
Subcatchment PR-128: PR-WS-128	Runoff Area=19,006 sf 89.37% Impervious Runoff Depth=2.85" Flow Length=94' Tc=3.3 min CN=96 Runoff=1.45 cfs 4,510 cf
Subcatchment PR-129: PR-WS-129	Runoff Area=6,545 sf 87.23% Impervious Runoff Depth=2.85" Flow Length=64' Tc=2.5 min CN=96 Runoff=0.51 cfs 1,553 cf
Subcatchment PR-130: PR-WS-130	Runoff Area=5,821 sf 44.94% Impervious Runoff Depth=2.09" Flow Length=136' Tc=4.6 min CN=88 Runoff=0.33 cfs 1,012 cf
Subcatchment PR-131: PR-WS-131	Runoff Area=13,655 sf 42.16% Impervious Runoff Depth=2.09" Flow Length=163' Tc=5.3 min CN=88 Runoff=0.76 cfs 2,375 cf
Subcatchment PR-132: PR-WS-132	Runoff Area=27,639 sf 0.00% Impervious Runoff Depth=1.48" Flow Length=186' Slope=0.0300 '/' Tc=11.2 min CN=80 Runoff=0.91 cfs 3,407 cf
Subcatchment PR-133: PR-WS-133	Runoff Area=3,782 sf 78.79% Impervious Runoff Depth=2.64" Flow Length=61' Tc=2.3 min CN=94 Runoff=0.28 cfs 832 cf
Subcatchment PR-135: PR-WS-135	Runoff Area=57,274 sf 93.46% Impervious Runoff Depth=2.96" Flow Length=96' Tc=2.3 min CN=97 Runoff=4.52 cfs 14,108 cf
Subcatchment PR-136: PR-WS-136	Runoff Area=5,021 sf 83.43% Impervious Runoff Depth=2.74" Flow Length=152' Slope=0.0200 '/' Tc=2.6 min CN=95 Runoff=0.38 cfs 1,148 cf
Subcatchment PR-137: PR-WS-137	Runoff Area=6,491 sf 89.29% Impervious Runoff Depth=2.85" Flow Length=79' Tc=2.0 min CN=96 Runoff=0.50 cfs 1,540 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 32

Subcatchment PR-138: PR-WS-138	Runoff Area=6,721 sf 83.34% Impervious Runoff Depth=2.74" Flow Length=154' Tc=2.2 min CN=95 Runoff=0.51 cfs 1,536 cf
Subcatchment PR-139: PR-WS-139	Runoff Area=13,664 sf 93.38% Impervious Runoff Depth=2.96" Flow Length=73' Tc=2.1 min CN=97 Runoff=1.08 cfs 3,366 cf
Subcatchment PR-140: PR-WS-140	Runoff Area=16,941 sf 86.79% Impervious Runoff Depth=2.74" Flow Length=100' Tc=2.2 min CN=95 Runoff=1.28 cfs 3,872 cf
Subcatchment PR-141: PR-WS-141	Runoff Area=63,852 sf 96.08% Impervious Runoff Depth=2.96" Flow Length=153' Slope=0.0300 '/' Tc=1.1 min CN=97 Runoff=5.14 cfs 15,728 cf
Subcatchment PR-142: PR-WS-142	Runoff Area=7,046 sf 94.68% Impervious Runoff Depth=2.96" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=0.56 cfs 1,736 cf
Subcatchment PR-143: PR-WS-143	Runoff Area=2,759 sf 93.19% Impervious Runoff Depth=2.96" Flow Length=95' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.22 cfs 680 cf
Subcatchment PR-144: PR-WS-144	Runoff Area=5,804 sf 95.35% Impervious Runoff Depth=2.96" Flow Length=141' Slope=0.0200 '/' Tc=1.2 min CN=97 Runoff=0.47 cfs 1,430 cf
Subcatchment PR-145: PR-WS-145	Runoff Area=5,741 sf 83.43% Impervious Runoff Depth=2.74" Flow Length=105' Tc=2.3 min CN=95 Runoff=0.44 cfs 1,312 cf
Subcatchment PR-146: PR-WS-146	Runoff Area=48,802 sf 78.10% Impervious Runoff Depth=2.64" Flow Length=75' Tc=3.1 min CN=94 Runoff=3.58 cfs 10,740 cf
Subcatchment PR-147: PR-WS-147	Runoff Area=2,815 sf 75.52% Impervious Runoff Depth=2.64" Flow Length=105' Slope=0.0200 '/' Tc=1.0 min CN=94 Runoff=0.21 cfs 620 cf
Subcatchment PR-148: PR-WS-148	Runoff Area=23,625 sf 95.90% Impervious Runoff Depth=2.96" Flow Length=147' Tc=2.5 min CN=97 Runoff=1.86 cfs 5,819 cf
Subcatchment PR-149: PR-149	Runoff Area=9,728 sf 57.71% Impervious Runoff Depth=2.09" Flow Length=98' Tc=7.5 min CN=88 Runoff=0.51 cfs 1,692 cf
Subcatchment PR-150: PR-WS-150	Runoff Area=3,710 sf 87.55% Impervious Runoff Depth=2.85" Flow Length=98' Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.29 cfs 880 cf
Subcatchment PR-151: PR-WS-151	Runoff Area=2,194 sf 75.89% Impervious Runoff Depth=2.64" Flow Length=67' Tc=2.3 min CN=94 Runoff=0.16 cfs 483 cf
Subcatchment PR-152: PR-WS-152	Runoff Area=1,814 sf 94.71% Impervious Runoff Depth=2.96" Flow Length=100' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.15 cfs 447 cf
Subcatchment PR-153: PR-WS-153	Runoff Area=14,695 sf 0.00% Impervious Runoff Depth=1.48" Flow Length=350' Slope=0.0200 '/' Tc=13.0 min CN=80 Runoff=0.46 cfs 1,811 cf
Subcatchment PR-154: PR-WS-154	Runoff Area=7,489 sf 92.48% Impervious Runoff Depth=2.96" Flow Length=60' Tc=2.0 min CN=97 Runoff=0.59 cfs 1,845 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 33

Subcatchment PR-155: PR-WS-155	Runoff Area=3,567 sf 91.56% Impervious Runoff Depth=2.85" Flow Length=134' Slope=0.0200 '/' Tc=1.2 min CN=96 Runoff=0.28 cfs 847 cf
Subcatchment PR-156: PR-WS-156	Runoff Area=7,350 sf 93.33% Impervious Runoff Depth=2.96" Flow Length=80' Tc=3.1 min CN=97 Runoff=0.58 cfs 1,810 cf
Subcatchment PR-157: PR-WS-157	Runoff Area=6,981 sf 72.41% Impervious Runoff Depth=2.54" Flow Length=152' Tc=4.0 min CN=93 Runoff=0.48 cfs 1,479 cf
Subcatchment PR-158: PR-WS-158	Runoff Area=6,953 sf 68.78% Impervious Runoff Depth=2.45" Flow Length=127' Tc=3.8 min CN=92 Runoff=0.47 cfs 1,417 cf
Subcatchment PR-159: PR-WS-159	Runoff Area=4,186 sf 72.81% Impervious Runoff Depth=2.45" Flow Length=95' Tc=3.8 min CN=92 Runoff=0.28 cfs 853 cf
Subcatchment PR-160: PR-WS-160	Runoff Area=11,478 sf 94.39% Impervious Runoff Depth=2.96" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=0.92 cfs 2,827 cf
Subcatchment PR-161: PR-WS-161	Runoff Area=7,970 sf 81.54% Impervious Runoff Depth=2.64" Flow Length=146' Tc=3.2 min CN=94 Runoff=0.58 cfs 1,754 cf
Subcatchment PR-162: PR-WS-162	Runoff Area=7,445 sf 0.00% Impervious Runoff Depth=1.48" Flow Length=88' Slope=0.0900 '/' Tc=6.3 min CN=80 Runoff=0.29 cfs 918 cf
Subcatchment PR-165: PR-WS-165	Runoff Area=11,723 sf 87.49% Impervious Runoff Depth=2.85" Flow Length=251' Tc=4.1 min CN=96 Runoff=0.87 cfs 2,782 cf
Subcatchment PR-166: PR-WS-166	Runoff Area=5,581 sf 69.88% Impervious Runoff Depth=2.54" Flow Length=163' Slope=0.0300 '/' Tc=1.1 min CN=93 Runoff=0.41 cfs 1,182 cf
Subcatchment PR-167: PR-167	Runoff Area=5,485 sf 84.28% Impervious Runoff Depth=2.74" Flow Length=218' Slope=0.0200 '/' Tc=1.7 min CN=95 Runoff=0.41 cfs 1,254 cf
Subcatchment PR-168: PR-WS-168	Runoff Area=17,098 sf 95.64% Impervious Runoff Depth=2.96" Flow Length=149' Tc=1.2 min CN=97 Runoff=1.37 cfs 4,212 cf
Subcatchment PR-169: PR-WS-169	Runoff Area=16,367 sf 97.06% Impervious Runoff Depth=2.96" Flow Length=149' Tc=1.2 min CN=97 Runoff=1.31 cfs 4,032 cf
Subcatchment PR-170: PR-WS-170	Runoff Area=3,623 sf 93.21% Impervious Runoff Depth=2.96" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=97 Runoff=0.29 cfs 892 cf
Subcatchment PR-171: PR-WS-171	Runoff Area=10,681 sf 89.50% Impervious Runoff Depth=2.85" Flow Length=141' Slope=0.0200 '/' Tc=1.2 min CN=96 Runoff=0.84 cfs 2,535 cf
Subcatchment PR-172: PR-WS-172	Runoff Area=15,933 sf 83.27% Impervious Runoff Depth=2.64" Flow Length=252' Slope=0.0200 '/' Tc=1.9 min CN=94 Runoff=1.18 cfs 3,507 cf
Subcatchment PR-173: PR-WS-173	Runoff Area=9,735 sf 69.71% Impervious Runoff Depth=2.54" Flow Length=195' Slope=0.0200 '/' Tc=1.5 min CN=93 Runoff=0.70 cfs 2,062 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 34

Subcatchment PR-174: PR-WS-174	Runoff Area=1,621 sf 91.12% Impervious Runoff Depth=2.85" Flow Length=73' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.13 cfs 385 cf
Subcatchment PR-175: PR-WS-175	Runoff Area=15,020 sf 93.95% Impervious Runoff Depth=2.96" Flow Length=330' Slope=0.0300 '/' Tc=1.9 min CN=97 Runoff=1.18 cfs 3,700 cf
Subcatchment PR-176: PR-WS-176	Runoff Area=4,709 sf 57.74% Impervious Runoff Depth=2.26" Flow Length=147' Tc=1.1 min CN=90 Runoff=0.31 cfs 887 cf
Subcatchment PR-177: PR-WS-177	Runoff Area=5,356 sf 66.78% Impervious Runoff Depth=2.45" Flow Length=146' Slope=0.0300 '/' Tc=3.1 min CN=92 Runoff=0.37 cfs 1,092 cf
Subcatchment PR-178: PR-WS-178	Runoff Area=3,537 sf 55.41% Impervious Runoff Depth=2.09" Flow Length=95' Tc=3.0 min CN=88 Runoff=0.21 cfs 615 cf
Subcatchment PR-179: PR-WS-179	Runoff Area=5,822 sf 85.66% Impervious Runoff Depth=2.74" Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=95 Runoff=0.45 cfs 1,331 cf
Subcatchment PR-180: PR-WS-180	Runoff Area=10,571 sf 67.65% Impervious Runoff Depth=2.35" Flow Length=201' Tc=3.3 min CN=91 Runoff=0.71 cfs 2,072 cf
Subcatchment PR-181: PR-WS-181	Runoff Area=5,052 sf 72.62% Impervious Runoff Depth=2.54" Flow Length=47' Tc=3.8 min CN=93 Runoff=0.35 cfs 1,070 cf
Subcatchment PR-182: PR-WS-182	Runoff Area=14,289 sf 83.73% Impervious Runoff Depth=2.64" Flow Length=89' Tc=3.3 min CN=94 Runoff=1.04 cfs 3,145 cf
Subcatchment PR-183: PR-WS-183	Runoff Area=10,263 sf 82.87% Impervious Runoff Depth=2.64" Flow Length=28' Tc=2.2 min CN=94 Runoff=0.76 cfs 2,259 cf
Subcatchment PR-184: PR-WS-184	Runoff Area=836 sf 56.82% Impervious Runoff Depth=2.09" Flow Length=33' Tc=2.2 min CN=88 Runoff=0.05 cfs 145 cf
Subcatchment PR-185: PR-WS-185	Runoff Area=2,440 sf 100.00% Impervious Runoff Depth=3.07" Flow Length=72' Tc=0.8 min CN=98 Runoff=0.20 cfs 624 cf
Subcatchment PR-186: PR-WS-186	Runoff Area=4,035 sf 66.27% Impervious Runoff Depth=2.45" Flow Length=126' Tc=3.4 min CN=92 Runoff=0.28 cfs 822 cf
Subcatchment PR-187: PR-WS-187	Runoff Area=2,386 sf 81.01% Impervious Runoff Depth=2.74" Flow Length=82' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.19 cfs 545 cf
Subcatchment PR-188: PR-WS-188	Runoff Area=3,760 sf 83.16% Impervious Runoff Depth=2.74" Flow Length=88' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.29 cfs 859 cf
Subcatchment PR-189: PR-189	Runoff Area=7,399 sf 76.23% Impervious Runoff Depth=2.64" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=94 Runoff=0.56 cfs 1,628 cf
Subcatchment PR-190: PR-WS-190	Runoff Area=899 sf 57.84% Impervious Runoff Depth=2.26" Flow Length=15' Slope=0.0500 '/' Tc=2.2 min CN=90 Runoff=0.06 cfs 169 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 35

Subcatchment PR-191: PR-WS-191	Runoff Area=1,261 sf 75.02% Impervious	Runoff Depth=2.64"
	Flow Length=38' Slope=0.0300 '/	Tc=0.5 min CN=94 Runoff=0.10 cfs 278 cf
Subcatchment PR-192: PR-192	Runoff Area=18,907 sf 76.83% Impervious	Runoff Depth=2.64"
	Flow Length=331' Slope=0.0300 '/	Tc=1.9 min CN=94 Runoff=1.40 cfs 4,161 cf
Subcatchment PR-193: PR-WS-193	Runoff Area=4,533 sf 78.29% Impervious	Runoff Depth=2.64"
	Flow Length=109' Slope=0.0300 '/	Tc=0.9 min CN=94 Runoff=0.34 cfs 998 cf
Subcatchment PR-194: PR-WS-194	Runoff Area=3,222 sf 76.66% Impervious	Runoff Depth=2.64"
	Flow Length=79' Tc=1.6 min CN=94	Runoff=0.24 cfs 709 cf
Subcatchment PR-195: PR-WS-195	Runoff Area=3,145 sf 72.27% Impervious	Runoff Depth=2.54"
	Flow Length=74' Slope=0.0200 '/	Tc=0.8 min CN=93 Runoff=0.23 cfs 666 cf
Subcatchment PR-196: PR-WS-196	Runoff Area=2,480 sf 78.35% Impervious	Runoff Depth=2.64"
	Flow Length=54' Slope=0.0200 '/	Tc=0.7 min CN=94 Runoff=0.19 cfs 546 cf
Subcatchment PR-197: PR-WS-197	Runoff Area=7,513 sf 54.79% Impervious	Runoff Depth=2.26"
	Flow Length=173' Tc=4.6 min CN=90	Runoff=0.46 cfs 1,416 cf
Subcatchment PR-198: PR-WS-198	Runoff Area=3,451 sf 67.75% Impervious	Runoff Depth=2.45"
	Flow Length=120' Tc=1.1 min CN=92	Runoff=0.25 cfs 703 cf
Subcatchment PR-199: PR-WS-199	Runoff Area=19,470 sf 100.00% Impervious	Runoff Depth=3.07"
	Flow Length=90' Slope=0.0200 '/	Tc=0.9 min CN=98 Runoff=1.60 cfs 4,976 cf
Subcatchment PR-200: PR-WS-200	Runoff Area=4,958 sf 100.00% Impervious	Runoff Depth=3.07"
	Flow Length=43' Slope=0.0200 '/	Tc=0.6 min CN=98 Runoff=0.41 cfs 1,267 cf
Subcatchment PR-201: PR-WS-201	Runoff Area=17,363 sf 100.00% Impervious	Runoff Depth=3.07"
	Flow Length=62' Slope=0.0200 '/	Tc=0.8 min CN=98 Runoff=1.44 cfs 4,438 cf
Subcatchment PR-202: PR-WS-202	Runoff Area=41,990 sf 100.00% Impervious	Runoff Depth=3.07"
	Flow Length=155' Slope=0.0200 '/	Tc=1.3 min CN=98 Runoff=3.40 cfs 10,732 cf
Subcatchment PR-203: PR-WS-203	Runoff Area=56,320 sf 100.00% Impervious	Runoff Depth=3.07"
	Flow Length=173' Slope=0.0200 '/	Tc=1.4 min CN=98 Runoff=4.54 cfs 14,395 cf
Subcatchment PR-204: PR-WS-204	Runoff Area=154,953 sf 100.00% Impervious	Runoff Depth=3.07"
	Flow Length=156' Slope=0.0200 '/	Tc=1.3 min CN=98 Runoff=12.54 cfs 39,605 cf
Subcatchment PR-205: PR-WS-205	Runoff Area=5,000 sf 100.00% Impervious	Runoff Depth=3.07"
	Flow Length=57' Slope=0.0200 '/	Tc=0.8 min CN=98 Runoff=0.41 cfs 1,278 cf
Subcatchment PR-206: PR-WS-206	Runoff Area=46,931 sf 91.70% Impervious	Runoff Depth=2.85"
	Flow Length=258' Tc=2.0 min CN=96	Runoff=3.63 cfs 11,137 cf
Subcatchment PR-207: PR-WS-207	Runoff Area=41,939 sf 87.69% Impervious	Runoff Depth=2.74"
	Flow Length=203' Slope=0.0300 '/	Tc=1.3 min CN=95 Runoff=3.21 cfs 9,586 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 36

Subcatchment PR-208: PR-WS-208	Runoff Area=34,046 sf 93.22% Impervious Runoff Depth=2.85" Flow Length=133' Tc=3.9 min CN=96 Runoff=2.55 cfs 8,080 cf
Subcatchment PR-209: PR-WS-209	Runoff Area=45,267 sf 87.02% Impervious Runoff Depth=2.74" Flow Length=226' Tc=1.7 min CN=95 Runoff=3.42 cfs 10,347 cf
Subcatchment PR-210: PR-WS-210	Runoff Area=7,297 sf 92.05% Impervious Runoff Depth=2.85" Flow Length=63' Tc=1.9 min CN=96 Runoff=0.56 cfs 1,732 cf
Subcatchment PR-211: PR-WS-211	Runoff Area=5,623 sf 61.21% Impervious Runoff Depth=2.26" Flow Length=62' Tc=3.8 min CN=90 Runoff=0.36 cfs 1,060 cf
Subcatchment PR-212: PR-WS-212	Runoff Area=6,331 sf 86.78% Impervious Runoff Depth=2.74" Flow Length=180' Slope=0.0200 '/' Tc=1.5 min CN=95 Runoff=0.48 cfs 1,447 cf
Subcatchment PR-213: PR-WS-213	Runoff Area=6,309 sf 46.03% Impervious Runoff Depth=1.84" Flow Length=71' Tc=6.2 min CN=85 Runoff=0.31 cfs 969 cf
Subcatchment PR-214: PR-WS-214	Runoff Area=4,362 sf 74.90% Impervious Runoff Depth=2.45" Flow Length=131' Slope=0.0200 '/' Tc=1.2 min CN=92 Runoff=0.31 cfs 889 cf
Subcatchment PR-215: PR-WS-215	Runoff Area=18,724 sf 94.18% Impervious Runoff Depth=2.96" Flow Length=190' Tc=1.4 min CN=97 Runoff=1.49 cfs 4,612 cf
Subcatchment PR-216: PR-WS-216	Runoff Area=8,340 sf 92.45% Impervious Runoff Depth=2.96" Flow Length=147' Tc=1.2 min CN=97 Runoff=0.67 cfs 2,054 cf
Subcatchment PR-217: PR-WS-217	Runoff Area=12,055 sf 90.88% Impervious Runoff Depth=2.85" Flow Length=202' Tc=1.5 min CN=96 Runoff=0.94 cfs 2,861 cf
Subcatchment PR-218: PR-WS-218	Runoff Area=9,128 sf 87.71% Impervious Runoff Depth=2.74" Flow Length=150' Tc=1.2 min CN=95 Runoff=0.70 cfs 2,086 cf
Subcatchment PR-219: PR-WS-219	Runoff Area=7,197 sf 88.56% Impervious Runoff Depth=2.74" Flow Length=150' Tc=2.8 min CN=95 Runoff=0.54 cfs 1,645 cf
Subcatchment PR-220: PR-WS-220	Runoff Area=1,912 sf 82.95% Impervious Runoff Depth=2.64" Flow Length=43' Tc=1.9 min CN=94 Runoff=0.14 cfs 421 cf
Subcatchment PR-221: PR-WS-221	Runoff Area=17,250 sf 75.14% Impervious Runoff Depth=2.45" Flow Length=102' Tc=0.9 min CN=92 Runoff=1.24 cfs 3,516 cf
Subcatchment PR-222: PR-WS-222	Runoff Area=5,297 sf 100.00% Impervious Runoff Depth=3.07" Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=98 Runoff=0.43 cfs 1,354 cf
Subcatchment PR-223: PR-WS-223	Runoff Area=3,545 sf 52.67% Impervious Runoff Depth=2.00" Flow Length=47' Tc=4.8 min CN=87 Runoff=0.19 cfs 592 cf
Subcatchment PR-224: PR-WS-224	Runoff Area=2,359 sf 85.50% Impervious Runoff Depth=2.74" Flow Length=70' Slope=0.0200 '/' Tc=0.8 min CN=95 Runoff=0.18 cfs 539 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 37

Subcatchment PR-225: PR-WS-225	Runoff Area=1,992 sf 76.61% Impervious Runoff Depth=2.54" Flow Length=62' Tc=1.7 min CN=93 Runoff=0.14 cfs 422 cf
Subcatchment PR-226: PR-WS-226	Runoff Area=2,627 sf 81.35% Impervious Runoff Depth=2.64" Flow Length=84' Slope=0.0200 '/' Tc=0.9 min CN=94 Runoff=0.20 cfs 578 cf
Subcatchment PR-227: PR-WS-227	Runoff Area=5,153 sf 92.16% Impervious Runoff Depth=2.96" Flow Length=76' Slope=0.0200 '/' Tc=0.9 min CN=97 Runoff=0.42 cfs 1,269 cf
Subcatchment PR-228: PR-WS-228	Runoff Area=8,230 sf 81.12% Impervious Runoff Depth=2.64" Flow Length=94' Tc=2.5 min CN=94 Runoff=0.61 cfs 1,811 cf
Subcatchment PR-229: PR-WS-229	Runoff Area=7,929 sf 47.80% Impervious Runoff Depth=2.00" Flow Length=276' Tc=5.4 min CN=87 Runoff=0.42 cfs 1,324 cf
Subcatchment PR-230: PR-WS-230	Runoff Area=7,477 sf 54.31% Impervious Runoff Depth=2.09" Flow Length=284' Slope=0.0200 '/' Tc=2.1 min CN=88 Runoff=0.46 cfs 1,300 cf
Subcatchment PR-231: PR-WS-231	Runoff Area=939 sf 78.70% Impervious Runoff Depth=2.64" Flow Length=66' Slope=0.0200 '/' Tc=0.8 min CN=94 Runoff=0.07 cfs 207 cf
Subcatchment PR-232: PR-WS-232	Runoff Area=1,737 sf 35.87% Impervious Runoff Depth=1.77" Flow Length=112' Tc=4.5 min CN=84 Runoff=0.08 cfs 256 cf
Subcatchment PR-233: PR-WS-233	Runoff Area=6,441 sf 79.43% Impervious Runoff Depth=2.64" Flow Length=212' Slope=0.0200 '/' Tc=1.6 min CN=94 Runoff=0.48 cfs 1,418 cf
Subcatchment PR-234: PR-WS-234	Runoff Area=4,885 sf 82.25% Impervious Runoff Depth=2.64" Flow Length=138' Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.37 cfs 1,075 cf
Subcatchment PR-235: PR-WS-235	Runoff Area=3,350 sf 83.94% Impervious Runoff Depth=2.74" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.26 cfs 766 cf
Subcatchment PR-236: PR-WS-236	Runoff Area=4,700 sf 84.53% Impervious Runoff Depth=2.74" Flow Length=160' Slope=0.0200 '/' Tc=1.3 min CN=95 Runoff=0.36 cfs 1,074 cf
Subcatchment PR-237: PR-WS-237	Runoff Area=3,951 sf 78.89% Impervious Runoff Depth=2.64" Flow Length=146' Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.30 cfs 870 cf
Subcatchment PR-238: PR-WS-238	Runoff Area=3,671 sf 81.12% Impervious Runoff Depth=2.64" Flow Length=146' Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.27 cfs 808 cf
Subcatchment PR-239: PR-WS-239	Runoff Area=19,256 sf 91.62% Impervious Runoff Depth=2.85" Flow Length=89' Tc=2.6 min CN=96 Runoff=1.49 cfs 4,570 cf
Subcatchment PR-240: PR-WS-240	Runoff Area=19,732 sf 91.24% Impervious Runoff Depth=2.85" Flow Length=89' Tc=2.6 min CN=96 Runoff=1.53 cfs 4,683 cf
Subcatchment PR-241: PR-WS-241	Runoff Area=9,283 sf 97.71% Impervious Runoff Depth=3.07" Flow Length=76' Slope=0.0300 '/' Tc=0.7 min CN=98 Runoff=0.77 cfs 2,373 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 38

Subcatchment PR-242: PR-WS-242	Runoff Area=13,884 sf 95.45% Impervious Runoff Depth=2.96" Flow Length=145' Tc=2.5 min CN=97 Runoff=1.10 cfs 3,420 cf
Subcatchment PR-243: PR-WS-243	Runoff Area=7,454 sf 61.20% Impervious Runoff Depth=2.17" Flow Length=59' Tc=3.8 min CN=89 Runoff=0.46 cfs 1,350 cf
Subcatchment PR-244: PR-WS-244	Runoff Area=7,605 sf 97.20% Impervious Runoff Depth=2.96" Flow Length=96' Tc=2.2 min CN=97 Runoff=0.60 cfs 1,873 cf
Subcatchment PR-245: PR-WS-245	Runoff Area=689 sf 89.55% Impervious Runoff Depth=2.85" Flow Length=54' Slope=0.0200 '/' Tc=0.7 min CN=96 Runoff=0.06 cfs 164 cf
Subcatchment PR-246: PR-WS-246	Runoff Area=1,614 sf 90.58% Impervious Runoff Depth=2.85" Flow Length=66' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.13 cfs 383 cf
Subcatchment PR-247: PR-WS-247	Runoff Area=36,063 sf 0.00% Impervious Runoff Depth=1.55" Flow Length=452' Slope=0.0200 '/' Tc=15.0 min CN=81 Runoff=1.12 cfs 4,652 cf
Subcatchment PR-248: PR-WS-248	Runoff Area=37,567 sf 72.89% Impervious Runoff Depth=2.35" Flow Length=160' Tc=1.3 min CN=91 Runoff=2.57 cfs 7,364 cf
Subcatchment PR-249: PR-WS-249	Runoff Area=98,177 sf 45.05% Impervious Runoff Depth=2.09" Flow Length=351' Tc=5.9 min CN=88 Runoff=5.39 cfs 17,076 cf
Subcatchment PR-250: PR-WS-250	Runoff Area=153,797 sf 100.00% Impervious Runoff Depth=3.07" Flow Length=272' Slope=0.0200 '/' Tc=2.0 min CN=98 Runoff=12.29 cfs 39,310 cf
Subcatchment PR-251: PR-WS-251	Runoff Area=38,613 sf 100.00% Impervious Runoff Depth=3.07" Flow Length=145' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=3.12 cfs 9,869 cf
Subcatchment PR-252: PR-WS-252	Runoff Area=64,918 sf 65.62% Impervious Runoff Depth=2.26" Flow Length=152' Tc=2.5 min CN=90 Runoff=4.26 cfs 12,234 cf
Subcatchment PR-253: PR-WS-253	Runoff Area=35,545 sf 27.56% Impervious Runoff Depth=1.84" Flow Length=288' Slope=0.0500 '/' Tc=8.7 min CN=85 Runoff=1.58 cfs 5,460 cf
Subcatchment PR-254: PR-WS-254	Runoff Area=14,981 sf 0.00% Impervious Runoff Depth=1.10" Flow Length=20' Slope=0.3300 '/' Tc=1.3 min CN=74 Runoff=0.47 cfs 1,378 cf
Subcatchment PR-255: PR-WS-255	Runoff Area=6,776 sf 0.00% Impervious Runoff Depth=1.48" Flow Length=21' Slope=0.2500 '/' Tc=1.5 min CN=80 Runoff=0.29 cfs 835 cf
Subcatchment PR-256: PR-WS-256	Runoff Area=6,540 sf 0.00% Impervious Runoff Depth=1.35" Flow Length=28' Slope=0.3000 '/' Tc=1.7 min CN=78 Runoff=0.26 cfs 734 cf
Subcatchment PR-257: PR-WS-257	Runoff Area=2,263 sf 91.21% Impervious Runoff Depth=2.85" Flow Length=64' Tc=1.6 min CN=96 Runoff=0.17 cfs 537 cf
Subcatchment PR-258: PR-WS-258	Runoff Area=5,144 sf 79.92% Impervious Runoff Depth=2.54" Flow Length=52' Tc=3.0 min CN=93 Runoff=0.37 cfs 1,090 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 39

Subcatchment PR-259: PR-WS-259Runoff Area=4,466 sf 61.78% Impervious Runoff Depth=2.17"
Flow Length=124' Tc=2.0 min CN=89 Runoff=0.28 cfs 809 cf**Subcatchment PR-260: PR-WS-260**Runoff Area=625 sf 94.56% Impervious Runoff Depth=2.96"
Flow Length=29' Tc=1.1 min CN=97 Runoff=0.05 cfs 154 cf**Subcatchment PR-261: PR-WS-261**Runoff Area=2,208 sf 82.11% Impervious Runoff Depth=2.64"
Flow Length=139' Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.17 cfs 486 cf**Subcatchment PR-262: PR-WS-262**Runoff Area=37,086 sf 83.27% Impervious Runoff Depth=2.64"
Flow Length=199' Tc=1.5 min CN=94 Runoff=2.75 cfs 8,162 cf**Subcatchment PR-263: PR-WS-263**Runoff Area=2,613 sf 85.27% Impervious Runoff Depth=2.74"
Flow Length=121' Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.20 cfs 597 cf**Subcatchment PR-266: PR-WS-266**Runoff Area=29,645 sf 60.48% Impervious Runoff Depth=2.35"
Flow Length=80' Slope=0.0200 '/' Tc=0.9 min CN=91 Runoff=2.06 cfs 5,811 cf**Subcatchment PR-267: PR-WS-267**Runoff Area=4,744 sf 0.00% Impervious Runoff Depth=1.10"
Flow Length=15' Slope=0.3300 '/' Tc=1.0 min CN=74 Runoff=0.15 cfs 436 cf**Subcatchment PR-268: PR-WS-268**Runoff Area=764 sf 81.54% Impervious Runoff Depth=2.64"
Flow Length=43' Slope=0.0200 '/' Tc=0.6 min CN=94 Runoff=0.06 cfs 168 cf**Reach 1R: 60" RCP Culvert**Avg. Flow Depth=0.58' Max Vel=4.82 fps Inflow=6.10 cfs 27,891 cf
60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=6.05 cfs 27,891 cf**Reach 2R: Small Stream**Avg. Flow Depth=0.59' Max Vel=1.83 fps Inflow=8.26 cfs 37,971 cf
n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=8.19 cfs 37,971 cf**Reach 3R: Small Stream**Avg. Flow Depth=1.69' Max Vel=3.20 fps Inflow=104.58 cfs 785,527 cf
n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=104.22 cfs 785,527 cf**Reach 4R: Arch Culvert**Avg. Flow Depth=0.60' Max Vel=10.47 fps Inflow=106.17 cfs 829,567 cf
204.0" x 80.0", R=240.0" Arch Pipe n=0.011 L=50.3' S=0.0131 '/' Capacity=2,796.75 cfs Outflow=106.15 cfs 829,567 cf**Reach 5R: Small Stream**Avg. Flow Depth=28.39' Max Vel=1.22 fps Inflow=108.19 cfs 893,995 cf
n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=103.17 cfs 893,991 cf**Reach 6R: Small Stream**Avg. Flow Depth=35.52' Max Vel=0.74 fps Inflow=106.06 cfs 955,776 cf
n=0.040 L=245.0' S=0.0021 '/' Capacity=0.34 cfs Outflow=104.25 cfs 955,773 cf**Reach 7R: Small Stream**Avg. Flow Depth=18.73' Max Vel=2.26 fps Inflow=106.28 cfs 1,218,137 cf
n=0.040 L=630.0' S=0.0272 '/' Capacity=0.53 cfs Outflow=104.99 cfs 1,217,764 cf**Reach 8R: 30" RCP Storm Sewer**Avg. Flow Depth=1.34' Max Vel=8.88 fps Inflow=23.93 cfs 124,335 cf
30.0" Round Pipe n=0.012 L=857.0' S=0.0091 '/' Capacity=42.42 cfs Outflow=23.33 cfs 124,335 cf**Reach 9R: P-352**Avg. Flow Depth=0.76' Max Vel=5.12 fps Inflow=7.43 cfs 257,878 cf
36.0" Round Pipe n=0.012 L=358.0' S=0.0050 '/' Capacity=51.24 cfs Outflow=7.11 cfs 257,756 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 40

Reach 10R: 48" RCP Storm Sewer Avg. Flow Depth=1.00' Max Vel=9.48 fps Inflow=23.33 cfs 124,335 cf
48.0" Round Pipe n=0.011 L=364.0' S=0.0100 '/' Capacity=169.76 cfs Outflow=23.09 cfs 124,335 cf

Reach 11R: 60" Arch culvert Avg. Flow Depth=1.36' Max Vel=5.76 fps Inflow=24.86 cfs 132,755 cf
60.0" Round Pipe n=0.022 L=54.0' S=0.0100 '/' Capacity=153.90 cfs Outflow=24.79 cfs 132,755 cf

Reach 12R: Roadside Ditch Avg. Flow Depth=1.35' Max Vel=3.13 fps Inflow=24.79 cfs 132,755 cf
n=0.030 L=321.0' S=0.0050 '/' Capacity=243.58 cfs Outflow=24.24 cfs 132,755 cf

Reach 13R: 54" RCP Culvert Avg. Flow Depth=0.73' Max Vel=14.58 fps Inflow=24.24 cfs 132,755 cf
54.0" Round Pipe n=0.011 L=111.0' S=0.0342 '/' Capacity=430.00 cfs Outflow=24.18 cfs 132,755 cf

Reach 14R: Roadside ditch Avg. Flow Depth=0.90' Max Vel=3.38 fps Inflow=24.18 cfs 132,755 cf
n=0.030 L=225.0' S=0.0094 '/' Capacity=591.21 cfs Outflow=23.80 cfs 132,755 cf

Reach 15R: 54" RCP Culvert Avg. Flow Depth=2.50' Max Vel=10.96 fps Inflow=99.49 cfs 738,638 cf
54.0" Round Pipe n=0.011 L=290.0' S=0.0052 '/' Capacity=167.14 cfs Outflow=99.36 cfs 738,638 cf

Reach 16R: Culvert to Stream Avg. Flow Depth=17.93' Max Vel=1.86 fps Inflow=99.36 cfs 738,638 cf
n=0.040 L=51.0' S=0.0137 '/' Capacity=0.65 cfs Outflow=99.21 cfs 738,638 cf

Reach 17R: DITCH Avg. Flow Depth=0.56' Max Vel=1.09 fps Inflow=2.57 cfs 10,080 cf
n=0.030 L=442.0' S=0.0018 '/' Capacity=190.53 cfs Outflow=2.22 cfs 10,080 cf

Reach 18R: P-351 Avg. Flow Depth=0.74' Max Vel=5.22 fps Inflow=7.11 cfs 257,756 cf
36.0" Round Pipe n=0.012 L=93.0' S=0.0054 '/' Capacity=52.98 cfs Outflow=7.04 cfs 257,726 cf

Reach 20R: CULVERT Avg. Flow Depth=0.58' Max Vel=2.93 fps Inflow=2.22 cfs 8,541 cf
24.0" Round Pipe n=0.012 L=82.0' S=0.0024 '/' Capacity=12.10 cfs Outflow=2.20 cfs 8,541 cf

Reach 21R: Culvert under railroad Avg. Flow Depth=0.78' Max Vel=5.15 fps Inflow=7.55 cfs 257,912 cf
36.0" Round Pipe n=0.012 L=101.0' S=0.0050 '/' Capacity=50.84 cfs Outflow=7.43 cfs 257,878 cf

Reach 22R: Small Stream Avg. Flow Depth=2.02' Max Vel=1.11 fps Inflow=14.24 cfs 45,121 cf
n=0.040 L=419.0' S=0.0050 '/' Capacity=0.66 cfs Outflow=10.59 cfs 45,121 cf

Reach 23R: CB to Street Avg. Flow Depth=1.46' Max Vel=5.75 fps Inflow=15.10 cfs 44,696 cf
24.0" Round Pipe n=0.013 L=761.0' S=0.0050 '/' Capacity=16.01 cfs Outflow=13.58 cfs 44,696 cf

Reach 24R: 30" RCP Storm Sewer? Avg. Flow Depth=0.94' Max Vel=8.65 fps Inflow=14.93 cfs 50,887 cf
30.0" Round Pipe n=0.011 L=810.0' S=0.0100 '/' Capacity=48.47 cfs Outflow=14.11 cfs 50,887 cf

Reach 26R: EX. DRAIN Avg. Flow Depth=0.52' Max Vel=5.66 fps Inflow=2.35 cfs 8,420 cf
12.0" Round Pipe n=0.012 L=91.0' S=0.0130 '/' Capacity=4.40 cfs Outflow=2.32 cfs 8,420 cf

Reach 27R: (new Reach) Avg. Flow Depth=0.31' Max Vel=2.96 fps Inflow=0.61 cfs 1,798 cf
12.0" Round Pipe n=0.012 L=171.0' S=0.0059 '/' Capacity=2.97 cfs Outflow=0.58 cfs 1,798 cf

Reach 28R: (new Reach) Avg. Flow Depth=0.42' Max Vel=2.64 fps Inflow=0.84 cfs 2,657 cf
12.0" Round Pipe n=0.012 L=201.0' S=0.0034 '/' Capacity=2.24 cfs Outflow=0.78 cfs 2,657 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 41

Reach 29R: (new Reach)	Avg. Flow Depth=0.54'	Max Vel=3.60 fps	Inflow=1.58 cfs	5,446 cf
12.0" Round Pipe n=0.012 L=207.0' S=0.0050 '/	Capacity=2.74 cfs	Outflow=1.52 cfs	5,446 cf	
Reach 30R: EX. DRAIN	Avg. Flow Depth=0.24'	Max Vel=9.61 fps	Inflow=1.41 cfs	4,612 cf
12.0" Round Pipe n=0.012 L=52.0' S=0.0806 '/	Capacity=10.96 cfs	Outflow=1.41 cfs	4,612 cf	
Reach 31R: (new Reach)	Avg. Flow Depth=0.50'	Max Vel=6.71 fps	Inflow=2.61 cfs	19,591 cf
12.0" Round Pipe n=0.012 L=50.0' S=0.0188 '/	Capacity=5.29 cfs	Outflow=2.61 cfs	19,591 cf	
Reach 32R: (new Reach)	Avg. Flow Depth=0.64'	Max Vel=4.92 fps	Inflow=2.61 cfs	19,591 cf
12.0" Round Pipe n=0.012 L=237.0' S=0.0084 '/	Capacity=3.54 cfs	Outflow=2.61 cfs	19,591 cf	
Reach 33R: P-221	Avg. Flow Depth=0.71'	Max Vel=4.84 fps	Inflow=4.90 cfs	16,398 cf
24.0" Round Pipe n=0.012 L=65.0' S=0.0054 '/	Capacity=17.98 cfs	Outflow=4.81 cfs	16,398 cf	
Reach 34R: P-308	Avg. Flow Depth=0.72'	Max Vel=5.51 fps	Inflow=5.64 cfs	18,427 cf
24.0" Round Pipe n=0.012 L=22.0' S=0.0068 '/	Capacity=20.24 cfs	Outflow=5.61 cfs	18,427 cf	
Reach 35R: (new Reach)	Avg. Flow Depth=0.52'	Max Vel=11.53 fps	Inflow=8.44 cfs	48,410 cf
30.0" Round Pipe n=0.012 L=15.0' S=0.0413 '/	Capacity=90.34 cfs	Outflow=8.43 cfs	48,410 cf	
Reach P-216: P-216	Avg. Flow Depth=0.62'	Max Vel=5.39 fps	Inflow=3.76 cfs	11,673 cf
18.0" Round Pipe n=0.012 L=12.0' S=0.0083 '/	Capacity=10.39 cfs	Outflow=3.75 cfs	11,673 cf	
Reach P-223: P-223	Avg. Flow Depth=0.53'	Max Vel=5.30 fps	Inflow=2.64 cfs	13,030 cf
15.0" Round Pipe n=0.012 L=120.0' S=0.0100 '/	Capacity=7.00 cfs	Outflow=2.58 cfs	13,030 cf	
Reach P-234: P-234	Avg. Flow Depth=0.65'	Max Vel=6.10 fps	Inflow=4.53 cfs	14,109 cf
18.0" Round Pipe n=0.012 L=79.0' S=0.0101 '/	Capacity=11.45 cfs	Outflow=4.46 cfs	14,109 cf	
Reach P-240: P-240	Avg. Flow Depth=0.80'	Max Vel=5.35 fps	Inflow=6.23 cfs	19,601 cf
24.0" Round Pipe n=0.012 L=17.0' S=0.0059 '/	Capacity=18.80 cfs	Outflow=6.26 cfs	19,601 cf	
Reach P-306: P-306	Avg. Flow Depth=0.73'	Max Vel=6.37 fps	Inflow=5.46 cfs	21,316 cf
18.0" Round Pipe n=0.012 L=25.0' S=0.0100 '/	Capacity=11.38 cfs	Outflow=5.44 cfs	21,316 cf	
Pond 1P: BIORETENTION#4 - GRAVELS	Peak Elev=73.15'	Storage=409 cf	Inflow=2.71 cfs	12,413 cf
			Outflow=2.75 cfs	12,413 cf
Pond 2P: BIORETENTION#5 - GRAVELS	Peak Elev=72.69'	Storage=44 cf	Inflow=0.13 cfs	4,060 cf
			Outflow=0.13 cfs	4,060 cf
Pond 3P: BIORETENTION#3 - GRAVELS	Peak Elev=74.04'	Storage=335 cf	Inflow=0.12 cfs	3,587 cf
			Outflow=0.11 cfs	3,308 cf
Pond 4P: DMH ???	Peak Elev=67.53'	Storage=0 cf	Inflow=1.85 cfs	14,448 cf
18.0" Round Culvert n=0.012 L=92.0' S=0.0103 '/	Outflow=1.85 cfs	14,448 cf		
Pond 5P: BIO #25 - GRAVELS	Peak Elev=63.66'	Storage=89 cf	Inflow=0.12 cfs	4,875 cf
			Outflow=0.12 cfs	4,875 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 42

Pond 34P: BIORETENTION#2 - GRAVELS	Peak Elev=73.19' Storage=30 cf Inflow=2.96 cfs 10,561 cf Outflow=3.00 cfs 10,561 cf
Pond 1107P: QUARRY	Peak Elev=62.92' Storage=2,374,845 cf Inflow=124.54 cfs 450,276 cf Outflow=1.68 cfs 233,874 cf
Pond 2579: EX. CB 2579	Peak Elev=66.42' Storage=16 cf Inflow=8.43 cfs 48,410 cf 30.0" Round Culvert n=0.012 L=53.0' S=0.0098 ' / Outflow=8.44 cfs 48,410 cf
Pond 2723: EX. CB 2723	Inflow=0.88 cfs 2,789 cf Primary=0.88 cfs 2,789 cf
Pond BIO #1: BIORETENTION#1	Peak Elev=71.52' Storage=7,003 cf Inflow=11.37 cfs 39,830 cf Outflow=10.42 cfs 39,625 cf
Pond BIO #11: BIORETENTION#11	Peak Elev=70.26' Storage=3,468 cf Inflow=8.86 cfs 27,836 cf Outflow=8.71 cfs 27,673 cf
Pond BIO #15: BIORETENTION#15	Peak Elev=71.56' Storage=3,845 cf Inflow=3.58 cfs 10,740 cf Outflow=0.67 cfs 10,428 cf
Pond BIO #16: BIORETENTION#16	Peak Elev=69.59' Storage=16,532 cf Inflow=9.03 cfs 29,548 cf Outflow=1.34 cfs 24,033 cf
Pond BIO #17: BIORETENTION#17	Peak Elev=62.84' Storage=4,597 cf Inflow=1.13 cfs 3,384 cf Outflow=0.36 cfs 3,379 cf
Pond BIO #18: BIORETENTION#18	Peak Elev=61.87' Storage=2,134 cf Inflow=2.57 cfs 7,364 cf Outflow=0.69 cfs 7,244 cf
Pond BIO #19: BIORETENTION#19	Peak Elev=64.17' Storage=7,140 cf Inflow=7.25 cfs 22,103 cf Outflow=2.61 cfs 21,743 cf
Pond BIO #2: BIORETENTION#2 SWALE	Peak Elev=77.80' Storage=94 cf Inflow=0.84 cfs 2,525 cf Primary=0.79 cfs 1,112 cf Secondary=0.05 cfs 1,413 cf Outflow=0.84 cfs 2,525 cf
Pond BIO #20: BIORETENTION#20	Peak Elev=62.81' Storage=6,020 cf Inflow=4.25 cfs 18,108 cf Outflow=0.75 cfs 17,777 cf
Pond BIO #21: BIORETENTION#21	Peak Elev=64.90' Storage=25,959 cf Inflow=11.11 cfs 37,768 cf Outflow=0.61 cfs 21,263 cf
Pond BIO #22A: BIO #22 - SWALE	Peak Elev=66.27' Storage=218 cf Inflow=3.63 cfs 11,137 cf Primary=3.54 cfs 6,892 cf Secondary=0.10 cfs 4,246 cf Outflow=3.64 cfs 11,138 cf
Pond BIO #22B: BIO #22 - GRAVELS	Peak Elev=62.56' Storage=1,260 cf Inflow=3.43 cfs 14,424 cf Outflow=2.11 cfs 14,424 cf
Pond BIO #23A: BIO #23 - SWALE	Peak Elev=66.75' Storage=161 cf Inflow=3.36 cfs 10,178 cf Primary=3.24 cfs 6,655 cf Secondary=0.10 cfs 3,523 cf Outflow=3.34 cfs 10,178 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 43

Pond BIO #23B: BIO #23 - GRAVELS Peak Elev=62.64' Storage=87 cf Inflow=0.10 cfs 3,523 cf
Outflow=0.09 cfs 3,523 cf

Pond BIO #25: BIO #25 - SWALE Peak Elev=67.76' Storage=151 cf Inflow=3.42 cfs 10,347 cf
Primary=3.31 cfs 5,472 cf Secondary=0.12 cfs 4,875 cf Outflow=3.43 cfs 10,347 cf

Pond BIO #26: BIORETENTION#26 Peak Elev=61.38' Storage=2,177 cf Inflow=1.90 cfs 5,922 cf
Outflow=0.49 cfs 5,539 cf

Pond BIO #27: BIORETENTION#27 Peak Elev=63.73' Storage=1,245 cf Inflow=1.55 cfs 4,770 cf
Outflow=0.51 cfs 4,638 cf

Pond BIO #29: BIORETENTION#29 Peak Elev=62.03' Storage=3,387 cf Inflow=5.05 cfs 15,096 cf
Outflow=3.58 cfs 15,021 cf

Pond BIO #3: BIORETENTION#3 - SWALE Peak Elev=76.68' Storage=206 cf Inflow=2.17 cfs 6,879 cf
Primary=2.02 cfs 3,292 cf Secondary=0.12 cfs 3,587 cf Outflow=2.13 cfs 6,879 cf

Pond BIO #4: BIORETENTION#4 - SWALE Peak Elev=76.71' Storage=262 cf Inflow=2.70 cfs 8,288 cf
Primary=2.53 cfs 3,985 cf Secondary=0.15 cfs 4,302 cf Outflow=2.67 cfs 8,288 cf

Pond BIO #5: BIORETENTION#5 - SWALE Peak Elev=76.71' Storage=238 cf Inflow=2.61 cfs 8,110 cf
Primary=2.44 cfs 4,051 cf Secondary=0.13 cfs 4,060 cf Outflow=2.56 cfs 8,110 cf

Pond BIO #8: BIORETENTION#8 Peak Elev=71.83' Storage=2,082 cf Inflow=1.41 cfs 5,332 cf
Outflow=0.22 cfs 5,236 cf

Pond BIO#10A: BIORETENTION#10 - SWALE Peak Elev=74.67' Storage=235 cf Inflow=4.52 cfs 14,108 cf
Primary=4.39 cfs 8,372 cf Secondary=0.14 cfs 5,737 cf Outflow=4.53 cfs 14,109 cf

Pond BIO#10B: BIORETENTION#10 - GRAVELS Peak Elev=71.68' Storage=41 cf Inflow=0.14 cfs 5,737 cf
Outflow=0.14 cfs 5,737 cf

Pond BIO#12A: BIORETENTION#12 - SWALE Peak Elev=74.07' Storage=208 cf Inflow=1.28 cfs 3,872 cf
Primary=1.24 cfs 1,415 cf Secondary=0.09 cfs 2,457 cf Outflow=1.34 cfs 3,872 cf

Pond BIO#12B: BIORETENTION#12 - Peak Elev=72.49' Storage=854 cf Inflow=5.17 cfs 18,185 cf
Outflow=5.14 cfs 18,185 cf

Pond BIO#13A: BIORETENTION#13 - SWALE Peak Elev=74.69' Storage=243 cf Inflow=5.14 cfs 15,728 cf
Primary=4.93 cfs 9,696 cf Secondary=0.15 cfs 6,032 cf Outflow=5.08 cfs 15,728 cf

Pond BIO#13B: BIORETENTION#13 - GRAVELS Peak Elev=71.68' Storage=42 cf Inflow=0.15 cfs 6,032 cf
Outflow=0.14 cfs 6,032 cf

Pond BIO#24A: BIO #24 - SWALE Peak Elev=68.12' Storage=139 cf Inflow=2.55 cfs 8,080 cf
Primary=2.45 cfs 3,936 cf Secondary=0.11 cfs 4,143 cf Outflow=2.56 cfs 8,080 cf

Pond BIO#24B: BIO #24 - GRAVELS Peak Elev=63.21' Storage=470 cf Inflow=3.54 cfs 14,490 cf
Outflow=3.19 cfs 14,490 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 44

Pond BIO#28: BIORETENTION#28	Peak Elev=62.31' Storage=1,889 cf Inflow=2.20 cfs 6,743 cf Outflow=0.64 cfs 6,555 cf
Pond BIO#6A: BIORETENTION#6 - SWALE	Peak Elev=76.69' Storage=239 cf Inflow=2.23 cfs 6,722 cf Primary=2.08 cfs 3,026 cf Secondary=0.14 cfs 3,696 cf Outflow=2.22 cfs 6,722 cf
Pond BIO#6B: BIORETENTION#6 -	Peak Elev=73.19' Storage=1,769 cf Inflow=2.13 cfs 10,005 cf Outflow=0.70 cfs 10,005 cf
Pond BIO#7A: BIORETENTION#7 - SWALE	Peak Elev=76.67' Storage=220 cf Inflow=2.03 cfs 6,309 cf Primary=1.88 cfs 2,807 cf Secondary=0.12 cfs 3,502 cf Outflow=2.00 cfs 6,309 cf
Pond BIO#7B: BIORETENTION#7 - GRAVELS	Peak Elev=72.66' Storage=99 cf Inflow=0.12 cfs 3,502 cf Outflow=0.12 cfs 3,502 cf
Pond BIO#9B: BIORETENTION#9 - GRAVELS	Peak Elev=71.58' Storage=215 cf Inflow=4.52 cfs 14,109 cf Outflow=4.53 cfs 14,109 cf
Pond CB 101: CB 101	Peak Elev=78.78' Storage=9 cf Inflow=1.97 cfs 6,115 cf 18.0" Round Culvert n=0.012 L=31.0' S=0.0100 ' Outflow=1.97 cfs 6,115 cf
Pond CB 102: CB 102	Peak Elev=76.23' Storage=19 cf Inflow=6.98 cfs 22,001 cf 24.0" Round Culvert n=0.012 L=30.0' S=0.0050 ' Outflow=6.96 cfs 22,001 cf
Pond CB 103: CB 103	Peak Elev=76.31' Storage=16 cf Inflow=6.09 cfs 19,147 cf 24.0" Round Culvert n=0.012 L=38.0' S=0.0053 ' Outflow=6.09 cfs 19,147 cf
Pond CB 104: CB 104	Peak Elev=74.21' Storage=13 cf Inflow=4.20 cfs 12,874 cf 24.0" Round Culvert n=0.012 L=35.0' S=0.0057 ' Outflow=4.21 cfs 12,874 cf
Pond CB 105: CB 105	Peak Elev=74.61' Storage=13 cf Inflow=3.44 cfs 10,505 cf 18.0" Round Culvert n=0.012 L=57.0' S=0.0053 ' Outflow=3.44 cfs 10,505 cf
Pond CB 106: CB 106	Peak Elev=75.95' Storage=7 cf Inflow=1.50 cfs 4,484 cf 18.0" Round Culvert n=0.012 L=60.0' S=0.0100 ' Outflow=1.50 cfs 4,484 cf
Pond CB 107: CB 107	Peak Elev=76.23' Storage=7 cf Inflow=0.97 cfs 2,848 cf 12.0" Round Culvert n=0.012 L=23.0' S=0.0065 ' Outflow=0.97 cfs 2,848 cf
Pond CB 108: CB 108	Peak Elev=76.32' Storage=3 cf Inflow=0.20 cfs 573 cf 12.0" Round Culvert n=0.012 L=44.0' S=0.0295 ' Outflow=0.20 cfs 573 cf
Pond CB 109: CB 109	Peak Elev=75.01' Storage=6 cf Inflow=0.82 cfs 2,567 cf 12.0" Round Culvert n=0.012 L=151.0' S=0.0053 ' Outflow=0.82 cfs 2,567 cf
Pond CB 110: CB 110	Peak Elev=75.29' Storage=4 cf Inflow=0.37 cfs 1,146 cf 12.0" Round Culvert n=0.012 L=69.0' S=0.0051 ' Outflow=0.37 cfs 1,146 cf
Pond CB 111: CB 111	Peak Elev=75.21' Storage=3 cf Inflow=0.14 cfs 426 cf 12.0" Round Culvert n=0.012 L=82.0' S=0.0049 ' Outflow=0.14 cfs 426 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 45

Pond CB 112: CB 112

Peak Elev=71.09' Storage=14 cf Inflow=5.31 cfs 16,817 cf
24.0" Round Culvert n=0.012 L=70.0' S=0.0050 '/' Outflow=5.31 cfs 16,817 cf

Pond CB 113: CB 113

Peak Elev=71.32' Storage=15 cf Inflow=5.16 cfs 16,272 cf
24.0" Round Culvert n=0.012 L=16.0' S=0.0063 '/' Outflow=5.15 cfs 16,272 cf

Pond CB 114: CB 114

Peak Elev=71.79' Storage=11 cf Inflow=4.25 cfs 13,356 cf
24.0" Round Culvert n=0.012 L=72.0' S=0.0090 '/' Outflow=4.25 cfs 13,356 cf

Pond CB 115: CB 115

Peak Elev=72.37' Storage=12 cf Inflow=4.09 cfs 12,819 cf
24.0" Round Culvert n=0.012 L=77.0' S=0.0052 '/' Outflow=4.09 cfs 12,819 cf

Pond CB 118: CB 118

Peak Elev=74.00' Storage=6 cf Inflow=0.79 cfs 2,547 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0089 '/' Outflow=0.79 cfs 2,547 cf

Pond CB 119: CB 119

Peak Elev=71.76' Storage=15 cf Inflow=5.61 cfs 19,606 cf
24.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=5.61 cfs 19,606 cf

Pond CB 120: CB 120

Peak Elev=71.95' Storage=14 cf Inflow=5.05 cfs 17,418 cf
24.0" Round Culvert n=0.012 L=28.0' S=0.0054 '/' Outflow=5.04 cfs 17,418 cf

Pond CB 125: CB 125

Peak Elev=67.48' Storage=39 cf Inflow=20.86 cfs 66,383 cf
24.0" Round Culvert n=0.012 L=41.0' S=0.0061 '/' Outflow=20.83 cfs 66,383 cf

Pond CB 126: CB 126

Peak Elev=73.04' Storage=11 cf Inflow=2.05 cfs 6,333 cf
12.0" Round Culvert n=0.012 L=10.0' S=0.0200 '/' Outflow=2.05 cfs 6,333 cf

Pond CB 127: CB 127

Peak Elev=69.89' Storage=6 cf Inflow=0.99 cfs 3,094 cf
18.0" Round Culvert n=0.012 L=38.0' S=0.0105 '/' Outflow=0.99 cfs 3,094 cf

Pond CB 129: CB 129

Peak Elev=70.88' Storage=5 cf Inflow=0.83 cfs 2,566 cf
12.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=0.83 cfs 2,566 cf

Pond CB 130: CB 130

Peak Elev=70.97' Storage=4 cf Inflow=0.33 cfs 1,012 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0057 '/' Outflow=0.33 cfs 1,012 cf

Pond CB 131: CB 131

Peak Elev=70.79' Storage=6 cf Inflow=0.76 cfs 2,375 cf
12.0" Round Culvert n=0.012 L=43.0' S=0.0209 '/' Outflow=0.76 cfs 2,375 cf

Pond CB 133: CB 133

Peak Elev=75.57' Storage=3 cf Inflow=0.28 cfs 832 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=0.28 cfs 832 cf

Pond CB 136: CB 136

Peak Elev=73.31' Storage=6 cf Inflow=0.88 cfs 2,688 cf
12.0" Round Culvert n=0.012 L=23.0' S=0.0109 '/' Outflow=0.88 cfs 2,688 cf

Pond CB 137: CB 137

Peak Elev=73.61' Storage=5 cf Inflow=0.50 cfs 1,540 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0100 '/' Outflow=0.50 cfs 1,540 cf

Pond CB 138: CB 138

Peak Elev=70.01' Storage=8 cf Inflow=7.86 cfs 24,503 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=7.88 cfs 24,503 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 46

Pond CB 139: CB 139	Peak Elev=70.23' Storage=7 cf Inflow=7.34 cfs 22,966 cf 24.0" Round Culvert n=0.012 L=29.0' S=0.0052 ' ' Outflow=7.36 cfs 22,967 cf
Pond CB 142: CB 142	Peak Elev=67.40' Storage=6 cf Inflow=0.78 cfs 2,415 cf 12.0" Round Culvert n=0.012 L=51.0' S=0.0098 ' ' Outflow=0.78 cfs 2,415 cf
Pond CB 143: CB 143	Peak Elev=68.03' Storage=3 cf Inflow=0.22 cfs 680 cf 12.0" Round Culvert n=0.012 L=78.0' S=0.0096 ' ' Outflow=0.22 cfs 680 cf
Pond CB 144: CB 144	Peak Elev=68.52' Storage=0 cf Inflow=1.47 cfs 13,170 cf 18.0" Round Culvert n=0.012 L=139.0' S=0.0101 ' ' Outflow=1.47 cfs 13,170 cf
Pond CB 145: CB 145	Peak Elev=69.41' Storage=0 cf Inflow=1.03 cfs 11,740 cf 18.0" Round Culvert n=0.012 L=11.0' S=0.0136 ' ' Outflow=1.03 cfs 11,740 cf
Pond CB 147: CB 147	Peak Elev=72.02' Storage=7 cf Inflow=0.80 cfs 2,430 cf 12.0" Round Culvert n=0.012 L=33.0' S=0.0061 ' ' Outflow=0.80 cfs 2,430 cf
Pond CB 148: CB 148	Peak Elev=71.22' Storage=0 cf Inflow=1.86 cfs 5,819 cf 12.0" Round Culvert n=0.012 L=14.0' S=0.1429 ' ' Outflow=1.86 cfs 5,819 cf
Pond CB 149: CB 149	Peak Elev=71.71' Storage=0 cf Inflow=0.51 cfs 1,692 cf 12.0" Round Culvert n=0.012 L=71.0' S=0.0204 ' ' Outflow=0.51 cfs 1,692 cf
Pond CB 150: CB 150	Peak Elev=72.18' Storage=5 cf Inflow=0.59 cfs 1,810 cf 12.0" Round Culvert n=0.012 L=21.0' S=0.0071 ' ' Outflow=0.59 cfs 1,810 cf
Pond CB 151: CB 151	Peak Elev=72.76' Storage=4 cf Inflow=0.30 cfs 930 cf 12.0" Round Culvert n=0.012 L=120.0' S=0.0050 ' ' Outflow=0.30 cfs 930 cf
Pond CB 152: CB 152	Peak Elev=73.08' Storage=2 cf Inflow=0.15 cfs 447 cf 12.0" Round Culvert n=0.012 L=32.0' S=0.0109 ' ' Outflow=0.15 cfs 447 cf
Pond CB 154: CB 154	Peak Elev=67.78' Storage=10 cf Inflow=2.45 cfs 7,664 cf 15.0" Round Culvert n=0.012 L=28.0' S=0.0107 ' ' Outflow=2.45 cfs 7,664 cf
Pond CB 155: CB 155	Peak Elev=67.46' Storage=3 cf Inflow=2.72 cfs 8,511 cf 15.0" Round Culvert n=0.012 L=68.0' S=0.0066 ' ' Outflow=2.72 cfs 8,511 cf
Pond CB 156: CB 156	Peak Elev=67.71' Storage=0 cf Inflow=5.96 cfs 18,652 cf 24.0" Round Culvert n=0.012 L=117.0' S=0.0103 ' ' Outflow=5.96 cfs 18,652 cf
Pond CB 157: CB 157	Peak Elev=67.96' Storage=0 cf Inflow=2.67 cfs 8,330 cf 18.0" Round Culvert n=0.012 L=30.0' S=0.0100 ' ' Outflow=2.67 cfs 8,330 cf
Pond CB 158: CB 158	Peak Elev=68.67' Storage=0 cf Inflow=2.20 cfs 6,852 cf 15.0" Round Culvert n=0.012 L=112.0' S=0.0103 ' ' Outflow=2.20 cfs 6,852 cf
Pond CB 159: CB 159	Peak Elev=69.38' Storage=0 cf Inflow=1.73 cfs 5,434 cf 15.0" Round Culvert n=0.012 L=112.0' S=0.0076 ' ' Outflow=1.73 cfs 5,434 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 47

Pond CB 160: CB 160

Peak Elev=70.68' Storage=3 cf Inflow=1.46 cfs 4,581 cf
15.0" Round Culvert n=0.012 L=199.0' S=0.0075 ' /' Outflow=1.46 cfs 4,581 cf

Pond CB 161: CB 161

Peak Elev=71.52' Storage=3 cf Inflow=0.58 cfs 1,754 cf
12.0" Round Culvert n=0.012 L=145.0' S=0.0052 ' /' Outflow=0.58 cfs 1,754 cf

Pond CB 165: CB 165

Peak Elev=71.13' Storage=13 cf Inflow=0.87 cfs 2,782 cf
12.0" Round Culvert n=0.012 L=72.0' S=0.0056 ' /' Outflow=0.87 cfs 2,775 cf

Pond CB 166: CB 166

Peak Elev=72.29' Storage=4 cf Inflow=6.57 cfs 20,052 cf
24.0" Round Culvert n=0.012 L=14.0' S=0.0071 ' /' Outflow=6.56 cfs 20,052 cf

Pond CB 167: CB 167

Peak Elev=72.54' Storage=2 cf Inflow=6.17 cfs 18,869 cf
24.0" Round Culvert n=0.012 L=45.0' S=0.0056 ' /' Outflow=6.17 cfs 18,869 cf

Pond CB 168: CB 168

Peak Elev=73.38' Storage=8 cf Inflow=5.07 cfs 15,553 cf
18.0" Round Culvert n=0.012 L=57.0' S=0.0053 ' /' Outflow=5.06 cfs 15,553 cf

Pond CB 169: CB 169

Peak Elev=73.86' Storage=5 cf Inflow=3.71 cfs 11,342 cf
18.0" Round Culvert n=0.012 L=124.0' S=0.0052 ' /' Outflow=3.70 cfs 11,342 cf

Pond CB 170: CB 170

Peak Elev=74.35' Storage=1 cf Inflow=2.28 cfs 6,934 cf
18.0" Round Culvert n=0.012 L=123.0' S=0.0053 ' /' Outflow=2.28 cfs 6,934 cf

Pond CB 171: CB 171

Peak Elev=74.57' Storage=1 cf Inflow=1.99 cfs 6,041 cf
18.0" Round Culvert n=0.012 L=20.0' S=0.0050 ' /' Outflow=2.00 cfs 6,041 cf

Pond CB 172: CB 172

Peak Elev=75.11' Storage=5 cf Inflow=1.18 cfs 3,507 cf
12.0" Round Culvert n=0.012 L=24.0' S=0.0063 ' /' Outflow=1.18 cfs 3,507 cf

Pond CB 173: CB 173

Peak Elev=72.92' Storage=0 cf Inflow=0.70 cfs 2,062 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0171 ' /' Outflow=0.70 cfs 2,062 cf

Pond CB 174: CB 174

Peak Elev=74.82' Storage=10 cf Inflow=0.13 cfs 385 cf
12.0" Round Culvert n=0.012 L=76.0' S=0.0191 ' /' Outflow=0.13 cfs 377 cf

Pond CB 175: CB 175

Peak Elev=69.13' Storage=2 cf Inflow=3.17 cfs 9,697 cf
18.0" Round Culvert n=0.012 L=18.0' S=0.0111 ' /' Outflow=3.17 cfs 9,697 cf

Pond CB 176: CB 176

Peak Elev=69.55' Storage=3 cf Inflow=1.99 cfs 5,997 cf
18.0" Round Culvert n=0.012 L=58.0' S=0.0103 ' /' Outflow=2.00 cfs 5,997 cf

Pond CB 177: CB 177

Peak Elev=71.12' Storage=0 cf Inflow=1.00 cfs 3,038 cf
12.0" Round Culvert n=0.012 L=124.0' S=0.0081 ' /' Outflow=1.00 cfs 3,038 cf

Pond CB 178: CB 178

Peak Elev=71.46' Storage=0 cf Inflow=0.64 cfs 1,946 cf
12.0" Round Culvert n=0.012 L=46.0' S=0.0054 ' /' Outflow=0.64 cfs 1,946 cf

Pond CB 179: CB 179

Peak Elev=72.11' Storage=0 cf Inflow=0.45 cfs 1,331 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0051 ' /' Outflow=0.45 cfs 1,331 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 48

Pond CB 180: CB 180	Peak Elev=70.14' Storage=6 cf Inflow=0.71 cfs 2,072 cf 12.0" Round Culvert n=0.012 L=48.0' S=0.0052 '/' Outflow=0.71 cfs 2,072 cf
Pond CB 181: CB 181	Peak Elev=66.99' Storage=4 cf Inflow=0.35 cfs 1,070 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0107 '/' Outflow=0.35 cfs 1,070 cf
Pond CB 182: CB 182	Peak Elev=66.79' Storage=9 cf Inflow=2.38 cfs 7,243 cf 18.0" Round Culvert n=0.012 L=71.0' S=0.0056 '/' Outflow=2.39 cfs 7,243 cf
Pond CB 183: CB 183	Peak Elev=67.32' Storage=6 cf Inflow=1.00 cfs 3,028 cf 12.0" Round Culvert n=0.012 L=60.0' S=0.0100 '/' Outflow=1.00 cfs 3,028 cf
Pond CB 184: CB 184	Peak Elev=68.69' Storage=3 cf Inflow=0.25 cfs 769 cf 12.0" Round Culvert n=0.012 L=154.0' S=0.0101 '/' Outflow=0.25 cfs 769 cf
Pond CB 185: CB 185	Peak Elev=69.10' Storage=3 cf Inflow=0.20 cfs 624 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0054 '/' Outflow=0.20 cfs 624 cf
Pond CB 186: CB 186	Peak Elev=73.68' Storage=0 cf Inflow=0.88 cfs 2,789 cf 12.0" Round Culvert n=0.012 L=14.0' S=0.0171 '/' Outflow=0.88 cfs 2,789 cf
Pond CB 187: CB 187	Peak Elev=74.31' Storage=0 cf Inflow=0.24 cfs 699 cf 12.0" Round Culvert n=0.012 L=54.0' S=0.0102 '/' Outflow=0.24 cfs 699 cf
Pond CB 188: CB 188	Peak Elev=74.87' Storage=3 cf Inflow=0.29 cfs 859 cf 12.0" Round Culvert n=0.012 L=41.0' S=0.0159 '/' Outflow=0.29 cfs 859 cf
Pond CB 189: CB 189	Peak Elev=75.54' Storage=4 cf Inflow=0.61 cfs 1,798 cf 12.0" Round Culvert n=0.012 L=31.0' S=0.0065 '/' Outflow=0.61 cfs 1,798 cf
Pond CB 190: CB 190	Peak Elev=75.68' Storage=2 cf Inflow=0.06 cfs 169 cf 12.0" Round Culvert n=0.012 L=62.0' S=0.0056 '/' Outflow=0.06 cfs 169 cf
Pond CB 191: CB 191	Peak Elev=77.00' Storage=14 cf Inflow=5.83 cfs 18,187 cf 24.0" Round Culvert n=0.012 L=134.0' S=0.0052 '/' Outflow=5.83 cfs 18,187 cf
Pond CB 192: CB 192	Peak Elev=77.30' Storage=14 cf Inflow=4.15 cfs 12,933 cf 18.0" Round Culvert n=0.012 L=36.0' S=0.0056 '/' Outflow=4.13 cfs 12,933 cf
Pond CB 193: CB 193	Peak Elev=77.41' Storage=11 cf Inflow=2.01 cfs 6,145 cf 12.0" Round Culvert n=0.012 L=46.0' S=0.0054 '/' Outflow=2.01 cfs 6,145 cf
Pond CB 194: CB 194	Peak Elev=77.54' Storage=11 cf Inflow=1.67 cfs 5,147 cf 12.0" Round Culvert n=0.012 L=20.0' S=0.0050 '/' Outflow=1.67 cfs 5,147 cf
Pond CB 195: CB 195	Peak Elev=78.71' Storage=6 cf Inflow=0.81 cfs 2,628 cf 12.0" Round Culvert n=0.012 L=76.0' S=0.0099 '/' Outflow=0.81 cfs 2,628 cf
Pond CB 196: CB 196	Peak Elev=79.54' Storage=5 cf Inflow=0.61 cfs 1,962 cf 12.0" Round Culvert n=0.012 L=81.0' S=0.0099 '/' Outflow=0.61 cfs 1,962 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 49

Pond CB 197: CB 197

Peak Elev=80.39' Storage=4 cf Inflow=0.46 cfs 1,416 cf
12.0" Round Culvert n=0.012 L=81.0' S=0.0099 '/' Outflow=0.46 cfs 1,416 cf

Pond CB 198: CB 198

Peak Elev=77.99' Storage=3 cf Inflow=0.25 cfs 703 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0714 '/' Outflow=0.24 cfs 703 cf

Pond CB 199: CB 199

Peak Elev=72.60' Storage=0.000 af Inflow=0.28 cfs 809 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0058 '/' Outflow=0.28 cfs 809 cf

Pond CB 200: CB 200

Peak Elev=75.08' Storage=0.000 af Inflow=0.87 cfs 2,735 cf
12.0" Round Culvert n=0.012 L=25.0' S=0.0040 '/' Outflow=0.87 cfs 2,735 cf

Pond CB 201: CB 201

Peak Elev=74.91' Storage=0.000 af Inflow=1.52 cfs 4,685 cf
18.0" Round Culvert n=0.012 L=116.0' S=0.0052 '/' Outflow=1.52 cfs 4,685 cf

Pond CB 210: CB 210

Peak Elev=63.53' Storage=7 cf Inflow=0.97 cfs 3,424 cf
12.0" Round Culvert n=0.012 L=29.0' S=0.0103 '/' Outflow=0.97 cfs 3,424 cf

Pond CB 211: CB 211

Peak Elev=64.75' Storage=4 cf Inflow=0.36 cfs 1,060 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=0.36 cfs 1,060 cf

Pond CB 212: CB 212

Peak Elev=64.43' Storage=6 cf Inflow=0.82 cfs 2,507 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.82 cfs 2,507 cf

Pond CB 213: CB 213

Peak Elev=65.00' Storage=4 cf Inflow=0.31 cfs 969 cf
12.0" Round Culvert n=0.012 L=52.0' S=0.0058 '/' Outflow=0.31 cfs 969 cf

Pond CB 214: CB 214

Peak Elev=64.72' Storage=5 cf Inflow=0.55 cfs 1,858 cf
12.0" Round Culvert n=0.012 L=80.0' S=0.0050 '/' Outflow=0.55 cfs 1,858 cf

Pond CB 215: CB 215

Peak Elev=64.93' Storage=12 cf Inflow=2.15 cfs 6,666 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0056 '/' Outflow=2.15 cfs 6,666 cf

Pond CB 216: CB 216

Peak Elev=65.62' Storage=6 cf Inflow=0.67 cfs 2,054 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0051 '/' Outflow=0.67 cfs 2,054 cf

Pond CB 217: CB 217

Peak Elev=63.10' Storage=10 cf Inflow=1.75 cfs 5,485 cf
12.0" Round Culvert n=0.012 L=183.0' S=0.0052 '/' Outflow=1.75 cfs 5,485 cf

Pond CB 218: CB 218

Peak Elev=63.95' Storage=6 cf Inflow=0.70 cfs 2,086 cf
12.0" Round Culvert n=0.012 L=112.0' S=0.0067 '/' Outflow=0.70 cfs 2,086 cf

Pond CB 219: CB 219

Peak Elev=61.54' Storage=11 cf Inflow=2.30 cfs 6,934 cf
15.0" Round Culvert n=0.012 L=91.0' S=0.0055 '/' Outflow=2.30 cfs 6,934 cf

Pond CB 220: CB 220

Peak Elev=62.18' Storage=9 cf Inflow=1.81 cfs 5,289 cf
15.0" Round Culvert n=0.012 L=129.0' S=0.0050 '/' Outflow=1.80 cfs 5,289 cf

Pond CB 221: CB 221

Peak Elev=63.88' Storage=7 cf Inflow=1.24 cfs 3,516 cf
12.0" Round Culvert n=0.012 L=137.0' S=0.0117 '/' Outflow=1.24 cfs 3,516 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 50

Pond CB 222: CB 222	Peak Elev=62.32' Storage=7 cf Inflow=0.43 cfs 1,354 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.43 cfs 1,352 cf
Pond CB 223: CB 223	Peak Elev=66.20' Storage=9 cf Inflow=2.69 cfs 31,276 cf 24.0" Round Culvert n=0.012 L=18.0' S=0.0167 '/' Outflow=2.69 cfs 31,276 cf
Pond CB 224: CB 224	Peak Elev=65.71' Storage=5 cf Inflow=0.53 cfs 1,568 cf 12.0" Round Culvert n=0.012 L=28.0' S=0.0100 '/' Outflow=0.53 cfs 1,568 cf
Pond CB 226: CB 226	Peak Elev=64.12' Storage=3 cf Inflow=0.20 cfs 578 cf 12.0" Round Culvert n=0.012 L=79.0' S=0.0101 '/' Outflow=0.20 cfs 578 cf
Pond CB 229: CB 229	Peak Elev=63.05' Storage=7 cf Inflow=0.86 cfs 2,624 cf 12.0" Round Culvert n=0.012 L=13.0' S=0.0077 '/' Outflow=0.86 cfs 2,624 cf
Pond CB 230: CB 230	Peak Elev=63.14' Storage=5 cf Inflow=0.46 cfs 1,300 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=0.46 cfs 1,300 cf
Pond CB 231: CB 231	Peak Elev=61.29' Storage=7 cf Inflow=0.83 cfs 2,549 cf 12.0" Round Culvert n=0.012 L=25.0' S=0.0060 '/' Outflow=0.83 cfs 2,549 cf
Pond CB 232: CB 232	Peak Elev=61.52' Storage=7 cf Inflow=0.76 cfs 2,342 cf 12.0" Round Culvert n=0.012 L=28.0' S=0.0054 '/' Outflow=0.77 cfs 2,342 cf
Pond CB 233: CB 233	Peak Elev=63.36' Storage=3 cf Inflow=0.19 cfs 592 cf 12.0" Round Culvert n=0.012 L=39.0' S=0.0141 '/' Outflow=0.19 cfs 592 cf
Pond CB 235: CB 235	Peak Elev=61.76' Storage=5 cf Inflow=0.62 cfs 1,840 cf 12.0" Round Culvert n=0.012 L=37.0' S=0.0095 '/' Outflow=0.62 cfs 1,840 cf
Pond CB 236: CB 236	Peak Elev=62.05' Storage=4 cf Inflow=0.36 cfs 1,074 cf 12.0" Round Culvert n=0.012 L=28.0' S=0.0107 '/' Outflow=0.36 cfs 1,074 cf
Pond CB 237: CB 237	Peak Elev=63.48' Storage=5 cf Inflow=0.57 cfs 1,677 cf 12.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=0.57 cfs 1,677 cf
Pond CB 238: CB 238	Peak Elev=63.91' Storage=3 cf Inflow=0.27 cfs 808 cf 12.0" Round Culvert n=0.012 L=44.0' S=0.0102 '/' Outflow=0.27 cfs 808 cf
Pond CB 239: CB 239	Peak Elev=61.17' Storage=8 cf Inflow=1.49 cfs 4,570 cf 12.0" Round Culvert n=0.012 L=32.0' S=0.0109 '/' Outflow=1.49 cfs 4,570 cf
Pond CB 241: CB 241	Peak Elev=62.08' Storage=9 cf Inflow=1.33 cfs 4,246 cf 12.0" Round Culvert n=0.012 L=180.0' S=0.0050 '/' Outflow=1.33 cfs 4,246 cf
Pond CB 244: CB 244	Peak Elev=62.53' Storage=5 cf Inflow=0.60 cfs 1,873 cf 12.0" Round Culvert n=0.012 L=8.0' S=0.0125 '/' Outflow=0.60 cfs 1,873 cf
Pond CB 245: CB 245	Peak Elev=62.31' Storage=1 cf Inflow=0.06 cfs 164 cf 12.0" Round Culvert n=0.012 L=33.0' S=0.0106 '/' Outflow=0.05 cfs 164 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 51

Pond CB 248: CB 248

Peak Elev=65.29' Storage=7 cf Inflow=6.65 cfs 20,706 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=6.65 cfs 20,706 cf

Pond CB 249: CB 249

Peak Elev=74.81' Storage=0.000 af Inflow=0.05 cfs 154 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0103 '/' Outflow=0.05 cfs 154 cf

Pond CB 252: CB 252

Peak Elev=69.96' Storage=10 cf Inflow=1.64 cfs 5,108 cf
12.0" Round Culvert n=0.012 L=38.0' S=0.0053 '/' Outflow=1.64 cfs 5,108 cf

Pond CB 253: CB 253

Peak Elev=70.20' Storage=9 cf Inflow=1.45 cfs 4,510 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=1.45 cfs 4,510 cf

Pond DMH 508: DMH 508

Peak Elev=61.12' Storage=19 cf Inflow=12.01 cfs 64,428 cf
36.0" Round Culvert n=0.012 L=127.0' S=0.0051 '/' Outflow=12.01 cfs 64,428 cf

Pond DMH 509: DMH 509

Peak Elev=61.47' Storage=16 cf Inflow=6.59 cfs 43,113 cf
24.0" Round Culvert n=0.012 L=90.0' S=0.0050 '/' Outflow=6.59 cfs 43,113 cf

Pond DMH 510: DMH 510

Peak Elev=62.16' Storage=16 cf Inflow=6.58 cfs 43,113 cf
24.0" Round Culvert n=0.012 L=122.0' S=0.0049 '/' Outflow=6.59 cfs 43,113 cf

Pond DMH 511: DMH 511

Peak Elev=62.71' Storage=16 cf Inflow=6.59 cfs 43,113 cf
24.0" Round Culvert n=0.012 L=83.0' S=0.0054 '/' Outflow=6.58 cfs 43,113 cf

Pond DMH 512: DMH 512

Peak Elev=62.69' Storage=6 cf Inflow=0.97 cfs 24,686 cf
24.0" Round Culvert n=0.012 L=140.0' S=0.0050 '/' Outflow=0.97 cfs 24,686 cf

Pond DMH 513: DMH 513

Peak Elev=63.15' Storage=4 cf Inflow=0.61 cfs 21,263 cf
24.0" Round Culvert n=0.012 L=82.0' S=0.0055 '/' Outflow=0.61 cfs 21,262 cf

Pond DMH 514: DMH 514

Peak Elev=65.11' Storage=6 cf Inflow=0.67 cfs 2,054 cf
12.0" Round Culvert n=0.012 L=103.0' S=0.0053 '/' Outflow=0.67 cfs 2,054 cf

Pond DMH 515: DMH 515

Peak Elev=61.75' Storage=6 cf Inflow=0.70 cfs 2,086 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=0.70 cfs 2,086 cf

Pond DMH 516: DMH 516

Peak Elev=61.10' Storage=9 cf Inflow=1.33 cfs 4,246 cf
12.0" Round Culvert n=0.012 L=58.0' S=0.0052 '/' Outflow=1.33 cfs 4,246 cf

Pond DMH 533: DMH 533

Peak Elev=67.59' Storage=35 cf Inflow=20.38 cfs 64,733 cf
24.0" Round Culvert n=0.012 L=67.0' S=0.0097 '/' Outflow=20.35 cfs 64,733 cf

Pond DMH 534: DMH 534

Peak Elev=69.79' Storage=35 cf Inflow=20.42 cfs 64,733 cf
24.0" Round Culvert n=0.012 L=208.0' S=0.0101 '/' Outflow=20.38 cfs 64,733 cf

Pond DMH 535: DMH 535

Peak Elev=71.65' Storage=35 cf Inflow=20.46 cfs 64,733 cf
24.0" Round Culvert n=0.012 L=135.0' S=0.0100 '/' Outflow=20.42 cfs 64,733 cf

Pond DMH 536: DMH 536

Peak Elev=73.70' Storage=20 cf Inflow=7.93 cfs 25,127 cf
18.0" Round Culvert n=0.012 L=300.0' S=0.0092 '/' Outflow=7.92 cfs 25,127 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 2-YEAR Rainfall=3.30"

Printed 2/1/2016

Page 52

Pond DMH 537: DMH 537Peak Elev=74.44' Storage=12 cf Inflow=3.40 cfs 10,732 cf
18.0" Round Culvert n=0.012 L=260.0' S=0.0050 ' Outflow=3.40 cfs 10,732 cf**Pond EX. CB: EX. CB 2436**Inflow=0.29 cfs 859 cf
Primary=0.29 cfs 859 cf**Pond EX. CB 2470: EX. CB 2470**Peak Elev=75.05' Storage=5 cf Inflow=0.61 cfs 1,798 cf
12.0" Round Culvert n=0.012 L=171.0' S=0.0059 ' Outflow=0.61 cfs 1,798 cf**Pond FB#1: FOREBAY #1**Peak Elev=74.72' Storage=590 cf Inflow=4.21 cfs 12,874 cf
Outflow=4.23 cfs 12,398 cf**Pond GW1-C1: GRAVEL WETLAND #1**Peak Elev=74.56' Storage=5,658 cf Inflow=4.23 cfs 12,398 cf
Outflow=1.25 cfs 12,398 cf**Pond SF#1: SAND FILTER #1**Peak Elev=74.43' Storage=4,261 cf Inflow=6.96 cfs 22,001 cf
Outflow=2.84 cfs 21,650 cf**Pond SF#2: SAND FILTER #2**Peak Elev=70.92' Storage=4,361 cf Inflow=6.56 cfs 20,052 cf
Outflow=2.61 cfs 19,591 cf**Pond SF#3: SAND FILTER #3**Peak Elev=70.05' Storage=316 cf Inflow=0.80 cfs 2,430 cf
Outflow=0.49 cfs 2,373 cf**Pond SF#4: SAND FILTER #4**Peak Elev=76.71' Storage=702 cf Inflow=1.97 cfs 6,115 cf
Outflow=1.92 cfs 5,986 cf**Pond SF#5: SAND FILTER #5**Peak Elev=68.22' Storage=1,903 cf Inflow=3.77 cfs 11,802 cf
Outflow=2.13 cfs 11,525 cf**Link AP-1: Highway culvert**Inflow=111.14 cfs 1,390,374 cf
Primary=111.14 cfs 1,390,374 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 1,633,771 cf Average Runoff Depth = 2.12"**
48.47% Pervious = 4,492,702 sf 51.53% Impervious = 4,776,381 sf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 53

Time span=1.00-72.00 hrs, dt=0.05 hrs, 1421 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth=3.47"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=158.90 cfs 1,092,740 cf

Subcatchment 102: South of railroad Runoff Area=1,135,658 sf 6.62% Impervious Runoff Depth=2.71"
Flow Length=617' Tc=26.5 min CN=78 Runoff=49.45 cfs 256,630 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth=3.27"
Flow Length=754' Tc=19.7 min CN=84 Runoff=11.25 cfs 51,639 cf

Subcatchment 1100: PR-WS-1100 Runoff Area=25,136 sf 96.39% Impervious Runoff Depth=4.65"
Flow Length=249' Slope=0.0300 '/' Tc=1.5 min CN=97 Runoff=3.06 cfs 9,734 cf

Subcatchment 1101: PR-WS-1101 Runoff Area=77,854 sf 80.46% Impervious Runoff Depth=4.31"
Flow Length=319' Slope=0.0200 '/' Tc=2.3 min CN=94 Runoff=9.13 cfs 27,949 cf

Subcatchment 1102: PR-WS-1102 Runoff Area=14,898 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=303' Tc=2.1 min CN=98 Runoff=1.82 cfs 5,913 cf

Subcatchment 1103: N/W of railroad Runoff Area=41,085 sf 0.00% Impervious Runoff Depth=2.71"
Flow Length=556' Tc=6.6 min CN=78 Runoff=2.90 cfs 9,284 cf

Subcatchment 1104: North of railroad Runoff Area=7,693 sf 70.79% Impervious Runoff Depth=4.09"
Flow Length=180' Tc=3.2 min CN=92 Runoff=0.87 cfs 2,622 cf

Subcatchment 1105: N/E of railroad Runoff Area=81,158 sf 0.00% Impervious Runoff Depth=3.57"
Flow Length=315' Slope=0.1000 '/' Tc=6.6 min CN=87 Runoff=7.38 cfs 24,126 cf

Subcatchment 1106: PR-WS-1106 Runoff Area=141,898 sf 6.92% Impervious Runoff Depth=2.04"
Flow Length=360' Tc=6.9 min CN=70 Runoff=7.31 cfs 24,079 cf

Subcatchment 1107: Quarry Runoff Area=944,293 sf 87.22% Impervious Runoff Depth=4.42"
Flow Length=55' Slope=0.3300 '/' Tc=2.9 min CN=95 Runoff=111.74 cfs 347,777 cf

Subcatchment 1110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth=4.31"
Flow Length=170' Slope=0.0200 '/' Tc=1.4 min CN=94 Runoff=23.96 cfs 72,908 cf

Subcatchment 1111: PR-WS-1111 Runoff Area=322,054 sf 17.82% Impervious Runoff Depth=2.99"
Flow Length=375' Tc=4.1 min CN=81 Runoff=27.02 cfs 80,120 cf

Subcatchment PR-101A: PR-WS-101A Runoff Area=12,140 sf 41.37% Impervious Runoff Depth=3.57"
Flow Length=205' Tc=4.2 min CN=87 Runoff=1.19 cfs 3,609 cf

Subcatchment PR-101B: PR-WS-101B Runoff Area=16,595 sf 95.33% Impervious Runoff Depth=4.65"
Flow Length=226' Tc=2.3 min CN=97 Runoff=2.01 cfs 6,427 cf

Subcatchment PR-102: PR-102 Runoff Area=11,587 sf 94.81% Impervious Runoff Depth=4.65"
Flow Length=187' Tc=2.0 min CN=97 Runoff=1.40 cfs 4,487 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 54

Subcatchment PR-103: PR-103	Runoff Area=4,529 sf 74.81% Impervious Runoff Depth=4.20"
Flow Length=21'	Slope=0.0200 '/' Tc=4.1 min CN=93 Runoff=0.50 cfs 1,584 cf
Subcatchment PR-104: PR-104	Runoff Area=9,984 sf 93.60% Impervious Runoff Depth=4.53"
Flow Length=189'	Slope=0.0200 '/' Tc=1.5 min CN=96 Runoff=1.20 cfs 3,771 cf
Subcatchment PR-105: PR-WS-105	Runoff Area=3,217 sf 91.79% Impervious Runoff Depth=4.53"
Flow Length=96'	Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.40 cfs 1,215 cf
Subcatchment PR-106: PR-WS-106	Runoff Area=6,892 sf 91.12% Impervious Runoff Depth=4.53"
Flow Length=163'	Slope=0.0150 '/' Tc=1.6 min CN=96 Runoff=0.83 cfs 2,603 cf
Subcatchment PR-107: PR-WS-107	Runoff Area=9,747 sf 84.59% Impervious Runoff Depth=4.31"
Flow Length=134'	Slope=0.0150 '/' Tc=1.4 min CN=94 Runoff=1.15 cfs 3,499 cf
Subcatchment PR-108: PR-WS-108	Runoff Area=3,430 sf 52.97% Impervious Runoff Depth=3.57"
Flow Length=54'	Tc=2.7 min CN=87 Runoff=0.35 cfs 1,020 cf
Subcatchment PR-109: PR-WS-109	Runoff Area=4,191 sf 87.57% Impervious Runoff Depth=4.53"
Flow Length=66'	Tc=2.0 min CN=96 Runoff=0.50 cfs 1,583 cf
Subcatchment PR-110: PR-WS-110	Runoff Area=4,653 sf 92.69% Impervious Runoff Depth=4.65"
Flow Length=18'	Slope=0.0200 '/' Tc=2.9 min CN=97 Runoff=0.56 cfs 1,802 cf
Subcatchment PR-111: PR-WS-111	Runoff Area=1,730 sf 95.32% Impervious Runoff Depth=4.65"
Flow Length=94'	Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.22 cfs 670 cf
Subcatchment PR-112: PR-WS-112	Runoff Area=2,211 sf 94.93% Impervious Runoff Depth=4.65"
Flow Length=112'	Slope=0.0200 '/' Tc=1.1 min CN=97 Runoff=0.27 cfs 856 cf
Subcatchment PR-113: PR-WS-113	Runoff Area=3,982 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=40'	Slope=0.0200 '/' Tc=0.6 min CN=98 Runoff=0.51 cfs 1,580 cf
Subcatchment PR-114: PR-WS-114	Runoff Area=8,860 sf 84.37% Impervious Runoff Depth=4.31"
Flow Length=93'	Tc=3.0 min CN=94 Runoff=1.03 cfs 3,181 cf
Subcatchment PR-115: PR-WS-115	Runoff Area=4,830 sf 90.85% Impervious Runoff Depth=4.53"
Flow Length=63'	Tc=1.6 min CN=96 Runoff=0.58 cfs 1,824 cf
Subcatchment PR-116: PR-WS-116	Runoff Area=11,048 sf 85.47% Impervious Runoff Depth=4.42"
Flow Length=92'	Tc=2.2 min CN=95 Runoff=1.31 cfs 4,069 cf
Subcatchment PR-117: PR-WS-117	Runoff Area=28,987 sf 88.81% Impervious Runoff Depth=4.53"
Flow Length=141'	Tc=3.9 min CN=96 Runoff=3.37 cfs 10,949 cf
Subcatchment PR-118: PR-WS-118	Runoff Area=11,145 sf 83.65% Impervious Runoff Depth=4.42"
Flow Length=87'	Slope=0.0200 '/' Tc=4.8 min CN=95 Runoff=1.24 cfs 4,105 cf
Subcatchment PR-119: PR-WS-119	Runoff Area=9,940 sf 84.19% Impervious Runoff Depth=4.31"
Flow Length=272'	Slope=0.0200 '/' Tc=2.0 min CN=94 Runoff=1.16 cfs 3,568 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 55

Subcatchment PR-120: PR-WS-120	Runoff Area=5,203 sf 70.06% Impervious Runoff Depth=3.98" Flow Length=136' Tc=1.1 min CN=91 Runoff=0.59 cfs 1,727 cf
Subcatchment PR-121: PR-WS-121	Runoff Area=34,922 sf 92.10% Impervious Runoff Depth=4.53" Flow Length=67' Tc=2.6 min CN=96 Runoff=4.19 cfs 13,190 cf
Subcatchment PR-122: PR-WS-122	Runoff Area=34,176 sf 89.54% Impervious Runoff Depth=4.53" Flow Length=108' Tc=3.4 min CN=96 Runoff=4.04 cfs 12,909 cf
Subcatchment PR-123: PR-WS-123	Runoff Area=29,407 sf 85.16% Impervious Runoff Depth=4.42" Flow Length=109' Tc=2.2 min CN=95 Runoff=3.49 cfs 10,830 cf
Subcatchment PR-124: PR-WS-124	Runoff Area=26,584 sf 88.43% Impervious Runoff Depth=4.53" Flow Length=89' Tc=3.3 min CN=96 Runoff=3.15 cfs 10,041 cf
Subcatchment PR-125: PR-WS-125	Runoff Area=7,219 sf 83.46% Impervious Runoff Depth=4.42" Flow Length=185' Slope=0.0200 '/ Tc=2.8 min CN=95 Runoff=0.86 cfs 2,659 cf
Subcatchment PR-126: PR-WS-126	Runoff Area=6,500 sf 57.17% Impervious Runoff Depth=3.88" Flow Length=66' Tc=3.4 min CN=90 Runoff=0.70 cfs 2,100 cf
Subcatchment PR-127: PR-WS-127	Runoff Area=2,495 sf 74.07% Impervious Runoff Depth=4.20" Flow Length=121' Tc=1.0 min CN=93 Runoff=0.30 cfs 873 cf
Subcatchment PR-128: PR-WS-128	Runoff Area=19,006 sf 89.37% Impervious Runoff Depth=4.53" Flow Length=94' Tc=3.3 min CN=96 Runoff=2.26 cfs 7,179 cf
Subcatchment PR-129: PR-WS-129	Runoff Area=6,545 sf 87.23% Impervious Runoff Depth=4.53" Flow Length=64' Tc=2.5 min CN=96 Runoff=0.79 cfs 2,472 cf
Subcatchment PR-130: PR-WS-130	Runoff Area=5,821 sf 44.94% Impervious Runoff Depth=3.67" Flow Length=136' Tc=4.6 min CN=88 Runoff=0.57 cfs 1,780 cf
Subcatchment PR-131: PR-WS-131	Runoff Area=13,655 sf 42.16% Impervious Runoff Depth=3.67" Flow Length=163' Tc=5.3 min CN=88 Runoff=1.31 cfs 4,175 cf
Subcatchment PR-132: PR-WS-132	Runoff Area=27,639 sf 0.00% Impervious Runoff Depth=2.89" Flow Length=186' Slope=0.0300 '/ Tc=11.2 min CN=80 Runoff=1.80 cfs 6,663 cf
Subcatchment PR-133: PR-WS-133	Runoff Area=3,782 sf 78.79% Impervious Runoff Depth=4.31" Flow Length=61' Tc=2.3 min CN=94 Runoff=0.44 cfs 1,358 cf
Subcatchment PR-135: PR-WS-135	Runoff Area=57,274 sf 93.46% Impervious Runoff Depth=4.65" Flow Length=96' Tc=2.3 min CN=97 Runoff=6.94 cfs 22,180 cf
Subcatchment PR-136: PR-WS-136	Runoff Area=5,021 sf 83.43% Impervious Runoff Depth=4.42" Flow Length=152' Slope=0.0200 '/ Tc=2.6 min CN=95 Runoff=0.60 cfs 1,849 cf
Subcatchment PR-137: PR-WS-137	Runoff Area=6,491 sf 89.29% Impervious Runoff Depth=4.53" Flow Length=79' Tc=2.0 min CN=96 Runoff=0.78 cfs 2,452 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 56

Subcatchment PR-138: PR-WS-138	Runoff Area=6,721 sf 83.34% Impervious Runoff Depth=4.42" Flow Length=154' Tc=2.2 min CN=95 Runoff=0.80 cfs 2,475 cf
Subcatchment PR-139: PR-WS-139	Runoff Area=13,664 sf 93.38% Impervious Runoff Depth=4.65" Flow Length=73' Tc=2.1 min CN=97 Runoff=1.66 cfs 5,291 cf
Subcatchment PR-140: PR-WS-140	Runoff Area=16,941 sf 86.79% Impervious Runoff Depth=4.42" Flow Length=100' Tc=2.2 min CN=95 Runoff=2.01 cfs 6,239 cf
Subcatchment PR-141: PR-WS-141 Flow Length=153'	Runoff Area=63,852 sf 96.08% Impervious Runoff Depth=4.65" Slope=0.0300 '/' Tc=1.1 min CN=97 Runoff=7.90 cfs 24,727 cf
Subcatchment PR-142: PR-WS-142 Flow Length=156'	Runoff Area=7,046 sf 94.68% Impervious Runoff Depth=4.65" Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=0.86 cfs 2,729 cf
Subcatchment PR-143: PR-WS-143 Flow Length=95'	Runoff Area=2,759 sf 93.19% Impervious Runoff Depth=4.65" Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.34 cfs 1,068 cf
Subcatchment PR-144: PR-WS-144 Flow Length=141'	Runoff Area=5,804 sf 95.35% Impervious Runoff Depth=4.65" Slope=0.0200 '/' Tc=1.2 min CN=97 Runoff=0.71 cfs 2,248 cf
Subcatchment PR-145: PR-WS-145	Runoff Area=5,741 sf 83.43% Impervious Runoff Depth=4.42" Flow Length=105' Tc=2.3 min CN=95 Runoff=0.68 cfs 2,114 cf
Subcatchment PR-146: PR-WS-146	Runoff Area=48,802 sf 78.10% Impervious Runoff Depth=4.31" Flow Length=75' Tc=3.1 min CN=94 Runoff=5.68 cfs 17,520 cf
Subcatchment PR-147: PR-WS-147 Flow Length=105'	Runoff Area=2,815 sf 75.52% Impervious Runoff Depth=4.31" Slope=0.0200 '/' Tc=1.0 min CN=94 Runoff=0.34 cfs 1,011 cf
Subcatchment PR-148: PR-WS-148	Runoff Area=23,625 sf 95.90% Impervious Runoff Depth=4.65" Flow Length=147' Tc=2.5 min CN=97 Runoff=2.86 cfs 9,149 cf
Subcatchment PR-149: PR-149	Runoff Area=9,728 sf 57.71% Impervious Runoff Depth=3.67" Flow Length=98' Tc=7.5 min CN=88 Runoff=0.88 cfs 2,974 cf
Subcatchment PR-150: PR-WS-150 Flow Length=98'	Runoff Area=3,710 sf 87.55% Impervious Runoff Depth=4.53" Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.46 cfs 1,401 cf
Subcatchment PR-151: PR-WS-151	Runoff Area=2,194 sf 75.89% Impervious Runoff Depth=4.31" Flow Length=67' Tc=2.3 min CN=94 Runoff=0.26 cfs 788 cf
Subcatchment PR-152: PR-WS-152 Flow Length=100'	Runoff Area=1,814 sf 94.71% Impervious Runoff Depth=4.65" Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.23 cfs 702 cf
Subcatchment PR-153: PR-WS-153 Flow Length=350'	Runoff Area=14,695 sf 0.00% Impervious Runoff Depth=2.89" Slope=0.0200 '/' Tc=13.0 min CN=80 Runoff=0.90 cfs 3,543 cf
Subcatchment PR-154: PR-WS-154	Runoff Area=7,489 sf 92.48% Impervious Runoff Depth=4.65" Flow Length=60' Tc=2.0 min CN=97 Runoff=0.91 cfs 2,900 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 57

Subcatchment PR-155: PR-WS-155	Runoff Area=3,567 sf 91.56% Impervious Runoff Depth=4.53" Flow Length=134' Slope=0.0200 '/' Tc=1.2 min CN=96 Runoff=0.44 cfs 1,347 cf
Subcatchment PR-156: PR-WS-156	Runoff Area=7,350 sf 93.33% Impervious Runoff Depth=4.65" Flow Length=80' Tc=3.1 min CN=97 Runoff=0.88 cfs 2,846 cf
Subcatchment PR-157: PR-WS-157	Runoff Area=6,981 sf 72.41% Impervious Runoff Depth=4.20" Flow Length=152' Tc=4.0 min CN=93 Runoff=0.78 cfs 2,442 cf
Subcatchment PR-158: PR-WS-158	Runoff Area=6,953 sf 68.78% Impervious Runoff Depth=4.09" Flow Length=127' Tc=3.8 min CN=92 Runoff=0.77 cfs 2,369 cf
Subcatchment PR-159: PR-WS-159	Runoff Area=4,186 sf 72.81% Impervious Runoff Depth=4.09" Flow Length=95' Tc=3.8 min CN=92 Runoff=0.46 cfs 1,426 cf
Subcatchment PR-160: PR-WS-160	Runoff Area=11,478 sf 94.39% Impervious Runoff Depth=4.65" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=1.41 cfs 4,445 cf
Subcatchment PR-161: PR-WS-161	Runoff Area=7,970 sf 81.54% Impervious Runoff Depth=4.31" Flow Length=146' Tc=3.2 min CN=94 Runoff=0.93 cfs 2,861 cf
Subcatchment PR-162: PR-WS-162	Runoff Area=7,445 sf 0.00% Impervious Runoff Depth=2.89" Flow Length=88' Slope=0.0900 '/' Tc=6.3 min CN=80 Runoff=0.56 cfs 1,795 cf
Subcatchment PR-165: PR-WS-165	Runoff Area=11,723 sf 87.49% Impervious Runoff Depth=4.53" Flow Length=251' Tc=4.1 min CN=96 Runoff=1.35 cfs 4,428 cf
Subcatchment PR-166: PR-WS-166	Runoff Area=5,581 sf 69.88% Impervious Runoff Depth=4.20" Flow Length=163' Slope=0.0300 '/' Tc=1.1 min CN=93 Runoff=0.66 cfs 1,952 cf
Subcatchment PR-167: PR-167	Runoff Area=5,485 sf 84.28% Impervious Runoff Depth=4.42" Flow Length=218' Slope=0.0200 '/' Tc=1.7 min CN=95 Runoff=0.65 cfs 2,020 cf
Subcatchment PR-168: PR-WS-168	Runoff Area=17,098 sf 95.64% Impervious Runoff Depth=4.65" Flow Length=149' Tc=1.2 min CN=97 Runoff=2.11 cfs 6,621 cf
Subcatchment PR-169: PR-WS-169	Runoff Area=16,367 sf 97.06% Impervious Runoff Depth=4.65" Flow Length=149' Tc=1.2 min CN=97 Runoff=2.02 cfs 6,338 cf
Subcatchment PR-170: PR-WS-170	Runoff Area=3,623 sf 93.21% Impervious Runoff Depth=4.65" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=97 Runoff=0.45 cfs 1,403 cf
Subcatchment PR-171: PR-WS-171	Runoff Area=10,681 sf 89.50% Impervious Runoff Depth=4.53" Flow Length=141' Slope=0.0200 '/' Tc=1.2 min CN=96 Runoff=1.30 cfs 4,034 cf
Subcatchment PR-172: PR-WS-172	Runoff Area=15,933 sf 83.27% Impervious Runoff Depth=4.31" Flow Length=252' Slope=0.0200 '/' Tc=1.9 min CN=94 Runoff=1.87 cfs 5,720 cf
Subcatchment PR-173: PR-WS-173	Runoff Area=9,735 sf 69.71% Impervious Runoff Depth=4.20" Flow Length=195' Slope=0.0200 '/' Tc=1.5 min CN=93 Runoff=1.13 cfs 3,406 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 58

Subcatchment PR-174: PR-WS-174	Runoff Area=1,621 sf 91.12% Impervious Runoff Depth=4.53" Flow Length=73' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.20 cfs 612 cf
Subcatchment PR-175: PR-WS-175	Runoff Area=15,020 sf 93.95% Impervious Runoff Depth=4.65" Flow Length=330' Slope=0.0300 '/' Tc=1.9 min CN=97 Runoff=1.82 cfs 5,817 cf
Subcatchment PR-176: PR-WS-176	Runoff Area=4,709 sf 57.74% Impervious Runoff Depth=3.88" Flow Length=147' Tc=1.1 min CN=90 Runoff=0.53 cfs 1,521 cf
Subcatchment PR-177: PR-WS-177	Runoff Area=5,356 sf 66.78% Impervious Runoff Depth=4.09" Flow Length=146' Slope=0.0300 '/' Tc=3.1 min CN=92 Runoff=0.60 cfs 1,825 cf
Subcatchment PR-178: PR-WS-178	Runoff Area=3,537 sf 55.41% Impervious Runoff Depth=3.67" Flow Length=95' Tc=3.0 min CN=88 Runoff=0.37 cfs 1,081 cf
Subcatchment PR-179: PR-WS-179	Runoff Area=5,822 sf 85.66% Impervious Runoff Depth=4.42" Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=95 Runoff=0.71 cfs 2,144 cf
Subcatchment PR-180: PR-WS-180	Runoff Area=10,571 sf 67.65% Impervious Runoff Depth=3.98" Flow Length=201' Tc=3.3 min CN=91 Runoff=1.17 cfs 3,508 cf
Subcatchment PR-181: PR-WS-181	Runoff Area=5,052 sf 72.62% Impervious Runoff Depth=4.20" Flow Length=47' Tc=3.8 min CN=93 Runoff=0.57 cfs 1,767 cf
Subcatchment PR-182: PR-WS-182	Runoff Area=14,289 sf 83.73% Impervious Runoff Depth=4.31" Flow Length=89' Tc=3.3 min CN=94 Runoff=1.66 cfs 5,130 cf
Subcatchment PR-183: PR-WS-183	Runoff Area=10,263 sf 82.87% Impervious Runoff Depth=4.31" Flow Length=28' Tc=2.2 min CN=94 Runoff=1.20 cfs 3,684 cf
Subcatchment PR-184: PR-WS-184	Runoff Area=836 sf 56.82% Impervious Runoff Depth=3.67" Flow Length=33' Tc=2.2 min CN=88 Runoff=0.09 cfs 256 cf
Subcatchment PR-185: PR-WS-185	Runoff Area=2,440 sf 100.00% Impervious Runoff Depth>4.76" Flow Length=72' Tc=0.8 min CN=98 Runoff=0.31 cfs 968 cf
Subcatchment PR-186: PR-WS-186	Runoff Area=4,035 sf 66.27% Impervious Runoff Depth=4.09" Flow Length=126' Tc=3.4 min CN=92 Runoff=0.45 cfs 1,375 cf
Subcatchment PR-187: PR-WS-187	Runoff Area=2,386 sf 81.01% Impervious Runoff Depth=4.42" Flow Length=82' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.29 cfs 879 cf
Subcatchment PR-188: PR-WS-188	Runoff Area=3,760 sf 83.16% Impervious Runoff Depth=4.42" Flow Length=88' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.46 cfs 1,385 cf
Subcatchment PR-189: PR-189	Runoff Area=7,399 sf 76.23% Impervious Runoff Depth=4.31" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=94 Runoff=0.88 cfs 2,656 cf
Subcatchment PR-190: PR-WS-190	Runoff Area=899 sf 57.84% Impervious Runoff Depth=3.88" Flow Length=15' Slope=0.0500 '/' Tc=2.2 min CN=90 Runoff=0.10 cfs 290 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 59

Subcatchment PR-191: PR-WS-191	Runoff Area=1,261 sf 75.02% Impervious Runoff Depth=4.31"
Flow Length=38'	Slope=0.0300 '/' Tc=0.5 min CN=94 Runoff=0.15 cfs 453 cf
Subcatchment PR-192: PR-192	Runoff Area=18,907 sf 76.83% Impervious Runoff Depth=4.31"
Flow Length=331'	Slope=0.0300 '/' Tc=1.9 min CN=94 Runoff=2.21 cfs 6,788 cf
Subcatchment PR-193: PR-WS-193	Runoff Area=4,533 sf 78.29% Impervious Runoff Depth=4.31"
Flow Length=109'	Slope=0.0300 '/' Tc=0.9 min CN=94 Runoff=0.55 cfs 1,627 cf
Subcatchment PR-194: PR-WS-194	Runoff Area=3,222 sf 76.66% Impervious Runoff Depth=4.31"
Flow Length=79'	Tc=1.6 min CN=94 Runoff=0.38 cfs 1,157 cf
Subcatchment PR-195: PR-WS-195	Runoff Area=3,145 sf 72.27% Impervious Runoff Depth=4.20"
Flow Length=74'	Slope=0.0200 '/' Tc=0.8 min CN=93 Runoff=0.38 cfs 1,100 cf
Subcatchment PR-196: PR-WS-196	Runoff Area=2,480 sf 78.35% Impervious Runoff Depth=4.31"
Flow Length=54'	Slope=0.0200 '/' Tc=0.7 min CN=94 Runoff=0.30 cfs 890 cf
Subcatchment PR-197: PR-WS-197	Runoff Area=7,513 sf 54.79% Impervious Runoff Depth=3.88"
Flow Length=173'	Tc=4.6 min CN=90 Runoff=0.77 cfs 2,427 cf
Subcatchment PR-198: PR-WS-198	Runoff Area=3,451 sf 67.75% Impervious Runoff Depth=4.09"
Flow Length=120'	Tc=1.1 min CN=92 Runoff=0.40 cfs 1,176 cf
Subcatchment PR-199: PR-WS-199	Runoff Area=19,470 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=90'	Slope=0.0200 '/' Tc=0.9 min CN=98 Runoff=2.45 cfs 7,728 cf
Subcatchment PR-200: PR-WS-200	Runoff Area=4,958 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=43'	Slope=0.0200 '/' Tc=0.6 min CN=98 Runoff=0.63 cfs 1,968 cf
Subcatchment PR-201: PR-WS-201	Runoff Area=17,363 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=62'	Slope=0.0200 '/' Tc=0.8 min CN=98 Runoff=2.19 cfs 6,892 cf
Subcatchment PR-202: PR-WS-202	Runoff Area=41,990 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=155'	Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=5.19 cfs 16,666 cf
Subcatchment PR-203: PR-WS-203	Runoff Area=56,320 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=173'	Slope=0.0200 '/' Tc=1.4 min CN=98 Runoff=6.92 cfs 22,354 cf
Subcatchment PR-204: PR-WS-204	Runoff Area=154,953 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=156'	Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=19.13 cfs 61,503 cf
Subcatchment PR-205: PR-WS-205	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth>4.76"
Flow Length=57'	Slope=0.0200 '/' Tc=0.8 min CN=98 Runoff=0.63 cfs 1,985 cf
Subcatchment PR-206: PR-WS-206	Runoff Area=46,931 sf 91.70% Impervious Runoff Depth=4.53"
Flow Length=258'	Tc=2.0 min CN=96 Runoff=5.63 cfs 17,726 cf
Subcatchment PR-207: PR-WS-207	Runoff Area=41,939 sf 87.69% Impervious Runoff Depth=4.42"
Flow Length=203'	Slope=0.0300 '/' Tc=1.3 min CN=95 Runoff=5.04 cfs 15,446 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 60

Subcatchment PR-208: PR-WS-208	Runoff Area=34,046 sf 93.22% Impervious Runoff Depth=4.53" Flow Length=133' Tc=3.9 min CN=96 Runoff=3.96 cfs 12,860 cf
Subcatchment PR-209: PR-WS-209	Runoff Area=45,267 sf 87.02% Impervious Runoff Depth=4.42" Flow Length=226' Tc=1.7 min CN=95 Runoff=5.36 cfs 16,672 cf
Subcatchment PR-210: PR-WS-210	Runoff Area=7,297 sf 92.05% Impervious Runoff Depth=4.53" Flow Length=63' Tc=1.9 min CN=96 Runoff=0.88 cfs 2,756 cf
Subcatchment PR-211: PR-WS-211	Runoff Area=5,623 sf 61.21% Impervious Runoff Depth=3.88" Flow Length=62' Tc=3.8 min CN=90 Runoff=0.60 cfs 1,816 cf
Subcatchment PR-212: PR-WS-212 Flow Length=180'	Runoff Area=6,331 sf 86.78% Impervious Runoff Depth=4.42" Slope=0.0200 '/' Tc=1.5 min CN=95 Runoff=0.75 cfs 2,332 cf
Subcatchment PR-213: PR-WS-213	Runoff Area=6,309 sf 46.03% Impervious Runoff Depth=3.37" Flow Length=71' Tc=6.2 min CN=85 Runoff=0.55 cfs 1,771 cf
Subcatchment PR-214: PR-WS-214 Flow Length=131'	Runoff Area=4,362 sf 74.90% Impervious Runoff Depth=4.09" Slope=0.0200 '/' Tc=1.2 min CN=92 Runoff=0.50 cfs 1,486 cf
Subcatchment PR-215: PR-WS-215	Runoff Area=18,724 sf 94.18% Impervious Runoff Depth=4.65" Flow Length=190' Tc=1.4 min CN=97 Runoff=2.29 cfs 7,251 cf
Subcatchment PR-216: PR-WS-216	Runoff Area=8,340 sf 92.45% Impervious Runoff Depth=4.65" Flow Length=147' Tc=1.2 min CN=97 Runoff=1.03 cfs 3,230 cf
Subcatchment PR-217: PR-WS-217	Runoff Area=12,055 sf 90.88% Impervious Runoff Depth=4.53" Flow Length=202' Tc=1.5 min CN=96 Runoff=1.45 cfs 4,553 cf
Subcatchment PR-218: PR-WS-218	Runoff Area=9,128 sf 87.71% Impervious Runoff Depth=4.42" Flow Length=150' Tc=1.2 min CN=95 Runoff=1.10 cfs 3,362 cf
Subcatchment PR-219: PR-WS-219	Runoff Area=7,197 sf 88.56% Impervious Runoff Depth=4.42" Flow Length=150' Tc=2.8 min CN=95 Runoff=0.85 cfs 2,651 cf
Subcatchment PR-220: PR-WS-220	Runoff Area=1,912 sf 82.95% Impervious Runoff Depth=4.31" Flow Length=43' Tc=1.9 min CN=94 Runoff=0.22 cfs 686 cf
Subcatchment PR-221: PR-WS-221	Runoff Area=17,250 sf 75.14% Impervious Runoff Depth=4.09" Flow Length=102' Tc=0.9 min CN=92 Runoff=2.02 cfs 5,878 cf
Subcatchment PR-222: PR-WS-222 Flow Length=102'	Runoff Area=5,297 sf 100.00% Impervious Runoff Depth>4.76" Slope=0.0200 '/' Tc=1.0 min CN=98 Runoff=0.66 cfs 2,102 cf
Subcatchment PR-223: PR-WS-223	Runoff Area=3,545 sf 52.67% Impervious Runoff Depth=3.57" Flow Length=47' Tc=4.8 min CN=87 Runoff=0.34 cfs 1,054 cf
Subcatchment PR-224: PR-WS-224 Flow Length=70'	Runoff Area=2,359 sf 85.50% Impervious Runoff Depth=4.42" Slope=0.0200 '/' Tc=0.8 min CN=95 Runoff=0.29 cfs 869 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 61

Subcatchment PR-225: PR-WS-225	Runoff Area=1,992 sf 76.61% Impervious Runoff Depth=4.20" Flow Length=62' Tc=1.7 min CN=93 Runoff=0.23 cfs 697 cf
Subcatchment PR-226: PR-WS-226	Runoff Area=2,627 sf 81.35% Impervious Runoff Depth=4.31" Flow Length=84' Slope=0.0200 '/' Tc=0.9 min CN=94 Runoff=0.32 cfs 943 cf
Subcatchment PR-227: PR-WS-227	Runoff Area=5,153 sf 92.16% Impervious Runoff Depth=4.65" Flow Length=76' Slope=0.0200 '/' Tc=0.9 min CN=97 Runoff=0.64 cfs 1,996 cf
Subcatchment PR-228: PR-WS-228	Runoff Area=8,230 sf 81.12% Impervious Runoff Depth=4.31" Flow Length=94' Tc=2.5 min CN=94 Runoff=0.97 cfs 2,955 cf
Subcatchment PR-229: PR-WS-229	Runoff Area=7,929 sf 47.80% Impervious Runoff Depth=3.57" Flow Length=276' Tc=5.4 min CN=87 Runoff=0.74 cfs 2,357 cf
Subcatchment PR-230: PR-WS-230	Runoff Area=7,477 sf 54.31% Impervious Runoff Depth=3.67" Flow Length=284' Slope=0.0200 '/' Tc=2.1 min CN=88 Runoff=0.79 cfs 2,286 cf
Subcatchment PR-231: PR-WS-231	Runoff Area=939 sf 78.70% Impervious Runoff Depth=4.31" Flow Length=66' Slope=0.0200 '/' Tc=0.8 min CN=94 Runoff=0.11 cfs 337 cf
Subcatchment PR-232: PR-WS-232	Runoff Area=1,737 sf 35.87% Impervious Runoff Depth=3.27" Flow Length=112' Tc=4.5 min CN=84 Runoff=0.16 cfs 473 cf
Subcatchment PR-233: PR-WS-233	Runoff Area=6,441 sf 79.43% Impervious Runoff Depth=4.31" Flow Length=212' Slope=0.0200 '/' Tc=1.6 min CN=94 Runoff=0.75 cfs 2,312 cf
Subcatchment PR-234: PR-WS-234	Runoff Area=4,885 sf 82.25% Impervious Runoff Depth=4.31" Flow Length=138' Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.58 cfs 1,754 cf
Subcatchment PR-235: PR-WS-235	Runoff Area=3,350 sf 83.94% Impervious Runoff Depth=4.42" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.41 cfs 1,234 cf
Subcatchment PR-236: PR-WS-236	Runoff Area=4,700 sf 84.53% Impervious Runoff Depth=4.42" Flow Length=160' Slope=0.0200 '/' Tc=1.3 min CN=95 Runoff=0.56 cfs 1,731 cf
Subcatchment PR-237: PR-WS-237	Runoff Area=3,951 sf 78.89% Impervious Runoff Depth=4.31" Flow Length=146' Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.47 cfs 1,418 cf
Subcatchment PR-238: PR-WS-238	Runoff Area=3,671 sf 81.12% Impervious Runoff Depth=4.31" Flow Length=146' Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.44 cfs 1,318 cf
Subcatchment PR-239: PR-WS-239	Runoff Area=19,256 sf 91.62% Impervious Runoff Depth=4.53" Flow Length=89' Tc=2.6 min CN=96 Runoff=2.31 cfs 7,273 cf
Subcatchment PR-240: PR-WS-240	Runoff Area=19,732 sf 91.24% Impervious Runoff Depth=4.53" Flow Length=89' Tc=2.6 min CN=96 Runoff=2.37 cfs 7,453 cf
Subcatchment PR-241: PR-WS-241	Runoff Area=9,283 sf 97.71% Impervious Runoff Depth>4.76" Flow Length=76' Slope=0.0300 '/' Tc=0.7 min CN=98 Runoff=1.18 cfs 3,685 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 62

Subcatchment PR-242: PR-WS-242	Runoff Area=13,884 sf 95.45% Impervious Runoff Depth=4.65" Flow Length=145' Tc=2.5 min CN=97 Runoff=1.68 cfs 5,377 cf
Subcatchment PR-243: PR-WS-243	Runoff Area=7,454 sf 61.20% Impervious Runoff Depth=3.77" Flow Length=59' Tc=3.8 min CN=89 Runoff=0.78 cfs 2,343 cf
Subcatchment PR-244: PR-WS-244	Runoff Area=7,605 sf 97.20% Impervious Runoff Depth=4.65" Flow Length=96' Tc=2.2 min CN=97 Runoff=0.92 cfs 2,945 cf
Subcatchment PR-245: PR-WS-245	Runoff Area=689 sf 89.55% Impervious Runoff Depth=4.53" Flow Length=54' Slope=0.0200 '/' Tc=0.7 min CN=96 Runoff=0.09 cfs 260 cf
Subcatchment PR-246: PR-WS-246	Runoff Area=1,614 sf 90.58% Impervious Runoff Depth=4.53" Flow Length=66' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.20 cfs 610 cf
Subcatchment PR-247: PR-WS-247	Runoff Area=36,063 sf 0.00% Impervious Runoff Depth=2.99" Flow Length=452' Slope=0.0200 '/' Tc=15.0 min CN=81 Runoff=2.18 cfs 8,972 cf
Subcatchment PR-248: PR-WS-248	Runoff Area=37,567 sf 72.89% Impervious Runoff Depth=3.98" Flow Length=160' Tc=1.3 min CN=91 Runoff=4.24 cfs 12,466 cf
Subcatchment PR-249: PR-WS-249	Runoff Area=98,177 sf 45.05% Impervious Runoff Depth=3.67" Flow Length=351' Tc=5.9 min CN=88 Runoff=9.28 cfs 30,017 cf
Subcatchment PR-250: PR-WS-250	Runoff Area=153,797 sf 100.00% Impervious Runoff Depth>4.76" Flow Length=272' Slope=0.0200 '/' Tc=2.0 min CN=98 Runoff=18.75 cfs 61,044 cf
Subcatchment PR-251: PR-WS-251	Runoff Area=38,613 sf 100.00% Impervious Runoff Depth>4.76" Flow Length=145' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=4.77 cfs 15,326 cf
Subcatchment PR-252: PR-WS-252	Runoff Area=64,918 sf 65.62% Impervious Runoff Depth=3.88" Flow Length=152' Tc=2.5 min CN=90 Runoff=7.12 cfs 20,970 cf
Subcatchment PR-253: PR-WS-253	Runoff Area=35,545 sf 27.56% Impervious Runoff Depth=3.37" Flow Length=288' Slope=0.0500 '/' Tc=8.7 min CN=85 Runoff=2.87 cfs 9,976 cf
Subcatchment PR-254: PR-WS-254	Runoff Area=14,981 sf 0.00% Impervious Runoff Depth=2.36" Flow Length=20' Slope=0.3300 '/' Tc=1.3 min CN=74 Runoff=1.04 cfs 2,952 cf
Subcatchment PR-255: PR-WS-255	Runoff Area=6,776 sf 0.00% Impervious Runoff Depth=2.89" Flow Length=21' Slope=0.2500 '/' Tc=1.5 min CN=80 Runoff=0.58 cfs 1,634 cf
Subcatchment PR-256: PR-WS-256	Runoff Area=6,540 sf 0.00% Impervious Runoff Depth=2.71" Flow Length=28' Slope=0.3000 '/' Tc=1.7 min CN=78 Runoff=0.52 cfs 1,478 cf
Subcatchment PR-257: PR-WS-257	Runoff Area=2,263 sf 91.21% Impervious Runoff Depth=4.53" Flow Length=64' Tc=1.6 min CN=96 Runoff=0.27 cfs 855 cf
Subcatchment PR-258: PR-WS-258	Runoff Area=5,144 sf 79.92% Impervious Runoff Depth=4.20" Flow Length=52' Tc=3.0 min CN=93 Runoff=0.59 cfs 1,800 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 63

Subcatchment PR-259: PR-WS-259Runoff Area=4,466 sf 61.78% Impervious Runoff Depth=3.77"
Flow Length=124' Tc=2.0 min CN=89 Runoff=0.48 cfs 1,404 cf**Subcatchment PR-260: PR-WS-260**Runoff Area=625 sf 94.56% Impervious Runoff Depth=4.65"
Flow Length=29' Tc=1.1 min CN=97 Runoff=0.08 cfs 242 cf**Subcatchment PR-261: PR-WS-261**Runoff Area=2,208 sf 82.11% Impervious Runoff Depth=4.31"
Flow Length=139' Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.26 cfs 793 cf**Subcatchment PR-262: PR-WS-262**Runoff Area=37,086 sf 83.27% Impervious Runoff Depth=4.31"
Flow Length=199' Tc=1.5 min CN=94 Runoff=4.36 cfs 13,314 cf**Subcatchment PR-263: PR-WS-263**Runoff Area=2,613 sf 85.27% Impervious Runoff Depth=4.42"
Flow Length=121' Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.32 cfs 962 cf**Subcatchment PR-266: PR-WS-266**Runoff Area=29,645 sf 60.48% Impervious Runoff Depth=3.98"
Flow Length=80' Slope=0.0200 '/' Tc=0.9 min CN=91 Runoff=3.41 cfs 9,837 cf**Subcatchment PR-267: PR-WS-267**Runoff Area=4,744 sf 0.00% Impervious Runoff Depth=2.36"
Flow Length=15' Slope=0.3300 '/' Tc=1.0 min CN=74 Runoff=0.33 cfs 935 cf**Subcatchment PR-268: PR-WS-268**Runoff Area=764 sf 81.54% Impervious Runoff Depth=4.31"
Flow Length=43' Slope=0.0200 '/' Tc=0.6 min CN=94 Runoff=0.09 cfs 274 cf**Reach 1R: 60" RCP Culvert**Avg. Flow Depth=0.78' Max Vel=5.78 fps Inflow=11.25 cfs 51,639 cf
60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=11.17 cfs 51,639 cf**Reach 2R: Small Stream**Avg. Flow Depth=0.78' Max Vel=2.20 fps Inflow=15.07 cfs 69,074 cf
n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=14.91 cfs 69,074 cf**Reach 3R: Small Stream**Avg. Flow Depth=2.22' Max Vel=3.83 fps Inflow=188.02 cfs 1,400,211 cf
n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=187.54 cfs 1,400,211 cf**Reach 4R: Arch Culvert**Avg. Flow Depth=0.86' Max Vel=13.10 fps Inflow=191.13 cfs 1,484,396 cf
204.0" x 80.0", R=240.0" Arch Pipe n=0.011 L=50.3' S=0.0131 '/' Capacity=2,796.75 cfs Outflow=191.12 cfs 1,484,396 cf**Reach 5R: Small Stream**Avg. Flow Depth=52.00' Max Vel=1.22 fps Inflow=198.65 cfs 1,600,389 cf
n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=189.40 cfs 1,600,384 cf**Reach 6R: Small Stream**Avg. Flow Depth=64.68' Max Vel=0.74 fps Inflow=193.42 cfs 1,702,107 cf
n=0.040 L=245.0' S=0.0021 '/' Capacity=0.34 cfs Outflow=190.15 cfs 1,702,104 cf**Reach 7R: Small Stream**Avg. Flow Depth=34.24' Max Vel=2.26 fps Inflow=194.80 cfs 2,212,140 cf
n=0.040 L=630.0' S=0.0272 '/' Capacity=0.53 cfs Outflow=192.45 cfs 2,211,591 cf**Reach 8R: 30" RCP Storm Sewer**Avg. Flow Depth=1.94' Max Vel=9.82 fps Inflow=40.45 cfs 207,651 cf
30.0" Round Pipe n=0.012 L=857.0' S=0.0091 '/' Capacity=42.42 cfs Outflow=39.59 cfs 207,651 cf**Reach 9R: P-352**Avg. Flow Depth=1.13' Max Vel=6.30 fps Inflow=15.67 cfs 502,652 cf
36.0" Round Pipe n=0.012 L=358.0' S=0.0050 '/' Capacity=51.24 cfs Outflow=15.03 cfs 502,489 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 64

Reach 10R: 48" RCP Storm Sewer	Avg. Flow Depth=1.32'	Max Vel=11.00 fps	Inflow=39.59 cfs	207,651 cf
48.0" Round Pipe n=0.011 L=364.0' S=0.0100 '/'	Capacity=169.76 cfs	Outflow=39.34 cfs	207,651 cf	
Reach 11R: 60" Arch culvert	Avg. Flow Depth=1.80'	Max Vel=6.69 fps	Inflow=42.49 cfs	222,848 cf
60.0" Round Pipe n=0.022 L=54.0' S=0.0100 '/'	Capacity=153.90 cfs	Outflow=42.41 cfs	222,848 cf	
Reach 12R: Roadside Ditch	Avg. Flow Depth=1.74'	Max Vel=3.68 fps	Inflow=42.41 cfs	222,848 cf
n=0.030 L=321.0' S=0.0050 '/'	Capacity=243.58 cfs	Outflow=41.80 cfs	222,848 cf	
Reach 13R: 54" RCP Culvert	Avg. Flow Depth=0.95'	Max Vel=17.11 fps	Inflow=41.80 cfs	222,848 cf
54.0" Round Pipe n=0.011 L=111.0' S=0.0342 '/'	Capacity=430.00 cfs	Outflow=41.75 cfs	222,848 cf	
Reach 14R: Roadside ditch	Avg. Flow Depth=1.16'	Max Vel=3.99 fps	Inflow=41.75 cfs	222,848 cf
n=0.030 L=225.0' S=0.0094 '/'	Capacity=591.21 cfs	Outflow=41.29 cfs	222,848 cf	
Reach 15R: 54" RCP Culvert	Avg. Flow Depth=4.09'	Max Vel=11.98 fps	Inflow=178.85 cfs	1,315,588 cf
54.0" Round Pipe n=0.011 L=290.0' S=0.0052 '/'	Capacity=167.14 cfs	Outflow=178.64 cfs	1,315,588 cf	
Reach 16R: Culvert to Stream	Avg. Flow Depth=32.13'	Max Vel=1.86 fps	Inflow=178.64 cfs	1,315,588 cf
n=0.040 L=51.0' S=0.0137 '/'	Capacity=0.65 cfs	Outflow=178.43 cfs	1,315,588 cf	
Reach 17R: DITCH	Avg. Flow Depth=0.74'	Max Vel=1.27 fps	Inflow=4.39 cfs	17,435 cf
n=0.030 L=442.0' S=0.0018 '/'	Capacity=190.53 cfs	Outflow=3.93 cfs	17,435 cf	
Reach 18R: P-351	Avg. Flow Depth=1.09'	Max Vel=6.46 fps	Inflow=15.03 cfs	502,489 cf
36.0" Round Pipe n=0.012 L=93.0' S=0.0054 '/'	Capacity=52.98 cfs	Outflow=14.95 cfs	502,448 cf	
Reach 20R: CULVERT	Avg. Flow Depth=0.78'	Max Vel=3.42 fps	Inflow=3.86 cfs	14,927 cf
24.0" Round Pipe n=0.012 L=82.0' S=0.0024 '/'	Capacity=12.10 cfs	Outflow=3.83 cfs	14,927 cf	
Reach 21R: Culvert under railroad	Avg. Flow Depth=1.15'	Max Vel=6.35 fps	Inflow=15.86 cfs	502,698 cf
36.0" Round Pipe n=0.012 L=101.0' S=0.0050 '/'	Capacity=50.84 cfs	Outflow=15.67 cfs	502,652 cf	
Reach 22R: Small Stream	Avg. Flow Depth=3.04'	Max Vel=1.12 fps	Inflow=21.95 cfs	70,882 cf
n=0.040 L=419.0' S=0.0050 '/'	Capacity=0.66 cfs	Outflow=16.37 cfs	70,881 cf	
Reach 23R: CB to Street	Avg. Flow Depth=2.00'	Max Vel=5.79 fps	Inflow=23.96 cfs	72,908 cf
24.0" Round Pipe n=0.013 L=761.0' S=0.0050 '/'	Capacity=16.01 cfs	Outflow=16.01 cfs	72,908 cf	
Reach 24R: 30" RCP Storm Sewer?	Avg. Flow Depth=1.07'	Max Vel=9.20 fps	Inflow=18.98 cfs	82,642 cf
30.0" Round Pipe n=0.011 L=810.0' S=0.0100 '/'	Capacity=48.47 cfs	Outflow=18.38 cfs	82,642 cf	
Reach 26R: EX. DRAIN	Avg. Flow Depth=0.79'	Max Vel=6.37 fps	Inflow=4.30 cfs	15,197 cf
12.0" Round Pipe n=0.012 L=91.0' S=0.0130 '/'	Capacity=4.40 cfs	Outflow=4.23 cfs	15,197 cf	
Reach 27R: (new Reach)	Avg. Flow Depth=0.39'	Max Vel=3.36 fps	Inflow=0.97 cfs	2,947 cf
12.0" Round Pipe n=0.012 L=171.0' S=0.0059 '/'	Capacity=2.97 cfs	Outflow=0.93 cfs	2,947 cf	
Reach 28R: (new Reach)	Avg. Flow Depth=0.55'	Max Vel=2.98 fps	Inflow=1.34 cfs	4,331 cf
12.0" Round Pipe n=0.012 L=201.0' S=0.0034 '/'	Capacity=2.24 cfs	Outflow=1.26 cfs	4,331 cf	

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 65

Reach 29R: (new Reach)	Avg. Flow Depth=0.76' Max Vel=3.95 fps Inflow=2.55 cfs 8,795 cf 12.0" Round Pipe n=0.012 L=207.0' S=0.0050 ' Capacity=2.74 cfs Outflow=2.44 cfs 8,795 cf
Reach 30R: EX. DRAIN	Avg. Flow Depth=0.35' Max Vel=11.78 fps Inflow=2.90 cfs 9,284 cf 12.0" Round Pipe n=0.012 L=52.0' S=0.0806 ' Capacity=10.96 cfs Outflow=2.89 cfs 9,284 cf
Reach 31R: (new Reach)	Avg. Flow Depth=0.57' Max Vel=7.10 fps Inflow=3.29 cfs 31,639 cf 12.0" Round Pipe n=0.012 L=50.0' S=0.0188 ' Capacity=5.29 cfs Outflow=3.29 cfs 31,639 cf
Reach 32R: (new Reach)	Avg. Flow Depth=0.76' Max Vel=5.12 fps Inflow=3.30 cfs 31,639 cf 12.0" Round Pipe n=0.012 L=237.0' S=0.0084 ' Capacity=3.54 cfs Outflow=3.29 cfs 31,639 cf
Reach 33R: P-221	Avg. Flow Depth=0.95' Max Vel=5.58 fps Inflow=8.28 cfs 26,099 cf 24.0" Round Pipe n=0.012 L=65.0' S=0.0054 ' Capacity=17.98 cfs Outflow=8.06 cfs 26,099 cf
Reach 34R: P-308	Avg. Flow Depth=0.91' Max Vel=6.15 fps Inflow=8.53 cfs 29,534 cf 24.0" Round Pipe n=0.012 L=22.0' S=0.0068 ' Capacity=20.24 cfs Outflow=8.48 cfs 29,534 cf
Reach 35R: (new Reach)	Avg. Flow Depth=0.73' Max Vel=14.10 fps Inflow=16.91 cfs 84,575 cf 30.0" Round Pipe n=0.012 L=15.0' S=0.0413 ' Capacity=90.34 cfs Outflow=16.91 cfs 84,575 cf
Reach P-216: P-216	Avg. Flow Depth=0.80' Max Vel=6.03 fps Inflow=5.81 cfs 18,843 cf 18.0" Round Pipe n=0.012 L=12.0' S=0.0083 ' Capacity=10.39 cfs Outflow=5.79 cfs 18,843 cf
Reach P-223: P-223	Avg. Flow Depth=0.68' Max Vel=5.91 fps Inflow=4.06 cfs 20,872 cf 15.0" Round Pipe n=0.012 L=120.0' S=0.0100 ' Capacity=7.00 cfs Outflow=3.96 cfs 20,872 cf
Reach P-234: P-234	Avg. Flow Depth=0.84' Max Vel=6.79 fps Inflow=6.96 cfs 22,181 cf 18.0" Round Pipe n=0.012 L=79.0' S=0.0101 ' Capacity=11.45 cfs Outflow=6.87 cfs 22,181 cf
Reach P-240: P-240	Avg. Flow Depth=1.03' Max Vel=6.01 fps Inflow=9.78 cfs 30,968 cf 24.0" Round Pipe n=0.012 L=17.0' S=0.0059 ' Capacity=18.80 cfs Outflow=9.76 cfs 30,968 cf
Reach P-306: P-306	Avg. Flow Depth=1.17' Max Vel=7.33 fps Inflow=10.89 cfs 34,227 cf 18.0" Round Pipe n=0.012 L=25.0' S=0.0100 ' Capacity=11.38 cfs Outflow=10.76 cfs 34,227 cf
Pond 1P: BIORETENTION#4 - GRAVELS	Peak Elev=73.30' Storage=446 cf Inflow=4.14 cfs 18,566 cf Outflow=4.32 cfs 18,566 cf
Pond 2P: BIORETENTION#5 - GRAVELS	Peak Elev=72.70' Storage=46 cf Inflow=0.14 cfs 5,300 cf Outflow=0.14 cfs 5,300 cf
Pond 3P: BIORETENTION#3 - GRAVELS	Peak Elev=74.05' Storage=338 cf Inflow=0.13 cfs 4,717 cf Outflow=0.12 cfs 4,438 cf
Pond 4P: DMH ???	Peak Elev=67.54' Storage=0 cf Inflow=2.65 cfs 23,554 cf 18.0" Round Culvert n=0.012 L=92.0' S=0.0103 ' Outflow=2.65 cfs 23,554 cf
Pond 5P: BIO #25 - GRAVELS	Peak Elev=63.66' Storage=89 cf Inflow=0.12 cfs 6,327 cf Outflow=0.12 cfs 6,327 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 66

Pond 34P: BIORETENTION#2 - GRAVELS	Peak Elev=73.34' Storage=33 cf Inflow=4.59 cfs 16,677 cf Outflow=4.59 cfs 16,677 cf
Pond 1107P: QUARRY	Peak Elev=63.17' Storage=2,576,492 cf Inflow=200.67 cfs 723,966 cf Outflow=3.74 cfs 454,493 cf
Pond 2579: EX. CB 2579	Peak Elev=67.08' Storage=24 cf Inflow=16.90 cfs 84,575 cf 30.0" Round Culvert n=0.012 L=53.0' S=0.0098 ' Inflow=16.91 cfs 84,575 cf
Pond 2723: EX. CB 2723	Inflow=1.38 cfs 4,464 cf Primary=1.38 cfs 4,464 cf
Pond BIO #1: BIORETENTION#1	Peak Elev=71.76' Storage=8,056 cf Inflow=19.12 cfs 65,220 cf Outflow=17.06 cfs 65,015 cf
Pond BIO #11: BIORETENTION#11	Peak Elev=70.43' Storage=3,745 cf Inflow=13.85 cfs 44,327 cf Outflow=13.59 cfs 44,164 cf
Pond BIO #15: BIORETENTION#15	Peak Elev=72.41' Storage=6,689 cf Inflow=5.68 cfs 17,520 cf Outflow=0.78 cfs 17,208 cf
Pond BIO #16: BIORETENTION#16	Peak Elev=69.99' Storage=20,124 cf Inflow=15.10 cfs 50,335 cf Outflow=9.73 cfs 44,820 cf
Pond BIO #17: BIORETENTION#17	Peak Elev=63.01' Storage=5,226 cf Inflow=1.91 cfs 5,806 cf Outflow=0.70 cfs 5,800 cf
Pond BIO #18: BIORETENTION#18	Peak Elev=62.56' Storage=3,872 cf Inflow=4.24 cfs 12,466 cf Outflow=1.18 cfs 12,346 cf
Pond BIO #19: BIORETENTION#19	Peak Elev=64.43' Storage=9,076 cf Inflow=11.69 cfs 36,296 cf Outflow=7.92 cfs 35,936 cf
Pond BIO #2: BIORETENTION#2 SWALE	Peak Elev=77.83' Storage=102 cf Inflow=1.31 cfs 4,069 cf Primary=1.27 cfs 2,167 cf Secondary=0.05 cfs 1,902 cf Outflow=1.32 cfs 4,069 cf
Pond BIO #20: BIORETENTION#20	Peak Elev=63.27' Storage=7,610 cf Inflow=6.51 cfs 29,216 cf Outflow=2.69 cfs 28,885 cf
Pond BIO #21: BIORETENTION#21	Peak Elev=65.48' Storage=31,211 cf Inflow=18.05 cfs 63,011 cf Outflow=7.11 cfs 46,502 cf
Pond BIO #22A: BIO #22 - SWALE	Peak Elev=66.36' Storage=261 cf Inflow=5.63 cfs 17,726 cf Primary=5.54 cfs 12,416 cf Secondary=0.11 cfs 5,312 cf Outflow=5.65 cfs 17,727 cf
Pond BIO #22B: BIO #22 - GRAVELS	Peak Elev=63.13' Storage=1,643 cf Inflow=5.36 cfs 21,811 cf Outflow=5.48 cfs 21,811 cf
Pond BIO #23A: BIO #23 - SWALE	Peak Elev=66.84' Storage=201 cf Inflow=5.30 cfs 16,500 cf Primary=5.16 cfs 12,136 cf Secondary=0.11 cfs 4,364 cf Outflow=5.27 cfs 16,500 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 67

Pond BIO #23B: BIO #23 - GRAVELS	Peak Elev=62.65' Storage=93 cf Inflow=0.11 cfs 4,364 cf Outflow=0.10 cfs 4,364 cf
Pond BIO #25: BIO #25 - SWALE	Peak Elev=67.85' Storage=151 cf Inflow=5.36 cfs 16,672 cf Primary=5.25 cfs 10,346 cf Secondary=0.12 cfs 6,327 cf Outflow=5.37 cfs 16,673 cf
Pond BIO #26: BIORETENTION#26	Peak Elev=62.51' Storage=3,722 cf Inflow=3.19 cfs 10,131 cf Outflow=0.67 cfs 9,749 cf
Pond BIO #27: BIORETENTION#27	Peak Elev=64.38' Storage=2,174 cf Inflow=2.45 cfs 7,720 cf Outflow=0.64 cfs 7,588 cf
Pond BIO #29: BIORETENTION#29	Peak Elev=62.19' Storage=4,011 cf Inflow=8.02 cfs 24,630 cf Outflow=7.01 cfs 24,555 cf
Pond BIO #3: BIORETENTION#3 - SWALE	Peak Elev=76.75' Storage=241 cf Inflow=3.37 cfs 10,949 cf Primary=3.19 cfs 6,232 cf Secondary=0.13 cfs 4,717 cf Outflow=3.32 cfs 10,949 cf
Pond BIO #4: BIORETENTION#4 - SWALE	Peak Elev=76.79' Storage=313 cf Inflow=4.19 cfs 13,190 cf Primary=3.99 cfs 7,533 cf Secondary=0.16 cfs 5,657 cf Outflow=4.15 cfs 13,191 cf
Pond BIO #5: BIORETENTION#5 - SWALE	Peak Elev=76.78' Storage=281 cf Inflow=4.04 cfs 12,909 cf Primary=3.84 cfs 7,608 cf Secondary=0.14 cfs 5,300 cf Outflow=3.98 cfs 12,909 cf
Pond BIO #8: BIORETENTION#8	Peak Elev=72.57' Storage=3,584 cf Inflow=2.35 cfs 9,201 cf Outflow=0.79 cfs 9,105 cf
Pond BIO#10A: BIORETENTION#10 - SWALE	Peak Elev=74.73' Storage=272 cf Inflow=6.94 cfs 22,180 cf Primary=6.80 cfs 14,982 cf Secondary=0.16 cfs 7,199 cf Outflow=6.96 cfs 22,181 cf
Pond BIO#10B: BIORETENTION#10 - GRAVELS	Peak Elev=71.69' Storage=43 cf Inflow=0.16 cfs 7,199 cf Outflow=0.15 cfs 7,199 cf
Pond BIO#12A: BIORETENTION#12 - SWALE	Peak Elev=74.10' Storage=208 cf Inflow=2.01 cfs 6,239 cf Primary=1.93 cfs 2,806 cf Secondary=0.09 cfs 3,433 cf Outflow=2.03 cfs 6,240 cf
Pond BIO#12B: BIORETENTION#12 -	Peak Elev=72.67' Storage=916 cf Inflow=7.90 cfs 28,161 cf Outflow=7.86 cfs 28,161 cf
Pond BIO#13A: BIORETENTION#13 - SWALE	Peak Elev=74.75' Storage=285 cf Inflow=7.90 cfs 24,727 cf Primary=7.65 cfs 17,221 cf Secondary=0.16 cfs 7,506 cf Outflow=7.81 cfs 24,728 cf
Pond BIO#13B: BIORETENTION#13 - GRAVELS	Peak Elev=71.69' Storage=44 cf Inflow=0.16 cfs 7,506 cf Outflow=0.16 cfs 7,506 cf
Pond BIO#24A: BIO #24 - SWALE	Peak Elev=68.16' Storage=139 cf Inflow=3.96 cfs 12,860 cf Primary=3.87 cfs 7,447 cf Secondary=0.11 cfs 5,414 cf Outflow=3.98 cfs 12,861 cf
Pond BIO#24B: BIO #24 - GRAVELS	Peak Elev=64.02' Storage=785 cf Inflow=5.47 cfs 22,086 cf Outflow=4.68 cfs 22,086 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 68

Pond BIO#28: BIORETENTION#28	Peak Elev=63.09' Storage=3,311 cf Inflow=3.42 cfs 10,799 cf Outflow=0.74 cfs 10,610 cf
Pond BIO#6A: BIORETENTION#6 - SWALE	Peak Elev=76.75' Storage=281 cf Inflow=3.49 cfs 10,830 cf Primary=3.33 cfs 5,866 cf Secondary=0.15 cfs 4,965 cf Outflow=3.48 cfs 10,830 cf
Pond BIO#6B: BIORETENTION#6 -	Peak Elev=74.25' Storage=2,407 cf Inflow=3.24 cfs 15,006 cf Outflow=2.50 cfs 15,006 cf
Pond BIO#7A: BIORETENTION#7 - SWALE	Peak Elev=76.74' Storage=254 cf Inflow=3.15 cfs 10,041 cf Primary=2.97 cfs 5,370 cf Secondary=0.13 cfs 4,671 cf Outflow=3.11 cfs 10,041 cf
Pond BIO#7B: BIORETENTION#7 - GRAVELS	Peak Elev=72.67' Storage=103 cf Inflow=0.13 cfs 4,671 cf Outflow=0.13 cfs 4,671 cf
Pond BIO#9B: BIORETENTION#9 - GRAVELS	Peak Elev=71.75' Storage=247 cf Inflow=6.95 cfs 22,181 cf Outflow=6.96 cfs 22,181 cf
Pond CB 101: CB 101	Peak Elev=79.00' Storage=11 cf Inflow=3.17 cfs 10,035 cf 18.0" Round Culvert n=0.012 L=31.0' S=0.0100 ' ' Outflow=3.17 cfs 10,035 cf
Pond CB 102: CB 102	Peak Elev=76.72' Storage=25 cf Inflow=10.90 cfs 35,133 cf 24.0" Round Culvert n=0.012 L=30.0' S=0.0050 ' ' Outflow=10.88 cfs 35,133 cf
Pond CB 103: CB 103	Peak Elev=76.71' Storage=21 cf Inflow=9.53 cfs 30,645 cf 24.0" Round Culvert n=0.012 L=38.0' S=0.0053 ' ' Outflow=9.52 cfs 30,645 cf
Pond CB 104: CB 104	Peak Elev=74.52' Storage=17 cf Inflow=6.62 cfs 20,794 cf 24.0" Round Culvert n=0.012 L=35.0' S=0.0057 ' ' Outflow=6.62 cfs 20,794 cf
Pond CB 105: CB 105	Peak Elev=74.95' Storage=17 cf Inflow=5.42 cfs 17,023 cf 18.0" Round Culvert n=0.012 L=57.0' S=0.0053 ' ' Outflow=5.43 cfs 17,023 cf
Pond CB 106: CB 106	Peak Elev=76.11' Storage=9 cf Inflow=2.37 cfs 7,278 cf 18.0" Round Culvert n=0.012 L=60.0' S=0.0100 ' ' Outflow=2.37 cfs 7,278 cf
Pond CB 107: CB 107	Peak Elev=76.42' Storage=10 cf Inflow=1.55 cfs 4,675 cf 12.0" Round Culvert n=0.012 L=23.0' S=0.0065 ' ' Outflow=1.55 cfs 4,675 cf
Pond CB 108: CB 108	Peak Elev=76.39' Storage=4 cf Inflow=0.35 cfs 1,020 cf 12.0" Round Culvert n=0.012 L=44.0' S=0.0295 ' ' Outflow=0.35 cfs 1,020 cf
Pond CB 109: CB 109	Peak Elev=75.15' Storage=8 cf Inflow=1.26 cfs 4,055 cf 12.0" Round Culvert n=0.012 L=151.0' S=0.0053 ' ' Outflow=1.26 cfs 4,055 cf
Pond CB 110: CB 110	Peak Elev=75.38' Storage=5 cf Inflow=0.56 cfs 1,802 cf 12.0" Round Culvert n=0.012 L=69.0' S=0.0051 ' ' Outflow=0.56 cfs 1,802 cf
Pond CB 111: CB 111	Peak Elev=75.26' Storage=3 cf Inflow=0.22 cfs 670 cf 12.0" Round Culvert n=0.012 L=82.0' S=0.0049 ' ' Outflow=0.21 cfs 670 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 69

Pond CB 112: CB 112

Peak Elev=71.43' Storage=19 cf Inflow=8.27 cfs 27,163 cf
24.0" Round Culvert n=0.012 L=70.0' S=0.0050 '/' Outflow=8.27 cfs 27,163 cf

Pond CB 113: CB 113

Peak Elev=71.67' Storage=19 cf Inflow=8.03 cfs 26,306 cf
24.0" Round Culvert n=0.012 L=16.0' S=0.0063 '/' Outflow=8.03 cfs 26,306 cf

Pond CB 114: CB 114

Peak Elev=72.05' Storage=14 cf Inflow=6.57 cfs 21,523 cf
24.0" Round Culvert n=0.012 L=72.0' S=0.0090 '/' Outflow=6.57 cfs 21,523 cf

Pond CB 115: CB 115

Peak Elev=72.64' Storage=16 cf Inflow=6.32 cfs 20,668 cf
24.0" Round Culvert n=0.012 L=77.0' S=0.0052 '/' Outflow=6.32 cfs 20,668 cf

Pond CB 118: CB 118

Peak Elev=74.13' Storage=7 cf Inflow=1.24 cfs 4,105 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0089 '/' Outflow=1.23 cfs 4,105 cf

Pond CB 119: CB 119

Peak Elev=72.23' Storage=21 cf Inflow=9.65 cfs 31,394 cf
24.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=9.65 cfs 31,394 cf

Pond CB 120: CB 120

Peak Elev=72.37' Storage=20 cf Inflow=8.56 cfs 27,826 cf
24.0" Round Culvert n=0.012 L=28.0' S=0.0054 '/' Outflow=8.55 cfs 27,826 cf

Pond CB 125: CB 125

Peak Elev=69.73' Storage=67 cf Inflow=31.73 cfs 103,182 cf
24.0" Round Culvert n=0.012 L=41.0' S=0.0061 '/' Outflow=31.87 cfs 103,182 cf

Pond CB 126: CB 126

Peak Elev=73.43' Storage=15 cf Inflow=3.24 cfs 10,241 cf
12.0" Round Culvert n=0.012 L=10.0' S=0.0200 '/' Outflow=3.23 cfs 10,241 cf

Pond CB 127: CB 127

Peak Elev=70.03' Storage=7 cf Inflow=1.60 cfs 5,125 cf
18.0" Round Culvert n=0.012 L=38.0' S=0.0105 '/' Outflow=1.60 cfs 5,125 cf

Pond CB 129: CB 129

Peak Elev=71.06' Storage=8 cf Inflow=1.34 cfs 4,252 cf
12.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=1.34 cfs 4,252 cf

Pond CB 130: CB 130

Peak Elev=71.08' Storage=5 cf Inflow=0.57 cfs 1,780 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0057 '/' Outflow=0.57 cfs 1,780 cf

Pond CB 131: CB 131

Peak Elev=70.95' Storage=8 cf Inflow=1.31 cfs 4,175 cf
12.0" Round Culvert n=0.012 L=43.0' S=0.0209 '/' Outflow=1.31 cfs 4,175 cf

Pond CB 133: CB 133

Peak Elev=75.64' Storage=4 cf Inflow=0.44 cfs 1,358 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=0.44 cfs 1,358 cf

Pond CB 136: CB 136

Peak Elev=73.46' Storage=8 cf Inflow=1.38 cfs 4,301 cf
12.0" Round Culvert n=0.012 L=23.0' S=0.0109 '/' Outflow=1.38 cfs 4,301 cf

Pond CB 137: CB 137

Peak Elev=73.71' Storage=6 cf Inflow=0.78 cfs 2,452 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0100 '/' Outflow=0.78 cfs 2,452 cf

Pond CB 138: CB 138

Peak Elev=70.50' Storage=14 cf Inflow=12.22 cfs 38,735 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=12.23 cfs 38,735 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 70

Pond CB 139: CB 139Peak Elev=70.69' Storage=12 cf Inflow=11.42 cfs 36,259 cf
24.0" Round Culvert n=0.012 L=29.0' S=0.0052 ' ' Outflow=11.42 cfs 36,259 cf**Pond CB 142: CB 142**Peak Elev=67.53' Storage=7 cf Inflow=1.21 cfs 3,797 cf
12.0" Round Culvert n=0.012 L=51.0' S=0.0098 ' ' Outflow=1.20 cfs 3,797 cf**Pond CB 143: CB 143**Peak Elev=68.09' Storage=4 cf Inflow=0.34 cfs 1,068 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0096 ' ' Outflow=0.34 cfs 1,068 cf**Pond CB 144: CB 144**Peak Elev=68.53' Storage=0 cf Inflow=2.04 cfs 21,570 cf
18.0" Round Culvert n=0.012 L=139.0' S=0.0101 ' ' Outflow=2.04 cfs 21,570 cf**Pond CB 145: CB 145**Peak Elev=69.41' Storage=0 cf Inflow=1.36 cfs 19,322 cf
18.0" Round Culvert n=0.012 L=11.0' S=0.0136 ' ' Outflow=1.36 cfs 19,322 cf**Pond CB 147: CB 147**Peak Elev=72.17' Storage=8 cf Inflow=1.26 cfs 3,902 cf
12.0" Round Culvert n=0.012 L=33.0' S=0.0061 ' ' Outflow=1.25 cfs 3,902 cf**Pond CB 148: CB 148**Peak Elev=71.22' Storage=0 cf Inflow=2.86 cfs 9,149 cf
12.0" Round Culvert n=0.012 L=14.0' S=0.1429 ' ' Outflow=2.86 cfs 9,149 cf**Pond CB 149: CB 149**Peak Elev=71.71' Storage=0 cf Inflow=0.88 cfs 2,974 cf
12.0" Round Culvert n=0.012 L=71.0' S=0.0204 ' ' Outflow=0.88 cfs 2,974 cf**Pond CB 150: CB 150**Peak Elev=72.31' Storage=7 cf Inflow=0.92 cfs 2,891 cf
12.0" Round Culvert n=0.012 L=21.0' S=0.0071 ' ' Outflow=0.92 cfs 2,891 cf**Pond CB 151: CB 151**Peak Elev=72.84' Storage=5 cf Inflow=0.47 cfs 1,490 cf
12.0" Round Culvert n=0.012 L=120.0' S=0.0050 ' ' Outflow=0.47 cfs 1,490 cf**Pond CB 152: CB 152**Peak Elev=73.13' Storage=3 cf Inflow=0.23 cfs 702 cf
12.0" Round Culvert n=0.012 L=32.0' S=0.0109 ' ' Outflow=0.22 cfs 702 cf**Pond CB 154: CB 154**Peak Elev=68.06' Storage=13 cf Inflow=3.77 cfs 12,049 cf
15.0" Round Culvert n=0.012 L=28.0' S=0.0107 ' ' Outflow=3.77 cfs 12,049 cf**Pond CB 155: CB 155**Peak Elev=67.77' Storage=7 cf Inflow=4.18 cfs 13,397 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0066 ' ' Outflow=4.19 cfs 13,397 cf**Pond CB 156: CB 156**Peak Elev=67.71' Storage=0 cf Inflow=9.30 cfs 29,787 cf
24.0" Round Culvert n=0.012 L=117.0' S=0.0103 ' ' Outflow=9.30 cfs 29,787 cf**Pond CB 157: CB 157**Peak Elev=67.96' Storage=0 cf Inflow=4.23 cfs 13,544 cf
18.0" Round Culvert n=0.012 L=30.0' S=0.0100 ' ' Outflow=4.23 cfs 13,544 cf**Pond CB 158: CB 158**Peak Elev=68.68' Storage=0 cf Inflow=3.47 cfs 11,102 cf
15.0" Round Culvert n=0.012 L=112.0' S=0.0103 ' ' Outflow=3.47 cfs 11,102 cf**Pond CB 159: CB 159**Peak Elev=69.39' Storage=1 cf Inflow=2.72 cfs 8,733 cf
15.0" Round Culvert n=0.012 L=112.0' S=0.0076 ' ' Outflow=2.72 cfs 8,733 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 71

Pond CB 160: CB 160

Peak Elev=70.85' Storage=5 cf Inflow=2.27 cfs 7,306 cf
15.0" Round Culvert n=0.012 L=199.0' S=0.0075 ' / ' Outflow=2.27 cfs 7,306 cf

Pond CB 161: CB 161

Peak Elev=71.65' Storage=4 cf Inflow=0.93 cfs 2,861 cf
12.0" Round Culvert n=0.012 L=145.0' S=0.0052 ' / ' Outflow=0.93 cfs 2,861 cf

Pond CB 165: CB 165

Peak Elev=71.29' Storage=15 cf Inflow=1.35 cfs 4,428 cf
12.0" Round Culvert n=0.012 L=72.0' S=0.0056 ' / ' Outflow=1.35 cfs 4,421 cf

Pond CB 166: CB 166

Peak Elev=72.72' Storage=9 cf Inflow=10.27 cfs 32,099 cf
24.0" Round Culvert n=0.012 L=14.0' S=0.0071 ' / ' Outflow=10.26 cfs 32,099 cf

Pond CB 167: CB 167

Peak Elev=72.95' Storage=8 cf Inflow=9.62 cfs 30,147 cf
24.0" Round Culvert n=0.012 L=45.0' S=0.0056 ' / ' Outflow=9.61 cfs 30,147 cf

Pond CB 168: CB 168

Peak Elev=73.89' Storage=14 cf Inflow=7.86 cfs 24,721 cf
18.0" Round Culvert n=0.012 L=57.0' S=0.0053 ' / ' Outflow=7.85 cfs 24,721 cf

Pond CB 169: CB 169

Peak Elev=74.20' Storage=9 cf Inflow=5.77 cfs 18,100 cf
18.0" Round Culvert n=0.012 L=124.0' S=0.0052 ' / ' Outflow=5.76 cfs 18,100 cf

Pond CB 170: CB 170

Peak Elev=74.59' Storage=4 cf Inflow=3.57 cfs 11,157 cf
18.0" Round Culvert n=0.012 L=123.0' S=0.0053 ' / ' Outflow=3.57 cfs 11,157 cf

Pond CB 171: CB 171

Peak Elev=74.81' Storage=4 cf Inflow=3.13 cfs 9,754 cf
18.0" Round Culvert n=0.012 L=20.0' S=0.0050 ' / ' Outflow=3.14 cfs 9,754 cf

Pond CB 172: CB 172

Peak Elev=75.33' Storage=8 cf Inflow=1.87 cfs 5,720 cf
12.0" Round Culvert n=0.012 L=24.0' S=0.0063 ' / ' Outflow=1.87 cfs 5,720 cf

Pond CB 173: CB 173

Peak Elev=72.94' Storage=1 cf Inflow=1.13 cfs 3,406 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0171 ' / ' Outflow=1.13 cfs 3,406 cf

Pond CB 174: CB 174

Peak Elev=74.87' Storage=11 cf Inflow=0.20 cfs 612 cf
12.0" Round Culvert n=0.012 L=76.0' S=0.0191 ' / ' Outflow=0.20 cfs 604 cf

Pond CB 175: CB 175

Peak Elev=69.45' Storage=6 cf Inflow=5.08 cfs 15,896 cf
18.0" Round Culvert n=0.012 L=18.0' S=0.0111 ' / ' Outflow=5.09 cfs 15,897 cf

Pond CB 176: CB 176

Peak Elev=69.75' Storage=6 cf Inflow=3.27 cfs 10,080 cf
18.0" Round Culvert n=0.012 L=58.0' S=0.0103 ' / ' Outflow=3.27 cfs 10,080 cf

Pond CB 177: CB 177

Peak Elev=71.13' Storage=0 cf Inflow=1.62 cfs 5,051 cf
12.0" Round Culvert n=0.012 L=124.0' S=0.0081 ' / ' Outflow=1.62 cfs 5,051 cf

Pond CB 178: CB 178

Peak Elev=71.47' Storage=0 cf Inflow=1.04 cfs 3,226 cf
12.0" Round Culvert n=0.012 L=46.0' S=0.0054 ' / ' Outflow=1.04 cfs 3,226 cf

Pond CB 179: CB 179

Peak Elev=72.11' Storage=0 cf Inflow=0.71 cfs 2,144 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0051 ' / ' Outflow=0.71 cfs 2,144 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 72

Pond CB 180: CB 180	Peak Elev=70.30' Storage=8 cf Inflow=1.17 cfs 3,508 cf 12.0" Round Culvert n=0.012 L=48.0' S=0.0052 ' Outflow=1.17 cfs 3,508 cf
Pond CB 181: CB 181	Peak Elev=67.08' Storage=5 cf Inflow=0.57 cfs 1,767 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0107 ' Outflow=0.57 cfs 1,767 cf
Pond CB 182: CB 182	Peak Elev=67.04' Storage=12 cf Inflow=3.78 cfs 11,805 cf 18.0" Round Culvert n=0.012 L=71.0' S=0.0056 ' Outflow=3.78 cfs 11,806 cf
Pond CB 183: CB 183	Peak Elev=67.48' Storage=9 cf Inflow=1.58 cfs 4,908 cf 12.0" Round Culvert n=0.012 L=60.0' S=0.0100 ' Outflow=1.58 cfs 4,908 cf
Pond CB 184: CB 184	Peak Elev=68.76' Storage=4 cf Inflow=0.39 cfs 1,224 cf 12.0" Round Culvert n=0.012 L=154.0' S=0.0101 ' Outflow=0.39 cfs 1,224 cf
Pond CB 185: CB 185	Peak Elev=69.16' Storage=4 cf Inflow=0.31 cfs 968 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0054 ' Outflow=0.31 cfs 968 cf
Pond CB 186: CB 186	Peak Elev=73.79' Storage=2 cf Inflow=1.38 cfs 4,464 cf 12.0" Round Culvert n=0.012 L=14.0' S=0.0171 ' Outflow=1.38 cfs 4,464 cf
Pond CB 187: CB 187	Peak Elev=74.31' Storage=0 cf Inflow=0.37 cfs 1,121 cf 12.0" Round Culvert n=0.012 L=54.0' S=0.0102 ' Outflow=0.37 cfs 1,121 cf
Pond CB 188: CB 188	Peak Elev=74.94' Storage=4 cf Inflow=0.46 cfs 1,385 cf 12.0" Round Culvert n=0.012 L=41.0' S=0.0159 ' Outflow=0.46 cfs 1,385 cf
Pond CB 189: CB 189	Peak Elev=75.68' Storage=6 cf Inflow=0.98 cfs 2,947 cf 12.0" Round Culvert n=0.012 L=31.0' S=0.0065 ' Outflow=0.97 cfs 2,947 cf
Pond CB 190: CB 190	Peak Elev=75.72' Storage=2 cf Inflow=0.10 cfs 290 cf 12.0" Round Culvert n=0.012 L=62.0' S=0.0056 ' Outflow=0.10 cfs 290 cf
Pond CB 191: CB 191	Peak Elev=77.36' Storage=19 cf Inflow=9.10 cfs 29,061 cf 24.0" Round Culvert n=0.012 L=134.0' S=0.0052 ' Outflow=9.10 cfs 29,061 cf
Pond CB 192: CB 192	Peak Elev=77.71' Storage=20 cf Inflow=6.53 cfs 20,881 cf 18.0" Round Culvert n=0.012 L=36.0' S=0.0056 ' Outflow=6.54 cfs 20,881 cf
Pond CB 193: CB 193	Peak Elev=77.89' Storage=18 cf Inflow=3.10 cfs 9,676 cf 12.0" Round Culvert n=0.012 L=46.0' S=0.0054 ' Outflow=3.08 cfs 9,676 cf
Pond CB 194: CB 194	Peak Elev=77.83' Storage=14 cf Inflow=2.56 cfs 8,048 cf 12.0" Round Culvert n=0.012 L=20.0' S=0.0050 ' Outflow=2.56 cfs 8,048 cf
Pond CB 195: CB 195	Peak Elev=78.86' Storage=8 cf Inflow=1.34 cfs 4,417 cf 12.0" Round Culvert n=0.012 L=76.0' S=0.0099 ' Outflow=1.34 cfs 4,417 cf
Pond CB 196: CB 196	Peak Elev=79.67' Storage=7 cf Inflow=1.01 cfs 3,317 cf 12.0" Round Culvert n=0.012 L=81.0' S=0.0099 ' Outflow=1.01 cfs 3,317 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 73

Pond CB 197: CB 197

Peak Elev=80.50' Storage=6 cf Inflow=0.77 cfs 2,427 cf
12.0" Round Culvert n=0.012 L=81.0' S=0.0099 '/' Outflow=0.77 cfs 2,427 cf

Pond CB 198: CB 198

Peak Elev=78.06' Storage=4 cf Inflow=0.40 cfs 1,176 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0714 '/' Outflow=0.40 cfs 1,176 cf

Pond CB 199: CB 199

Peak Elev=72.70' Storage=0.000 af Inflow=0.48 cfs 1,404 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0058 '/' Outflow=0.48 cfs 1,404 cf

Pond CB 200: CB 200

Peak Elev=75.25' Storage=0.000 af Inflow=1.35 cfs 4,329 cf
12.0" Round Culvert n=0.012 L=25.0' S=0.0040 '/' Outflow=1.35 cfs 4,329 cf

Pond CB 201: CB 201

Peak Elev=75.09' Storage=0.000 af Inflow=2.38 cfs 7,510 cf
18.0" Round Culvert n=0.012 L=116.0' S=0.0052 '/' Outflow=2.38 cfs 7,510 cf

Pond CB 210: CB 210

Peak Elev=63.71' Storage=9 cf Inflow=1.59 cfs 5,730 cf
12.0" Round Culvert n=0.012 L=29.0' S=0.0103 '/' Outflow=1.59 cfs 5,730 cf

Pond CB 211: CB 211

Peak Elev=64.84' Storage=5 cf Inflow=0.60 cfs 1,816 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=0.60 cfs 1,816 cf

Pond CB 212: CB 212

Peak Elev=64.59' Storage=8 cf Inflow=1.32 cfs 4,148 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=1.32 cfs 4,148 cf

Pond CB 213: CB 213

Peak Elev=65.12' Storage=5 cf Inflow=0.55 cfs 1,771 cf
12.0" Round Culvert n=0.012 L=52.0' S=0.0058 '/' Outflow=0.55 cfs 1,771 cf

Pond CB 214: CB 214

Peak Elev=64.87' Storage=7 cf Inflow=0.95 cfs 3,257 cf
12.0" Round Culvert n=0.012 L=80.0' S=0.0050 '/' Outflow=0.95 cfs 3,257 cf

Pond CB 215: CB 215

Peak Elev=65.51' Storage=19 cf Inflow=3.31 cfs 10,481 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0056 '/' Outflow=3.29 cfs 10,481 cf

Pond CB 216: CB 216

Peak Elev=65.74' Storage=7 cf Inflow=1.03 cfs 3,230 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0051 '/' Outflow=1.03 cfs 3,230 cf

Pond CB 217: CB 217

Peak Elev=63.49' Storage=15 cf Inflow=2.87 cfs 9,196 cf
12.0" Round Culvert n=0.012 L=183.0' S=0.0052 '/' Outflow=2.87 cfs 9,196 cf

Pond CB 218: CB 218

Peak Elev=64.07' Storage=7 cf Inflow=1.10 cfs 3,362 cf
12.0" Round Culvert n=0.012 L=112.0' S=0.0067 '/' Outflow=1.10 cfs 3,362 cf

Pond CB 219: CB 219

Peak Elev=61.83' Storage=14 cf Inflow=3.67 cfs 11,316 cf
15.0" Round Culvert n=0.012 L=91.0' S=0.0055 '/' Outflow=3.66 cfs 11,316 cf

Pond CB 220: CB 220

Peak Elev=62.42' Storage=12 cf Inflow=2.89 cfs 8,665 cf
15.0" Round Culvert n=0.012 L=129.0' S=0.0050 '/' Outflow=2.89 cfs 8,665 cf

Pond CB 221: CB 221

Peak Elev=64.09' Storage=10 cf Inflow=2.02 cfs 5,878 cf
12.0" Round Culvert n=0.012 L=137.0' S=0.0117 '/' Outflow=2.01 cfs 5,878 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 74

Pond CB 222: CB 222

Peak Elev=62.42' Storage=8 cf Inflow=0.66 cfs 2,102 cf
12.0" Round Culvert n=0.012 L=49.0' S=0.0051 ' Outflow=0.66 cfs 2,101 cf

Pond CB 223: CB 223

Peak Elev=67.23' Storage=22 cf Inflow=11.47 cfs 56,625 cf
24.0" Round Culvert n=0.012 L=18.0' S=0.0167 ' Outflow=11.46 cfs 56,625 cf

Pond CB 224: CB 224

Peak Elev=65.83' Storage=6 cf Inflow=0.87 cfs 2,622 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0100 ' Outflow=0.87 cfs 2,622 cf

Pond CB 226: CB 226

Peak Elev=64.18' Storage=3 cf Inflow=0.32 cfs 943 cf
12.0" Round Culvert n=0.012 L=79.0' S=0.0101 ' Outflow=0.32 cfs 943 cf

Pond CB 229: CB 229

Peak Elev=63.26' Storage=10 cf Inflow=1.49 cfs 4,643 cf
12.0" Round Culvert n=0.012 L=13.0' S=0.0077 ' Outflow=1.49 cfs 4,643 cf

Pond CB 230: CB 230

Peak Elev=63.28' Storage=7 cf Inflow=0.79 cfs 2,286 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0050 ' Outflow=0.79 cfs 2,286 cf

Pond CB 231: CB 231

Peak Elev=61.46' Storage=9 cf Inflow=1.33 cfs 4,172 cf
12.0" Round Culvert n=0.012 L=25.0' S=0.0060 ' Outflow=1.33 cfs 4,172 cf

Pond CB 232: CB 232

Peak Elev=61.68' Storage=9 cf Inflow=1.22 cfs 3,835 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0054 ' Outflow=1.22 cfs 3,835 cf

Pond CB 233: CB 233

Peak Elev=63.44' Storage=4 cf Inflow=0.34 cfs 1,054 cf
12.0" Round Culvert n=0.012 L=39.0' S=0.0141 ' Outflow=0.34 cfs 1,054 cf

Pond CB 235: CB 235

Peak Elev=61.88' Storage=7 cf Inflow=0.97 cfs 2,965 cf
12.0" Round Culvert n=0.012 L=37.0' S=0.0095 ' Outflow=0.97 cfs 2,965 cf

Pond CB 236: CB 236

Peak Elev=62.13' Storage=5 cf Inflow=0.56 cfs 1,731 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0107 ' Outflow=0.56 cfs 1,731 cf

Pond CB 237: CB 237

Peak Elev=63.59' Storage=6 cf Inflow=0.90 cfs 2,736 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0100 ' Outflow=0.90 cfs 2,736 cf

Pond CB 238: CB 238

Peak Elev=63.98' Storage=4 cf Inflow=0.44 cfs 1,318 cf
12.0" Round Culvert n=0.012 L=44.0' S=0.0102 ' Outflow=0.43 cfs 1,318 cf

Pond CB 239: CB 239

Peak Elev=61.40' Storage=11 cf Inflow=2.31 cfs 7,273 cf
12.0" Round Culvert n=0.012 L=32.0' S=0.0109 ' Outflow=2.31 cfs 7,273 cf

Pond CB 241: CB 241

Peak Elev=62.29' Storage=11 cf Inflow=2.04 cfs 6,630 cf
12.0" Round Culvert n=0.012 L=180.0' S=0.0050 ' Outflow=2.04 cfs 6,630 cf

Pond CB 244: CB 244

Peak Elev=62.66' Storage=7 cf Inflow=0.92 cfs 2,945 cf
12.0" Round Culvert n=0.012 L=8.0' S=0.0125 ' Outflow=0.92 cfs 2,945 cf

Pond CB 245: CB 245

Peak Elev=62.34' Storage=2 cf Inflow=0.09 cfs 260 cf
12.0" Round Culvert n=0.012 L=33.0' S=0.0106 ' Outflow=0.09 cfs 260 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 75

Pond CB 248: CB 248Peak Elev=65.70' Storage=13 cf Inflow=10.40 cfs 33,201 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=10.41 cfs 33,202 cf**Pond CB 249: CB 249**Peak Elev=74.83' Storage=0.000 af Inflow=0.08 cfs 242 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0103 '/' Outflow=0.08 cfs 242 cf**Pond CB 252: CB 252**Peak Elev=70.25' Storage=14 cf Inflow=2.54 cfs 8,141 cf
12.0" Round Culvert n=0.012 L=38.0' S=0.0053 '/' Outflow=2.54 cfs 8,141 cf**Pond CB 253: CB 253**Peak Elev=70.46' Storage=13 cf Inflow=2.26 cfs 7,179 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=2.25 cfs 7,179 cf**Pond DMH 508: DMH 508**Peak Elev=61.74' Storage=26 cf Inflow=21.66 cfs 115,993 cf
36.0" Round Culvert n=0.012 L=127.0' S=0.0051 '/' Outflow=21.65 cfs 115,993 cf**Pond DMH 509: DMH 509**Peak Elev=62.07' Storage=24 cf Inflow=12.05 cfs 81,766 cf
24.0" Round Culvert n=0.012 L=90.0' S=0.0050 '/' Outflow=12.06 cfs 81,766 cf**Pond DMH 510: DMH 510**Peak Elev=62.75' Storage=23 cf Inflow=12.17 cfs 81,766 cf
24.0" Round Culvert n=0.012 L=122.0' S=0.0049 '/' Outflow=12.05 cfs 81,766 cf**Pond DMH 511: DMH 511**Peak Elev=63.32' Storage=23 cf Inflow=12.17 cfs 81,766 cf
24.0" Round Culvert n=0.012 L=83.0' S=0.0054 '/' Outflow=12.17 cfs 81,766 cf**Pond DMH 512: DMH 512**Peak Elev=63.62' Storage=17 cf Inflow=7.75 cfs 52,232 cf
24.0" Round Culvert n=0.012 L=140.0' S=0.0050 '/' Outflow=7.74 cfs 52,232 cf**Pond DMH 513: DMH 513**Peak Elev=64.12' Storage=17 cf Inflow=7.11 cfs 46,502 cf
24.0" Round Culvert n=0.012 L=82.0' S=0.0055 '/' Outflow=7.11 cfs 46,502 cf**Pond DMH 514: DMH 514**Peak Elev=65.23' Storage=7 cf Inflow=1.03 cfs 3,230 cf
12.0" Round Culvert n=0.012 L=103.0' S=0.0053 '/' Outflow=1.02 cfs 3,230 cf**Pond DMH 515: DMH 515**Peak Elev=61.89' Storage=8 cf Inflow=1.10 cfs 3,362 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=1.10 cfs 3,362 cf**Pond DMH 516: DMH 516**Peak Elev=61.32' Storage=12 cf Inflow=2.04 cfs 6,630 cf
12.0" Round Culvert n=0.012 L=58.0' S=0.0052 '/' Outflow=2.03 cfs 6,630 cf**Pond DMH 533: DMH 533**Peak Elev=69.92' Storage=64 cf Inflow=31.00 cfs 100,523 cf
24.0" Round Culvert n=0.012 L=67.0' S=0.0097 '/' Outflow=30.93 cfs 100,523 cf**Pond DMH 534: DMH 534**Peak Elev=72.36' Storage=67 cf Inflow=31.09 cfs 100,523 cf
24.0" Round Culvert n=0.012 L=208.0' S=0.0101 '/' Outflow=31.00 cfs 100,523 cf**Pond DMH 535: DMH 535**Peak Elev=74.02' Storage=65 cf Inflow=31.17 cfs 100,523 cf
24.0" Round Culvert n=0.012 L=135.0' S=0.0100 '/' Outflow=31.09 cfs 100,523 cf**Pond DMH 536: DMH 536**Peak Elev=75.12' Storage=38 cf Inflow=12.10 cfs 39,020 cf
18.0" Round Culvert n=0.012 L=300.0' S=0.0092 '/' Outflow=12.05 cfs 39,020 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 10-YEAR Rainfall=5.00"

Printed 2/1/2016

Page 76

Pond DMH 537: DMH 537Peak Elev=74.73' Storage=15 cf Inflow=5.19 cfs 16,666 cf
18.0" Round Culvert n=0.012 L=260.0' S=0.0050 'l' Outflow=5.18 cfs 16,666 cf**Pond EX. CB: EX. CB 2436**Inflow=0.46 cfs 1,385 cf
Primary=0.46 cfs 1,385 cf**Pond EX. CB 2470: EX. CB 2470**Peak Elev=75.17' Storage=7 cf Inflow=0.97 cfs 2,947 cf
12.0" Round Culvert n=0.012 L=171.0' S=0.0059 'l' Outflow=0.97 cfs 2,947 cf**Pond FB#1: FOREBAY #1**Peak Elev=74.80' Storage=633 cf Inflow=6.62 cfs 20,794 cf
Outflow=6.65 cfs 20,317 cf**Pond GW1-C1: GRAVEL WETLAND #1**Peak Elev=74.71' Storage=6,188 cf Inflow=6.65 cfs 20,317 cf
Outflow=6.44 cfs 20,317 cf**Pond SF#1: SAND FILTER #1**Peak Elev=75.83' Storage=6,038 cf Inflow=10.88 cfs 35,133 cf
Outflow=11.11 cfs 34,782 cf**Pond SF#2: SAND FILTER #2**Peak Elev=72.36' Storage=7,483 cf Inflow=10.26 cfs 32,099 cf
Outflow=3.30 cfs 31,639 cf**Pond SF#3: SAND FILTER #3**Peak Elev=71.28' Storage=538 cf Inflow=1.25 cfs 3,902 cf
Outflow=0.68 cfs 3,846 cf**Pond SF#4: SAND FILTER #4**Peak Elev=76.82' Storage=747 cf Inflow=3.17 cfs 10,035 cf
Outflow=3.14 cfs 9,907 cf**Pond SF#5: SAND FILTER #5**Peak Elev=69.45' Storage=3,325 cf Inflow=6.09 cfs 19,540 cf
Outflow=2.83 cfs 19,264 cf**Link AP-1: Highway culvert**Inflow=204.15 cfs 2,539,102 cf
Primary=204.15 cfs 2,539,102 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 2,835,814 cf Average Runoff Depth = 3.67"**
48.47% Pervious = 4,492,702 sf 51.53% Impervious = 4,776,381 sf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 1

Time span=1.00-72.00 hrs, dt=0.05 hrs, 1421 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth=4.22"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=192.24 cfs 1,329,957 cf

Subcatchment 102: South of railroad Runoff Area=1,135,658 sf 6.62% Impervious Runoff Depth=3.40"
Flow Length=617' Tc=26.5 min CN=78 Runoff=62.08 cfs 322,038 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth=4.01"
Flow Length=754' Tc=19.7 min CN=84 Runoff=13.72 cfs 63,311 cf

Subcatchment 1100: PR-WS-1100 Runoff Area=25,136 sf 96.39% Impervious Runoff Depth=5.44"
Flow Length=249' Slope=0.0300 '/ Tc=1.5 min CN=97 Runoff=3.56 cfs 11,405 cf

Subcatchment 1101: PR-WS-1101 Runoff Area=77,854 sf 80.46% Impervious Runoff Depth=5.10"
Flow Length=319' Slope=0.0200 '/ Tc=2.3 min CN=94 Runoff=10.70 cfs 33,079 cf

Subcatchment 1102: PR-WS-1102 Runoff Area=14,898 sf 100.00% Impervious Runoff Depth>5.56"
Flow Length=303' Tc=2.1 min CN=98 Runoff=2.11 cfs 6,904 cf

Subcatchment 1103: N/W of railroad Runoff Area=41,085 sf 0.00% Impervious Runoff Depth=3.40"
Flow Length=556' Tc=6.6 min CN=78 Runoff=3.63 cfs 11,650 cf

Subcatchment 1104: North of railroad Runoff Area=7,693 sf 70.79% Impervious Runoff Depth=4.87"
Flow Length=180' Tc=3.2 min CN=92 Runoff=1.02 cfs 3,124 cf

Subcatchment 1105: N/E of railroad Runoff Area=81,158 sf 0.00% Impervious Runoff Depth=4.33"
Flow Length=315' Slope=0.1000 '/ Tc=6.6 min CN=87 Runoff=8.87 cfs 29,258 cf

Subcatchment 1106: PR-WS-1106 Runoff Area=141,898 sf 6.92% Impervious Runoff Depth=2.65"
Flow Length=360' Tc=6.9 min CN=70 Runoff=9.60 cfs 31,305 cf

Subcatchment 1107: Quarry Runoff Area=944,293 sf 87.22% Impervious Runoff Depth=5.21"
Flow Length=55' Slope=0.3300 '/ Tc=2.9 min CN=95 Runoff=130.60 cfs 410,213 cf

Subcatchment 1110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth=5.10"
Flow Length=170' Slope=0.0200 '/ Tc=1.4 min CN=94 Runoff=28.09 cfs 86,289 cf

Subcatchment 1111: PR-WS-1111 Runoff Area=322,054 sf 17.82% Impervious Runoff Depth=3.70"
Flow Length=375' Tc=4.1 min CN=81 Runoff=33.38 cfs 99,352 cf

Subcatchment PR-101A: PR-WS-101A Runoff Area=12,140 sf 41.37% Impervious Runoff Depth=4.33"
Flow Length=205' Tc=4.2 min CN=87 Runoff=1.43 cfs 4,377 cf

Subcatchment PR-101B: PR-WS-101B Runoff Area=16,595 sf 95.33% Impervious Runoff Depth=5.44"
Flow Length=226' Tc=2.3 min CN=97 Runoff=2.34 cfs 7,530 cf

Subcatchment PR-102: PR-102 Runoff Area=11,587 sf 94.81% Impervious Runoff Depth=5.44"
Flow Length=187' Tc=2.0 min CN=97 Runoff=1.63 cfs 5,257 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 2

Subcatchment PR-103: PR-103	Runoff Area=4,529 sf 74.81% Impervious Runoff Depth=4.99"
Flow Length=21'	Slope=0.0200 '/ Tc=4.1 min CN=93 Runoff=0.59 cfs 1,882 cf
Subcatchment PR-104: PR-104	Runoff Area=9,984 sf 93.60% Impervious Runoff Depth=5.33"
Flow Length=189'	Slope=0.0200 '/ Tc=1.5 min CN=96 Runoff=1.40 cfs 4,433 cf
Subcatchment PR-105: PR-WS-105	Runoff Area=3,217 sf 91.79% Impervious Runoff Depth=5.33"
Flow Length=96'	Slope=0.0200 '/ Tc=1.0 min CN=96 Runoff=0.46 cfs 1,428 cf
Subcatchment PR-106: PR-WS-106	Runoff Area=6,892 sf 91.12% Impervious Runoff Depth=5.33"
Flow Length=163'	Slope=0.0150 '/ Tc=1.6 min CN=96 Runoff=0.96 cfs 3,060 cf
Subcatchment PR-107: PR-WS-107	Runoff Area=9,747 sf 84.59% Impervious Runoff Depth=5.10"
Flow Length=134'	Slope=0.0150 '/ Tc=1.4 min CN=94 Runoff=1.35 cfs 4,141 cf
Subcatchment PR-108: PR-WS-108	Runoff Area=3,430 sf 52.97% Impervious Runoff Depth=4.33"
Flow Length=54'	Tc=2.7 min CN=87 Runoff=0.42 cfs 1,237 cf
Subcatchment PR-109: PR-WS-109	Runoff Area=4,191 sf 87.57% Impervious Runoff Depth=5.33"
Flow Length=66'	Tc=2.0 min CN=96 Runoff=0.59 cfs 1,861 cf
Subcatchment PR-110: PR-WS-110	Runoff Area=4,653 sf 92.69% Impervious Runoff Depth=5.44"
Flow Length=18'	Slope=0.0200 '/ Tc=2.9 min CN=97 Runoff=0.65 cfs 2,111 cf
Subcatchment PR-111: PR-WS-111	Runoff Area=1,730 sf 95.32% Impervious Runoff Depth=5.44"
Flow Length=94'	Slope=0.0200 '/ Tc=1.0 min CN=97 Runoff=0.25 cfs 785 cf
Subcatchment PR-112: PR-WS-112	Runoff Area=2,211 sf 94.93% Impervious Runoff Depth=5.44"
Flow Length=112'	Slope=0.0200 '/ Tc=1.1 min CN=97 Runoff=0.32 cfs 1,003 cf
Subcatchment PR-113: PR-WS-113	Runoff Area=3,982 sf 100.00% Impervious Runoff Depth>5.56"
Flow Length=40'	Slope=0.0200 '/ Tc=0.6 min CN=98 Runoff=0.59 cfs 1,845 cf
Subcatchment PR-114: PR-WS-114	Runoff Area=8,860 sf 84.37% Impervious Runoff Depth=5.10"
Flow Length=93'	Tc=3.0 min CN=94 Runoff=1.21 cfs 3,764 cf
Subcatchment PR-115: PR-WS-115	Runoff Area=4,830 sf 90.85% Impervious Runoff Depth=5.33"
Flow Length=63'	Tc=1.6 min CN=96 Runoff=0.68 cfs 2,145 cf
Subcatchment PR-116: PR-WS-116	Runoff Area=11,048 sf 85.47% Impervious Runoff Depth=5.21"
Flow Length=92'	Tc=2.2 min CN=95 Runoff=1.53 cfs 4,799 cf
Subcatchment PR-117: PR-WS-117	Runoff Area=28,987 sf 88.81% Impervious Runoff Depth=5.33"
Flow Length=141'	Tc=3.9 min CN=96 Runoff=3.93 cfs 12,871 cf
Subcatchment PR-118: PR-WS-118	Runoff Area=11,145 sf 83.65% Impervious Runoff Depth=5.21"
Flow Length=87'	Slope=0.0200 '/ Tc=4.8 min CN=95 Runoff=1.44 cfs 4,842 cf
Subcatchment PR-119: PR-WS-119	Runoff Area=9,940 sf 84.19% Impervious Runoff Depth=5.10"
Flow Length=272'	Slope=0.0200 '/ Tc=2.0 min CN=94 Runoff=1.36 cfs 4,223 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 3

Subcatchment PR-120: PR-WS-120	Runoff Area=5,203 sf 70.06% Impervious Runoff Depth=4.76" Flow Length=136' Tc=1.1 min CN=91 Runoff=0.70 cfs 2,065 cf
Subcatchment PR-121: PR-WS-121	Runoff Area=34,922 sf 92.10% Impervious Runoff Depth=5.33" Flow Length=67' Tc=2.6 min CN=96 Runoff=4.89 cfs 15,506 cf
Subcatchment PR-122: PR-WS-122	Runoff Area=34,176 sf 89.54% Impervious Runoff Depth=5.33" Flow Length=108' Tc=3.4 min CN=96 Runoff=4.72 cfs 15,175 cf
Subcatchment PR-123: PR-WS-123	Runoff Area=29,407 sf 85.16% Impervious Runoff Depth=5.21" Flow Length=109' Tc=2.2 min CN=95 Runoff=4.08 cfs 12,775 cf
Subcatchment PR-124: PR-WS-124	Runoff Area=26,584 sf 88.43% Impervious Runoff Depth=5.33" Flow Length=89' Tc=3.3 min CN=96 Runoff=3.68 cfs 11,804 cf
Subcatchment PR-125: PR-WS-125	Runoff Area=7,219 sf 83.46% Impervious Runoff Depth=5.21" Flow Length=185' Slope=0.0200 '/' Tc=2.8 min CN=95 Runoff=1.00 cfs 3,136 cf
Subcatchment PR-126: PR-WS-126	Runoff Area=6,500 sf 57.17% Impervious Runoff Depth=4.65" Flow Length=66' Tc=3.4 min CN=90 Runoff=0.83 cfs 2,519 cf
Subcatchment PR-127: PR-WS-127	Runoff Area=2,495 sf 74.07% Impervious Runoff Depth=4.99" Flow Length=121' Tc=1.0 min CN=93 Runoff=0.35 cfs 1,037 cf
Subcatchment PR-128: PR-WS-128	Runoff Area=19,006 sf 89.37% Impervious Runoff Depth=5.33" Flow Length=94' Tc=3.3 min CN=96 Runoff=2.63 cfs 8,439 cf
Subcatchment PR-129: PR-WS-129	Runoff Area=6,545 sf 87.23% Impervious Runoff Depth=5.33" Flow Length=64' Tc=2.5 min CN=96 Runoff=0.92 cfs 2,906 cf
Subcatchment PR-130: PR-WS-130	Runoff Area=5,821 sf 44.94% Impervious Runoff Depth=4.43" Flow Length=136' Tc=4.6 min CN=88 Runoff=0.69 cfs 2,151 cf
Subcatchment PR-131: PR-WS-131	Runoff Area=13,655 sf 42.16% Impervious Runoff Depth=4.43" Flow Length=163' Tc=5.3 min CN=88 Runoff=1.56 cfs 5,045 cf
Subcatchment PR-132: PR-WS-132	Runoff Area=27,639 sf 0.00% Impervious Runoff Depth=3.60" Flow Length=186' Slope=0.0300 '/' Tc=11.2 min CN=80 Runoff=2.23 cfs 8,295 cf
Subcatchment PR-133: PR-WS-133	Runoff Area=3,782 sf 78.79% Impervious Runoff Depth=5.10" Flow Length=61' Tc=2.3 min CN=94 Runoff=0.52 cfs 1,607 cf
Subcatchment PR-135: PR-WS-135	Runoff Area=57,274 sf 93.46% Impervious Runoff Depth=5.44" Flow Length=96' Tc=2.3 min CN=97 Runoff=8.08 cfs 25,987 cf
Subcatchment PR-136: PR-WS-136	Runoff Area=5,021 sf 83.43% Impervious Runoff Depth=5.21" Flow Length=152' Slope=0.0200 '/' Tc=2.6 min CN=95 Runoff=0.70 cfs 2,181 cf
Subcatchment PR-137: PR-WS-137	Runoff Area=6,491 sf 89.29% Impervious Runoff Depth=5.33" Flow Length=79' Tc=2.0 min CN=96 Runoff=0.91 cfs 2,882 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 4

Subcatchment PR-138: PR-WS-138	Runoff Area=6,721 sf 83.34% Impervious Runoff Depth=5.21" Flow Length=154' Tc=2.2 min CN=95 Runoff=0.93 cfs 2,920 cf
Subcatchment PR-139: PR-WS-139	Runoff Area=13,664 sf 93.38% Impervious Runoff Depth=5.44" Flow Length=73' Tc=2.1 min CN=97 Runoff=1.93 cfs 6,200 cf
Subcatchment PR-140: PR-WS-140	Runoff Area=16,941 sf 86.79% Impervious Runoff Depth=5.21" Flow Length=100' Tc=2.2 min CN=95 Runoff=2.35 cfs 7,359 cf
Subcatchment PR-141: PR-WS-141	Runoff Area=63,852 sf 96.08% Impervious Runoff Depth=5.44" Flow Length=153' Slope=0.0300 '/' Tc=1.1 min CN=97 Runoff=9.19 cfs 28,971 cf
Subcatchment PR-142: PR-WS-142	Runoff Area=7,046 sf 94.68% Impervious Runoff Depth=5.44" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=1.01 cfs 3,197 cf
Subcatchment PR-143: PR-WS-143	Runoff Area=2,759 sf 93.19% Impervious Runoff Depth=5.44" Flow Length=95' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.40 cfs 1,252 cf
Subcatchment PR-144: PR-WS-144	Runoff Area=5,804 sf 95.35% Impervious Runoff Depth=5.44" Flow Length=141' Slope=0.0200 '/' Tc=1.2 min CN=97 Runoff=0.83 cfs 2,633 cf
Subcatchment PR-145: PR-WS-145	Runoff Area=5,741 sf 83.43% Impervious Runoff Depth=5.21" Flow Length=105' Tc=2.3 min CN=95 Runoff=0.80 cfs 2,494 cf
Subcatchment PR-146: PR-WS-146	Runoff Area=48,802 sf 78.10% Impervious Runoff Depth=5.10" Flow Length=75' Tc=3.1 min CN=94 Runoff=6.66 cfs 20,735 cf
Subcatchment PR-147: PR-WS-147	Runoff Area=2,815 sf 75.52% Impervious Runoff Depth=5.10" Flow Length=105' Slope=0.0200 '/' Tc=1.0 min CN=94 Runoff=0.40 cfs 1,196 cf
Subcatchment PR-148: PR-WS-148	Runoff Area=23,625 sf 95.90% Impervious Runoff Depth=5.44" Flow Length=147' Tc=2.5 min CN=97 Runoff=3.33 cfs 10,719 cf
Subcatchment PR-149: PR-149	Runoff Area=9,728 sf 57.71% Impervious Runoff Depth=4.43" Flow Length=98' Tc=7.5 min CN=88 Runoff=1.05 cfs 3,594 cf
Subcatchment PR-150: PR-WS-150	Runoff Area=3,710 sf 87.55% Impervious Runoff Depth=5.33" Flow Length=98' Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.53 cfs 1,647 cf
Subcatchment PR-151: PR-WS-151	Runoff Area=2,194 sf 75.89% Impervious Runoff Depth=5.10" Flow Length=67' Tc=2.3 min CN=94 Runoff=0.30 cfs 932 cf
Subcatchment PR-152: PR-WS-152	Runoff Area=1,814 sf 94.71% Impervious Runoff Depth=5.44" Flow Length=100' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.26 cfs 823 cf
Subcatchment PR-153: PR-WS-153	Runoff Area=14,695 sf 0.00% Impervious Runoff Depth=3.60" Flow Length=350' Slope=0.0200 '/' Tc=13.0 min CN=80 Runoff=1.12 cfs 4,410 cf
Subcatchment PR-154: PR-WS-154	Runoff Area=7,489 sf 92.48% Impervious Runoff Depth=5.44" Flow Length=60' Tc=2.0 min CN=97 Runoff=1.06 cfs 3,398 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 5

Subcatchment PR-155: PR-WS-155	Runoff Area=3,567 sf 91.56% Impervious Runoff Depth=5.33" Flow Length=134' Slope=0.0200 '/' Tc=1.2 min CN=96 Runoff=0.51 cfs 1,584 cf
Subcatchment PR-156: PR-WS-156	Runoff Area=7,350 sf 93.33% Impervious Runoff Depth=5.44" Flow Length=80' Tc=3.1 min CN=97 Runoff=1.03 cfs 3,335 cf
Subcatchment PR-157: PR-WS-157	Runoff Area=6,981 sf 72.41% Impervious Runoff Depth=4.99" Flow Length=152' Tc=4.0 min CN=93 Runoff=0.92 cfs 2,900 cf
Subcatchment PR-158: PR-WS-158	Runoff Area=6,953 sf 68.78% Impervious Runoff Depth=4.87" Flow Length=127' Tc=3.8 min CN=92 Runoff=0.91 cfs 2,823 cf
Subcatchment PR-159: PR-WS-159	Runoff Area=4,186 sf 72.81% Impervious Runoff Depth=4.87" Flow Length=95' Tc=3.8 min CN=92 Runoff=0.55 cfs 1,700 cf
Subcatchment PR-160: PR-WS-160	Runoff Area=11,478 sf 94.39% Impervious Runoff Depth=5.44" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=1.64 cfs 5,208 cf
Subcatchment PR-161: PR-WS-161	Runoff Area=7,970 sf 81.54% Impervious Runoff Depth=5.10" Flow Length=146' Tc=3.2 min CN=94 Runoff=1.08 cfs 3,386 cf
Subcatchment PR-162: PR-WS-162	Runoff Area=7,445 sf 0.00% Impervious Runoff Depth=3.60" Flow Length=88' Slope=0.0900 '/' Tc=6.3 min CN=80 Runoff=0.70 cfs 2,234 cf
Subcatchment PR-165: PR-WS-165	Runoff Area=11,723 sf 87.49% Impervious Runoff Depth=5.33" Flow Length=251' Tc=4.1 min CN=96 Runoff=1.58 cfs 5,205 cf
Subcatchment PR-166: PR-WS-166	Runoff Area=5,581 sf 69.88% Impervious Runoff Depth=4.99" Flow Length=163' Slope=0.0300 '/' Tc=1.1 min CN=93 Runoff=0.77 cfs 2,319 cf
Subcatchment PR-167: PR-167	Runoff Area=5,485 sf 84.28% Impervious Runoff Depth=5.21" Flow Length=218' Slope=0.0200 '/' Tc=1.7 min CN=95 Runoff=0.76 cfs 2,383 cf
Subcatchment PR-168: PR-WS-168	Runoff Area=17,098 sf 95.64% Impervious Runoff Depth=5.44" Flow Length=149' Tc=1.2 min CN=97 Runoff=2.45 cfs 7,758 cf
Subcatchment PR-169: PR-WS-169	Runoff Area=16,367 sf 97.06% Impervious Runoff Depth=5.44" Flow Length=149' Tc=1.2 min CN=97 Runoff=2.35 cfs 7,426 cf
Subcatchment PR-170: PR-WS-170	Runoff Area=3,623 sf 93.21% Impervious Runoff Depth=5.44" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=97 Runoff=0.52 cfs 1,644 cf
Subcatchment PR-171: PR-WS-171	Runoff Area=10,681 sf 89.50% Impervious Runoff Depth=5.33" Flow Length=141' Slope=0.0200 '/' Tc=1.2 min CN=96 Runoff=1.52 cfs 4,743 cf
Subcatchment PR-172: PR-WS-172	Runoff Area=15,933 sf 83.27% Impervious Runoff Depth=5.10" Flow Length=252' Slope=0.0200 '/' Tc=1.9 min CN=94 Runoff=2.19 cfs 6,770 cf
Subcatchment PR-173: PR-WS-173	Runoff Area=9,735 sf 69.71% Impervious Runoff Depth=4.99" Flow Length=195' Slope=0.0200 '/' Tc=1.5 min CN=93 Runoff=1.33 cfs 4,044 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 6

Subcatchment PR-174: PR-WS-174	Runoff Area=1,621 sf 91.12% Impervious Runoff Depth=5.33" Flow Length=73' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.23 cfs 720 cf
Subcatchment PR-175: PR-WS-175	Runoff Area=15,020 sf 93.95% Impervious Runoff Depth=5.44" Flow Length=330' Slope=0.0300 '/' Tc=1.9 min CN=97 Runoff=2.11 cfs 6,815 cf
Subcatchment PR-176: PR-WS-176	Runoff Area=4,709 sf 57.74% Impervious Runoff Depth=4.65" Flow Length=147' Tc=1.1 min CN=90 Runoff=0.62 cfs 1,825 cf
Subcatchment PR-177: PR-WS-177	Runoff Area=5,356 sf 66.78% Impervious Runoff Depth=4.87" Flow Length=146' Slope=0.0300 '/' Tc=3.1 min CN=92 Runoff=0.71 cfs 2,175 cf
Subcatchment PR-178: PR-WS-178	Runoff Area=3,537 sf 55.41% Impervious Runoff Depth=4.43" Flow Length=95' Tc=3.0 min CN=88 Runoff=0.44 cfs 1,307 cf
Subcatchment PR-179: PR-WS-179	Runoff Area=5,822 sf 85.66% Impervious Runoff Depth=5.21" Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=95 Runoff=0.83 cfs 2,529 cf
Subcatchment PR-180: PR-WS-180	Runoff Area=10,571 sf 67.65% Impervious Runoff Depth=4.76" Flow Length=201' Tc=3.3 min CN=91 Runoff=1.38 cfs 4,195 cf
Subcatchment PR-181: PR-WS-181	Runoff Area=5,052 sf 72.62% Impervious Runoff Depth=4.99" Flow Length=47' Tc=3.8 min CN=93 Runoff=0.67 cfs 2,099 cf
Subcatchment PR-182: PR-WS-182	Runoff Area=14,289 sf 83.73% Impervious Runoff Depth=5.10" Flow Length=89' Tc=3.3 min CN=94 Runoff=1.94 cfs 6,071 cf
Subcatchment PR-183: PR-WS-183	Runoff Area=10,263 sf 82.87% Impervious Runoff Depth=5.10" Flow Length=28' Tc=2.2 min CN=94 Runoff=1.41 cfs 4,361 cf
Subcatchment PR-184: PR-WS-184	Runoff Area=836 sf 56.82% Impervious Runoff Depth=4.43" Flow Length=33' Tc=2.2 min CN=88 Runoff=0.11 cfs 309 cf
Subcatchment PR-185: PR-WS-185	Runoff Area=2,440 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=72' Tc=0.8 min CN=98 Runoff=0.36 cfs 1,131 cf
Subcatchment PR-186: PR-WS-186	Runoff Area=4,035 sf 66.27% Impervious Runoff Depth=4.87" Flow Length=126' Tc=3.4 min CN=92 Runoff=0.53 cfs 1,639 cf
Subcatchment PR-187: PR-WS-187	Runoff Area=2,386 sf 81.01% Impervious Runoff Depth=5.21" Flow Length=82' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.34 cfs 1,037 cf
Subcatchment PR-188: PR-WS-188	Runoff Area=3,760 sf 83.16% Impervious Runoff Depth=5.21" Flow Length=88' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.54 cfs 1,633 cf
Subcatchment PR-189: PR-189	Runoff Area=7,399 sf 76.23% Impervious Runoff Depth=5.10" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=94 Runoff=1.04 cfs 3,144 cf
Subcatchment PR-190: PR-WS-190	Runoff Area=899 sf 57.84% Impervious Runoff Depth=4.65" Flow Length=15' Slope=0.0500 '/' Tc=2.2 min CN=90 Runoff=0.12 cfs 348 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 7

Subcatchment PR-191: PR-WS-191	Runoff Area=1,261 sf 75.02% Impervious Runoff Depth=5.10" Flow Length=38' Slope=0.0300 '/' Tc=0.5 min CN=94 Runoff=0.18 cfs 536 cf
Subcatchment PR-192: PR-192	Runoff Area=18,907 sf 76.83% Impervious Runoff Depth=5.10" Flow Length=331' Slope=0.0300 '/' Tc=1.9 min CN=94 Runoff=2.59 cfs 8,033 cf
Subcatchment PR-193: PR-WS-193	Runoff Area=4,533 sf 78.29% Impervious Runoff Depth=5.10" Flow Length=109' Slope=0.0300 '/' Tc=0.9 min CN=94 Runoff=0.64 cfs 1,926 cf
Subcatchment PR-194: PR-WS-194	Runoff Area=3,222 sf 76.66% Impervious Runoff Depth=5.10" Flow Length=79' Tc=1.6 min CN=94 Runoff=0.44 cfs 1,369 cf
Subcatchment PR-195: PR-WS-195	Runoff Area=3,145 sf 72.27% Impervious Runoff Depth=4.99" Flow Length=74' Slope=0.0200 '/' Tc=0.8 min CN=93 Runoff=0.44 cfs 1,307 cf
Subcatchment PR-196: PR-WS-196	Runoff Area=2,480 sf 78.35% Impervious Runoff Depth=5.10" Flow Length=54' Slope=0.0200 '/' Tc=0.7 min CN=94 Runoff=0.35 cfs 1,054 cf
Subcatchment PR-197: PR-WS-197	Runoff Area=7,513 sf 54.79% Impervious Runoff Depth=4.65" Flow Length=173' Tc=4.6 min CN=90 Runoff=0.92 cfs 2,912 cf
Subcatchment PR-198: PR-WS-198	Runoff Area=3,451 sf 67.75% Impervious Runoff Depth=4.87" Flow Length=120' Tc=1.1 min CN=92 Runoff=0.47 cfs 1,401 cf
Subcatchment PR-199: PR-WS-199	Runoff Area=19,470 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=90' Slope=0.0200 '/' Tc=0.9 min CN=98 Runoff=2.84 cfs 9,023 cf
Subcatchment PR-200: PR-WS-200	Runoff Area=4,958 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=43' Slope=0.0200 '/' Tc=0.6 min CN=98 Runoff=0.73 cfs 2,298 cf
Subcatchment PR-201: PR-WS-201	Runoff Area=17,363 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=62' Slope=0.0200 '/' Tc=0.8 min CN=98 Runoff=2.55 cfs 8,046 cf
Subcatchment PR-202: PR-WS-202	Runoff Area=41,990 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=155' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=6.02 cfs 19,459 cf
Subcatchment PR-203: PR-WS-203	Runoff Area=56,320 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=173' Slope=0.0200 '/' Tc=1.4 min CN=98 Runoff=8.04 cfs 26,100 cf
Subcatchment PR-204: PR-WS-204	Runoff Area=154,953 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=22.23 cfs 71,809 cf
Subcatchment PR-205: PR-WS-205	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=57' Slope=0.0200 '/' Tc=0.8 min CN=98 Runoff=0.73 cfs 2,317 cf
Subcatchment PR-206: PR-WS-206	Runoff Area=46,931 sf 91.70% Impervious Runoff Depth=5.33" Flow Length=258' Tc=2.0 min CN=96 Runoff=6.57 cfs 20,839 cf
Subcatchment PR-207: PR-WS-207	Runoff Area=41,939 sf 87.69% Impervious Runoff Depth=5.21" Flow Length=203' Slope=0.0300 '/' Tc=1.3 min CN=95 Runoff=5.89 cfs 18,219 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 8

Subcatchment PR-208: PR-WS-208	Runoff Area=34,046 sf 93.22% Impervious Runoff Depth=5.33" Flow Length=133' Tc=3.9 min CN=96 Runoff=4.62 cfs 15,117 cf
Subcatchment PR-209: PR-WS-209	Runoff Area=45,267 sf 87.02% Impervious Runoff Depth=5.21" Flow Length=226' Tc=1.7 min CN=95 Runoff=6.27 cfs 19,665 cf
Subcatchment PR-210: PR-WS-210	Runoff Area=7,297 sf 92.05% Impervious Runoff Depth=5.33" Flow Length=63' Tc=1.9 min CN=96 Runoff=1.02 cfs 3,240 cf
Subcatchment PR-211: PR-WS-211	Runoff Area=5,623 sf 61.21% Impervious Runoff Depth=4.65" Flow Length=62' Tc=3.8 min CN=90 Runoff=0.71 cfs 2,179 cf
Subcatchment PR-212: PR-WS-212	Runoff Area=6,331 sf 86.78% Impervious Runoff Depth=5.21" Flow Length=180' Slope=0.0200 '/' Tc=1.5 min CN=95 Runoff=0.88 cfs 2,750 cf
Subcatchment PR-213: PR-WS-213	Runoff Area=6,309 sf 46.03% Impervious Runoff Depth=4.11" Flow Length=71' Tc=6.2 min CN=85 Runoff=0.67 cfs 2,163 cf
Subcatchment PR-214: PR-WS-214	Runoff Area=4,362 sf 74.90% Impervious Runoff Depth=4.87" Flow Length=131' Slope=0.0200 '/' Tc=1.2 min CN=92 Runoff=0.59 cfs 1,771 cf
Subcatchment PR-215: PR-WS-215	Runoff Area=18,724 sf 94.18% Impervious Runoff Depth=5.44" Flow Length=190' Tc=1.4 min CN=97 Runoff=2.66 cfs 8,496 cf
Subcatchment PR-216: PR-WS-216	Runoff Area=8,340 sf 92.45% Impervious Runoff Depth=5.44" Flow Length=147' Tc=1.2 min CN=97 Runoff=1.20 cfs 3,784 cf
Subcatchment PR-217: PR-WS-217	Runoff Area=12,055 sf 90.88% Impervious Runoff Depth=5.33" Flow Length=202' Tc=1.5 min CN=96 Runoff=1.69 cfs 5,353 cf
Subcatchment PR-218: PR-WS-218	Runoff Area=9,128 sf 87.71% Impervious Runoff Depth=5.21" Flow Length=150' Tc=1.2 min CN=95 Runoff=1.29 cfs 3,965 cf
Subcatchment PR-219: PR-WS-219	Runoff Area=7,197 sf 88.56% Impervious Runoff Depth=5.21" Flow Length=150' Tc=2.8 min CN=95 Runoff=1.00 cfs 3,126 cf
Subcatchment PR-220: PR-WS-220	Runoff Area=1,912 sf 82.95% Impervious Runoff Depth=5.10" Flow Length=43' Tc=1.9 min CN=94 Runoff=0.26 cfs 812 cf
Subcatchment PR-221: PR-WS-221	Runoff Area=17,250 sf 75.14% Impervious Runoff Depth=4.87" Flow Length=102' Tc=0.9 min CN=92 Runoff=2.38 cfs 7,005 cf
Subcatchment PR-222: PR-WS-222	Runoff Area=5,297 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=98 Runoff=0.77 cfs 2,455 cf
Subcatchment PR-223: PR-WS-223	Runoff Area=3,545 sf 52.67% Impervious Runoff Depth=4.33" Flow Length=47' Tc=4.8 min CN=87 Runoff=0.41 cfs 1,278 cf
Subcatchment PR-224: PR-WS-224	Runoff Area=2,359 sf 85.50% Impervious Runoff Depth=5.21" Flow Length=70' Slope=0.0200 '/' Tc=0.8 min CN=95 Runoff=0.34 cfs 1,025 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 9

Subcatchment PR-225: PR-WS-225	Runoff Area=1,992 sf 76.61% Impervious Runoff Depth=4.99" Flow Length=62' Tc=1.7 min CN=93 Runoff=0.27 cfs 828 cf
Subcatchment PR-226: PR-WS-226 Flow Length=84'	Runoff Area=2,627 sf 81.35% Impervious Runoff Depth=5.10" Slope=0.0200 '/' Tc=0.9 min CN=94 Runoff=0.37 cfs 1,116 cf
Subcatchment PR-227: PR-WS-227 Flow Length=76'	Runoff Area=5,153 sf 92.16% Impervious Runoff Depth=5.44" Slope=0.0200 '/' Tc=0.9 min CN=97 Runoff=0.75 cfs 2,338 cf
Subcatchment PR-228: PR-WS-228	Runoff Area=8,230 sf 81.12% Impervious Runoff Depth=5.10" Flow Length=94' Tc=2.5 min CN=94 Runoff=1.13 cfs 3,497 cf
Subcatchment PR-229: PR-WS-229	Runoff Area=7,929 sf 47.80% Impervious Runoff Depth=4.33" Flow Length=276' Tc=5.4 min CN=87 Runoff=0.89 cfs 2,858 cf
Subcatchment PR-230: PR-WS-230 Flow Length=284'	Runoff Area=7,477 sf 54.31% Impervious Runoff Depth=4.43" Slope=0.0200 '/' Tc=2.1 min CN=88 Runoff=0.94 cfs 2,762 cf
Subcatchment PR-231: PR-WS-231 Flow Length=66'	Runoff Area=939 sf 78.70% Impervious Runoff Depth=5.10" Slope=0.0200 '/' Tc=0.8 min CN=94 Runoff=0.13 cfs 399 cf
Subcatchment PR-232: PR-WS-232	Runoff Area=1,737 sf 35.87% Impervious Runoff Depth=4.01" Flow Length=112' Tc=4.5 min CN=84 Runoff=0.19 cfs 580 cf
Subcatchment PR-233: PR-WS-233 Flow Length=212'	Runoff Area=6,441 sf 79.43% Impervious Runoff Depth=5.10" Slope=0.0200 '/' Tc=1.6 min CN=94 Runoff=0.88 cfs 2,737 cf
Subcatchment PR-234: PR-WS-234 Flow Length=138'	Runoff Area=4,885 sf 82.25% Impervious Runoff Depth=5.10" Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.68 cfs 2,076 cf
Subcatchment PR-235: PR-WS-235 Flow Length=111'	Runoff Area=3,350 sf 83.94% Impervious Runoff Depth=5.21" Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.47 cfs 1,455 cf
Subcatchment PR-236: PR-WS-236 Flow Length=160'	Runoff Area=4,700 sf 84.53% Impervious Runoff Depth=5.21" Slope=0.0200 '/' Tc=1.3 min CN=95 Runoff=0.66 cfs 2,042 cf
Subcatchment PR-237: PR-WS-237 Flow Length=146'	Runoff Area=3,951 sf 78.89% Impervious Runoff Depth=5.10" Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.55 cfs 1,679 cf
Subcatchment PR-238: PR-WS-238 Flow Length=146'	Runoff Area=3,671 sf 81.12% Impervious Runoff Depth=5.10" Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.51 cfs 1,560 cf
Subcatchment PR-239: PR-WS-239	Runoff Area=19,256 sf 91.62% Impervious Runoff Depth=5.33" Flow Length=89' Tc=2.6 min CN=96 Runoff=2.70 cfs 8,550 cf
Subcatchment PR-240: PR-WS-240	Runoff Area=19,732 sf 91.24% Impervious Runoff Depth=5.33" Flow Length=89' Tc=2.6 min CN=96 Runoff=2.76 cfs 8,762 cf
Subcatchment PR-241: PR-WS-241 Flow Length=76'	Runoff Area=9,283 sf 97.71% Impervious Runoff Depth>5.56" Slope=0.0300 '/' Tc=0.7 min CN=98 Runoff=1.37 cfs 4,302 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 10

Subcatchment PR-242: PR-WS-242	Runoff Area=13,884 sf 95.45% Impervious Runoff Depth=5.44" Flow Length=145' Tc=2.5 min CN=97 Runoff=1.96 cfs 6,299 cf
Subcatchment PR-243: PR-WS-243	Runoff Area=7,454 sf 61.20% Impervious Runoff Depth=4.54" Flow Length=59' Tc=3.8 min CN=89 Runoff=0.93 cfs 2,821 cf
Subcatchment PR-244: PR-WS-244	Runoff Area=7,605 sf 97.20% Impervious Runoff Depth=5.44" Flow Length=96' Tc=2.2 min CN=97 Runoff=1.07 cfs 3,451 cf
Subcatchment PR-245: PR-WS-245	Runoff Area=689 sf 89.55% Impervious Runoff Depth=5.33" Flow Length=54' Slope=0.0200 '/' Tc=0.7 min CN=96 Runoff=0.10 cfs 306 cf
Subcatchment PR-246: PR-WS-246	Runoff Area=1,614 sf 90.58% Impervious Runoff Depth=5.33" Flow Length=66' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.23 cfs 717 cf
Subcatchment PR-247: PR-WS-247	Runoff Area=36,063 sf 0.00% Impervious Runoff Depth=3.70" Flow Length=452' Slope=0.0200 '/' Tc=15.0 min CN=81 Runoff=2.70 cfs 11,125 cf
Subcatchment PR-248: PR-WS-248	Runoff Area=37,567 sf 72.89% Impervious Runoff Depth=4.76" Flow Length=160' Tc=1.3 min CN=91 Runoff=5.02 cfs 14,907 cf
Subcatchment PR-249: PR-WS-249	Runoff Area=98,177 sf 45.05% Impervious Runoff Depth=4.43" Flow Length=351' Tc=5.9 min CN=88 Runoff=11.11 cfs 36,272 cf
Subcatchment PR-250: PR-WS-250	Runoff Area=153,797 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=272' Slope=0.0200 '/' Tc=2.0 min CN=98 Runoff=21.78 cfs 71,275 cf
Subcatchment PR-251: PR-WS-251	Runoff Area=38,613 sf 100.00% Impervious Runoff Depth>5.56" Flow Length=145' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=5.54 cfs 17,894 cf
Subcatchment PR-252: PR-WS-252	Runoff Area=64,918 sf 65.62% Impervious Runoff Depth=4.65" Flow Length=152' Tc=2.5 min CN=90 Runoff=8.46 cfs 25,162 cf
Subcatchment PR-253: PR-WS-253	Runoff Area=35,545 sf 27.56% Impervious Runoff Depth=4.11" Flow Length=288' Slope=0.0500 '/' Tc=8.7 min CN=85 Runoff=3.48 cfs 12,187 cf
Subcatchment PR-254: PR-WS-254	Runoff Area=14,981 sf 0.00% Impervious Runoff Depth=3.02" Flow Length=20' Slope=0.3300 '/' Tc=1.3 min CN=74 Runoff=1.34 cfs 3,767 cf
Subcatchment PR-255: PR-WS-255	Runoff Area=6,776 sf 0.00% Impervious Runoff Depth=3.60" Flow Length=21' Slope=0.2500 '/' Tc=1.5 min CN=80 Runoff=0.71 cfs 2,034 cf
Subcatchment PR-256: PR-WS-256	Runoff Area=6,540 sf 0.00% Impervious Runoff Depth=3.40" Flow Length=28' Slope=0.3000 '/' Tc=1.7 min CN=78 Runoff=0.65 cfs 1,855 cf
Subcatchment PR-257: PR-WS-257	Runoff Area=2,263 sf 91.21% Impervious Runoff Depth=5.33" Flow Length=64' Tc=1.6 min CN=96 Runoff=0.32 cfs 1,005 cf
Subcatchment PR-258: PR-WS-258	Runoff Area=5,144 sf 79.92% Impervious Runoff Depth=4.99" Flow Length=52' Tc=3.0 min CN=93 Runoff=0.69 cfs 2,137 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 11

Subcatchment PR-259: PR-WS-259	Runoff Area=4,466 sf 61.78% Impervious Runoff Depth=4.54" Flow Length=124' Tc=2.0 min CN=89 Runoff=0.57 cfs 1,690 cf
Subcatchment PR-260: PR-WS-260	Runoff Area=625 sf 94.56% Impervious Runoff Depth=5.44" Flow Length=29' Tc=1.1 min CN=97 Runoff=0.09 cfs 284 cf
Subcatchment PR-261: PR-WS-261	Runoff Area=2,208 sf 82.11% Impervious Runoff Depth=5.10" Flow Length=139' Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.31 cfs 938 cf
Subcatchment PR-262: PR-WS-262	Runoff Area=37,086 sf 83.27% Impervious Runoff Depth=5.10" Flow Length=199' Tc=1.5 min CN=94 Runoff=5.11 cfs 15,757 cf
Subcatchment PR-263: PR-WS-263	Runoff Area=2,613 sf 85.27% Impervious Runoff Depth=5.21" Flow Length=121' Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.37 cfs 1,135 cf
Subcatchment PR-266: PR-WS-266	Runoff Area=29,645 sf 60.48% Impervious Runoff Depth=4.76" Flow Length=80' Slope=0.0200 '/' Tc=0.9 min CN=91 Runoff=4.03 cfs 11,763 cf
Subcatchment PR-267: PR-WS-267	Runoff Area=4,744 sf 0.00% Impervious Runoff Depth=3.02" Flow Length=15' Slope=0.3300 '/' Tc=1.0 min CN=74 Runoff=0.43 cfs 1,193 cf
Subcatchment PR-268: PR-WS-268	Runoff Area=764 sf 81.54% Impervious Runoff Depth=5.10" Flow Length=43' Slope=0.0200 '/' Tc=0.6 min CN=94 Runoff=0.11 cfs 325 cf
Reach 1R: 60" RCP Culvert	Avg. Flow Depth=0.86' Max Vel=6.13 fps Inflow=13.72 cfs 63,311 cf 60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=13.62 cfs 63,311 cf
Reach 2R: Small Stream	Avg. Flow Depth=0.85' Max Vel=2.33 fps Inflow=18.29 cfs 84,301 cf n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=18.11 cfs 84,301 cf
Reach 3R: Small Stream	Avg. Flow Depth=2.21' Max Vel=3.82 fps Inflow=185.94 cfs 1,698,833 cf n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=184.43 cfs 1,698,832 cf
Reach 4R: Arch Culvert	Avg. Flow Depth=0.87' Max Vel=13.17 fps Inflow=194.07 cfs 1,802,997 cf 204.0" x 80.0", R=240.0" Arch Pipe n=0.011 L=50.3' S=0.0131 '/' Capacity=2,796.75 cfs Outflow=194.01 cfs 1,802,997 cf
Reach 5R: Small Stream	Avg. Flow Depth=53.01' Max Vel=1.22 fps Inflow=209.38 cfs 1,943,592 cf n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=193.16 cfs 1,943,587 cf
Reach 6R: Small Stream	Avg. Flow Depth=66.53' Max Vel=0.74 fps Inflow=198.11 cfs 2,064,307 cf n=0.040 L=245.0' S=0.0021 '/' Capacity=0.34 cfs Outflow=195.68 cfs 2,064,304 cf
Reach 7R: Small Stream	Avg. Flow Depth=35.64' Max Vel=2.26 fps Inflow=201.83 cfs 2,699,765 cf n=0.040 L=630.0' S=0.0272 '/' Capacity=0.53 cfs Outflow=200.53 cfs 2,699,157 cf
Reach 8R: 30" RCP Storm Sewer	Avg. Flow Depth=2.50' Max Vel=9.83 fps Inflow=48.92 cfs 247,263 cf 30.0" Round Pipe n=0.012 L=857.0' S=0.0091 '/' Capacity=42.42 cfs Outflow=43.29 cfs 247,263 cf
Reach 9R: P-352	Avg. Flow Depth=1.29' Max Vel=6.74 fps Inflow=19.97 cfs 626,691 cf 36.0" Round Pipe n=0.012 L=358.0' S=0.0050 '/' Capacity=51.24 cfs Outflow=19.16 cfs 626,516 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 12

Reach 10R: 48" RCP Storm Sewer Avg. Flow Depth=1.37' Max Vel=11.26 fps Inflow=43.29 cfs 247,263 cf
48.0" Round Pipe n=0.011 L=364.0' S=0.0100 '/ Capacity=169.76 cfs Outflow=42.94 cfs 247,263 cf

Reach 11R: 60" Arch culvert Avg. Flow Depth=1.90' Max Vel=6.89 fps Inflow=47.07 cfs 265,817 cf
60.0" Round Pipe n=0.022 L=54.0' S=0.0100 '/ Capacity=153.90 cfs Outflow=47.11 cfs 265,817 cf

Reach 12R: Roadside Ditch Avg. Flow Depth=1.84' Max Vel=3.80 fps Inflow=47.11 cfs 265,817 cf
n=0.030 L=321.0' S=0.0050 '/ Capacity=243.58 cfs Outflow=46.98 cfs 265,817 cf

Reach 13R: 54" RCP Culvert Avg. Flow Depth=1.00' Max Vel=17.74 fps Inflow=46.98 cfs 265,817 cf
54.0" Round Pipe n=0.011 L=111.0' S=0.0342 '/ Capacity=430.00 cfs Outflow=46.97 cfs 265,817 cf

Reach 14R: Roadside ditch Avg. Flow Depth=1.23' Max Vel=4.14 fps Inflow=46.97 cfs 265,817 cf
n=0.030 L=225.0' S=0.0094 '/ Capacity=591.21 cfs Outflow=46.65 cfs 265,817 cf

Reach 15R: 54" RCP Culvert Avg. Flow Depth=4.50' Max Vel=11.98 fps Inflow=218.10 cfs 1,595,775 cf
54.0" Round Pipe n=0.011 L=290.0' S=0.0052 '/ Capacity=167.14 cfs Outflow=167.14 cfs 1,595,775 cf

Reach 16R: Culvert to Stream Avg. Flow Depth=30.14' Max Vel=1.86 fps Inflow=167.14 cfs 1,595,775 cf
n=0.040 L=51.0' S=0.0137 '/ Capacity=0.65 cfs Outflow=167.25 cfs 1,595,775 cf

Reach 17R: DITCH Avg. Flow Depth=0.81' Max Vel=1.33 fps Inflow=5.21 cfs 20,990 cf
n=0.030 L=442.0' S=0.0018 '/ Capacity=190.53 cfs Outflow=4.72 cfs 20,990 cf

Reach 18R: P-351 Avg. Flow Depth=1.25' Max Vel=6.89 fps Inflow=19.16 cfs 626,516 cf
36.0" Round Pipe n=0.012 L=93.0' S=0.0054 '/ Capacity=52.98 cfs Outflow=19.07 cfs 626,472 cf

Reach 20R: CULVERT Avg. Flow Depth=0.86' Max Vel=3.60 fps Inflow=4.64 cfs 18,021 cf
24.0" Round Pipe n=0.012 L=82.0' S=0.0024 '/ Capacity=12.10 cfs Outflow=4.60 cfs 18,021 cf

Reach 21R: Culvert under railroad Avg. Flow Depth=1.31' Max Vel=6.78 fps Inflow=20.19 cfs 626,741 cf
36.0" Round Pipe n=0.012 L=101.0' S=0.0050 '/ Capacity=50.84 cfs Outflow=19.97 cfs 626,691 cf

Reach 22R: Small Stream Avg. Flow Depth=3.52' Max Vel=1.12 fps Inflow=25.57 cfs 83,038 cf
n=0.040 L=419.0' S=0.0050 '/ Capacity=0.66 cfs Outflow=19.08 cfs 83,035 cf

Reach 23R: CB to Street Avg. Flow Depth=2.00' Max Vel=5.81 fps Inflow=28.09 cfs 86,289 cf
24.0" Round Pipe n=0.013 L=761.0' S=0.0050 '/ Capacity=16.01 cfs Outflow=16.01 cfs 86,289 cf

Reach 24R: 30" RCP Storm Sewer? Avg. Flow Depth=1.10' Max Vel=9.30 fps Inflow=19.36 cfs 97,694 cf
30.0" Round Pipe n=0.011 L=810.0' S=0.0100 '/ Capacity=48.47 cfs Outflow=18.93 cfs 97,694 cf

Reach 26R: EX. DRAIN Avg. Flow Depth=1.00' Max Vel=6.38 fps Inflow=5.26 cfs 18,555 cf
12.0" Round Pipe n=0.012 L=91.0' S=0.0130 '/ Capacity=4.40 cfs Outflow=4.40 cfs 18,554 cf

Reach 27R: (new Reach) Avg. Flow Depth=0.43' Max Vel=3.51 fps Inflow=1.14 cfs 3,492 cf
12.0" Round Pipe n=0.012 L=171.0' S=0.0059 '/ Capacity=2.97 cfs Outflow=1.09 cfs 3,492 cf

Reach 28R: (new Reach) Avg. Flow Depth=0.61' Max Vel=3.09 fps Inflow=1.58 cfs 5,126 cf
12.0" Round Pipe n=0.012 L=201.0' S=0.0034 '/ Capacity=2.24 cfs Outflow=1.49 cfs 5,126 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 13

Reach 29R: (new Reach)	Avg. Flow Depth=0.91'	Max Vel=3.97 fps	Inflow=3.01 cfs	10,382 cf
12.0" Round Pipe n=0.012 L=207.0' S=0.0050 '/'	Capacity=2.74 cfs	Outflow=2.85 cfs	10,382 cf	
Reach 30R: EX. DRAIN	Avg. Flow Depth=0.40'	Max Vel=12.53 fps	Inflow=3.63 cfs	11,650 cf
12.0" Round Pipe n=0.012 L=52.0' S=0.0806 '/'	Capacity=10.96 cfs	Outflow=3.62 cfs	11,650 cf	
Reach 31R: (new Reach)	Avg. Flow Depth=0.60'	Max Vel=7.22 fps	Inflow=3.54 cfs	37,337 cf
12.0" Round Pipe n=0.012 L=50.0' S=0.0188 '/'	Capacity=5.29 cfs	Outflow=3.54 cfs	37,337 cf	
Reach 32R: (new Reach)	Avg. Flow Depth=1.00'	Max Vel=5.13 fps	Inflow=6.91 cfs	37,337 cf
12.0" Round Pipe n=0.012 L=237.0' S=0.0084 '/'	Capacity=3.54 cfs	Outflow=3.54 cfs	37,337 cf	
Reach 33R: P-221	Avg. Flow Depth=1.02'	Max Vel=5.77 fps	Inflow=9.32 cfs	30,683 cf
24.0" Round Pipe n=0.012 L=65.0' S=0.0054 '/'	Capacity=17.98 cfs	Outflow=9.23 cfs	30,683 cf	
Reach 34R: P-308	Avg. Flow Depth=0.98'	Max Vel=6.38 fps	Inflow=9.82 cfs	34,782 cf
24.0" Round Pipe n=0.012 L=22.0' S=0.0068 '/'	Capacity=20.24 cfs	Outflow=9.78 cfs	34,782 cf	
Reach 35R: (new Reach)	Avg. Flow Depth=0.89'	Max Vel=15.60 fps	Inflow=24.74 cfs	101,851 cf
30.0" Round Pipe n=0.012 L=15.0' S=0.0413 '/'	Capacity=90.34 cfs	Outflow=24.72 cfs	101,851 cf	
Reach P-216: P-216	Avg. Flow Depth=0.88'	Max Vel=6.25 fps	Inflow=6.78 cfs	22,234 cf
18.0" Round Pipe n=0.012 L=12.0' S=0.0083 '/'	Capacity=10.39 cfs	Outflow=6.76 cfs	22,234 cf	
Reach P-223: P-223	Avg. Flow Depth=0.95'	Max Vel=6.47 fps	Inflow=6.77 cfs	24,579 cf
15.0" Round Pipe n=0.012 L=120.0' S=0.0100 '/'	Capacity=7.00 cfs	Outflow=6.30 cfs	24,579 cf	
Reach P-234: P-234	Avg. Flow Depth=0.93'	Max Vel=7.03 fps	Inflow=8.10 cfs	25,987 cf
18.0" Round Pipe n=0.012 L=79.0' S=0.0101 '/'	Capacity=11.45 cfs	Outflow=7.99 cfs	25,987 cf	
Reach P-240: P-240	Avg. Flow Depth=1.12'	Max Vel=6.23 fps	Inflow=11.39 cfs	36,331 cf
24.0" Round Pipe n=0.012 L=17.0' S=0.0059 '/'	Capacity=18.80 cfs	Outflow=11.36 cfs	36,331 cf	
Reach P-306: P-306	Avg. Flow Depth=1.50'	Max Vel=7.33 fps	Inflow=12.87 cfs	40,337 cf
18.0" Round Pipe n=0.012 L=25.0' S=0.0100 '/'	Capacity=11.38 cfs	Outflow=11.46 cfs	40,337 cf	
Pond 1P: BIORETENTION#4 - GRAVELS	Peak Elev=73.34'	Storage=453 cf	Inflow=4.81 cfs	21,355 cf
			Outflow=4.69 cfs	21,355 cf
Pond 2P: BIORETENTION#5 - GRAVELS	Peak Elev=72.71'	Storage=47 cf	Inflow=0.15 cfs	5,772 cf
			Outflow=0.14 cfs	5,772 cf
Pond 3P: BIORETENTION#3 - GRAVELS	Peak Elev=74.06'	Storage=339 cf	Inflow=0.13 cfs	5,152 cf
			Outflow=0.13 cfs	4,873 cf
Pond 4P: DMH ???	Peak Elev=67.54'	Storage=1 cf	Inflow=3.01 cfs	27,867 cf
18.0" Round Culvert n=0.012 L=92.0' S=0.0103 '/'			Outflow=3.01 cfs	27,867 cf
Pond 5P: BIO #25 - GRAVELS	Peak Elev=63.66'	Storage=89 cf	Inflow=0.12 cfs	6,864 cf
			Outflow=0.12 cfs	6,864 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT
Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 14

Pond 34P: BIORETENTION#2 - GRAVELS Peak Elev=73.40' Storage=35 cf Inflow=5.35 cfs 19,521 cf
Outflow=5.35 cfs 19,521 cf

Pond 1107P: QUARRY Peak Elev=63.28' Storage=2,668,126 cf Inflow=243.89 cfs 853,566 cf
Outflow=4.93 cfs 566,178 cf

Pond 2579: EX. CB 2579 Peak Elev=67.65' Storage=31 cf Inflow=24.75 cfs 101,851 cf
30.0" Round Culvert n=0.012 L=53.0' S=0.0098 ' Outflow=24.74 cfs 101,851 cf

Pond 2723: EX. CB 2723 Inflow=1.61 cfs 5,256 cf
Primary=1.61 cfs 5,256 cf

Pond BIO #1: BIORETENTION#1 Peak Elev=71.88' Storage=8,637 cf Inflow=22.31 cfs 77,325 cf
Outflow=19.57 cfs 77,120 cf

Pond BIO #11: BIORETENTION#11 Peak Elev=70.52' Storage=3,890 cf Inflow=16.16 cfs 52,134 cf
Outflow=15.67 cfs 51,971 cf

Pond BIO #15: BIORETENTION#15 Peak Elev=72.61' Storage=7,488 cf Inflow=6.66 cfs 20,735 cf
Outflow=1.74 cfs 20,423 cf

Pond BIO #16: BIORETENTION#16 Peak Elev=70.12' Storage=21,340 cf Inflow=17.94 cfs 60,317 cf
Outflow=13.55 cfs 54,802 cf

Pond BIO #17: BIORETENTION#17 Peak Elev=63.08' Storage=5,486 cf Inflow=2.28 cfs 6,978 cf
Outflow=0.95 cfs 6,973 cf

Pond BIO #18: BIORETENTION#18 Peak Elev=62.64' Storage=4,126 cf Inflow=5.02 cfs 14,907 cf
Outflow=2.15 cfs 14,786 cf

Pond BIO #19: BIORETENTION#19 Peak Elev=64.51' Storage=9,781 cf Inflow=13.77 cfs 43,057 cf
Outflow=10.17 cfs 42,697 cf

Pond BIO #2: BIORETENTION#2 SWALE Peak Elev=77.85' Storage=105 cf Inflow=1.53 cfs 4,799 cf
Primary=1.49 cfs 2,713 cf Secondary=0.05 cfs 2,087 cf Outflow=1.54 cfs 4,800 cf

Pond BIO #20: BIORETENTION#20 Peak Elev=63.36' Storage=7,930 cf Inflow=7.55 cfs 34,488 cf
Outflow=4.27 cfs 34,157 cf

Pond BIO #21: BIORETENTION#21 Peak Elev=65.71' Storage=33,368 cf Inflow=21.34 cfs 75,153 cf
Outflow=10.98 cfs 58,642 cf

Pond BIO #22A: BIO #22 - SWALE Peak Elev=66.40' Storage=281 cf Inflow=6.57 cfs 20,839 cf
Primary=6.47 cfs 15,175 cf Secondary=0.12 cfs 5,664 cf Outflow=6.59 cfs 20,840 cf

Pond BIO #22B: BIO #22 - GRAVELS Peak Elev=63.20' Storage=1,687 cf Inflow=6.26 cfs 25,162 cf
Outflow=6.47 cfs 25,162 cf

Pond BIO #23A: BIO #23 - SWALE Peak Elev=66.88' Storage=220 cf Inflow=6.21 cfs 19,497 cf
Primary=6.05 cfs 14,885 cf Secondary=0.12 cfs 4,613 cf Outflow=6.17 cfs 19,497 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 15

Pond BIO #23B: BIO #23 - GRAVELS	Peak Elev=62.65' Storage=95 cf Inflow=0.12 cfs 4,613 cf Outflow=0.10 cfs 4,613 cf
Pond BIO #25: BIO #25 - SWALE	Peak Elev=67.89' Storage=151 cf Inflow=6.27 cfs 19,665 cf Primary=6.16 cfs 12,800 cf Secondary=0.12 cfs 6,864 cf Outflow=6.28 cfs 19,665 cf
Pond BIO #26: BIORETENTION#26	Peak Elev=62.92' Storage=4,533 cf Inflow=3.80 cfs 12,167 cf Outflow=0.72 cfs 11,784 cf
Pond BIO #27: BIORETENTION#27	Peak Elev=64.56' Storage=2,486 cf Inflow=2.87 cfs 9,121 cf Outflow=1.02 cfs 8,989 cf
Pond BIO #29: BIORETENTION#29	Peak Elev=62.24' Storage=4,217 cf Inflow=9.41 cfs 29,154 cf Outflow=8.37 cfs 29,080 cf
Pond BIO #3: BIORETENTION#3 - SWALE	Peak Elev=76.78' Storage=257 cf Inflow=3.93 cfs 12,871 cf Primary=3.73 cfs 7,719 cf Secondary=0.13 cfs 5,152 cf Outflow=3.87 cfs 12,872 cf
Pond BIO #4: BIORETENTION#4 - SWALE	Peak Elev=76.82' Storage=335 cf Inflow=4.89 cfs 15,506 cf Primary=4.67 cfs 9,328 cf Secondary=0.17 cfs 6,179 cf Outflow=4.84 cfs 15,507 cf
Pond BIO #5: BIORETENTION#5 - SWALE	Peak Elev=76.81' Storage=300 cf Inflow=4.72 cfs 15,175 cf Primary=4.50 cfs 9,403 cf Secondary=0.15 cfs 5,772 cf Outflow=4.65 cfs 15,176 cf
Pond BIO #8: BIORETENTION#8	Peak Elev=72.63' Storage=3,739 cf Inflow=2.79 cfs 11,080 cf Outflow=1.52 cfs 10,984 cf
Pond BIO#10A: BIORETENTION#10 - SWALE	Peak Elev=74.76' Storage=289 cf Inflow=8.08 cfs 25,987 cf Primary=7.94 cfs 18,268 cf Secondary=0.16 cfs 7,719 cf Outflow=8.10 cfs 25,987 cf
Pond BIO#10B: BIORETENTION#10 - GRAVELS	Peak Elev=71.69' Storage=44 cf Inflow=0.16 cfs 7,719 cf Outflow=0.16 cfs 7,719 cf
Pond BIO#12A: BIORETENTION#12 - SWALE	Peak Elev=74.11' Storage=208 cf Inflow=2.35 cfs 7,359 cf Primary=2.27 cfs 3,547 cf Secondary=0.09 cfs 3,813 cf Outflow=2.36 cfs 7,360 cf
Pond BIO#12B: BIORETENTION#12 -	Peak Elev=72.75' Storage=942 cf Inflow=9.18 cfs 32,784 cf Outflow=9.12 cfs 32,784 cf
Pond BIO#13A: BIORETENTION#13 - SWALE	Peak Elev=74.78' Storage=304 cf Inflow=9.19 cfs 28,971 cf Primary=8.93 cfs 20,976 cf Secondary=0.17 cfs 7,995 cf Outflow=9.09 cfs 28,971 cf
Pond BIO#13B: BIORETENTION#13 - GRAVELS	Peak Elev=71.69' Storage=45 cf Inflow=0.17 cfs 7,995 cf Outflow=0.16 cfs 7,995 cf
Pond BIO#24A: BIO #24 - SWALE	Peak Elev=68.18' Storage=139 cf Inflow=4.62 cfs 15,117 cf Primary=4.52 cfs 9,222 cf Secondary=0.11 cfs 5,896 cf Outflow=4.63 cfs 15,117 cf
Pond BIO#24B: BIO #24 - GRAVELS	Peak Elev=64.48' Storage=961 cf Inflow=6.39 cfs 25,560 cf Outflow=5.33 cfs 25,560 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 16

Pond BIO#28: BIORETENTION#28	Peak Elev=63.42'	Storage=4,025 cf	Inflow=4.00 cfs	12,717 cf	Outflow=0.78 cfs	12,528 cf
Pond BIO#6A: BIORETENTION#6 - SWALE	Peak Elev=76.78'	Storage=300 cf	Inflow=4.08 cfs	12,775 cf	Primary=3.91 cfs 7,324 cf	Secondary=0.16 cfs 5,450 cf Outflow=4.07 cfs 12,775 cf
Pond BIO#6B: BIORETENTION#6 -	Peak Elev=74.39'	Storage=2,486 cf	Inflow=3.77 cfs	17,254 cf	Outflow=3.89 cfs	17,254 cf
Pond BIO#7A: BIORETENTION#7 - SWALE	Peak Elev=76.76'	Storage=270 cf	Inflow=3.68 cfs	11,804 cf	Primary=3.49 cfs 6,686 cf	Secondary=0.14 cfs 5,118 cf Outflow=3.62 cfs 11,804 cf
Pond BIO#7B: BIORETENTION#7 - GRAVELS	Peak Elev=72.67'	Storage=105 cf	Inflow=0.14 cfs	5,118 cf	Outflow=0.13 cfs	5,118 cf
Pond BIO#9B: BIORETENTION#9 - GRAVELS	Peak Elev=71.82'	Storage=260 cf	Inflow=8.09 cfs	25,987 cf	Outflow=8.10 cfs	25,987 cf
Pond CB 101: CB 101	Peak Elev=79.09'	Storage=13 cf	Inflow=3.73 cfs	11,906 cf	18.0" Round Culvert n=0.012 L=31.0' S=0.0100 '/'	Outflow=3.74 cfs 11,906 cf
Pond CB 102: CB 102	Peak Elev=76.95'	Storage=28 cf	Inflow=12.70 cfs	41,344 cf	24.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/'	Outflow=12.71 cfs 41,344 cf
Pond CB 103: CB 103	Peak Elev=76.89'	Storage=23 cf	Inflow=11.13 cfs	36,087 cf	24.0" Round Culvert n=0.012 L=38.0' S=0.0053 '/'	Outflow=11.12 cfs 36,087 cf
Pond CB 104: CB 104	Peak Elev=74.65'	Storage=18 cf	Inflow=7.74 cfs	24,547 cf	24.0" Round Culvert n=0.012 L=35.0' S=0.0057 '/'	Outflow=7.75 cfs 24,547 cf
Pond CB 105: CB 105	Peak Elev=75.10'	Storage=19 cf	Inflow=6.35 cfs	20,114 cf	18.0" Round Culvert n=0.012 L=57.0' S=0.0053 '/'	Outflow=6.36 cfs 20,114 cf
Pond CB 106: CB 106	Peak Elev=76.18'	Storage=10 cf	Inflow=2.78 cfs	8,603 cf	18.0" Round Culvert n=0.012 L=60.0' S=0.0100 '/'	Outflow=2.78 cfs 8,603 cf
Pond CB 107: CB 107	Peak Elev=76.51'	Storage=11 cf	Inflow=1.82 cfs	5,543 cf	12.0" Round Culvert n=0.012 L=23.0' S=0.0065 '/'	Outflow=1.82 cfs 5,543 cf
Pond CB 108: CB 108	Peak Elev=76.42'	Storage=4 cf	Inflow=0.42 cfs	1,237 cf	12.0" Round Culvert n=0.012 L=44.0' S=0.0295 '/'	Outflow=0.42 cfs 1,237 cf
Pond CB 109: CB 109	Peak Elev=75.21'	Storage=9 cf	Inflow=1.47 cfs	4,757 cf	12.0" Round Culvert n=0.012 L=151.0' S=0.0053 '/'	Outflow=1.47 cfs 4,757 cf
Pond CB 110: CB 110	Peak Elev=75.41'	Storage=6 cf	Inflow=0.65 cfs	2,111 cf	12.0" Round Culvert n=0.012 L=69.0' S=0.0051 '/'	Outflow=0.65 cfs 2,111 cf
Pond CB 111: CB 111	Peak Elev=75.28'	Storage=4 cf	Inflow=0.25 cfs	785 cf	12.0" Round Culvert n=0.012 L=82.0' S=0.0049 '/'	Outflow=0.25 cfs 785 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 17

Pond CB 112: CB 112Peak Elev=71.59' Storage=21 cf Inflow=9.67 cfs 32,059 cf
24.0" Round Culvert n=0.012 L=70.0' S=0.0050 ' Outflow=9.67 cfs 32,059 cf**Pond CB 113: CB 113**Peak Elev=71.83' Storage=21 cf Inflow=9.39 cfs 31,056 cf
24.0" Round Culvert n=0.012 L=16.0' S=0.0063 ' Outflow=9.39 cfs 31,056 cf**Pond CB 114: CB 114**Peak Elev=72.17' Storage=16 cf Inflow=7.67 cfs 25,383 cf
24.0" Round Culvert n=0.012 L=72.0' S=0.0090 ' Outflow=7.67 cfs 25,383 cf**Pond CB 115: CB 115**Peak Elev=72.77' Storage=17 cf Inflow=7.38 cfs 24,379 cf
24.0" Round Culvert n=0.012 L=77.0' S=0.0052 ' Outflow=7.38 cfs 24,379 cf**Pond CB 118: CB 118**Peak Elev=74.19' Storage=8 cf Inflow=1.44 cfs 4,842 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0089 ' Outflow=1.44 cfs 4,842 cf**Pond CB 119: CB 119**Peak Elev=72.39' Storage=23 cf Inflow=11.13 cfs 36,971 cf
24.0" Round Culvert n=0.012 L=40.0' S=0.0050 ' Outflow=11.13 cfs 36,971 cf**Pond CB 120: CB 120**Peak Elev=72.51' Storage=22 cf Inflow=9.82 cfs 32,748 cf
24.0" Round Culvert n=0.012 L=28.0' S=0.0054 ' Outflow=9.83 cfs 32,748 cf**Pond CB 125: CB 125**Peak Elev=71.31' Storage=87 cf Inflow=37.02 cfs 120,505 cf
24.0" Round Culvert n=0.012 L=41.0' S=0.0061 ' Outflow=37.09 cfs 120,505 cf**Pond CB 126: CB 126**Peak Elev=73.69' Storage=19 cf Inflow=3.78 cfs 12,094 cf
12.0" Round Culvert n=0.012 L=10.0' S=0.0200 ' Outflow=3.76 cfs 12,094 cf**Pond CB 127: CB 127**Peak Elev=70.09' Storage=8 cf Inflow=1.89 cfs 6,093 cf
18.0" Round Culvert n=0.012 L=38.0' S=0.0105 ' Outflow=1.89 cfs 6,093 cf**Pond CB 129: CB 129**Peak Elev=71.14' Storage=9 cf Inflow=1.58 cfs 5,057 cf
12.0" Round Culvert n=0.012 L=12.0' S=0.0083 ' Outflow=1.58 cfs 5,057 cf**Pond CB 130: CB 130**Peak Elev=71.13' Storage=6 cf Inflow=0.69 cfs 2,151 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0057 ' Outflow=0.69 cfs 2,151 cf**Pond CB 131: CB 131**Peak Elev=71.02' Storage=8 cf Inflow=1.56 cfs 5,045 cf
12.0" Round Culvert n=0.012 L=43.0' S=0.0209 ' Outflow=1.57 cfs 5,045 cf**Pond CB 133: CB 133**Peak Elev=75.67' Storage=5 cf Inflow=0.52 cfs 1,607 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 ' Outflow=0.52 cfs 1,607 cf**Pond CB 136: CB 136**Peak Elev=73.53' Storage=9 cf Inflow=1.60 cfs 5,063 cf
12.0" Round Culvert n=0.012 L=23.0' S=0.0109 ' Outflow=1.61 cfs 5,063 cf**Pond CB 137: CB 137**Peak Elev=73.75' Storage=6 cf Inflow=0.91 cfs 2,882 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0100 ' Outflow=0.91 cfs 2,882 cf**Pond CB 138: CB 138**Peak Elev=70.73' Storage=17 cf Inflow=14.23 cfs 45,450 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 ' Outflow=14.24 cfs 45,450 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 18

Pond CB 139: CB 139

Peak Elev=70.90' Storage=15 cf Inflow=13.29 cfs 42,530 cf
24.0" Round Culvert n=0.012 L=29.0' S=0.0052 '/' Outflow=13.30 cfs 42,530 cf

Pond CB 142: CB 142

Peak Elev=67.58' Storage=8 cf Inflow=1.40 cfs 4,449 cf
12.0" Round Culvert n=0.012 L=51.0' S=0.0098 '/' Outflow=1.40 cfs 4,449 cf

Pond CB 143: CB 143

Peak Elev=68.11' Storage=4 cf Inflow=0.40 cfs 1,252 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0096 '/' Outflow=0.40 cfs 1,252 cf

Pond CB 144: CB 144

Peak Elev=68.53' Storage=0 cf Inflow=2.30 cfs 25,550 cf
18.0" Round Culvert n=0.012 L=139.0' S=0.0101 '/' Outflow=2.30 cfs 25,550 cf

Pond CB 145: CB 145

Peak Elev=69.41' Storage=0 cf Inflow=1.95 cfs 22,917 cf
18.0" Round Culvert n=0.012 L=11.0' S=0.0136 '/' Outflow=1.95 cfs 22,917 cf

Pond CB 147: CB 147

Peak Elev=72.24' Storage=9 cf Inflow=1.47 cfs 4,599 cf
12.0" Round Culvert n=0.012 L=33.0' S=0.0061 '/' Outflow=1.47 cfs 4,599 cf

Pond CB 148: CB 148

Peak Elev=71.23' Storage=0 cf Inflow=3.33 cfs 10,719 cf
12.0" Round Culvert n=0.012 L=14.0' S=0.1429 '/' Outflow=3.33 cfs 10,719 cf

Pond CB 149: CB 149

Peak Elev=71.71' Storage=0 cf Inflow=1.05 cfs 3,594 cf
12.0" Round Culvert n=0.012 L=71.0' S=0.0204 '/' Outflow=1.05 cfs 3,594 cf

Pond CB 150: CB 150

Peak Elev=72.36' Storage=8 cf Inflow=1.08 cfs 3,403 cf
12.0" Round Culvert n=0.012 L=21.0' S=0.0071 '/' Outflow=1.07 cfs 3,403 cf

Pond CB 151: CB 151

Peak Elev=72.87' Storage=5 cf Inflow=0.55 cfs 1,755 cf
12.0" Round Culvert n=0.012 L=120.0' S=0.0050 '/' Outflow=0.55 cfs 1,755 cf

Pond CB 152: CB 152

Peak Elev=73.15' Storage=3 cf Inflow=0.26 cfs 823 cf
12.0" Round Culvert n=0.012 L=32.0' S=0.0109 '/' Outflow=0.26 cfs 823 cf

Pond CB 154: CB 154

Peak Elev=68.18' Storage=15 cf Inflow=4.38 cfs 14,117 cf
15.0" Round Culvert n=0.012 L=28.0' S=0.0107 '/' Outflow=4.39 cfs 14,117 cf

Pond CB 155: CB 155

Peak Elev=67.93' Storage=8 cf Inflow=4.87 cfs 15,701 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0066 '/' Outflow=4.87 cfs 15,701 cf

Pond CB 156: CB 156

Peak Elev=67.72' Storage=0 cf Inflow=10.85 cfs 35,054 cf
24.0" Round Culvert n=0.012 L=117.0' S=0.0103 '/' Outflow=10.85 cfs 35,054 cf

Pond CB 157: CB 157

Peak Elev=67.97' Storage=0 cf Inflow=4.96 cfs 16,018 cf
18.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=4.96 cfs 16,018 cf

Pond CB 158: CB 158

Peak Elev=68.68' Storage=0 cf Inflow=4.06 cfs 13,118 cf
15.0" Round Culvert n=0.012 L=112.0' S=0.0103 '/' Outflow=4.06 cfs 13,118 cf

Pond CB 159: CB 159

Peak Elev=69.43' Storage=1 cf Inflow=3.17 cfs 10,294 cf
15.0" Round Culvert n=0.012 L=112.0' S=0.0076 '/' Outflow=3.17 cfs 10,294 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 19

Pond CB 160: CB 160	Peak Elev=70.92' Storage=6 cf Inflow=2.64 cfs 8,594 cf 15.0" Round Culvert n=0.012 L=199.0' S=0.0075 ' Outflow=2.65 cfs 8,594 cf
Pond CB 161: CB 161	Peak Elev=71.70' Storage=5 cf Inflow=1.08 cfs 3,386 cf 12.0" Round Culvert n=0.012 L=145.0' S=0.0052 ' Outflow=1.09 cfs 3,386 cf
Pond CB 165: CB 165	Peak Elev=71.36' Storage=16 cf Inflow=1.58 cfs 5,205 cf 12.0" Round Culvert n=0.012 L=72.0' S=0.0056 ' Outflow=1.58 cfs 5,199 cf
Pond CB 166: CB 166	Peak Elev=72.91' Storage=11 cf Inflow=11.99 cfs 37,797 cf 24.0" Round Culvert n=0.012 L=14.0' S=0.0071 ' Outflow=11.98 cfs 37,798 cf
Pond CB 167: CB 167	Peak Elev=73.12' Storage=10 cf Inflow=11.23 cfs 35,479 cf 24.0" Round Culvert n=0.012 L=45.0' S=0.0056 ' Outflow=11.22 cfs 35,479 cf
Pond CB 168: CB 168	Peak Elev=74.30' Storage=20 cf Inflow=9.18 cfs 29,052 cf 18.0" Round Culvert n=0.012 L=57.0' S=0.0053 ' Outflow=9.15 cfs 29,052 cf
Pond CB 169: CB 169	Peak Elev=74.36' Storage=11 cf Inflow=6.74 cfs 21,294 cf 18.0" Round Culvert n=0.012 L=124.0' S=0.0052 ' Outflow=6.73 cfs 21,294 cf
Pond CB 170: CB 170	Peak Elev=74.69' Storage=6 cf Inflow=4.18 cfs 13,156 cf 18.0" Round Culvert n=0.012 L=123.0' S=0.0053 ' Outflow=4.17 cfs 13,156 cf
Pond CB 171: CB 171	Peak Elev=74.90' Storage=6 cf Inflow=3.66 cfs 11,512 cf 18.0" Round Culvert n=0.012 L=20.0' S=0.0050 ' Outflow=3.66 cfs 11,512 cf
Pond CB 172: CB 172	Peak Elev=75.43' Storage=9 cf Inflow=2.19 cfs 6,770 cf 12.0" Round Culvert n=0.012 L=24.0' S=0.0063 ' Outflow=2.19 cfs 6,770 cf
Pond CB 173: CB 173	Peak Elev=73.00' Storage=1 cf Inflow=1.33 cfs 4,044 cf 12.0" Round Culvert n=0.012 L=35.0' S=0.0171 ' Outflow=1.32 cfs 4,044 cf
Pond CB 174: CB 174	Peak Elev=74.89' Storage=11 cf Inflow=0.23 cfs 720 cf 12.0" Round Culvert n=0.012 L=76.0' S=0.0191 ' Outflow=0.23 cfs 712 cf
Pond CB 175: CB 175	Peak Elev=69.60' Storage=8 cf Inflow=5.97 cfs 18,846 cf 18.0" Round Culvert n=0.012 L=18.0' S=0.0111 ' Outflow=5.97 cfs 18,846 cf
Pond CB 176: CB 176	Peak Elev=69.85' Storage=7 cf Inflow=3.86 cfs 12,031 cf 18.0" Round Culvert n=0.012 L=58.0' S=0.0103 ' Outflow=3.86 cfs 12,031 cf
Pond CB 177: CB 177	Peak Elev=71.16' Storage=1 cf Inflow=1.91 cfs 6,011 cf 12.0" Round Culvert n=0.012 L=124.0' S=0.0081 ' Outflow=1.91 cfs 6,011 cf
Pond CB 178: CB 178	Peak Elev=71.48' Storage=0 cf Inflow=1.22 cfs 3,836 cf 12.0" Round Culvert n=0.012 L=46.0' S=0.0054 ' Outflow=1.22 cfs 3,836 cf
Pond CB 179: CB 179	Peak Elev=72.12' Storage=0 cf Inflow=0.83 cfs 2,529 cf 12.0" Round Culvert n=0.012 L=107.0' S=0.0051 ' Outflow=0.83 cfs 2,529 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 20

Pond CB 180: CB 180Peak Elev=70.37' Storage=9 cf Inflow=1.38 cfs 4,195 cf
12.0" Round Culvert n=0.012 L=48.0' S=0.0052 ' / ' Outflow=1.38 cfs 4,195 cf**Pond CB 181: CB 181**Peak Elev=67.11' Storage=5 cf Inflow=0.67 cfs 2,099 cf
12.0" Round Culvert n=0.012 L=56.0' S=0.0107 ' / ' Outflow=0.67 cfs 2,099 cf**Pond CB 182: CB 182**Peak Elev=67.15' Storage=13 cf Inflow=4.43 cfs 13,970 cf
18.0" Round Culvert n=0.012 L=71.0' S=0.0056 ' / ' Outflow=4.43 cfs 13,970 cf**Pond CB 183: CB 183**Peak Elev=67.55' Storage=9 cf Inflow=1.85 cfs 5,800 cf
12.0" Round Culvert n=0.012 L=60.0' S=0.0100 ' / ' Outflow=1.85 cfs 5,800 cf**Pond CB 184: CB 184**Peak Elev=68.78' Storage=4 cf Inflow=0.46 cfs 1,440 cf
12.0" Round Culvert n=0.012 L=154.0' S=0.0101 ' / ' Outflow=0.45 cfs 1,440 cf**Pond CB 185: CB 185**Peak Elev=69.18' Storage=4 cf Inflow=0.36 cfs 1,131 cf
12.0" Round Culvert n=0.012 L=56.0' S=0.0054 ' / ' Outflow=0.36 cfs 1,131 cf**Pond CB 186: CB 186**Peak Elev=73.86' Storage=3 cf Inflow=1.62 cfs 5,256 cf
12.0" Round Culvert n=0.012 L=14.0' S=0.0171 ' / ' Outflow=1.61 cfs 5,256 cf**Pond CB 187: CB 187**Peak Elev=74.32' Storage=0 cf Inflow=0.43 cfs 1,320 cf
12.0" Round Culvert n=0.012 L=54.0' S=0.0102 ' / ' Outflow=0.43 cfs 1,320 cf**Pond CB 188: CB 188**Peak Elev=74.97' Storage=5 cf Inflow=0.54 cfs 1,633 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0159 ' / ' Outflow=0.54 cfs 1,633 cf**Pond CB 189: CB 189**Peak Elev=75.73' Storage=7 cf Inflow=1.15 cfs 3,492 cf
12.0" Round Culvert n=0.012 L=31.0' S=0.0065 ' / ' Outflow=1.14 cfs 3,492 cf**Pond CB 190: CB 190**Peak Elev=75.74' Storage=2 cf Inflow=0.12 cfs 348 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0056 ' / ' Outflow=0.12 cfs 348 cf**Pond CB 191: CB 191**Peak Elev=77.51' Storage=21 cf Inflow=10.63 cfs 34,206 cf
24.0" Round Culvert n=0.012 L=134.0' S=0.0052 ' / ' Outflow=10.62 cfs 34,206 cf**Pond CB 192: CB 192**Peak Elev=77.91' Storage=22 cf Inflow=7.65 cfs 24,647 cf
18.0" Round Culvert n=0.012 L=36.0' S=0.0056 ' / ' Outflow=7.66 cfs 24,647 cf**Pond CB 193: CB 193**Peak Elev=78.13' Storage=21 cf Inflow=3.61 cfs 11,341 cf
12.0" Round Culvert n=0.012 L=46.0' S=0.0054 ' / ' Outflow=3.58 cfs 11,341 cf**Pond CB 194: CB 194**Peak Elev=78.03' Storage=17 cf Inflow=2.98 cfs 9,415 cf
12.0" Round Culvert n=0.012 L=20.0' S=0.0050 ' / ' Outflow=2.97 cfs 9,415 cf**Pond CB 195: CB 195**Peak Elev=78.93' Storage=8 cf Inflow=1.58 cfs 5,272 cf
12.0" Round Culvert n=0.012 L=76.0' S=0.0099 ' / ' Outflow=1.58 cfs 5,272 cf**Pond CB 196: CB 196**Peak Elev=79.72' Storage=7 cf Inflow=1.20 cfs 3,966 cf
12.0" Round Culvert n=0.012 L=81.0' S=0.0099 ' / ' Outflow=1.20 cfs 3,966 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 21

Pond CB 197: CB 197	Peak Elev=80.54' Storage=6 cf Inflow=0.92 cfs 2,912 cf 12.0" Round Culvert n=0.012 L=81.0' S=0.0099 ' Outflow=0.92 cfs 2,912 cf
Pond CB 198: CB 198	Peak Elev=78.09' Storage=4 cf Inflow=0.47 cfs 1,401 cf 12.0" Round Culvert n=0.012 L=28.0' S=0.0714 ' Outflow=0.47 cfs 1,401 cf
Pond CB 199: CB 199	Peak Elev=72.74' Storage=0.000 af Inflow=0.57 cfs 1,690 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0058 ' Outflow=0.57 cfs 1,690 cf
Pond CB 200: CB 200	Peak Elev=75.32' Storage=0.000 af Inflow=1.57 cfs 5,082 cf 12.0" Round Culvert n=0.012 L=25.0' S=0.0040 ' Outflow=1.57 cfs 5,082 cf
Pond CB 201: CB 201	Peak Elev=75.16' Storage=0.000 af Inflow=2.78 cfs 8,846 cf 18.0" Round Culvert n=0.012 L=116.0' S=0.0052 ' Outflow=2.78 cfs 8,846 cf
Pond CB 210: CB 210	Peak Elev=63.80' Storage=10 cf Inflow=1.88 cfs 6,834 cf 12.0" Round Culvert n=0.012 L=29.0' S=0.0103 ' Outflow=1.88 cfs 6,834 cf
Pond CB 211: CB 211	Peak Elev=64.88' Storage=5 cf Inflow=0.71 cfs 2,179 cf 12.0" Round Culvert n=0.012 L=40.0' S=0.0100 ' Outflow=0.71 cfs 2,179 cf
Pond CB 212: CB 212	Peak Elev=64.66' Storage=9 cf Inflow=1.55 cfs 4,930 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0100 ' Outflow=1.55 cfs 4,930 cf
Pond CB 213: CB 213	Peak Elev=65.16' Storage=6 cf Inflow=0.67 cfs 2,163 cf 12.0" Round Culvert n=0.012 L=52.0' S=0.0058 ' Outflow=0.67 cfs 2,163 cf
Pond CB 214: CB 214	Peak Elev=64.93' Storage=8 cf Inflow=1.14 cfs 3,934 cf 12.0" Round Culvert n=0.012 L=80.0' S=0.0050 ' Outflow=1.14 cfs 3,934 cf
Pond CB 215: CB 215	Peak Elev=65.80' Storage=23 cf Inflow=3.85 cfs 12,280 cf 12.0" Round Culvert n=0.012 L=62.0' S=0.0056 ' Outflow=3.82 cfs 12,280 cf
Pond CB 216: CB 216	Peak Elev=65.80' Storage=8 cf Inflow=1.20 cfs 3,784 cf 12.0" Round Culvert n=0.012 L=78.0' S=0.0051 ' Outflow=1.19 cfs 3,784 cf
Pond CB 217: CB 217	Peak Elev=64.21' Storage=24 cf Inflow=3.40 cfs 10,974 cf 12.0" Round Culvert n=0.012 L=183.0' S=0.0052 ' Outflow=3.39 cfs 10,974 cf
Pond CB 218: CB 218	Peak Elev=64.13' Storage=8 cf Inflow=1.29 cfs 3,965 cf 12.0" Round Culvert n=0.012 L=112.0' S=0.0067 ' Outflow=1.29 cfs 3,965 cf
Pond CB 219: CB 219	Peak Elev=61.97' Storage=16 cf Inflow=4.30 cfs 13,397 cf 15.0" Round Culvert n=0.012 L=91.0' S=0.0055 ' Outflow=4.30 cfs 13,397 cf
Pond CB 220: CB 220	Peak Elev=62.53' Storage=14 cf Inflow=3.40 cfs 10,270 cf 15.0" Round Culvert n=0.012 L=129.0' S=0.0050 ' Outflow=3.39 cfs 10,270 cf
Pond CB 221: CB 221	Peak Elev=64.19' Storage=11 cf Inflow=2.38 cfs 7,005 cf 12.0" Round Culvert n=0.012 L=137.0' S=0.0117 ' Outflow=2.38 cfs 7,005 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 22

Pond CB 222: CB 222

Peak Elev=62.46' Storage=8 cf Inflow=0.77 cfs 2,455 cf
12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.77 cfs 2,453 cf

Pond CB 223: CB 223

Peak Elev=67.73' Storage=28 cf Inflow=16.29 cfs 68,772 cf
24.0" Round Culvert n=0.012 L=18.0' S=0.0167 '/' Outflow=16.30 cfs 68,772 cf

Pond CB 224: CB 224

Peak Elev=65.88' Storage=7 cf Inflow=1.02 cfs 3,124 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0100 '/' Outflow=1.02 cfs 3,124 cf

Pond CB 226: CB 226

Peak Elev=64.20' Storage=4 cf Inflow=0.37 cfs 1,116 cf
12.0" Round Culvert n=0.012 L=79.0' S=0.0101 '/' Outflow=0.37 cfs 1,116 cf

Pond CB 229: CB 229

Peak Elev=63.35' Storage=11 cf Inflow=1.78 cfs 5,621 cf
12.0" Round Culvert n=0.012 L=13.0' S=0.0077 '/' Outflow=1.78 cfs 5,621 cf

Pond CB 230: CB 230

Peak Elev=63.34' Storage=7 cf Inflow=0.94 cfs 2,762 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=0.94 cfs 2,762 cf

Pond CB 231: CB 231

Peak Elev=61.53' Storage=10 cf Inflow=1.57 cfs 4,945 cf
12.0" Round Culvert n=0.012 L=25.0' S=0.0060 '/' Outflow=1.56 cfs 4,945 cf

Pond CB 232: CB 232

Peak Elev=61.75' Storage=9 cf Inflow=1.44 cfs 4,546 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0054 '/' Outflow=1.43 cfs 4,546 cf

Pond CB 233: CB 233

Peak Elev=63.47' Storage=4 cf Inflow=0.41 cfs 1,278 cf
12.0" Round Culvert n=0.012 L=39.0' S=0.0141 '/' Outflow=0.41 cfs 1,278 cf

Pond CB 235: CB 235

Peak Elev=61.93' Storage=7 cf Inflow=1.13 cfs 3,497 cf
12.0" Round Culvert n=0.012 L=37.0' S=0.0095 '/' Outflow=1.13 cfs 3,497 cf

Pond CB 236: CB 236

Peak Elev=62.17' Storage=5 cf Inflow=0.66 cfs 2,042 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0107 '/' Outflow=0.66 cfs 2,042 cf

Pond CB 237: CB 237

Peak Elev=63.64' Storage=7 cf Inflow=1.06 cfs 3,238 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=1.06 cfs 3,238 cf

Pond CB 238: CB 238

Peak Elev=64.01' Storage=4 cf Inflow=0.51 cfs 1,560 cf
12.0" Round Culvert n=0.012 L=44.0' S=0.0102 '/' Outflow=0.51 cfs 1,560 cf

Pond CB 239: CB 239

Peak Elev=61.51' Storage=13 cf Inflow=2.70 cfs 8,550 cf
12.0" Round Culvert n=0.012 L=32.0' S=0.0109 '/' Outflow=2.70 cfs 8,550 cf

Pond CB 241: CB 241

Peak Elev=62.40' Storage=13 cf Inflow=2.37 cfs 7,753 cf
12.0" Round Culvert n=0.012 L=180.0' S=0.0050 '/' Outflow=2.37 cfs 7,753 cf

Pond CB 244: CB 244

Peak Elev=62.71' Storage=8 cf Inflow=1.07 cfs 3,451 cf
12.0" Round Culvert n=0.012 L=8.0' S=0.0125 '/' Outflow=1.07 cfs 3,451 cf

Pond CB 245: CB 245

Peak Elev=62.35' Storage=2 cf Inflow=0.10 cfs 306 cf
12.0" Round Culvert n=0.012 L=33.0' S=0.0106 '/' Outflow=0.10 cfs 306 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 23

Pond CB 248: CB 248	Peak Elev=65.88' Storage=15 cf Inflow=12.15 cfs 39,116 cf 24.0" Round Culvert n=0.012 L=30.0' S=0.0100 ' ' Outflow=12.16 cfs 39,117 cf
Pond CB 249: CB 249	Peak Elev=74.84' Storage=0.000 af Inflow=0.09 cfs 284 cf 12.0" Round Culvert n=0.012 L=78.0' S=0.0103 ' ' Outflow=0.09 cfs 284 cf
Pond CB 252: CB 252	Peak Elev=70.49' Storage=17 cf Inflow=2.96 cfs 9,574 cf 12.0" Round Culvert n=0.012 L=38.0' S=0.0053 ' ' Outflow=2.94 cfs 9,574 cf
Pond CB 253: CB 253	Peak Elev=70.59' Storage=14 cf Inflow=2.63 cfs 8,439 cf 12.0" Round Culvert n=0.012 L=40.0' S=0.0050 ' ' Outflow=2.63 cfs 8,439 cf
Pond DMH 508: DMH 508	Peak Elev=62.28' Storage=33 cf Inflow=30.95 cfs 140,596 cf 36.0" Round Culvert n=0.012 L=127.0' S=0.0051 ' ' Outflow=30.93 cfs 140,596 cf
Pond DMH 509: DMH 509	Peak Elev=63.31' Storage=39 cf Inflow=20.03 cfs 100,258 cf 24.0" Round Culvert n=0.012 L=90.0' S=0.0050 ' ' Outflow=20.03 cfs 100,258 cf
Pond DMH 510: DMH 510	Peak Elev=64.08' Storage=40 cf Inflow=20.03 cfs 100,258 cf 24.0" Round Culvert n=0.012 L=122.0' S=0.0049 ' ' Outflow=20.03 cfs 100,258 cf
Pond DMH 511: DMH 511	Peak Elev=64.51' Storage=39 cf Inflow=20.03 cfs 100,259 cf 24.0" Round Culvert n=0.012 L=83.0' S=0.0054 ' ' Outflow=20.03 cfs 100,258 cf
Pond DMH 512: DMH 512	Peak Elev=64.09' Storage=23 cf Inflow=12.13 cfs 65,476 cf 24.0" Round Culvert n=0.012 L=140.0' S=0.0050 ' ' Outflow=12.13 cfs 65,476 cf
Pond DMH 513: DMH 513	Peak Elev=64.54' Storage=22 cf Inflow=10.98 cfs 58,642 cf 24.0" Round Culvert n=0.012 L=82.0' S=0.0055 ' ' Outflow=10.98 cfs 58,642 cf
Pond DMH 514: DMH 514	Peak Elev=65.29' Storage=8 cf Inflow=1.19 cfs 3,784 cf 12.0" Round Culvert n=0.012 L=103.0' S=0.0053 ' ' Outflow=1.19 cfs 3,784 cf
Pond DMH 515: DMH 515	Peak Elev=61.96' Storage=9 cf Inflow=1.29 cfs 3,965 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0050 ' ' Outflow=1.28 cfs 3,965 cf
Pond DMH 516: DMH 516	Peak Elev=61.43' Storage=13 cf Inflow=2.37 cfs 7,753 cf 12.0" Round Culvert n=0.012 L=58.0' S=0.0052 ' ' Outflow=2.36 cfs 7,753 cf
Pond DMH 533: DMH 533	Peak Elev=71.38' Storage=83 cf Inflow=35.90 cfs 117,369 cf 24.0" Round Culvert n=0.012 L=67.0' S=0.0097 ' ' Outflow=36.04 cfs 117,369 cf
Pond DMH 534: DMH 534	Peak Elev=74.27' Storage=91 cf Inflow=36.03 cfs 117,369 cf 24.0" Round Culvert n=0.012 L=208.0' S=0.0101 ' ' Outflow=35.90 cfs 117,369 cf
Pond DMH 535: DMH 535	Peak Elev=75.45' Storage=83 cf Inflow=36.14 cfs 117,369 cf 24.0" Round Culvert n=0.012 L=135.0' S=0.0100 ' ' Outflow=36.03 cfs 117,369 cf
Pond DMH 536: DMH 536	Peak Elev=76.65' Storage=57 cf Inflow=14.06 cfs 45,559 cf 18.0" Round Culvert n=0.012 L=300.0' S=0.0092 ' ' Outflow=13.94 cfs 45,559 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 24

Pond DMH 537: DMH 537Peak Elev=74.86' Storage=17 cf Inflow=6.02 cfs 19,459 cf
18.0" Round Culvert n=0.012 L=260.0' S=0.0050 ' Outflow=6.02 cfs 19,459 cf**Pond EX. CB: EX. CB 2436**Inflow=0.54 cfs 1,633 cf
Primary=0.54 cfs 1,633 cf**Pond EX. CB 2470: EX. CB 2470**Peak Elev=75.23' Storage=7 cf Inflow=1.14 cfs 3,492 cf
12.0" Round Culvert n=0.012 L=171.0' S=0.0059 ' Outflow=1.14 cfs 3,492 cf**Pond FB#1: FOREBAY #1**Peak Elev=74.83' Storage=651 cf Inflow=7.75 cfs 24,547 cf
Outflow=7.78 cfs 24,070 cf**Pond GW1-C1: GRAVEL WETLAND #1**Peak Elev=74.73' Storage=6,261 cf Inflow=7.78 cfs 24,070 cf
Outflow=7.41 cfs 24,070 cf**Pond SF#1: SAND FILTER #1**Peak Elev=75.96' Storage=6,038 cf Inflow=12.71 cfs 41,344 cf
Outflow=14.10 cfs 40,994 cf**Pond SF#2: SAND FILTER #2**Peak Elev=73.85' Storage=7,931 cf Inflow=11.98 cfs 37,798 cf
Outflow=6.91 cfs 37,337 cf**Pond SF#3: SAND FILTER #3**Peak Elev=71.65' Storage=651 cf Inflow=1.47 cfs 4,599 cf
Outflow=0.72 cfs 4,542 cf**Pond SF#4: SAND FILTER #4**Peak Elev=76.87' Storage=765 cf Inflow=3.74 cfs 11,906 cf
Outflow=3.70 cfs 11,778 cf**Pond SF#5: SAND FILTER #5**Peak Elev=70.04' Storage=4,123 cf Inflow=7.15 cfs 23,232 cf
Outflow=3.11 cfs 22,955 cf**Link AP-1: Highway culvert**Inflow=216.96 cfs 3,104,230 cf
Primary=216.96 cfs 3,104,230 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 3,418,938 cf Average Runoff Depth = 4.43"**
48.47% Pervious = 4,492,702 sf 51.53% Impervious = 4,776,381 sf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 25

Summary for Subcatchment 101: Off-site/Mixed zone

Runoff = 192.24 cfs @ 12.62 hrs, Volume= 1,329,957 cf, Depth= 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
12,614	61	>75% Grass cover, Good, HSG B
118,055	74	>75% Grass cover, Good, HSG C
333,700	80	>75% Grass cover, Good, HSG D
77,912	55	Woods, Good, HSG B
78,930	70	Woods, Good, HSG C
687,443	77	Woods, Good, HSG D
19,392	98	Paved parking, HSG B
358,213	98	Paved parking, HSG C
376,621	98	Paved parking, HSG D
16,316	82	Dirt roads, HSG B
141,525	87	Dirt roads, HSG C
134,358	89	Dirt roads, HSG D
814,116	95	Urban commercial, 85% imp, HSG D
284,723	72	1/3 acre lots, 30% imp, HSG B
62,231	81	1/3 acre lots, 30% imp, HSG C
266,043	86	1/3 acre lots, 30% imp, HSG D
3,782,192	86	Weighted Average
2,152,068		56.90% Pervious Area
1,630,124		43.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	75	0.0100	0.98		Sheet Flow, Parking Lot Smooth surfaces n= 0.011 P2= 3.19"
3.4	502	0.0150	2.49		Shallow Concentrated Flow, Parking Lot Paved Kv= 20.3 fps
0.5	62	0.0200	2.12		Shallow Concentrated Flow, Grass Grassed Waterway Kv= 15.0 fps
2.9	122	0.0200	0.71		Shallow Concentrated Flow, Trees Woodland Kv= 5.0 fps
38.5	2,569	0.0100	1.11	0.56	Parabolic Channel, Stream W=3.00' D=0.25' Area=0.5 sf Perim=3.1' n= 0.040 Winding stream, pools & shoals
46.6	3,330	Total			

Summary for Subcatchment 102: South of railroad

Runoff = 62.08 cfs @ 12.37 hrs, Volume= 322,038 cf, Depth= 3.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 26

Area (sf)	CN	Description
168	98	Paved parking, HSG A
34,992	98	Paved parking, HSG C
40,072	98	Paved parking, HSG D
16,039	96	Gravel surface, HSG C
251,562	74	>75% Grass cover, Good, HSG C
512,528	80	>75% Grass cover, Good, HSG D
174,995	70	Woods, Good, HSG C
105,302	77	Woods, Good, HSG D
1,135,658	78	Weighted Average
1,060,426		93.38% Pervious Area
75,232		6.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	75	0.0500	0.06		Sheet Flow, Through Trees Woods: Dense underbrush n= 0.800 P2= 3.19"
1.2	114	0.0500	1.57		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
2.0	96	0.1000	0.79		Shallow Concentrated Flow, Through Trees Forest w/Heavy Litter Kv= 2.5 fps
0.2	38	0.2000	3.13		Shallow Concentrated Flow, Through Trees Short Grass Pasture Kv= 7.0 fps
0.5	22	0.1000	0.79		Shallow Concentrated Flow, Through Trees Forest w/Heavy Litter Kv= 2.5 fps
2.0	272	0.1000	2.21		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
26.5	617	Total			

Summary for Subcatchment 103: Park & Ride

Runoff = 13.72 cfs @ 12.27 hrs, Volume= 63,311 cf, Depth= 4.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
49,843	80	>75% Grass cover, Good, HSG D
82,177	77	Woods, Good, HSG D
57,455	98	Paved parking, HSG D
189,475	84	Weighted Average
132,020		69.68% Pervious Area
57,455		30.32% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 27

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	75	0.0300	0.13		Sheet Flow, Grass Grass: Dense n= 0.240 P2= 3.19"
1.8	132	0.0300	1.21		Shallow Concentrated Flow, Grass Short Grass Pasture Kv= 7.0 fps
8.2	547	0.0100	1.11	0.46	Parabolic Channel, Small Stream W=2.50' D=0.25' Area=0.4 sf Perim=2.6' n= 0.040 Winding stream, pools & shoals
19.7	754	Total			

Summary for Subcatchment 1100: PR-WS-1100

Runoff = 3.56 cfs @ 12.02 hrs, Volume= 11,405 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,333	98	Paved roads w/curbs & sewers, HSG A
21,895	98	Paved parking, HSG D
908	80	>75% Grass cover, Good, HSG D
25,136	97	Weighted Average
908		3.61% Pervious Area
24,228		96.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.9	199	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.5	249	Total			

Summary for Subcatchment 1101: PR-WS-1101

Runoff = 10.70 cfs @ 12.04 hrs, Volume= 33,079 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
62,642	98	Paved parking, HSG D
15,212	80	>75% Grass cover, Good, HSG D
77,854	94	Weighted Average
15,212		19.54% Pervious Area
62,642		80.46% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 28

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
1.6	269	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
2.3	319	Total			

Summary for Subcatchment 1102: PR-WS-1102

Runoff = 2.11 cfs @ 12.03 hrs, Volume= 6,904 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
14,460	98	Paved parking, HSG C
438	98	Paved parking, HSG D
14,898	98	Weighted Average
14,898		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
1.5	253	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
2.1	303	Total			

Summary for Subcatchment 1103: N/W of railroad

Runoff = 3.63 cfs @ 12.10 hrs, Volume= 11,650 cf, Depth= 3.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,575	96	Gravel surface, HSG C
2,204	96	Gravel surface, HSG D
29,602	74	>75% Grass cover, Good, HSG C
6,704	80	>75% Grass cover, Good, HSG D
41,085	78	Weighted Average
41,085		100.00% Pervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 29

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	34	0.2000	0.24		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
2.3	16	0.0500	0.12		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
1.9	506	0.0500	4.54		Shallow Concentrated Flow, Thorough Grass Paved Kv= 20.3 fps
6.6	556	Total			

Summary for Subcatchment 1104: North of railroad

Runoff = 1.02 cfs @ 12.05 hrs, Volume= 3,124 cf, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,100	98	Paved parking, HSG C
3,346	98	Paved parking, HSG D
493	74	>75% Grass cover, Good, HSG C
1,754	80	>75% Grass cover, Good, HSG D
7,693	92	Weighted Average
2,247		29.21% Pervious Area
5,446		70.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.0	27	0.2000	0.23		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.4	23	0.0200	1.02		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.8	130	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.2	180	Total			

Summary for Subcatchment 1105: N/E of railroad

Runoff = 8.87 cfs @ 12.10 hrs, Volume= 29,258 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
54,367	91	Gravel roads, HSG D
26,791	80	>75% Grass cover, Good, HSG D
81,158	87	Weighted Average
81,158		100.00% Pervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 30

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	75	0.1000	0.21		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.6	240	0.1000	6.42		Shallow Concentrated Flow, Thorough Grass
					Paved Kv= 20.3 fps
6.6	315	Total			

Summary for Subcatchment 1106: PR-WS-1106

Runoff = 9.60 cfs @ 12.11 hrs, Volume= 31,305 cf, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
9,814	98	Paved parking, HSG A
37,670	96	Gravel surface, HSG D
53,138	39	>75% Grass cover, Good, HSG A
41,276	80	>75% Grass cover, Good, HSG D
141,898	70	Weighted Average
132,084		93.08% Pervious Area
9,814		6.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	22	0.0200	1.01		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
3.6	28	0.0500	0.13		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.7	62	0.0500	1.57		Shallow Concentrated Flow, Through Grass
					Short Grass Pasture Kv= 7.0 fps
0.9	43	0.1000	0.79		Shallow Concentrated Flow, Through Trees
					Forest w/Heavy Litter Kv= 2.5 fps
1.3	205	0.1500	2.71		Shallow Concentrated Flow, Through Grass
					Short Grass Pasture Kv= 7.0 fps
6.9	360	Total			

Summary for Subcatchment 1107: Quarry

Runoff = 130.60 cfs @ 12.05 hrs, Volume= 410,213 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 31

Area (sf)	CN	Description
16,719	96	Gravel surface, HSG D
5,177	39	>75% Grass cover, Good, HSG A
22,839	74	>75% Grass cover, Good, HSG C
39,983	80	>75% Grass cover, Good, HSG D
10,194	30	Woods, Good, HSG A
2,797	70	Woods, Good, HSG C
22,980	77	Woods, Good, HSG D
822,604	98	Water Surface, HSG D
1,000	98	Paved parking, HSG D
944,293	95	Weighted Average
120,689		12.78% Pervious Area
823,604		87.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	55	0.3300	0.32		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"

Summary for Subcatchment 1110: Travelodge

Runoff = 28.09 cfs @ 12.02 hrs, Volume= 86,289 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
36,073	98	Paved parking, HSG A
136,606	98	Paved parking, HSG D
4,626	39	>75% Grass cover, Good, HSG A
25,783	80	>75% Grass cover, Good, HSG D
203,088	94	Weighted Average
30,409		14.97% Pervious Area
172,679		85.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.7	120	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.4	170	Total			

Summary for Subcatchment 1111: PR-WS-1111

Runoff = 33.38 cfs @ 12.06 hrs, Volume= 99,352 cf, Depth= 3.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 32

Area (sf)	CN	Description
275	98	Paved parking, HSG C
57,109	98	Paved parking, HSG D
9,436	74	>75% Grass cover, Good, HSG C
92,541	80	>75% Grass cover, Good, HSG D
25,867	70	Woods, Good, HSG C
136,826	77	Woods, Good, HSG D
322,054	81	Weighted Average
264,670		82.18% Pervious Area
57,384		17.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.2	20	0.1000	2.21		Shallow Concentrated Flow, Through Grass
					Short Grass Pasture Kv= 7.0 fps
3.2	305	0.1000	1.58		Shallow Concentrated Flow, Through Trees
					Woodland Kv= 5.0 fps
4.1	375	Total			

Summary for Subcatchment PR-101A: PR-WS-101A

Runoff = 1.43 cfs @ 12.06 hrs, Volume= 4,377 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
176	98	Paved parking, HSG C
4,846	98	Paved parking, HSG D
7,118	80	>75% Grass cover, Good, HSG D
12,140	87	Weighted Average
7,118		58.63% Pervious Area
5,022		41.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	58	0.3300	0.32		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
1.2	147	0.0100	2.03		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
4.2	205	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 33

Summary for Subcatchment PR-101B: PR-WS-101B

Runoff = 2.34 cfs @ 12.04 hrs, Volume= 7,530 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
10,666	98	Paved parking, HSG C
5,154	98	Paved parking, HSG D
311	74	>75% Grass cover, Good, HSG C
464	80	>75% Grass cover, Good, HSG D
16,595	97	Weighted Average
775		4.67% Pervious Area
15,820		95.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	50	0.0120	0.97		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.4	176	0.0100	2.03		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.3	226	Total			

Summary for Subcatchment PR-102: PR-102

Runoff = 1.63 cfs @ 12.03 hrs, Volume= 5,257 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
7,628	98	Paved parking, HSG C
3,358	98	Paved parking, HSG D
600	74	>75% Grass cover, Good, HSG C
1	80	>75% Grass cover, Good, HSG D
11,587	97	Weighted Average
601		5.19% Pervious Area
10,986		94.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	50	0.0120	0.97		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.1	137	0.0100	2.03		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.0	187	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 34

Summary for Subcatchment PR-103: PR-103

Runoff = 0.59 cfs @ 12.06 hrs, Volume= 1,882 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,013	98	Paved parking, HSG C
375	98	Paved parking, HSG D
293	74	>75% Grass cover, Good, HSG C
848	80	>75% Grass cover, Good, HSG D
4,529	93	Weighted Average
1,141		25.19% Pervious Area
3,388		74.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	21	0.0200	0.09		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"

Summary for Subcatchment PR-104: PR-104

Runoff = 1.40 cfs @ 12.02 hrs, Volume= 4,433 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
8,789	98	Paved parking, HSG C
556	98	Paved parking, HSG D
619	74	>75% Grass cover, Good, HSG C
20	80	>75% Grass cover, Good, HSG D
9,984	96	Weighted Average
639		6.40% Pervious Area
9,345		93.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.8	139	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.5	189	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 35

Summary for Subcatchment PR-105: PR-WS-105

Runoff = 0.46 cfs @ 12.01 hrs, Volume= 1,428 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,953	98	Paved parking, HSG C
264	74	>75% Grass cover, Good, HSG C
3,217	96	Weighted Average
264		8.21% Pervious Area
2,953		91.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	46	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.0	96	Total			

Summary for Subcatchment PR-106: PR-WS-106

Runoff = 0.96 cfs @ 12.02 hrs, Volume= 3,060 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,791	98	Paved parking, HSG C
1,489	98	Paved parking, HSG D
602	74	>75% Grass cover, Good, HSG C
10	80	>75% Grass cover, Good, HSG D
6,892	96	Weighted Average
612		8.88% Pervious Area
6,280		91.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	50	0.0150	1.07		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.8	113	0.0150	2.49		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.6	163	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 36

Summary for Subcatchment PR-107: PR-WS-107

Runoff = 1.35 cfs @ 12.02 hrs, Volume= 4,141 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
7,169	98	Paved parking, HSG C
1,076	98	Paved parking, HSG D
1,294	74	>75% Grass cover, Good, HSG C
208	80	>75% Grass cover, Good, HSG D
9,747	94	Weighted Average
1,502		15.41% Pervious Area
8,245		84.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	50	0.0150	1.07		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.6	84	0.0150	2.49		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.4	134	Total			

Summary for Subcatchment PR-108: PR-WS-108

Runoff = 0.42 cfs @ 12.04 hrs, Volume= 1,237 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,817	98	Paved parking, HSG C
1,613	74	>75% Grass cover, Good, HSG C
3,430	87	Weighted Average
1,613		47.03% Pervious Area
1,817		52.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	22	0.1000	0.16		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.5	32	0.0200	1.09		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
2.7	54	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 37

Summary for Subcatchment PR-109: PR-WS-109

Runoff = 0.59 cfs @ 12.03 hrs, Volume= 1,861 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,481	98	Paved parking, HSG C
2,189	98	Paved parking, HSG D
164	74	>75% Grass cover, Good, HSG C
357	80	>75% Grass cover, Good, HSG D
4,191	96	Weighted Average
521		12.43% Pervious Area
3,670		87.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	8	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	42	0.0200	1.15		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	16	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.0	66	Total			

Summary for Subcatchment PR-110: PR-WS-110

Runoff = 0.65 cfs @ 12.05 hrs, Volume= 2,111 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
563	98	Paved parking, HSG C
3,750	98	Paved parking, HSG D
49	74	>75% Grass cover, Good, HSG C
291	80	>75% Grass cover, Good, HSG D
4,653	97	Weighted Average
340		7.31% Pervious Area
4,313		92.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	13	0.0200	0.08		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.1	5	0.0200	0.75		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
2.9	18	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 38

Summary for Subcatchment PR-111: PR-WS-111

Runoff = 0.25 cfs @ 12.01 hrs, Volume= 785 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,649	98	Paved parking, HSG D
81	80	>75% Grass cover, Good, HSG D
1,730	97	Weighted Average
81		4.68% Pervious Area
1,649		95.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.3	44	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.0	94	Total			

Summary for Subcatchment PR-112: PR-WS-112

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 1,003 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,099	98	Paved parking, HSG C
112	74	>75% Grass cover, Good, HSG C
2,211	97	Weighted Average
112		5.07% Pervious Area
2,099		94.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.4	62	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.1	112	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 39

Summary for Subcatchment PR-113: PR-WS-113

Runoff = 0.59 cfs @ 12.01 hrs, Volume= 1,845 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,982	98	Roofs, HSG C
3,982		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	40	0.0200	1.14		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 3.19"

Summary for Subcatchment PR-114: PR-WS-114

Runoff = 1.21 cfs @ 12.05 hrs, Volume= 3,764 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
7,475	98	Paved parking, HSG C
1,385	74	>75% Grass cover, Good, HSG C
8,860	94	Weighted Average
1,385		15.63% Pervious Area
7,475		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	16	0.0500	0.12		Sheet Flow, Over Pavement Grass: Dense n= 0.240 P2= 3.19"
0.5	34	0.0200	1.11		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	43	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.0	93	Total			

Summary for Subcatchment PR-115: PR-WS-115

Runoff = 0.68 cfs @ 12.02 hrs, Volume= 2,145 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 40

Area (sf)	CN	Description
4,388	98	Paved parking, HSG C
442	74	>75% Grass cover, Good, HSG C
4,830	96	Weighted Average
442		9.15% Pervious Area
4,388		90.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	5	0.0500	0.09		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	42	0.0200	1.15		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	16	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.6	63	Total			

Summary for Subcatchment PR-116: PR-WS-116

Runoff = 1.53 cfs @ 12.04 hrs, Volume= 4,799 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
7,618	98	Paved parking, HSG C
1,825	98	Paved parking, HSG D
1,408	74	>75% Grass cover, Good, HSG C
197	80	>75% Grass cover, Good, HSG D
11,048	95	Weighted Average
1,605		14.53% Pervious Area
9,443		85.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	8	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	42	0.0200	1.15		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	37	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.1	5	0.0500	1.57		Shallow Concentrated Flow, Thorough Grass Short Grass Pasture Kv= 7.0 fps
2.2	92	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 41

Summary for Subcatchment PR-117: PR-WS-117

Runoff = 3.93 cfs @ 12.06 hrs, Volume= 12,871 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,277	98	Paved parking, HSG C
23,465	98	Paved parking, HSG D
3,245	80	>75% Grass cover, Good, HSG D
28,987	96	Weighted Average
3,245		11.19% Pervious Area
25,742		88.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.6	12	0.0200	0.08		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.7	38	0.0100	0.86		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	91	0.0150	2.49		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.9	141	Total			

Summary for Subcatchment PR-118: PR-WS-118

Runoff = 1.44 cfs @ 12.07 hrs, Volume= 4,842 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
9,323	98	Paved parking, HSG D
1,822	80	>75% Grass cover, Good, HSG D
11,145	95	Weighted Average
1,822		16.35% Pervious Area
9,323		83.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	21	0.0200	0.09		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	29	0.0200	1.07		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	37	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
4.8	87	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 42

Summary for Subcatchment PR-119: PR-WS-119

Runoff = 1.36 cfs @ 12.03 hrs, Volume= 4,223 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
8,368	98	Paved parking, HSG C
1,572	74	>75% Grass cover, Good, HSG C
9,940	94	Weighted Average
1,572		15.81% Pervious Area
8,368		84.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
1.3	222	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
2.0	272	Total			

Summary for Subcatchment PR-120: PR-WS-120

Runoff = 0.70 cfs @ 12.01 hrs, Volume= 2,065 cf, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,645	98	Paved parking, HSG C
1,558	74	>75% Grass cover, Good, HSG C
5,203	91	Weighted Average
1,558		29.94% Pervious Area
3,645		70.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.5	86	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.1	136	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 43

Summary for Subcatchment PR-121: PR-WS-121

Runoff = 4.89 cfs @ 12.04 hrs, Volume= 15,506 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
30,319	98	Paved parking, HSG C
1,844	98	Paved parking, HSG D
2,759	74	>75% Grass cover, Good, HSG C
34,922	96	Weighted Average
2,759		7.90% Pervious Area
32,163		92.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	13	0.0500	0.11		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	37	0.0200	1.13		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	12	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.1	5	0.0500	1.57		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
2.6	67	Total			

Summary for Subcatchment PR-122: PR-WS-122

Runoff = 4.72 cfs @ 12.05 hrs, Volume= 15,175 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,221	98	Paved parking, HSG C
27,379	98	Paved parking, HSG D
83	74	>75% Grass cover, Good, HSG C
3,493	80	>75% Grass cover, Good, HSG D
34,176	96	Weighted Average
3,576		10.46% Pervious Area
30,600		89.54% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 44

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	11	0.0200	0.07		Sheet Flow, Thorough Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.6	39	0.0200	1.14		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.3	53	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
0.1	5	0.0500	1.57		Shallow Concentrated Flow, Through Grass
					Short Grass Pasture Kv= 7.0 fps
3.4	108	Total			

Summary for Subcatchment PR-123: PR-WS-123

Runoff = 4.08 cfs @ 12.04 hrs, Volume= 12,775 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
10,940	98	Paved parking, HSG C
14,104	98	Paved parking, HSG D
1,187	74	>75% Grass cover, Good, HSG C
3,176	80	>75% Grass cover, Good, HSG D
29,407	95	Weighted Average
4,363		14.84% Pervious Area
25,044		85.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	7	0.0500	0.10		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.6	43	0.0200	1.16		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.3	54	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
0.1	5	0.0500	1.57		Shallow Concentrated Flow, Thorough Grass
					Short Grass Pasture Kv= 7.0 fps
2.2	109	Total			

Summary for Subcatchment PR-124: PR-WS-124

Runoff = 3.68 cfs @ 12.05 hrs, Volume= 11,804 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 45

Area (sf)	CN	Description
23,507	98	Paved parking, HSG D
3,077	80	>75% Grass cover, Good, HSG D
26,584	96	Weighted Average
3,077		11.57% Pervious Area
23,507		88.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	11	0.0200	0.07		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	39	0.0200	1.14		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	34	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.1	5	0.0500	1.57		Shallow Concentrated Flow, Thorough Grass Short Grass Pasture Kv= 7.0 fps
3.3	89	Total			

Summary for Subcatchment PR-125: PR-WS-125

Runoff = 1.00 cfs @ 12.04 hrs, Volume= 3,136 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,384	98	Paved parking, HSG C
4,641	98	Paved parking, HSG D
274	74	>75% Grass cover, Good, HSG C
920	80	>75% Grass cover, Good, HSG D
7,219	95	Weighted Average
1,194		16.54% Pervious Area
6,025		83.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	6	0.0200	0.78		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.3	5	0.0200	0.06		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	39	0.0200	1.14		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.8	135	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.8	185	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 46

Summary for Subcatchment PR-126: PR-WS-126

Runoff = 0.83 cfs @ 12.05 hrs, Volume= 2,519 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
133	98	Paved parking, HSG C
3,583	98	Paved parking, HSG D
2	74	>75% Grass cover, Good, HSG C
2,782	80	>75% Grass cover, Good, HSG D
6,500	90	Weighted Average
2,784		42.83% Pervious Area
3,716		57.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	32	0.1000	0.18		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.3	18	0.0200	0.97		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.1	16	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
3.4	66	Total			

Summary for Subcatchment PR-127: PR-WS-127

Runoff = 0.35 cfs @ 12.01 hrs, Volume= 1,037 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,848	98	Paved parking, HSG D
647	80	>75% Grass cover, Good, HSG D
2,495	93	Weighted Average
647		25.93% Pervious Area
1,848		74.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.4	71	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.0	121	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 47

Summary for Subcatchment PR-128: PR-WS-128

Runoff = 2.63 cfs @ 12.05 hrs, Volume= 8,439 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
16,986	98	Paved parking, HSG D
2,020	80	>75% Grass cover, Good, HSG D
19,006	96	Weighted Average
2,020		10.63% Pervious Area
16,986		89.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	18	0.0500	0.12		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	32	0.0200	1.09		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	44	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.3	94	Total			

Summary for Subcatchment PR-129: PR-WS-129

Runoff = 0.92 cfs @ 12.04 hrs, Volume= 2,906 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,709	98	Paved parking, HSG D
836	80	>75% Grass cover, Good, HSG D
6,545	96	Weighted Average
836		12.77% Pervious Area
5,709		87.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	13	0.0500	0.11		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	37	0.0200	1.13		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	14	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.5	64	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 48

Summary for Subcatchment PR-130: PR-WS-130

Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,151 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,616	98	Paved parking, HSG D
3,205	80	>75% Grass cover, Good, HSG D
5,821	88	Weighted Average
3,205		55.06% Pervious Area
2,616		44.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	30	0.0500	0.13		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.3	20	0.0200	1.00		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.5	86	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
4.6	136	Total			

Summary for Subcatchment PR-131: PR-WS-131

Runoff = 1.56 cfs @ 12.08 hrs, Volume= 5,045 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,757	98	Paved parking, HSG D
7,898	80	>75% Grass cover, Good, HSG D
13,655	88	Weighted Average
7,898		57.84% Pervious Area
5,757		42.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	35	0.0500	0.14		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.3	15	0.0200	0.94		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.7	113	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
5.3	163	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 49

Summary for Subcatchment PR-132: PR-WS-132

Runoff = 2.23 cfs @ 12.16 hrs, Volume= 8,295 cf, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
27,639	80	>75% Grass cover, Good, HSG D
27,639		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	75	0.0300	0.13		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
1.5	111	0.0300	1.21		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
11.2	186	Total			

Summary for Subcatchment PR-133: PR-WS-133

Runoff = 0.52 cfs @ 12.04 hrs, Volume= 1,607 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,980	98	Paved parking, HSG D
802	80	>75% Grass cover, Good, HSG D
3,782	94	Weighted Average
802		21.21% Pervious Area
2,980		78.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	10	0.0500	0.11		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	40	0.0200	1.14		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	11	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.3	61	Total			

Summary for Subcatchment PR-135: PR-WS-135

Runoff = 8.08 cfs @ 12.04 hrs, Volume= 25,987 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 50

Area (sf)	CN	Description
4,494	98	Paved parking, HSG C
49,037	98	Paved parking, HSG D
339	74	>75% Grass cover, Good, HSG C
3,404	80	>75% Grass cover, Good, HSG D
57,274	97	Weighted Average
3,743		6.54% Pervious Area
53,531		93.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	41	0.0200	1.15		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	46	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.3	96	Total			

Summary for Subcatchment PR-136: PR-WS-136

Runoff = 0.70 cfs @ 12.04 hrs, Volume= 2,181 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,189	98	Paved parking, HSG D
832	80	>75% Grass cover, Good, HSG D
5,021	95	Weighted Average
832		16.57% Pervious Area
4,189		83.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	6	0.0200	0.78		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.3	5	0.0200	0.06		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	39	0.0200	1.14		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	102	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.6	152	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 51

Summary for Subcatchment PR-137: PR-WS-137

Runoff = 0.91 cfs @ 12.03 hrs, Volume= 2,882 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,796	98	Paved parking, HSG D
695	80	>75% Grass cover, Good, HSG D
6,491	96	Weighted Average
695		10.71% Pervious Area
5,796		89.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	41	0.0300	1.35		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	29	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.0	79	Total			

Summary for Subcatchment PR-138: PR-WS-138

Runoff = 0.93 cfs @ 12.04 hrs, Volume= 2,920 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,601	98	Paved parking, HSG D
1,120	80	>75% Grass cover, Good, HSG D
6,721	95	Weighted Average
1,120		16.66% Pervious Area
5,601		83.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	5	0.0200	0.75		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.9	5	0.0500	0.09		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	40	0.0200	1.14		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	104	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.2	154	Total			

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 52

Summary for Subcatchment PR-139: PR-WS-139

Runoff = 1.93 cfs @ 12.03 hrs, Volume= 6,200 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
7,955	98	Paved parking, HSG C
4,805	98	Paved parking, HSG D
576	74	>75% Grass cover, Good, HSG C
328	80	>75% Grass cover, Good, HSG D
13,664	97	Weighted Average
904		6.62% Pervious Area
12,760		93.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.10		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.6	41	0.0200	1.15		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.1	23	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
2.1	73	Total			

Summary for Subcatchment PR-140: PR-WS-140

Runoff = 2.35 cfs @ 12.04 hrs, Volume= 7,359 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,382	98	Paved parking, HSG C
9,321	98	Paved parking, HSG D
1,543	74	>75% Grass cover, Good, HSG C
695	80	>75% Grass cover, Good, HSG D
16,941	95	Weighted Average
2,238		13.21% Pervious Area
14,703		86.79% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 53

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	41	0.0300	1.35		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	36	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.1	14	0.0500	1.57		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
2.2	100	Total			

Summary for Subcatchment PR-141: PR-WS-141

Runoff = 9.19 cfs @ 12.01 hrs, Volume= 28,971 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
45,382	98	Paved parking, HSG C
15,969	98	Paved parking, HSG D
1,557	74	>75% Grass cover, Good, HSG C
944	80	>75% Grass cover, Good, HSG D
63,852	97	Weighted Average
2,501		3.92% Pervious Area
61,351		96.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.5	103	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.1	153	Total			

Summary for Subcatchment PR-142: PR-WS-142

Runoff = 1.01 cfs @ 12.02 hrs, Volume= 3,197 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
6,671	98	Paved parking, HSG D
375	80	>75% Grass cover, Good, HSG D
7,046	97	Weighted Average
375		5.32% Pervious Area
6,671		94.68% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 54

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.6	106	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.3	156	Total			

Summary for Subcatchment PR-143: PR-WS-143

Runoff = 0.40 cfs @ 12.01 hrs, Volume= 1,252 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,571	98	Paved parking, HSG D
188	80	>75% Grass cover, Good, HSG D
2,759	97	Weighted Average
188		6.81% Pervious Area
2,571		93.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.3	45	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.0	95	Total			

Summary for Subcatchment PR-144: PR-WS-144

Runoff = 0.83 cfs @ 12.02 hrs, Volume= 2,633 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,534	98	Paved parking, HSG D
270	80	>75% Grass cover, Good, HSG D
5,804	97	Weighted Average
270		4.65% Pervious Area
5,534		95.35% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 55

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.5	91	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.2	141	Total			

Summary for Subcatchment PR-145: PR-WS-145

Runoff = 0.80 cfs @ 12.04 hrs, Volume= 2,494 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,790	98	Paved parking, HSG D
951	80	>75% Grass cover, Good, HSG D
5,741	95	Weighted Average
951		16.57% Pervious Area
4,790		83.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	41	0.0200	1.15		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	55	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.3	105	Total			

Summary for Subcatchment PR-146: PR-WS-146

Runoff = 6.66 cfs @ 12.05 hrs, Volume= 20,735 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
38,113	98	Paved parking, HSG D
10,689	80	>75% Grass cover, Good, HSG D
48,802	94	Weighted Average
10,689		21.90% Pervious Area
38,113		78.10% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 56

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	18	0.0500	0.12		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	32	0.0200	1.09		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	25	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.1	75	Total			

Summary for Subcatchment PR-147: PR-WS-147

Runoff = 0.40 cfs @ 12.01 hrs, Volume= 1,196 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,126	98	Paved parking, HSG D
689	80	>75% Grass cover, Good, HSG D
2,815	94	Weighted Average
689		24.48% Pervious Area
2,126		75.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	55	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.0	105	Total			

Summary for Subcatchment PR-148: PR-WS-148

Runoff = 3.33 cfs @ 12.04 hrs, Volume= 10,719 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
9,982	98	Paved parking, HSG C
12,675	98	Paved parking, HSG D
781	80	>75% Grass cover, Good, HSG D
187	74	>75% Grass cover, Good, HSG C
23,625	97	Weighted Average
968		4.10% Pervious Area
22,657		95.90% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 57

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	8	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	42	0.0200	1.15		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	97	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.5	147	Total			

Summary for Subcatchment PR-149: PR-149

Runoff = 1.05 cfs @ 12.11 hrs, Volume= 3,594 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,614	98	Paved parking, HSG C
4,114	74	>75% Grass cover, Good, HSG C
9,728	88	Weighted Average
4,114		42.29% Pervious Area
5,614		57.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	68	0.0500	0.16		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.2	30	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
7.5	98	Total			

Summary for Subcatchment PR-150: PR-WS-150

Runoff = 0.53 cfs @ 12.01 hrs, Volume= 1,647 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,248	98	Paved parking, HSG D
462	80	>75% Grass cover, Good, HSG D
3,710	96	Weighted Average
462		12.45% Pervious Area
3,248		87.55% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 58

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.3	48	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.0	98	Total			

Summary for Subcatchment PR-151: PR-WS-151

Runoff = 0.30 cfs @ 12.04 hrs, Volume= 932 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,665	98	Paved parking, HSG D
529	80	>75% Grass cover, Good, HSG D
2,194	94	Weighted Average
529		24.11% Pervious Area
1,665		75.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	10	0.0500	0.11		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.6	40	0.0200	1.14		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.1	17	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
2.3	67	Total			

Summary for Subcatchment PR-152: PR-WS-152

Runoff = 0.26 cfs @ 12.01 hrs, Volume= 823 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,718	98	Paved parking, HSG D
96	80	>75% Grass cover, Good, HSG D
1,814	97	Weighted Average
96		5.29% Pervious Area
1,718		94.71% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 59

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	50	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.0	100	Total			

Summary for Subcatchment PR-153: PR-WS-153

Runoff = 1.12 cfs @ 12.18 hrs, Volume= 4,410 cf, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
14,695	80	>75% Grass cover, Good, HSG D
14,695		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	75	0.0200	0.11		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
1.6	275	0.0200	2.87		Shallow Concentrated Flow, Throug Grass Paved Kv= 20.3 fps
13.0	350	Total			

Summary for Subcatchment PR-154: PR-WS-154

Runoff = 1.06 cfs @ 12.03 hrs, Volume= 3,398 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
6,926	98	Paved parking, HSG D
563	80	>75% Grass cover, Good, HSG D
7,489	97	Weighted Average
563		7.52% Pervious Area
6,926		92.48% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 60

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	15	0.1000	0.15		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.4	35	0.0500	1.61		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.0	10	0.0500	4.54		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
2.0	60	Total			

Summary for Subcatchment PR-155: PR-WS-155

Runoff = 0.51 cfs @ 12.02 hrs, Volume= 1,584 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,266	98	Paved parking, HSG D
301	80	>75% Grass cover, Good, HSG D
3,567	96	Weighted Average
301		8.44% Pervious Area
3,266		91.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.5	84	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.2	134	Total			

Summary for Subcatchment PR-156: PR-WS-156

Runoff = 1.03 cfs @ 12.05 hrs, Volume= 3,335 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,052	98	Paved parking, HSG C
5,808	98	Paved parking, HSG D
490	80	>75% Grass cover, Good, HSG D
7,350	97	Weighted Average
490		6.67% Pervious Area
6,860		93.33% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 61

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	28	0.1000	0.17		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.3	22	0.0500	1.46		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	30	0.0500	4.54		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.1	80	Total			

Summary for Subcatchment PR-157: PR-WS-157

Runoff = 0.92 cfs @ 12.06 hrs, Volume= 2,900 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
129	98	Paved parking, HSG C
4,926	98	Paved parking, HSG D
1,926	80	>75% Grass cover, Good, HSG D
6,981	93	Weighted Average
1,926		27.59% Pervious Area
5,055		72.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	22	0.0500	0.12		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	38	0.0200	1.13		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.4	92	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
4.0	152	Total			

Summary for Subcatchment PR-158: PR-WS-158

Runoff = 0.91 cfs @ 12.06 hrs, Volume= 2,823 cf, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,724	98	Paved parking, HSG D
2,171	80	>75% Grass cover, Good, HSG D
58	98	Paved parking, HSG C
6,953	92	Weighted Average
2,171		31.22% Pervious Area
4,782		68.78% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 62

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	21	0.0500	0.12		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	39	0.0200	1.14		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.4	67	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.8	127	Total			

Summary for Subcatchment PR-159: PR-WS-159

Runoff = 0.55 cfs @ 12.06 hrs, Volume= 1,700 cf, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,910	98	Paved parking, HSG C
138	98	Paved parking, HSG D
1,088	74	>75% Grass cover, Good, HSG C
50	80	>75% Grass cover, Good, HSG D
4,186	92	Weighted Average
1,138		27.19% Pervious Area
3,048		72.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	23	0.0500	0.13		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	37	0.0200	1.13		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	35	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.8	95	Total			

Summary for Subcatchment PR-160: PR-WS-160

Runoff = 1.64 cfs @ 12.02 hrs, Volume= 5,208 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
10,749	98	Paved parking, HSG C
85	98	Paved parking, HSG D
644	74	>75% Grass cover, Good, HSG C
11,478	97	Weighted Average
644		5.61% Pervious Area
10,834		94.39% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 63

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	106	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.3	156	Total			

Summary for Subcatchment PR-161: PR-WS-161

Runoff = 1.08 cfs @ 12.05 hrs, Volume= 3,386 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,922	98	Paved parking, HSG C
2,577	98	Paved parking, HSG D
1,471	74	>75% Grass cover, Good, HSG C
7,970	94	Weighted Average
1,471		18.46% Pervious Area
6,499		81.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	14	0.0500	0.11		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	36	0.0200	1.12		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	96	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.2	146	Total			

Summary for Subcatchment PR-162: PR-WS-162

Runoff = 0.70 cfs @ 12.09 hrs, Volume= 2,234 cf, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
7,445	80	>75% Grass cover, Good, HSG D
7,445		100.00% Pervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 64

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	75	0.0900	0.20		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.1	13	0.0900	2.10		Shallow Concentrated Flow, Through Grass
					Short Grass Pasture Kv= 7.0 fps
6.3	88	Total			

Summary for Subcatchment PR-165: PR-WS-165

Runoff = 1.58 cfs @ 12.06 hrs, Volume= 5,205 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
10,257	98	Paved parking, HSG D
1,466	80	>75% Grass cover, Good, HSG D
11,723	96	Weighted Average
1,466		12.51% Pervious Area
10,257		87.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	17	0.0500	0.12		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.5	33	0.0200	1.10		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
1.2	201	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
4.1	251	Total			

Summary for Subcatchment PR-166: PR-WS-166

Runoff = 0.77 cfs @ 12.01 hrs, Volume= 2,319 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,900	98	Paved parking, HSG D
1,681	80	>75% Grass cover, Good, HSG D
5,581	93	Weighted Average
1,681		30.12% Pervious Area
3,900		69.88% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 65

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.5	113	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.1	163	Total			

Summary for Subcatchment PR-167: PR-167

Runoff = 0.76 cfs @ 12.03 hrs, Volume= 2,383 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,623	98	Paved parking, HSG D
862	80	>75% Grass cover, Good, HSG D
5,485	95	Weighted Average
862		15.72% Pervious Area
4,623		84.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.0	168	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.7	218	Total			

Summary for Subcatchment PR-168: PR-WS-168

Runoff = 2.45 cfs @ 12.02 hrs, Volume= 7,758 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
16,353	98	Paved parking, HSG D
745	80	>75% Grass cover, Good, HSG D
17,098	97	Weighted Average
745		4.36% Pervious Area
16,353		95.64% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 66

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0250	1.31		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.6	99	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.2	149	Total			

Summary for Subcatchment PR-169: PR-WS-169

Runoff = 2.35 cfs @ 12.02 hrs, Volume= 7,426 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
15,885	98	Paved parking, HSG D
482	80	>75% Grass cover, Good, HSG D
16,367	97	Weighted Average
482		2.94% Pervious Area
15,885		97.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0250	1.31		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.6	99	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.2	149	Total			

Summary for Subcatchment PR-170: PR-WS-170

Runoff = 0.52 cfs @ 12.01 hrs, Volume= 1,644 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,377	98	Paved parking, HSG D
246	80	>75% Grass cover, Good, HSG D
3,623	97	Weighted Average
246		6.79% Pervious Area
3,377		93.21% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 67

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.4	61	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.1	111	Total			

Summary for Subcatchment PR-171: PR-WS-171

Runoff = 1.52 cfs @ 12.02 hrs, Volume= 4,743 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
9,560	98	Paved parking, HSG D
1,121	80	>75% Grass cover, Good, HSG D
10,681	96	Weighted Average
1,121		10.50% Pervious Area
9,560		89.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.5	91	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.2	141	Total			

Summary for Subcatchment PR-172: PR-WS-172

Runoff = 2.19 cfs @ 12.03 hrs, Volume= 6,770 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,535	98	Paved parking, HSG C
9,733	98	Paved parking, HSG D
1,392	74	>75% Grass cover, Good, HSG C
1,273	80	>75% Grass cover, Good, HSG D
15,933	94	Weighted Average
2,665		16.73% Pervious Area
13,268		83.27% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 68

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
1.2	202	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.9	252	Total			

Summary for Subcatchment PR-173: PR-WS-173

Runoff = 1.33 cfs @ 12.02 hrs, Volume= 4,044 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
6,786	98	Paved parking, HSG D
2,949	80	>75% Grass cover, Good, HSG D
9,735	93	Weighted Average
2,949		30.29% Pervious Area
6,786		69.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.8	145	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.5	195	Total			

Summary for Subcatchment PR-174: PR-WS-174

Runoff = 0.23 cfs @ 12.01 hrs, Volume= 720 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,477	98	Paved parking, HSG D
144	80	>75% Grass cover, Good, HSG D
1,621	96	Weighted Average
144		8.88% Pervious Area
1,477		91.12% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 69

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	23	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.8	73	Total			

Summary for Subcatchment PR-175: PR-WS-175

Runoff = 2.11 cfs @ 12.03 hrs, Volume= 6,815 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
14,112	98	Paved parking, HSG D
908	80	>75% Grass cover, Good, HSG D
15,020	97	Weighted Average
908		6.05% Pervious Area
14,112		93.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.3	280	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.9	330	Total			

Summary for Subcatchment PR-176: PR-WS-176

Runoff = 0.62 cfs @ 12.02 hrs, Volume= 1,825 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,719	98	Paved parking, HSG D
1,990	80	>75% Grass cover, Good, HSG D
4,709	90	Weighted Average
1,990		42.26% Pervious Area
2,719		57.74% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 70

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	50	0.0500	1.72		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.6	97	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.1	147	Total			

Summary for Subcatchment PR-177: PR-WS-177

Runoff = 0.71 cfs @ 12.05 hrs, Volume= 2,175 cf, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,577	98	Paved parking, HSG D
1,779	80	>75% Grass cover, Good, HSG D
5,356	92	Weighted Average
1,779		33.22% Pervious Area
3,577		66.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	11	0.0300	0.09		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.5	39	0.0300	1.34		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.5	96	0.0300	3.52		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
3.1	146	Total			

Summary for Subcatchment PR-178: PR-WS-178

Runoff = 0.44 cfs @ 12.05 hrs, Volume= 1,307 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
40	98	Paved parking, HSG C
1,920	98	Paved parking, HSG D
943	74	>75% Grass cover, Good, HSG C
634	80	>75% Grass cover, Good, HSG D
3,537	88	Weighted Average
1,577		44.59% Pervious Area
1,960		55.41% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 71

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	15	0.0500	0.12		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	35	0.0200	1.11		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	45	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.0	95	Total			

Summary for Subcatchment PR-179: PR-WS-179

Runoff = 0.83 cfs @ 12.01 hrs, Volume= 2,529 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,643	98	Paved parking, HSG C
3,344	98	Paved parking, HSG D
101	74	>75% Grass cover, Good, HSG C
734	80	>75% Grass cover, Good, HSG D
5,822	95	Weighted Average
835		14.34% Pervious Area
4,987		85.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	52	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.0	102	Total			

Summary for Subcatchment PR-180: PR-WS-180

Runoff = 1.38 cfs @ 12.05 hrs, Volume= 4,195 cf, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,938	98	Paved parking, HSG C
2,213	98	Paved parking, HSG D
2,240	74	>75% Grass cover, Good, HSG C
1,180	80	>75% Grass cover, Good, HSG D
10,571	91	Weighted Average
3,420		32.35% Pervious Area
7,151		67.65% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 72

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	12	0.0500	0.11		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	38	0.0200	1.13		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.9	151	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.3	201	Total			

Summary for Subcatchment PR-181: PR-WS-181

Runoff = 0.67 cfs @ 12.06 hrs, Volume= 2,099 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
106	98	Paved parking, HSG C
3,563	98	Paved parking, HSG D
448	74	>75% Grass cover, Good, HSG C
935	80	>75% Grass cover, Good, HSG D
5,052	93	Weighted Average
1,383		27.38% Pervious Area
3,669		72.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.7	41	0.1000	0.19		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.1	6	0.0200	0.78		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
3.8	47	Total			

Summary for Subcatchment PR-182: PR-WS-182

Runoff = 1.94 cfs @ 12.05 hrs, Volume= 6,071 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,987	98	Paved parking, HSG C
5,977	98	Paved parking, HSG D
1,460	74	>75% Grass cover, Good, HSG C
865	80	>75% Grass cover, Good, HSG D
14,289	94	Weighted Average
2,325		16.27% Pervious Area
11,964		83.73% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 73

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.1000	0.17		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.3	21	0.0200	1.01		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	39	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.3	89	Total			

Summary for Subcatchment PR-183: PR-WS-183

Runoff = 1.41 cfs @ 12.04 hrs, Volume= 4,361 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,945	98	Paved parking, HSG C
2,560	98	Paved parking, HSG D
1,749	74	>75% Grass cover, Good, HSG C
9	80	>75% Grass cover, Good, HSG D
10,263	94	Weighted Average
1,758		17.13% Pervious Area
8,505		82.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	13	0.0500	0.11		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.3	15	0.0200	0.94		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
2.2	28	Total			

Summary for Subcatchment PR-184: PR-WS-184

Runoff = 0.11 cfs @ 12.04 hrs, Volume= 309 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
475	98	Paved parking, HSG C
361	74	>75% Grass cover, Good, HSG C
836	88	Weighted Average
361		43.18% Pervious Area
475		56.82% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 74

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	13	0.0500	0.11		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.3	20	0.0200	1.00		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
2.2	33	Total			

Summary for Subcatchment PR-185: PR-WS-185

Runoff = 0.36 cfs @ 12.01 hrs, Volume= 1,131 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,444	98	Paved parking, HSG C
996	98	Paved parking, HSG D
2,440	98	Weighted Average
2,440		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	22	0.0500	4.54		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.8	72	Total			

Summary for Subcatchment PR-186: PR-WS-186

Runoff = 0.53 cfs @ 12.05 hrs, Volume= 1,639 cf, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,674	98	Paved parking, HSG D
1,361	80	>75% Grass cover, Good, HSG D
4,035	92	Weighted Average
1,361		33.73% Pervious Area
2,674		66.27% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 75

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	18	0.0500	0.12		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	32	0.0200	1.09		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.4	76	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.4	126	Total			

Summary for Subcatchment PR-187: PR-WS-187

Runoff = 0.34 cfs @ 12.01 hrs, Volume= 1,037 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,933	98	Paved parking, HSG D
453	80	>75% Grass cover, Good, HSG D
2,386	95	Weighted Average
453		18.99% Pervious Area
1,933		81.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	32	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.9	82	Total			

Summary for Subcatchment PR-188: PR-WS-188

Runoff = 0.54 cfs @ 12.01 hrs, Volume= 1,633 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,127	98	Paved parking, HSG D
633	80	>75% Grass cover, Good, HSG D
3,760	95	Weighted Average
633		16.84% Pervious Area
3,127		83.16% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 76

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.2	38	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
0.9	88	Total			

Summary for Subcatchment PR-189: PR-189

Runoff = 1.04 cfs @ 12.01 hrs, Volume= 3,144 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,640	98	Paved parking, HSG D
1,759	80	>75% Grass cover, Good, HSG D
7,399	94	Weighted Average
1,759		23.77% Pervious Area
5,640		76.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.4	61	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.1	111	Total			

Summary for Subcatchment PR-190: PR-WS-190

Runoff = 0.12 cfs @ 12.04 hrs, Volume= 348 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
520	98	Paved parking, HSG D
379	80	>75% Grass cover, Good, HSG D
899	90	Weighted Average
379		42.16% Pervious Area
520		57.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	15	0.0500	0.12		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 77

Summary for Subcatchment PR-191: PR-WS-191

Runoff = 0.18 cfs @ 12.01 hrs, Volume= 536 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
946	98	Paved parking, HSG D
315	80	>75% Grass cover, Good, HSG D
1,261	94	Weighted Average
315		24.98% Pervious Area
946		75.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	38	0.0300	1.33		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"

Summary for Subcatchment PR-192: PR-192

Runoff = 2.59 cfs @ 12.03 hrs, Volume= 8,033 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
14,526	98	Paved parking, HSG D
4,381	80	>75% Grass cover, Good, HSG D
18,907	94	Weighted Average
4,381		23.17% Pervious Area
14,526		76.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.3	281	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.9	331	Total			

Summary for Subcatchment PR-193: PR-WS-193

Runoff = 0.64 cfs @ 12.01 hrs, Volume= 1,926 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 78

Area (sf)	CN	Description
84	98	Paved parking, HSG C
3,465	98	Paved parking, HSG D
108	74	>75% Grass cover, Good, HSG C
876	80	>75% Grass cover, Good, HSG D
4,533	94	Weighted Average
984		21.71% Pervious Area
3,549		78.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.3	59	0.0300	3.52		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
0.9	109	Total			

Summary for Subcatchment PR-194: PR-WS-194

Runoff = 0.44 cfs @ 12.02 hrs, Volume= 1,369 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,470	98	Paved parking, HSG D
752	80	>75% Grass cover, Good, HSG D
3,222	94	Weighted Average
752		23.34% Pervious Area
2,470		76.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	24	0.0200	1.03		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.6	4	0.1000	0.12		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.4	22	0.0200	1.01		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.2	29	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.6	79	Total			

Summary for Subcatchment PR-195: PR-WS-195

Runoff = 0.44 cfs @ 12.01 hrs, Volume= 1,307 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 79

Area (sf)	CN	Description
2,273	98	Paved parking, HSG D
872	80	>75% Grass cover, Good, HSG D
3,145	93	Weighted Average
872		27.73% Pervious Area
2,273		72.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	24	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.8	74	Total			

Summary for Subcatchment PR-196: PR-WS-196

Runoff = 0.35 cfs @ 12.01 hrs, Volume= 1,054 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,943	98	Paved parking, HSG D
537	80	>75% Grass cover, Good, HSG D
2,480	94	Weighted Average
537		21.65% Pervious Area
1,943		78.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.0	4	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.7	54	Total			

Summary for Subcatchment PR-197: PR-WS-197

Runoff = 0.92 cfs @ 12.07 hrs, Volume= 2,912 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 80

Area (sf)	CN	Description
4,116	98	Paved parking, HSG D
3,397	80	>75% Grass cover, Good, HSG D
7,513	90	Weighted Average
3,397		45.21% Pervious Area
4,116		54.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	56	0.1500	0.23		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	117	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
4.6	173	Total			

Summary for Subcatchment PR-198: PR-WS-198

Runoff = 0.47 cfs @ 12.01 hrs, Volume= 1,401 cf, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,338	98	Paved parking, HSG D
1,113	80	>75% Grass cover, Good, HSG D
3,451	92	Weighted Average
1,113		32.25% Pervious Area
2,338		67.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	10	0.2500	2.38		Sheet Flow, Through Grass Smooth surfaces n= 0.011 P2= 3.19"
0.6	40	0.0200	1.14		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.4	70	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.1	120	Total			

Summary for Subcatchment PR-199: PR-WS-199

Runoff = 2.84 cfs @ 12.01 hrs, Volume= 9,023 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 81

Area (sf)	CN	Description
19,470	98	Paved parking, HSG D
19,470		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 3.19"
0.2	40	0.0200	2.87		Shallow Concentrated Flow, Roof Paved Kv= 20.3 fps
0.9	90	Total			

Summary for Subcatchment PR-200: PR-WS-200

Runoff = 0.73 cfs @ 12.01 hrs, Volume= 2,298 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,958	98	Paved parking, HSG D
4,958		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	43	0.0200	1.16		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 3.19"

Summary for Subcatchment PR-201: PR-WS-201

Runoff = 2.55 cfs @ 12.01 hrs, Volume= 8,046 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
17,363	98	Paved parking, HSG D
17,363		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	62	0.0200	1.25		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 3.19"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 82

Summary for Subcatchment PR-202: PR-WS-202

Runoff = 6.02 cfs @ 12.02 hrs, Volume= 19,459 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
41,990	98	Paved parking, HSG D
41,990		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 3.19"
0.6	105	0.0200	2.87		Shallow Concentrated Flow, Roof Paved Kv= 20.3 fps
1.3	155	Total			

Summary for Subcatchment PR-203: PR-WS-203

Runoff = 8.04 cfs @ 12.02 hrs, Volume= 26,100 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
56,320	98	Paved parking, HSG D
56,320		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 3.19"
0.7	123	0.0200	2.87		Shallow Concentrated Flow, Roof Paved Kv= 20.3 fps
1.4	173	Total			

Summary for Subcatchment PR-204: PR-WS-204

Runoff = 22.23 cfs @ 12.02 hrs, Volume= 71,809 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 83

Area (sf)	CN	Description
33,815	98	Paved parking, HSG C
121,138	98	Paved parking, HSG D
154,953	98	Weighted Average
154,953		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 3.19"
0.6	106	0.0200	2.87		Shallow Concentrated Flow, Roof Paved Kv= 20.3 fps
1.3	156	Total			

Summary for Subcatchment PR-205: PR-WS-205

Runoff = 0.73 cfs @ 12.01 hrs, Volume= 2,317 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,000	98	Paved parking, HSG D
5,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	57	0.0200	1.23		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 3.19"

Summary for Subcatchment PR-206: PR-WS-206

Runoff = 6.57 cfs @ 12.03 hrs, Volume= 20,839 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
18,901	98	Paved parking, HSG C
24,136	98	Paved parking, HSG D
2,176	74	>75% Grass cover, Good, HSG C
1,718	80	>75% Grass cover, Good, HSG D
46,931	96	Weighted Average
3,894		8.30% Pervious Area
43,037		91.70% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 84

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.7	141	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.7	67	0.0500	1.57		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
2.0	258	Total			

Summary for Subcatchment PR-207: PR-WS-207

Runoff = 5.89 cfs @ 12.02 hrs, Volume= 18,219 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
20,982	98	Paved parking, HSG C
15,796	98	Paved parking, HSG D
3,993	74	>75% Grass cover, Good, HSG C
1,168	80	>75% Grass cover, Good, HSG D
41,939	95	Weighted Average
5,161		12.31% Pervious Area
36,778		87.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.7	153	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.3	203	Total			

Summary for Subcatchment PR-208: PR-WS-208

Runoff = 4.62 cfs @ 12.06 hrs, Volume= 15,117 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
29,800	98	Paved parking, HSG C
1,936	98	Paved parking, HSG D
2,310	74	>75% Grass cover, Good, HSG C
34,046	96	Weighted Average
2,310		6.78% Pervious Area
31,736		93.22% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 85

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	22	0.0500	0.12		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.4	28	0.0200	1.06		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.5	83	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.9	133	Total			

Summary for Subcatchment PR-209: PR-WS-209

Runoff = 6.27 cfs @ 12.03 hrs, Volume= 19,665 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
21,100	98	Paved parking, HSG C
18,293	98	Paved parking, HSG D
3,204	74	>75% Grass cover, Good, HSG C
2,670	80	>75% Grass cover, Good, HSG D
45,267	95	Weighted Average
5,874		12.98% Pervious Area
39,393		87.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	130	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.5	46	0.0500	1.57		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
1.7	226	Total			

Summary for Subcatchment PR-210: PR-WS-210

Runoff = 1.02 cfs @ 12.03 hrs, Volume= 3,240 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
6,717	98	Paved parking, HSG C
580	74	>75% Grass cover, Good, HSG C
7,297	96	Weighted Average
580		7.95% Pervious Area
6,717		92.05% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 86

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	7	0.0500	0.10		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	43	0.0200	1.16		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	13	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.9	63	Total			

Summary for Subcatchment PR-211: PR-WS-211

Runoff = 0.71 cfs @ 12.06 hrs, Volume= 2,179 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,986	98	Paved parking, HSG C
1,456	98	Paved parking, HSG D
1,036	74	>75% Grass cover, Good, HSG C
1,145	80	>75% Grass cover, Good, HSG D
5,623	90	Weighted Average
2,181		38.79% Pervious Area
3,442		61.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	25	0.0500	0.13		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.4	25	0.0200	1.04		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	12	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.8	62	Total			

Summary for Subcatchment PR-212: PR-WS-212

Runoff = 0.88 cfs @ 12.02 hrs, Volume= 2,750 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 87

Area (sf)	CN	Description
884	98	Paved parking, HSG C
4,610	98	Paved parking, HSG D
331	74	>75% Grass cover, Good, HSG C
506	80	>75% Grass cover, Good, HSG D
6,331	95	Weighted Average
837		13.22% Pervious Area
5,494		86.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.8	130	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.5	180	Total			

Summary for Subcatchment PR-213: PR-WS-213

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 2,163 cf, Depth= 4.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,904	98	Paved parking, HSG C
3,405	74	>75% Grass cover, Good, HSG C
6,309	85	Weighted Average
3,405		53.97% Pervious Area
2,904		46.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	54	0.0500	0.15		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.1	17	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
6.2	71	Total			

Summary for Subcatchment PR-214: PR-WS-214

Runoff = 0.59 cfs @ 12.02 hrs, Volume= 1,771 cf, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 88

Area (sf)	CN	Description
3,267	98	Paved parking, HSG C
1,095	74	>75% Grass cover, Good, HSG C
4,362	92	Weighted Average
1,095		25.10% Pervious Area
3,267		74.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.5	81	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.2	131	Total			

Summary for Subcatchment PR-215: PR-WS-215

Runoff = 2.66 cfs @ 12.02 hrs, Volume= 8,496 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
17,599	98	Paved parking, HSG C
35	98	Paved parking, HSG D
1,090	74	>75% Grass cover, Good, HSG C
18,724	97	Weighted Average
1,090		5.82% Pervious Area
17,634		94.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.7	140	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.4	190	Total			

Summary for Subcatchment PR-216: PR-WS-216

Runoff = 1.20 cfs @ 12.02 hrs, Volume= 3,784 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 89

Area (sf)	CN	Description
4,483	98	Paved parking, HSG C
3,227	98	Paved parking, HSG D
630	80	>75% Grass cover, Good, HSG D
8,340	97	Weighted Average
630		7.55% Pervious Area
7,710		92.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	97	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.2	147	Total			

Summary for Subcatchment PR-217: PR-WS-217

Runoff = 1.69 cfs @ 12.02 hrs, Volume= 5,353 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
7,663	98	Paved parking, HSG C
3,292	98	Paved parking, HSG D
1,008	74	>75% Grass cover, Good, HSG C
92	80	>75% Grass cover, Good, HSG D
12,055	96	Weighted Average
1,100		9.12% Pervious Area
10,955		90.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.9	152	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.5	202	Total			

Summary for Subcatchment PR-218: PR-WS-218

Runoff = 1.29 cfs @ 12.02 hrs, Volume= 3,965 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 90

Area (sf)	CN	Description
7,119	98	Paved parking, HSG C
887	98	Paved parking, HSG D
1,122	74	>75% Grass cover, Good, HSG C
9,128	95	Weighted Average
1,122		12.29% Pervious Area
8,006		87.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	100	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.2	150	Total			

Summary for Subcatchment PR-219: PR-WS-219

Runoff = 1.00 cfs @ 12.04 hrs, Volume= 3,126 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
6,374	98	Paved parking, HSG C
823	74	>75% Grass cover, Good, HSG C
7,197	95	Weighted Average
823		11.44% Pervious Area
6,374		88.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	27	0.2500	0.25		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.4	23	0.0200	1.02		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	100	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.8	150	Total			

Summary for Subcatchment PR-220: PR-WS-220

Runoff = 0.26 cfs @ 12.03 hrs, Volume= 812 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 91

Area (sf)	CN	Description
1,586	98	Paved parking, HSG C
326	74	>75% Grass cover, Good, HSG C
1,912	94	Weighted Average
326		17.05% Pervious Area
1,586		82.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	21	0.2500	0.23		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.4	22	0.0200	1.01		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.9	43	Total			

Summary for Subcatchment PR-221: PR-WS-221

Runoff = 2.38 cfs @ 12.01 hrs, Volume= 7,005 cf, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
12,955	98	Paved parking, HSG C
7	98	Paved parking, HSG D
3,768	74	>75% Grass cover, Good, HSG C
520	80	>75% Grass cover, Good, HSG D
17,250	92	Weighted Average
4,288		24.86% Pervious Area
12,962		75.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	52	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.9	102	Total			

Summary for Subcatchment PR-222: PR-WS-222

Runoff = 0.77 cfs @ 12.01 hrs, Volume= 2,455 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 92

Area (sf)	CN	Description
5,297	98	Paved parking, HSG C
5,297		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.3	52	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.0	102	Total			

Summary for Subcatchment PR-223: PR-WS-223

Runoff = 0.41 cfs @ 12.07 hrs, Volume= 1,278 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,867	98	Paved parking, HSG C
1,678	74	>75% Grass cover, Good, HSG C
3,545	87	Weighted Average
1,678		47.33% Pervious Area
1,867		52.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	38	0.0500	0.14		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
0.2	9	0.0200	0.85		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
4.8	47	Total			

Summary for Subcatchment PR-224: PR-WS-224

Runoff = 0.34 cfs @ 12.01 hrs, Volume= 1,025 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,017	98	Paved parking, HSG D
342	80	>75% Grass cover, Good, HSG D
2,359	95	Weighted Average
342		14.50% Pervious Area
2,017		85.50% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 93

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	20	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.8	70	Total			

Summary for Subcatchment PR-225: PR-WS-225

Runoff = 0.27 cfs @ 12.03 hrs, Volume= 828 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,524	98	Paved parking, HSG D
265	80	>75% Grass cover, Good, HSG D
2	98	Paved parking, HSG C
201	74	>75% Grass cover, Good, HSG C
1,992	93	Weighted Average
466		23.39% Pervious Area
1,526		76.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	6	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	44	0.0200	1.17		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	12	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.7	62	Total			

Summary for Subcatchment PR-226: PR-WS-226

Runoff = 0.37 cfs @ 12.01 hrs, Volume= 1,116 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
875	98	Paved parking, HSG C
1,262	98	Paved parking, HSG D
490	74	>75% Grass cover, Good, HSG C
2,627	94	Weighted Average
490		18.65% Pervious Area
2,137		81.35% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 94

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	34	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.9	84	Total			

Summary for Subcatchment PR-227: PR-WS-227

Runoff = 0.75 cfs @ 12.01 hrs, Volume= 2,338 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,749	98	Paved parking, HSG D
404	80	>75% Grass cover, Good, HSG D
5,153	97	Weighted Average
404		7.84% Pervious Area
4,749		92.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	26	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.9	76	Total			

Summary for Subcatchment PR-228: PR-WS-228

Runoff = 1.13 cfs @ 12.04 hrs, Volume= 3,497 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,163	98	Paved parking, HSG C
4,513	98	Paved parking, HSG D
939	74	>75% Grass cover, Good, HSG C
615	80	>75% Grass cover, Good, HSG D
8,230	94	Weighted Average
1,554		18.88% Pervious Area
6,676		81.12% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 95

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	16	0.1000	0.15		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	34	0.0200	1.11		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	44	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.5	94	Total			

Summary for Subcatchment PR-229: PR-WS-229

Runoff = 0.89 cfs @ 12.08 hrs, Volume= 2,858 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,790	98	Paved parking, HSG D
1,829	74	>75% Grass cover, Good, HSG C
2,310	80	>75% Grass cover, Good, HSG D
7,929	87	Weighted Average
4,139		52.20% Pervious Area
3,790		47.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	30	0.0500	0.13		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.3	20	0.0200	1.00		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.3	226	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
5.4	276	Total			

Summary for Subcatchment PR-230: PR-WS-230

Runoff = 0.94 cfs @ 12.04 hrs, Volume= 2,762 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,429	98	Paved parking, HSG C
632	98	Paved parking, HSG D
2,804	74	>75% Grass cover, Good, HSG C
612	80	>75% Grass cover, Good, HSG D
7,477	88	Weighted Average
3,416		45.69% Pervious Area
4,061		54.31% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 96

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
1.4	234	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.1	284	Total			

Summary for Subcatchment PR-231: PR-WS-231

Runoff = 0.13 cfs @ 12.01 hrs, Volume= 399 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
739	98	Paved parking, HSG D
200	80	>75% Grass cover, Good, HSG D
939	94	Weighted Average
200		21.30% Pervious Area
739		78.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	16	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.8	66	Total			

Summary for Subcatchment PR-232: PR-WS-232

Runoff = 0.19 cfs @ 12.07 hrs, Volume= 580 cf, Depth= 4.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
623	98	Paved parking, HSG D
684	74	>75% Grass cover, Good, HSG C
430	80	>75% Grass cover, Good, HSG D
1,737	84	Weighted Average
1,114		64.13% Pervious Area
623		35.87% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 97

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	30	0.0500	0.13		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.3	20	0.0200	1.00		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.4	62	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
4.5	112	Total			

Summary for Subcatchment PR-233: PR-WS-233

Runoff = 0.88 cfs @ 12.02 hrs, Volume= 2,737 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,116	98	Paved parking, HSG D
1,325	80	>75% Grass cover, Good, HSG D
6,441	94	Weighted Average
1,325		20.57% Pervious Area
5,116		79.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.9	162	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.6	212	Total			

Summary for Subcatchment PR-234: PR-WS-234

Runoff = 0.68 cfs @ 12.02 hrs, Volume= 2,076 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,798	98	Paved parking, HSG C
220	98	Paved parking, HSG D
806	74	>75% Grass cover, Good, HSG C
61	80	>75% Grass cover, Good, HSG D
4,885	94	Weighted Average
867		17.75% Pervious Area
4,018		82.25% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 98

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.5	88	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.2	138	Total			

Summary for Subcatchment PR-235: PR-WS-235

Runoff = 0.47 cfs @ 12.01 hrs, Volume= 1,455 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,943	98	Paved parking, HSG D
298	80	>75% Grass cover, Good, HSG D
869	98	Paved parking, HSG C
240	74	>75% Grass cover, Good, HSG C
3,350	95	Weighted Average
538		16.06% Pervious Area
2,812		83.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.4	61	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.1	111	Total			

Summary for Subcatchment PR-236: PR-WS-236

Runoff = 0.66 cfs @ 12.02 hrs, Volume= 2,042 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
3,126	98	Paved parking, HSG D
525	80	>75% Grass cover, Good, HSG D
847	98	Paved parking, HSG C
202	74	>75% Grass cover, Good, HSG C
4,700	95	Weighted Average
727		15.47% Pervious Area
3,973		84.53% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 99

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	110	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.3	160	Total			

Summary for Subcatchment PR-237: PR-WS-237

Runoff = 0.55 cfs @ 12.02 hrs, Volume= 1,679 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,547	98	Paved parking, HSG C
1,570	98	Paved parking, HSG D
435	74	>75% Grass cover, Good, HSG C
399	80	>75% Grass cover, Good, HSG D
3,951	94	Weighted Average
834		21.11% Pervious Area
3,117		78.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	96	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.3	146	Total			

Summary for Subcatchment PR-238: PR-WS-238

Runoff = 0.51 cfs @ 12.02 hrs, Volume= 1,560 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
1,837	98	Paved parking, HSG C
1,141	98	Paved parking, HSG D
422	74	>75% Grass cover, Good, HSG C
271	80	>75% Grass cover, Good, HSG D
3,671	94	Weighted Average
693		18.88% Pervious Area
2,978		81.12% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 100

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	96	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.3	146	Total			

Summary for Subcatchment PR-239: PR-WS-239

Runoff = 2.70 cfs @ 12.04 hrs, Volume= 8,550 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
13,810	98	Paved parking, HSG C
3,833	98	Paved parking, HSG D
1,164	74	>75% Grass cover, Good, HSG C
449	80	>75% Grass cover, Good, HSG D
19,256	96	Weighted Average
1,613		8.38% Pervious Area
17,643		91.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	12	0.0500	0.11		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	38	0.0200	1.13		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	39	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.6	89	Total			

Summary for Subcatchment PR-240: PR-WS-240

Runoff = 2.76 cfs @ 12.04 hrs, Volume= 8,762 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,693	98	Paved parking, HSG C
13,310	98	Paved parking, HSG D
226	74	>75% Grass cover, Good, HSG C
1,503	80	>75% Grass cover, Good, HSG D
19,732	96	Weighted Average
1,729		8.76% Pervious Area
18,003		91.24% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 101

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	12	0.0500	0.11		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	38	0.0200	1.13		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.2	39	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.6	89	Total			

Summary for Subcatchment PR-241: PR-WS-241

Runoff = 1.37 cfs @ 12.01 hrs, Volume= 4,302 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,164	98	Paved parking, HSG C
3,906	98	Paved parking, HSG D
213	80	>75% Grass cover, Good, HSG D
9,283	98	Weighted Average
213		2.29% Pervious Area
9,070		97.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	26	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.7	76	Total			

Summary for Subcatchment PR-242: PR-WS-242

Runoff = 1.96 cfs @ 12.04 hrs, Volume= 6,299 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
8,082	98	Paved parking, HSG C
5,170	98	Paved parking, HSG D
526	74	>75% Grass cover, Good, HSG C
106	80	>75% Grass cover, Good, HSG D
13,884	97	Weighted Average
632		4.55% Pervious Area
13,252		95.45% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 102

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.10		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	41	0.0300	1.35		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	95	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.5	145	Total			

Summary for Subcatchment PR-243: PR-WS-243

Runoff = 0.93 cfs @ 12.06 hrs, Volume= 2,821 cf, Depth= 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,562	98	Paved parking, HSG C
2,892	74	>75% Grass cover, Good, HSG C
7,454	89	Weighted Average
2,892		38.80% Pervious Area
4,562		61.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	25	0.0500	0.13		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
0.4	25	0.0200	1.04		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	9	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
3.8	59	Total			

Summary for Subcatchment PR-244: PR-WS-244

Runoff = 1.07 cfs @ 12.04 hrs, Volume= 3,451 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,662	98	Paved parking, HSG C
1,730	98	Paved parking, HSG D
213	80	>75% Grass cover, Good, HSG D
7,605	97	Weighted Average
213		2.80% Pervious Area
7,392		97.20% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 103

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	41	0.0300	1.35		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.3	46	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.2	96	Total			

Summary for Subcatchment PR-245: PR-WS-245

Runoff = 0.10 cfs @ 12.01 hrs, Volume= 306 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
441	98	Paved parking, HSG C
176	98	Paved parking, HSG D
70	74	>75% Grass cover, Good, HSG C
2	80	>75% Grass cover, Good, HSG D
689	96	Weighted Average
72		10.45% Pervious Area
617		89.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	54	0.0200	1.21		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"

Summary for Subcatchment PR-246: PR-WS-246

Runoff = 0.23 cfs @ 12.01 hrs, Volume= 717 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
92	98	Paved parking, HSG C
1,370	98	Paved parking, HSG D
152	80	>75% Grass cover, Good, HSG D
1,614	96	Weighted Average
152		9.42% Pervious Area
1,462		90.58% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 104

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.1	16	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
0.8	66	Total			

Summary for Subcatchment PR-247: PR-WS-247

Runoff = 2.70 cfs @ 12.21 hrs, Volume= 11,125 cf, Depth= 3.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
5,005	96	Gravel surface, HSG C
4,198	96	Gravel surface, HSG D
15,680	74	>75% Grass cover, Good, HSG C
11,180	80	>75% Grass cover, Good, HSG D
36,063	81	Weighted Average
36,063		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0200	0.10		Sheet Flow, Through Grass
					Grass: Dense n= 0.240 P2= 3.19"
6.8	402	0.0200	0.99		Shallow Concentrated Flow, Through Grass
					Short Grass Pasture Kv= 7.0 fps
15.0	452	Total			

Summary for Subcatchment PR-248: PR-WS-248

Runoff = 5.02 cfs @ 12.02 hrs, Volume= 14,907 cf, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
27,381	98	Paved parking, HSG C
10,186	74	>75% Grass cover, Good, HSG C
37,567	91	Weighted Average
10,186		27.11% Pervious Area
27,381		72.89% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 105

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0300	1.41		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.5	95	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.2	15	0.0500	1.57		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
1.3	160	Total			

Summary for Subcatchment PR-249: PR-WS-249

Runoff = 11.11 cfs @ 12.09 hrs, Volume= 36,272 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
44,233	98	Paved parking, HSG D
53,944	80	>75% Grass cover, Good, HSG D
98,177	88	Weighted Average
53,944		54.95% Pervious Area
44,233		45.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	50	0.1000	0.19		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"
1.6	301	0.2000	3.13		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
5.9	351	Total			

Summary for Subcatchment PR-250: PR-WS-250

Runoff = 21.78 cfs @ 12.03 hrs, Volume= 71,275 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
153,797	98	Paved parking, HSG C
153,797		100.00% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 106

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Roof
					Smooth surfaces n= 0.011 P2= 3.19"
1.3	222	0.0200	2.87		Shallow Concentrated Flow, Roof
					Paved Kv= 20.3 fps
2.0	272	Total			

Summary for Subcatchment PR-251: PR-WS-251

Runoff = 5.54 cfs @ 12.02 hrs, Volume= 17,894 cf, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
38,613	98	Paved parking, HSG C
38,613		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Roof
					Smooth surfaces n= 0.011 P2= 3.19"
0.6	95	0.0200	2.87		Shallow Concentrated Flow, Roof
					Paved Kv= 20.3 fps
1.3	145	Total			

Summary for Subcatchment PR-252: PR-WS-252

Runoff = 8.46 cfs @ 12.04 hrs, Volume= 25,162 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
36,648	98	Paved parking, HSG C
5,951	98	Paved parking, HSG D
21,176	74	>75% Grass cover, Good, HSG C
1,143	80	>75% Grass cover, Good, HSG D
64,918	90	Weighted Average
22,319		34.38% Pervious Area
42,599		65.62% Impervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 107

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	41	0.0300	1.35		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	102	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.5	152	Total			

Summary for Subcatchment PR-253: PR-WS-253

Runoff = 3.48 cfs @ 12.12 hrs, Volume= 12,187 cf, Depth= 4.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
9,795	98	Paved parking, HSG D
292	96	Gravel surface, HSG D
39	74	>75% Grass cover, Good, HSG C
25,419	80	>75% Grass cover, Good, HSG D
35,545	85	Weighted Average
25,750		72.44% Pervious Area
9,795		27.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	75	0.0500	0.16		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.8	213	0.0500	4.54		Shallow Concentrated Flow, Through Grass Paved Kv= 20.3 fps
8.7	288	Total			

Summary for Subcatchment PR-254: PR-WS-254

Runoff = 1.34 cfs @ 12.02 hrs, Volume= 3,767 cf, Depth= 3.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
14,922	74	>75% Grass cover, Good, HSG C
59	80	>75% Grass cover, Good, HSG D
14,981	74	Weighted Average
14,981		100.00% Pervious Area

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 108

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	20	0.3300	0.26		Sheet Flow, Thorough Grass Grass: Dense n= 0.240 P2= 3.19"

Summary for Subcatchment PR-255: PR-WS-255

Runoff = 0.71 cfs @ 12.03 hrs, Volume= 2,034 cf, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
6,776	80	>75% Grass cover, Good, HSG D
6,776		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	21	0.2500	0.23		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"

Summary for Subcatchment PR-256: PR-WS-256

Runoff = 0.65 cfs @ 12.03 hrs, Volume= 1,855 cf, Depth= 3.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
2,419	74	>75% Grass cover, Good, HSG C
4,121	80	>75% Grass cover, Good, HSG D
6,540	78	Weighted Average
6,540		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	28	0.3000	0.27		Sheet Flow, Over Grass Grass: Dense n= 0.240 P2= 3.19"

Summary for Subcatchment PR-257: PR-WS-257

Runoff = 0.32 cfs @ 12.02 hrs, Volume= 1,005 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 109

Area (sf)	CN	Description
2,064	98	Paved parking, HSG C
199	74	>75% Grass cover, Good, HSG C
2,263	96	Weighted Average
199		8.79% Pervious Area
2,064		91.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	5	0.0500	0.09		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	45	0.0200	1.17		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.1	14	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.6	64	Total			

Summary for Subcatchment PR-258: PR-WS-258

Runoff = 0.69 cfs @ 12.05 hrs, Volume= 2,137 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
4,111	98	Paved parking, HSG C
1,033	74	>75% Grass cover, Good, HSG C
5,144	93	Weighted Average
1,033		20.08% Pervious Area
4,111		79.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	18	0.0500	0.12		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.5	34	0.0200	1.11		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
3.0	52	Total			

Summary for Subcatchment PR-259: PR-WS-259

Runoff = 0.57 cfs @ 12.03 hrs, Volume= 1,690 cf, Depth= 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 110

Area (sf)	CN	Description
2,759	98	Paved parking, HSG C
1,707	74	>75% Grass cover, Good, HSG C
4,466	89	Weighted Average
1,707		38.22% Pervious Area
2,759		61.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	12	0.2000	0.19		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.6	38	0.0200	1.13		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.4	74	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
2.0	124	Total			

Summary for Subcatchment PR-260: PR-WS-260

Runoff = 0.09 cfs @ 12.01 hrs, Volume= 284 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
591	98	Paved parking, HSG D
34	80	>75% Grass cover, Good, HSG D
625	97	Weighted Average
34		5.44% Pervious Area
591		94.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	6	0.0500	0.10		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"
0.1	23	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.1	29	Total			

Summary for Subcatchment PR-261: PR-WS-261

Runoff = 0.31 cfs @ 12.02 hrs, Volume= 938 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 111

Area (sf)	CN	Description
803	98	Paved parking, HSG D
129	80	>75% Grass cover, Good, HSG D
1,010	98	Paved parking, HSG C
266	74	>75% Grass cover, Good, HSG C
2,208	94	Weighted Average
395		17.89% Pervious Area
1,813		82.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.5	89	0.0200	2.87		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
1.2	139	Total			

Summary for Subcatchment PR-262: PR-WS-262

Runoff = 5.11 cfs @ 12.02 hrs, Volume= 15,757 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
30,880	98	Paved parking, HSG C
6,206	74	>75% Grass cover, Good, HSG C
37,086	94	Weighted Average
6,206		16.73% Pervious Area
30,880		83.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"
0.6	134	0.0300	3.52		Shallow Concentrated Flow, Over Pavement Paved Kv= 20.3 fps
0.2	15	0.0500	1.57		Shallow Concentrated Flow, Through Grass Short Grass Pasture Kv= 7.0 fps
1.5	199	Total			

Summary for Subcatchment PR-263: PR-WS-263

Runoff = 0.37 cfs @ 12.01 hrs, Volume= 1,135 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 112

Area (sf)	CN	Description
2,228	98	Paved parking, HSG D
385	80	>75% Grass cover, Good, HSG D
2,613	95	Weighted Average
385		14.73% Pervious Area
2,228		85.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.4	71	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
1.1	121	Total			

Summary for Subcatchment PR-266: PR-WS-266

Runoff = 4.03 cfs @ 12.01 hrs, Volume= 11,763 cf, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
17,930	98	Paved parking, HSG D
11,715	80	>75% Grass cover, Good, HSG D
29,645	91	Weighted Average
11,715		39.52% Pervious Area
17,930		60.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.20		Sheet Flow, Over Pavement
					Smooth surfaces n= 0.011 P2= 3.19"
0.2	30	0.0200	2.87		Shallow Concentrated Flow, Over Pavement
					Paved Kv= 20.3 fps
0.9	80	Total			

Summary for Subcatchment PR-267: PR-WS-267

Runoff = 0.43 cfs @ 12.02 hrs, Volume= 1,193 cf, Depth= 3.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT
Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 113

Area (sf)	CN	Description
4,466	74	>75% Grass cover, Good, HSG C
278	80	>75% Grass cover, Good, HSG D
4,744	74	Weighted Average
4,744		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	15	0.3300	0.24		Sheet Flow, Through Grass Grass: Dense n= 0.240 P2= 3.19"

Summary for Subcatchment PR-268: PR-WS-268

Runoff = 0.11 cfs @ 12.01 hrs, Volume= 325 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YEAR Rainfall=5.80"

Area (sf)	CN	Description
591	98	Paved parking, HSG C
136	74	>75% Grass cover, Good, HSG C
32	98	Paved parking, HSG D
5	80	>75% Grass cover, Good, HSG D
764	94	Weighted Average
141		18.46% Pervious Area
623		81.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	43	0.0200	1.16		Sheet Flow, Over Pavement Smooth surfaces n= 0.011 P2= 3.19"

Summary for Reach 1R: 60" RCP CulvertInflow Area = 189,475 sf, 30.32% Impervious, Inflow Depth = 4.01" for 25-YEAR event
Inflow = 13.72 cfs @ 12.27 hrs, Volume= 63,311 cf
Outflow = 13.62 cfs @ 12.28 hrs, Volume= 63,311 cf, Atten= 1%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.13 fps, Min. Travel Time= 0.4 min

Avg. Velocity= 2.26 fps, Avg. Travel Time= 1.1 min

Peak Storage= 342 cf @ 12.27 hrs

Average Depth at Peak Storage= 0.86'

Bank-Full Depth= 5.00' Flow Area= 19.6 sf, Capacity= 215.50 cfs

60.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 153.0' Slope= 0.0049 1'

Inlet Invert= 59.00', Outlet Invert= 58.25'

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 114



Summary for Reach 2R: Small Stream

Inflow Area = 245,381 sf, 34.38% Impervious, Inflow Depth = 4.12" for 25-YEAR event
Inflow = 18.29 cfs @ 12.27 hrs, Volume= 84,301 cf
Outflow = 18.11 cfs @ 12.30 hrs, Volume= 84,301 cf, Atten= 1%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 2.33 fps, Min. Travel Time= 0.8 min

Avg. Velocity = 0.70 fps, Avg. Travel Time= 2.8 min

Peak Storage= 914 cf @ 12.28 hrs

Average Depth at Peak Storage= 0.85'

Bank-Full Depth= 4.00' Flow Area= 80.0 sf, Capacity= 512.90 cfs

30.00' x 4.00' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 117.0' Slope= 0.0085 '/'

Inlet Invert= 58.50', Outlet Invert= 57.50'



Summary for Reach 3R: Small Stream

Inflow Area = 4,738,400 sf, 47.02% Impervious, Inflow Depth = 4.30" for 25-YEAR event
Inflow = 185.94 cfs @ 12.37 hrs, Volume= 1,698,833 cf
Outflow = 184.43 cfs @ 12.44 hrs, Volume= 1,698,832 cf, Atten= 1%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 3.82 fps, Min. Travel Time= 1.7 min

Avg. Velocity = 0.67 fps, Avg. Travel Time= 9.6 min

Peak Storage= 18,908 cf @ 12.40 hrs

Average Depth at Peak Storage= 2.21'

Bank-Full Depth= 3.25' Flow Area= 86.7 sf, Capacity= 426.71 cfs

40.00' x 3.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 390.0' Slope= 0.0064 '/'

Inlet Invert= 58.50', Outlet Invert= 56.00'

14110-PROP

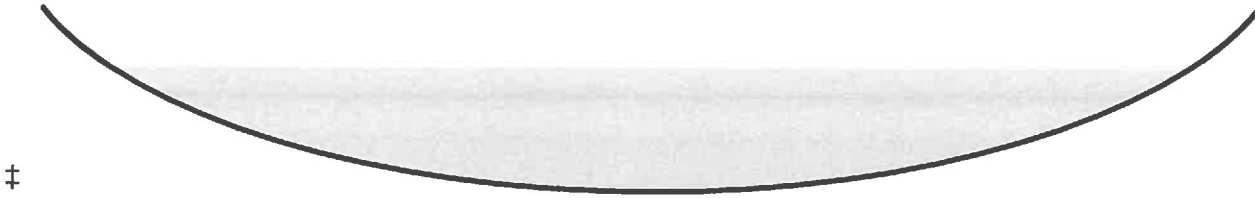
Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT
Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 115

**Summary for Reach 4R: Arch Culvert**

Inflow Area = 5,071,780 sf, 45.24% Impervious, Inflow Depth = 4.27" for 25-YEAR event
Inflow = 194.07 cfs @ 12.42 hrs, Volume= 1,802,997 cf
Outflow = 194.01 cfs @ 12.42 hrs, Volume= 1,802,997 cf, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 13.17 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.37 fps, Avg. Travel Time= 0.2 min

Peak Storage= 741 cf @ 12.42 hrs
Average Depth at Peak Storage= 0.87'
Bank-Full Depth= 6.67' Flow Area= 102.8 sf, Capacity= 2,796.75 cfs

204.0" W x 80.0" H, R=240.0" Arch Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 50.3' Slope= 0.0131 '/'
Inlet Invert= 56.00', Outlet Invert= 55.34'

**Summary for Reach 5R: Small Stream**

Inflow Area = 5,450,766 sf, 47.28% Impervious, Inflow Depth = 4.28" for 25-YEAR event
Inflow = 209.38 cfs @ 12.41 hrs, Volume= 1,943,592 cf
Outflow = 193.16 cfs @ 12.77 hrs, Volume= 1,943,587 cf, Atten= 8%, Lag= 21.7 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.22 fps, Min. Travel Time= 9.4 min
Avg. Velocity = 0.58 fps, Avg. Travel Time= 19.6 min

Peak Storage= 108,497 cf @ 12.61 hrs
Average Depth at Peak Storage= 53.01'
Bank-Full Depth= 0.25' Flow Area= 0.5 sf, Capacity= 0.43 cfs

3.00' x 0.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals
Length= 685.0' Slope= 0.0059 '/'
Inlet Invert= 55.34', Outlet Invert= 51.31'

14110-PROP

Prepared by Jones & Beach Engineers

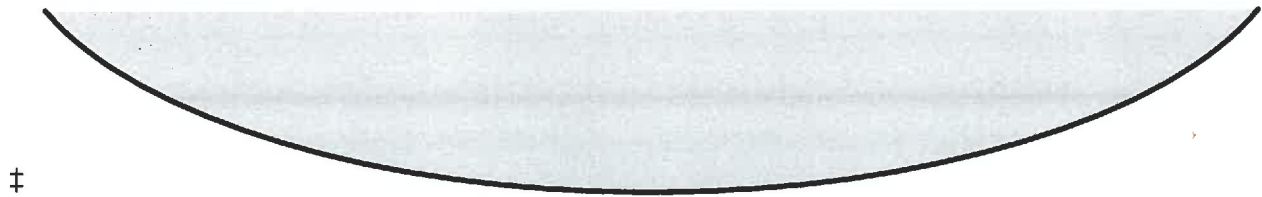
HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 116

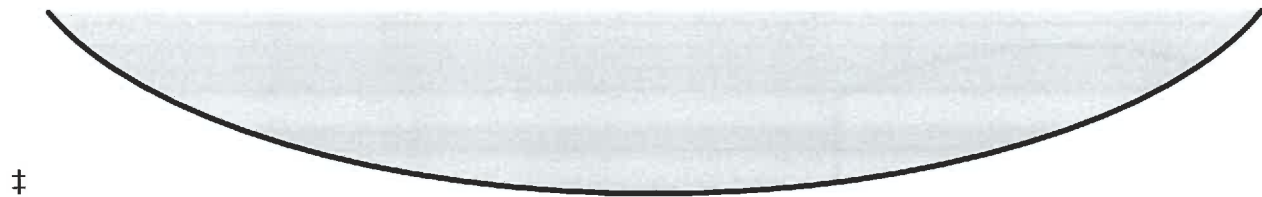
**Summary for Reach 6R: Small Stream**

Inflow Area = 5,740,997 sf, 48.94% Impervious, Inflow Depth = 4.31" for 25-YEAR event
Inflow = 198.11 cfs @ 12.76 hrs, Volume= 2,064,307 cf
Outflow = 195.68 cfs @ 12.99 hrs, Volume= 2,064,304 cf, Atten= 1%, Lag= 13.7 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.74 fps, Min. Travel Time= 5.5 min
Avg. Velocity = 0.37 fps, Avg. Travel Time= 11.2 min

Peak Storage= 64,953 cf @ 12.89 hrs
Average Depth at Peak Storage= 66.53'
Bank-Full Depth= 0.25' Flow Area= 0.7 sf, Capacity= 0.34 cfs

4.00' x 0.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals
Length= 245.0' Slope= 0.0021 '/
Inlet Invert= 51.31', Outlet Invert= 50.79'

**Summary for Reach 7R: Small Stream**

Inflow Area = 7,949,983 sf, 56.97% Impervious, Inflow Depth > 4.08" for 25-YEAR event
Inflow = 201.83 cfs @ 12.98 hrs, Volume= 2,699,765 cf
Outflow = 200.53 cfs @ 13.16 hrs, Volume= 2,699,157 cf, Atten= 1%, Lag= 10.9 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.26 fps, Min. Travel Time= 4.6 min
Avg. Velocity = 1.99 fps, Avg. Travel Time= 5.3 min

Peak Storage= 55,891 cf @ 13.08 hrs
Average Depth at Peak Storage= 35.64'
Bank-Full Depth= 0.20' Flow Area= 0.3 sf, Capacity= 0.53 cfs

2.50' x 0.20' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals
Length= 630.0' Slope= 0.0272 '/
Inlet Invert= 67.90', Outlet Invert= 50.79'

14110-PROP

Prepared by Jones & Beach Engineers

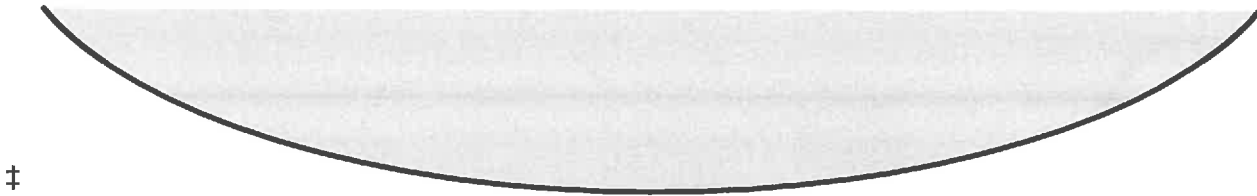
HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 117

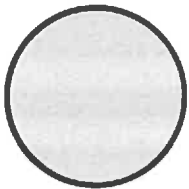
**Summary for Reach 8R: 30" RCP Storm Sewer**

Inflow Area = 604,059 sf, 77.85% Impervious, Inflow Depth = 4.91" for 25-YEAR event
Inflow = 48.92 cfs @ 12.08 hrs, Volume= 247,263 cf
Outflow = 43.29 cfs @ 12.28 hrs, Volume= 247,263 cf, Atten= 12%, Lag= 12.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.83 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 2.29 fps, Avg. Travel Time= 6.2 min

Peak Storage= 4,207 cf @ 12.10 hrs
Average Depth at Peak Storage= 2.50'
Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 42.42 cfs

30.0" Round Pipe
n= 0.012
Length= 857.0' Slope= 0.0091 '/'
Inlet Invert= 71.73', Outlet Invert= 63.92'

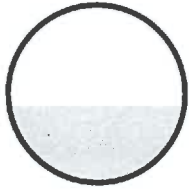
**Summary for Reach 9R: P-352**

Inflow Area = 2,187,648 sf, 77.79% Impervious, Inflow Depth > 3.44" for 25-YEAR event
Inflow = 19.97 cfs @ 12.11 hrs, Volume= 626,691 cf
Outflow = 19.16 cfs @ 12.14 hrs, Volume= 626,516 cf, Atten= 4%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.74 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 3.41 fps, Avg. Travel Time= 1.7 min

Peak Storage= 1,044 cf @ 12.12 hrs
Average Depth at Peak Storage= 1.29'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 51.24 cfs

36.0" Round Pipe
n= 0.012
Length= 358.0' Slope= 0.0050 '/'
Inlet Invert= 60.40', Outlet Invert= 58.60'

**Summary for Reach 10R: 48" RCP Storm Sewer**

Inflow Area = 604,059 sf, 77.85% Impervious, Inflow Depth = 4.91" for 25-YEAR event
Inflow = 43.29 cfs @ 12.28 hrs, Volume= 247,263 cf
Outflow = 42.94 cfs @ 12.28 hrs, Volume= 247,263 cf, Atten= 1%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 11.26 fps, Min. Travel Time= 0.5 min

Avg. Velocity = 2.58 fps, Avg. Travel Time= 2.3 min

Peak Storage= 1,387 cf @ 12.10 hrs

Average Depth at Peak Storage= 1.37'

Bank-Full Depth= 4.00' Flow Area= 12.6 sf, Capacity= 169.76 cfs

48.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 364.0' Slope= 0.0100 '/'

Inlet Invert= 0.00', Outlet Invert= -3.64'

**Summary for Reach 11R: 60" Arch culvert**

Inflow Area = 660,042 sf, 73.51% Impervious, Inflow Depth = 4.83" for 25-YEAR event
Inflow = 47.07 cfs @ 12.16 hrs, Volume= 265,817 cf
Outflow = 47.11 cfs @ 12.16 hrs, Volume= 265,817 cf, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.89 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 1.52 fps, Avg. Travel Time= 0.6 min

Peak Storage= 369 cf @ 12.16 hrs

Average Depth at Peak Storage= 1.90'

Bank-Full Depth= 5.00' Flow Area= 19.6 sf, Capacity= 153.90 cfs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

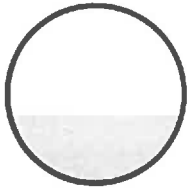
Page 119

60.0" Round Pipe

n= 0.022 Earth, clean & straight

Length= 54.0' Slope= 0.0100 '/'

Inlet Invert= 0.00', Outlet Invert= -0.54'

**Summary for Reach 12R: Roadside Ditch**

Inflow Area = 660,042 sf, 73.51% Impervious, Inflow Depth = 4.83" for 25-YEAR event
Inflow = 47.11 cfs @ 12.16 hrs, Volume= 265,817 cf
Outflow = 46.98 cfs @ 12.21 hrs, Volume= 265,817 cf, Atten= 0%, Lag= 2.8 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 3.80 fps, Min. Travel Time= 1.4 min

Avg. Velocity = 0.77 fps, Avg. Travel Time= 7.0 min

Peak Storage= 3,991 cf @ 12.17 hrs

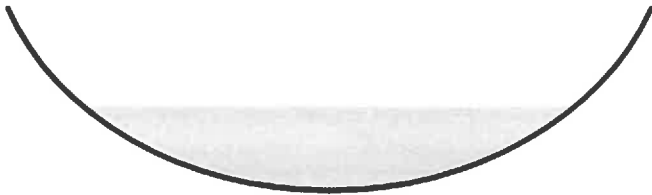
Average Depth at Peak Storage= 1.84'

Bank-Full Depth= 4.00' Flow Area= 40.0 sf, Capacity= 243.58 cfs

15.00' x 4.00' deep Parabolic Channel, n= 0.030 Earth, grassed & winding

Length= 321.0' Slope= 0.0050 '/'

Inlet Invert= 64.64', Outlet Invert= 63.03'

**Summary for Reach 13R: 54" RCP Culvert**

Inflow Area = 660,042 sf, 73.51% Impervious, Inflow Depth = 4.83" for 25-YEAR event
Inflow = 46.98 cfs @ 12.21 hrs, Volume= 265,817 cf
Outflow = 46.97 cfs @ 12.21 hrs, Volume= 265,817 cf, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 17.74 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 4.32 fps, Avg. Travel Time= 0.4 min

Peak Storage= 294 cf @ 12.21 hrs

Average Depth at Peak Storage= 1.00'

Bank-Full Depth= 4.50' Flow Area= 15.9 sf, Capacity= 430.00 cfs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 120

54.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 111.0' Slope= 0.0342 1'

Inlet Invert= 63.03', Outlet Invert= 59.23'

**Summary for Reach 14R: Roadside ditch**

Inflow Area = 660,042 sf, 73.51% Impervious, Inflow Depth = 4.83" for 25-YEAR event
Inflow = 46.97 cfs @ 12.21 hrs, Volume= 265,817 cf
Outflow = 46.65 cfs @ 12.25 hrs, Volume= 265,817 cf, Atten= 1%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 4.14 fps, Min. Travel Time= 0.9 min

Avg. Velocity = 0.87 fps, Avg. Travel Time= 4.3 min

Peak Storage= 2,550 cf @ 12.22 hrs

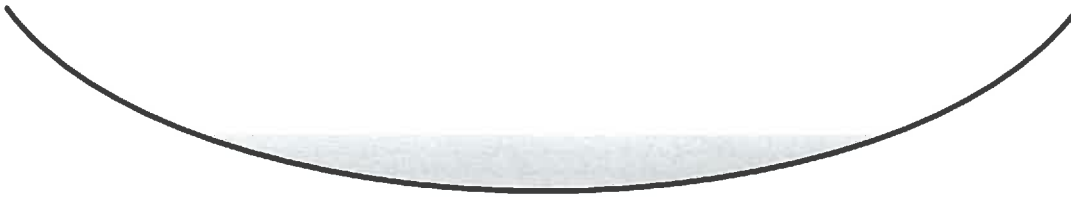
Average Depth at Peak Storage= 1.23'

Bank-Full Depth= 4.00' Flow Area= 66.7 sf, Capacity= 591.21 cfs

25.00' x 4.00' deep Parabolic Channel, n= 0.030 Earth, grassed & winding

Length= 225.0' Slope= 0.0094 1'

Inlet Invert= 59.23', Outlet Invert= 57.11'

**Summary for Reach 15R: 54" RCP Culvert**

Inflow Area = 4,442,234 sf, 47.62% Impervious, Inflow Depth = 4.31" for 25-YEAR event
Inflow = 218.10 cfs @ 12.56 hrs, Volume= 1,595,775 cf
Outflow = 167.14 cfs @ 12.40 hrs, Volume= 1,595,775 cf, Atten= 23%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 11.98 fps, Min. Travel Time= 0.4 min

Avg. Velocity = 2.83 fps, Avg. Travel Time= 1.7 min

Peak Storage= 4,612 cf @ 12.35 hrs

Average Depth at Peak Storage= 4.50'

Bank-Full Depth= 4.50' Flow Area= 15.9 sf, Capacity= 167.14 cfs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

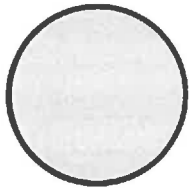
Page 121

54.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 290.0' Slope= 0.0052 '/'

Inlet Invert= 60.50', Outlet Invert= 59.00'

**Summary for Reach 16R: Culvert to Stream**

Inflow Area = 4,442,234 sf, 47.62% Impervious, Inflow Depth = 4.31" for 25-YEAR event
Inflow = 167.14 cfs @ 12.40 hrs, Volume= 1,595,775 cf
Outflow = 167.25 cfs @ 12.46 hrs, Volume= 1,595,775 cf, Atten= 0%, Lag= 3.6 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.86 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 0.72 fps, Avg. Travel Time= 1.2 min

Peak Storage= 4,587 cf @ 12.35 hrs
Average Depth at Peak Storage= 30.14'
Bank-Full Depth= 0.25' Flow Area= 0.5 sf, Capacity= 0.65 cfs

3.00' x 0.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals
Length= 51.0' Slope= 0.0137 '/'
Inlet Invert= 59.00', Outlet Invert= 58.30'

**Summary for Reach 17R: DITCH**

Inflow Area = 55,906 sf, 48.12% Impervious, Inflow Depth = 4.51" for 25-YEAR event
Inflow = 5.21 cfs @ 12.08 hrs, Volume= 20,990 cf
Outflow = 4.72 cfs @ 12.24 hrs, Volume= 20,990 cf, Atten= 10%, Lag= 10.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.33 fps, Min. Travel Time= 5.5 min
Avg. Velocity = 0.43 fps, Avg. Travel Time= 17.2 min

Peak Storage= 1,576 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.81'
Bank-Full Depth= 4.00' Flow Area= 56.0 sf, Capacity= 190.53 cfs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 122

2.00' x 4.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 3.0 '/' Top Width= 26.00'
Length= 442.0' Slope= 0.0018 '/'
Inlet Invert= 62.80', Outlet Invert= 62.00'

**Summary for Reach 18R: P-351**

Inflow Area = 2,187,648 sf, 77.79% Impervious, Inflow Depth > 3.44" for 25-YEAR event
Inflow = 19.16 cfs @ 12.14 hrs, Volume= 626,516 cf
Outflow = 19.07 cfs @ 12.15 hrs, Volume= 626,472 cf, Atten= 1%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.89 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.49 fps, Avg. Travel Time= 0.4 min

Peak Storage= 259 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.25'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 52.98 cfs

36.0" Round Pipe
n= 0.012
Length= 93.0' Slope= 0.0054 '/'
Inlet Invert= 58.50', Outlet Invert= 58.00'

**Summary for Reach 20R: CULVERT**

Inflow Area = 48,928 sf, 43.37% Impervious, Inflow Depth = 4.42" for 25-YEAR event
Inflow = 4.64 cfs @ 12.09 hrs, Volume= 18,021 cf
Outflow = 4.60 cfs @ 12.10 hrs, Volume= 18,021 cf, Atten= 1%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.60 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 1.2 min

Peak Storage= 106 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.86'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 12.10 cfs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

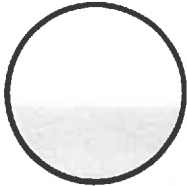
Page 123

24.0" Round Pipe

n= 0.012

Length= 82.0' Slope= 0.0024 '/'

Inlet Invert= 63.00', Outlet Invert= 62.80'

**Summary for Reach 21R: Culvert under railroad**

Inflow Area = 2,187,648 sf, 77.79% Impervious, Inflow Depth > 3.44" for 25-YEAR event
Inflow = 20.19 cfs @ 12.10 hrs, Volume= 626,741 cf
Outflow = 19.97 cfs @ 12.11 hrs, Volume= 626,691 cf, Atten= 1%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.78 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 3.39 fps, Avg. Travel Time= 0.5 min

Peak Storage= 301 cf @ 12.11 hrs

Average Depth at Peak Storage= 1.31'

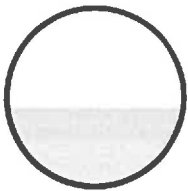
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 50.84 cfs

36.0" Round Pipe

n= 0.012

Length= 101.0' Slope= 0.0050 '/'

Inlet Invert= 61.00', Outlet Invert= 60.50'

**Summary for Reach 22R: Small Stream**

Inflow Area = 183,442 sf, 93.61% Impervious, Inflow Depth > 5.43" for 25-YEAR event
Inflow = 25.57 cfs @ 12.03 hrs, Volume= 83,038 cf
Outflow = 19.08 cfs @ 12.20 hrs, Volume= 83,035 cf, Atten= 25%, Lag= 10.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 1.12 fps, Min. Travel Time= 6.2 min

Avg. Velocity = 0.48 fps, Avg. Travel Time= 14.5 min

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 124

Peak Storage= 7,181 cf @ 12.09 hrs

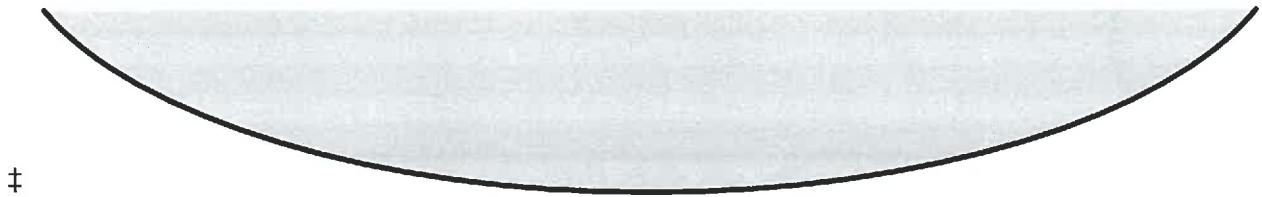
Average Depth at Peak Storage= 3.52'

Bank-Full Depth= 0.25' Flow Area= 0.8 sf, Capacity= 0.66 cfs

5.00' x 0.25' deep Parabolic Channel, n= 0.040 Winding stream, pools & shoals

Length= 419.0' Slope= 0.0050 '/'

Inlet Invert= 50.79', Outlet Invert= 48.70'

**Summary for Reach 23R: CB to Street**

Inflow Area = 203,088 sf, 85.03% Impervious, Inflow Depth = 5.10" for 25-YEAR event

Inflow = 28.09 cfs @ 12.02 hrs, Volume= 86,289 cf

Outflow = 16.01 cfs @ 12.30 hrs, Volume= 86,289 cf, Atten= 43%, Lag= 16.8 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 5.81 fps, Min. Travel Time= 2.2 min

Avg. Velocity= 2.20 fps, Avg. Travel Time= 5.8 min

Peak Storage= 2,391 cf @ 12.00 hrs

Average Depth at Peak Storage= 2.00'

Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.01 cfs

24.0" Round Pipe

n= 0.013 Concrete pipe, bends & connections

Length= 761.0' Slope= 0.0050 '/'

Inlet Invert= 93.51', Outlet Invert= 89.70'

**Summary for Reach 24R: 30" RCP Storm Sewer?**

Inflow Area = 228,224 sf, 86.28% Impervious, Inflow Depth = 5.14" for 25-YEAR event

Inflow = 19.36 cfs @ 12.05 hrs, Volume= 97,694 cf

Outflow = 18.93 cfs @ 12.10 hrs, Volume= 97,694 cf, Atten= 2%, Lag= 3.3 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 9.30 fps, Min. Travel Time= 1.5 min

Avg. Velocity= 3.14 fps, Avg. Travel Time= 4.3 min

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 125

Peak Storage= 1,681 cf @ 12.07 hrs

Average Depth at Peak Storage= 1.10'

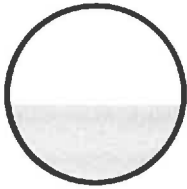
Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 48.47 cfs

30.0" Round Pipe

n= 0.011 Concrete pipe, straight & clean

Length= 810.0' Slope= 0.0100 '/

Inlet Invert= 0.00', Outlet Invert= -8.10'

**Summary for Reach 26R: EX. DRAIN**

Inflow Area = 55,983 sf, 26.61% Impervious, Inflow Depth > 3.98" for 25-YEAR event

Inflow = 5.26 cfs @ 12.07 hrs, Volume= 18,555 cf

Outflow = 4.40 cfs @ 12.10 hrs, Volume= 18,554 cf, Atten= 16%, Lag= 1.8 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.38 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 2.34 fps, Avg. Travel Time= 0.6 min

Peak Storage= 71 cf @ 12.05 hrs

Average Depth at Peak Storage= 1.00'

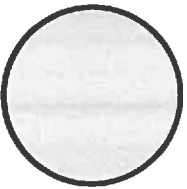
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.40 cfs

12.0" Round Pipe

n= 0.012

Length= 91.0' Slope= 0.0130 '/

Inlet Invert= 62.05', Outlet Invert= 60.87'

**Summary for Reach 27R: (new Reach)**

Inflow Area = 8,298 sf, 74.23% Impervious, Inflow Depth = 5.05" for 25-YEAR event

Inflow = 1.14 cfs @ 12.02 hrs, Volume= 3,492 cf

Outflow = 1.09 cfs @ 12.05 hrs, Volume= 3,492 cf, Atten= 5%, Lag= 1.6 min

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 126

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 3.51 fps, Min. Travel Time= 0.8 min

Avg. Velocity = 1.12 fps, Avg. Travel Time= 2.5 min

Peak Storage= 55 cf @ 12.04 hrs

Average Depth at Peak Storage= 0.43'

Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.97 cfs

12.0" Round Pipe

n= 0.012

Length= 171.0' Slope= 0.0059 '/'

Inlet Invert= 74.63', Outlet Invert= 73.62'



Summary for Reach 28R: (new Reach)

Inflow Area = 12,058 sf, 77.02% Impervious, Inflow Depth = 5.10" for 25-YEAR event

Inflow = 1.58 cfs @ 12.04 hrs, Volume= 5,126 cf

Outflow = 1.49 cfs @ 12.07 hrs, Volume= 5,126 cf, Atten= 6%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 3.09 fps, Min. Travel Time= 1.1 min

Avg. Velocity = 1.01 fps, Avg. Travel Time= 3.3 min

Peak Storage= 102 cf @ 12.05 hrs

Average Depth at Peak Storage= 0.61'

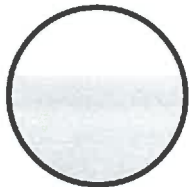
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.24 cfs

12.0" Round Pipe

n= 0.012

Length= 201.0' Slope= 0.0034 '/'

Inlet Invert= 73.61', Outlet Invert= 72.93'



14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 127

Summary for Reach 29R: (new Reach)

Inflow Area = 24,062 sf, 80.80% Impervious, Inflow Depth > 5.18" for 25-YEAR event
Inflow = 3.01 cfs @ 12.04 hrs, Volume= 10,382 cf
Outflow = 2.85 cfs @ 12.07 hrs, Volume= 10,382 cf, Atten= 5%, Lag= 1.7 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 3.97 fps, Min. Travel Time= 0.9 min

Avg. Velocity = 1.39 fps, Avg. Travel Time= 2.5 min

Peak Storage= 156 cf @ 12.06 hrs

Average Depth at Peak Storage= 0.91'

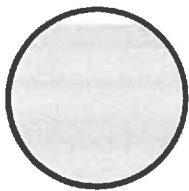
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.74 cfs

12.0" Round Pipe

n= 0.012

Length= 207.0' Slope= 0.0050 '/'

Inlet Invert= 72.77', Outlet Invert= 71.73'

**Summary for Reach 30R: EX. DRAIN**

Inflow Area = 41,085 sf, 0.00% Impervious, Inflow Depth = 3.40" for 25-YEAR event
Inflow = 3.63 cfs @ 12.10 hrs, Volume= 11,650 cf
Outflow = 3.62 cfs @ 12.10 hrs, Volume= 11,650 cf, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 12.53 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 4.45 fps, Avg. Travel Time= 0.2 min

Peak Storage= 15 cf @ 12.10 hrs

Average Depth at Peak Storage= 0.40'

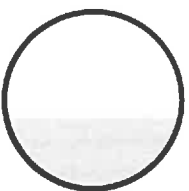
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 10.96 cfs

12.0" Round Pipe

n= 0.012

Length= 52.0' Slope= 0.0806 '/'

Inlet Invert= 66.26', Outlet Invert= 62.07'



14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 128

Summary for Reach 31R: (new Reach)

Inflow Area = 86,124 sf, 87.35% Impervious, Inflow Depth = 5.20" for 25-YEAR event
Inflow = 3.54 cfs @ 12.95 hrs, Volume= 37,337 cf
Outflow = 3.54 cfs @ 12.25 hrs, Volume= 37,337 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 7.22 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 2.69 fps, Avg. Travel Time= 0.3 min

Peak Storage= 25 cf @ 12.15 hrs

Average Depth at Peak Storage= 0.60'

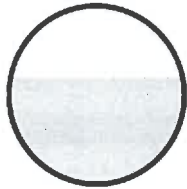
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.29 cfs

12.0" Round Pipe

n= 0.012

Length= 50.0' Slope= 0.0188 '/'

Inlet Invert= 67.76', Outlet Invert= 66.82'

**Summary for Reach 32R: (new Reach)**

Inflow Area = 86,124 sf, 87.35% Impervious, Inflow Depth = 5.20" for 25-YEAR event
Inflow = 6.91 cfs @ 12.14 hrs, Volume= 37,337 cf
Outflow = 3.54 cfs @ 12.95 hrs, Volume= 37,337 cf, Atten= 49%, Lag= 48.8 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 5.13 fps, Min. Travel Time= 0.8 min

Avg. Velocity = 1.95 fps, Avg. Travel Time= 2.0 min

Peak Storage= 186 cf @ 12.10 hrs

Average Depth at Peak Storage= 1.00'

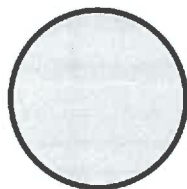
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.54 cfs

12.0" Round Pipe

n= 0.012

Length= 237.0' Slope= 0.0084 '/'

Inlet Invert= 66.65', Outlet Invert= 64.66'



14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT
Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 129

Summary for Reach 33R: P-221

Inflow Area = 69,098 sf, 90.83% Impervious, Inflow Depth = 5.33" for 25-YEAR event
Inflow = 9.32 cfs @ 12.06 hrs, Volume= 30,683 cf
Outflow = 9.23 cfs @ 12.06 hrs, Volume= 30,683 cf, Atten= 1%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 5.77 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 1.75 fps, Avg. Travel Time= 0.6 min

Peak Storage= 105 cf @ 12.06 hrs

Average Depth at Peak Storage= 1.02'

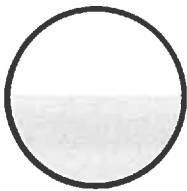
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 17.98 cfs

24.0" Round Pipe

n= 0.012

Length= 65.0' Slope= 0.0054 '/

Inlet Invert= 71.25', Outlet Invert= 70.90'

**Summary for Reach 34R: P-308**

Inflow Area = 79,313 sf, 89.68% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 9.82 cfs @ 12.06 hrs, Volume= 34,782 cf
Outflow = 9.78 cfs @ 12.06 hrs, Volume= 34,782 cf, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.38 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 1.85 fps, Avg. Travel Time= 0.2 min

Peak Storage= 34 cf @ 12.06 hrs

Average Depth at Peak Storage= 0.98'

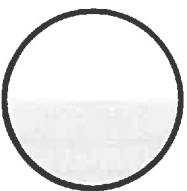
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.24 cfs

24.0" Round Pipe

n= 0.012

Length= 22.0' Slope= 0.0068 '/

Inlet Invert= 61.90', Outlet Invert= 61.75'



14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 130

Summary for Reach 35R: (new Reach)

Inflow Area = 265,649 sf, 67.27% Impervious, Inflow Depth = 4.60" for 25-YEAR event
Inflow = 24.74 cfs @ 12.07 hrs, Volume= 101,851 cf
Outflow = 24.72 cfs @ 12.07 hrs, Volume= 101,851 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 15.60 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 3.46 fps, Avg. Travel Time= 0.1 min

Peak Storage= 24 cf @ 12.07 hrs

Average Depth at Peak Storage= 0.89'

Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 90.34 cfs

30.0" Round Pipe

n= 0.012

Length= 15.0' Slope= 0.0413 '/'

Inlet Invert= 64.54', Outlet Invert= 63.92'

**Summary for Reach P-216: P-216**

Inflow Area = 51,180 sf, 86.96% Impervious, Inflow Depth = 5.21" for 25-YEAR event
Inflow = 6.78 cfs @ 12.06 hrs, Volume= 22,234 cf
Outflow = 6.76 cfs @ 12.06 hrs, Volume= 22,234 cf, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.25 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 1.83 fps, Avg. Travel Time= 0.1 min

Peak Storage= 13 cf @ 12.06 hrs

Average Depth at Peak Storage= 0.88'

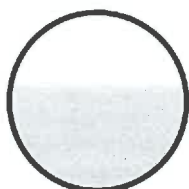
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.39 cfs

18.0" Round Pipe

n= 0.012

Length= 12.0' Slope= 0.0083 '/'

Inlet Invert= 71.60', Outlet Invert= 71.50'



14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 131

Summary for Reach P-223: P-223

Inflow Area = 55,991 sf, 86.71% Impervious, Inflow Depth = 5.27" for 25-YEAR event
Inflow = 6.77 cfs @ 12.10 hrs, Volume= 24,579 cf
Outflow = 6.30 cfs @ 12.10 hrs, Volume= 24,579 cf, Atten= 7%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.47 fps, Min. Travel Time= 0.3 min

Avg. Velocity = 1.92 fps, Avg. Travel Time= 1.0 min

Peak Storage= 120 cf @ 12.10 hrs

Average Depth at Peak Storage= 0.95'

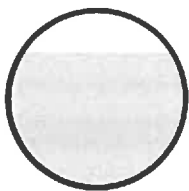
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 7.00 cfs

15.0" Round Pipe

n= 0.012

Length= 120.0' Slope= 0.0100 '/'

Inlet Invert= 70.15', Outlet Invert= 68.95'

**Summary for Reach P-234: P-234**

Inflow Area = 57,274 sf, 93.46% Impervious, Inflow Depth = 5.44" for 25-YEAR event
Inflow = 8.10 cfs @ 12.05 hrs, Volume= 25,987 cf
Outflow = 7.99 cfs @ 12.05 hrs, Volume= 25,987 cf, Atten= 1%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 7.03 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 2.13 fps, Avg. Travel Time= 0.6 min

Peak Storage= 91 cf @ 12.05 hrs

Average Depth at Peak Storage= 0.93'

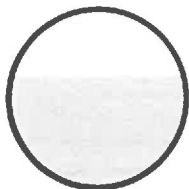
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.45 cfs

18.0" Round Pipe

n= 0.012

Length= 79.0' Slope= 0.0101 '/'

Inlet Invert= 69.95', Outlet Invert= 69.15'



14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 132

Summary for Reach P-240: P-240

Inflow Area = 80,793 sf, 94.13% Impervious, Inflow Depth = 5.40" for 25-YEAR event
Inflow = 11.39 cfs @ 12.03 hrs, Volume= 36,331 cf
Outflow = 11.36 cfs @ 12.03 hrs, Volume= 36,331 cf, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.23 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 1.75 fps, Avg. Travel Time= 0.2 min

Peak Storage= 31 cf @ 12.03 hrs

Average Depth at Peak Storage= 1.12'

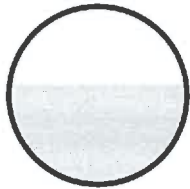
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 18.80 cfs

24.0" Round Pipe

n= 0.012

Length= 17.0' Slope= 0.0059 '/'

Inlet Invert= 69.00', Outlet Invert= 68.90'

**Summary for Reach P-306: P-306**

Inflow Area = 92,415 sf, 88.39% Impervious, Inflow Depth = 5.24" for 25-YEAR event
Inflow = 12.87 cfs @ 12.05 hrs, Volume= 40,337 cf
Outflow = 11.46 cfs @ 12.07 hrs, Volume= 40,337 cf, Atten= 11%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Max. Velocity= 7.33 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 2.14 fps, Avg. Travel Time= 0.2 min

Peak Storage= 44 cf @ 12.06 hrs

Average Depth at Peak Storage= 1.50'

Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.38 cfs

18.0" Round Pipe

n= 0.012

Length= 25.0' Slope= 0.0100 '/'

Inlet Invert= 60.55', Outlet Invert= 60.30'



14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 133

Summary for Pond 1P: BIORETENTION #4 - GRAVELS

Inflow Area = 34,176 sf, 89.54% Impervious, Inflow Depth = 7.50" for 25-YEAR event
 Inflow = 4.81 cfs @ 12.06 hrs, Volume= 21,355 cf
 Outflow = 4.69 cfs @ 12.07 hrs, Volume= 21,355 cf, Atten= 2%, Lag= 0.5 min
 Primary = 4.69 cfs @ 12.07 hrs, Volume= 21,355 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.34' @ 12.07 hrs Surf.Area= 570 sf Storage= 453 cf

Plug-Flow detention time= 3.9 min calculated for 21,340 cf (100% of inflow)

Center-of-Mass det. time= 3.9 min (785.4 - 781.5)

Volume	Invert	Avail.Storage	Storage Description
#1	71.35'	1,060 cf	Gravels (Irregular) Listed below (Recalc) 2,651 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
71.35	570	187.7	0	0	570
76.00	570	187.7	2,651	2,651	1,443

Device	Routing	Invert	Outlet Devices
#1	Primary	71.35'	8.0" Vert. Orifice/Grate C= 0.600
#2	Primary	73.00'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=4.54 cfs @ 12.07 hrs HW=73.32' (Free Discharge)

1=Orifice/Grate (Orifice Controls 2.15 cfs @ 6.16 fps)

2=Sharp-Crested Vee/Trap Weir (Weir Controls 2.39 cfs @ 1.86 fps)

Summary for Pond 2P: BIORETENTION #5 - GRAVELS

Inflow = 0.15 cfs @ 12.06 hrs, Volume= 5,772 cf
 Outflow = 0.14 cfs @ 12.10 hrs, Volume= 5,772 cf, Atten= 4%, Lag= 2.6 min
 Primary = 0.14 cfs @ 12.10 hrs, Volume= 5,772 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.71' @ 12.10 hrs Surf.Area= 570 sf Storage= 47 cf

Plug-Flow detention time= 7.4 min calculated for 5,768 cf (100% of inflow)

Center-of-Mass det. time= 7.4 min (828.5 - 821.1)

Volume	Invert	Avail.Storage	Storage Description
#1	72.50'	798 cf	Gravels (Irregular) Listed below (Recalc) 1,995 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
72.50	570	187.7	0	0	570
76.00	570	187.7	1,995	1,995	1,227

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 134

Device	Routing	Invert	Outlet Devices
#1	Primary	72.50'	8.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.14 cfs @ 12.10 hrs HW=72.71' (Free Discharge)

←1=Orifice/Grate (Orifice Controls 0.14 cfs @ 1.55 fps)

Summary for Pond 3P: BIORETENTION #3 - GRAVELS

Inflow = 0.13 cfs @ 12.07 hrs, Volume= 5,152 cf
 Outflow = 0.13 cfs @ 12.13 hrs, Volume= 4,873 cf, Atten= 6%, Lag= 3.6 min
 Primary = 0.13 cfs @ 12.13 hrs, Volume= 4,873 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.06' @ 12.13 hrs Surf.Area= 581 sf Storage= 339 cf

Plug-Flow detention time= 75.2 min calculated for 4,873 cf (95% of inflow)

Center-of-Mass det. time= 42.3 min (860.4 - 818.1)

Volume	Invert	Avail.Storage	Storage Description
#1	72.60'	790 cf	Gravels (Irregular) Listed below (Recalc) 1,975 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
72.60	581	186.7	0	0	581
76.00	581	186.7	1,975	1,975	1,216

Device	Routing	Invert	Outlet Devices
#1	Primary	73.80'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.13 cfs @ 12.13 hrs HW=74.06' (Free Discharge)

←1=Orifice/Grate (Orifice Controls 0.13 cfs @ 1.73 fps)

Summary for Pond 4P: DMH ???

Inflow Area = 65,347 sf, 81.77% Impervious, Inflow Depth > 5.12" for 25-YEAR event
 Inflow = 3.01 cfs @ 12.02 hrs, Volume= 27,867 cf
 Outflow = 3.01 cfs @ 12.02 hrs, Volume= 27,867 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.01 cfs @ 12.02 hrs, Volume= 27,867 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 67.54' @ 12.02 hrs Surf.Area= 13 sf Storage= 1 cf

Plug-Flow detention time= 0.0 min calculated for 27,848 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (824.6 - 824.6)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 135

Volume	Invert	Avail.Storage	Storage Description
#1	67.50'	138 cf	4.00'D x 10.95'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	18.0" Round P-244A L= 92.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.00' / 65.05' S= 0.0103 ' S= 0.0103 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=7.56 cfs @ 12.02 hrs HW=67.54' (Free Discharge)↑**1=P-244A** (Inlet Controls 7.56 cfs @ 4.28 fps)**Summary for Pond 5P: BIO #25 - GRAVELS**

Inflow = 0.12 cfs @ 12.03 hrs, Volume= 6,864 cf
 Outflow = 0.12 cfs @ 12.09 hrs, Volume= 6,864 cf, Atten= 0%, Lag= 4.0 min
 Primary = 0.12 cfs @ 12.09 hrs, Volume= 6,864 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.66' @ 12.09 hrs Surf.Area= 1,345 sf Storage= 89 cf

Plug-Flow detention time= 14.8 min calculated for 6,864 cf (100% of inflow)

Center-of-Mass det. time= 14.3 min (852.3 - 838.0)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,883 cf	Custom Stage Data (Irregular) Listed below (Recalc) 4,708 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	1,345	371.0	0	0	1,345
67.00	1,345	371.0	4,708	4,708	2,644

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.12 cfs @ 12.09 hrs HW=63.66' (Free Discharge)↑**1=Orifice/Grate** (Orifice Controls 0.12 cfs @ 1.38 fps)**Summary for Pond 34P: BIORETENTION #2 - GRAVELS**

Inflow Area = 40,132 sf, 87.37% Impervious, Inflow Depth = 5.84" for 25-YEAR event
 Inflow = 5.35 cfs @ 12.07 hrs, Volume= 19,521 cf
 Outflow = 5.35 cfs @ 12.07 hrs, Volume= 19,521 cf, Atten= 0%, Lag= 0.0 min
 Primary = 5.35 cfs @ 12.07 hrs, Volume= 19,521 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.40' @ 12.07 hrs Surf.Area= 51 sf Storage= 35 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 136

Center-of-Mass det. time= 0.2 min (781.2 - 781.0)

Volume	Invert	Avail.Storage	Storage Description
#1	71.70'	108 cf	Gravels (Irregular) Listed below (Recalc) 270 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
71.70	51	40.0	0	0	51
77.00	51	40.0	270	270	263

Device	Routing	Invert	Outlet Devices
#1	Primary	71.60'	8.0" Vert. Orifice/Grate C= 0.600
#2	Primary	73.00'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=5.15 cfs @ 12.07 hrs HW=73.38' (Free Discharge)

1=Orifice/Grate (Orifice Controls 2.02 cfs @ 5.80 fps)

2=Sharp-Crested Vee/Trap Weir (Weir Controls 3.13 cfs @ 2.03 fps)

Summary for Pond 1107P: QUARRY

Inflow Area = 1,964,592 sf, 86.12% Impervious, Inflow Depth > 5.21" for 25-YEAR event
 Inflow = 243.89 cfs @ 12.05 hrs, Volume= 853,566 cf
 Outflow = 4.93 cfs @ 18.14 hrs, Volume= 566,178 cf, Atten= 98%, Lag= 365.8 min
 Primary = 4.93 cfs @ 18.14 hrs, Volume= 566,178 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Starting Elev= 62.45' Surf.Area= 816,106 sf Storage= 1,991,838 cf

Peak Elev= 63.28' @ 18.14 hrs Surf.Area= 818,212 sf Storage= 2,668,126 cf (676,288 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= 1,233.1 min (2,011.8 - 778.8)

Volume	Invert	Avail.Storage	Storage Description
#1	60.00'	12,450,867 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
60.00	809,888	3,657.0	0	0	809,888
65.00	822,604	3,679.0	4,081,189	4,081,189	832,278
70.00	835,857	3,724.1	4,146,108	8,227,297	864,658
75.00	853,602	3,762.5	4,223,570	12,450,867	894,216

Device	Routing	Invert	Outlet Devices
#1	Device 2	62.45'	48.0" W x 8.0" H Vert. Orifice/Grate C= 0.600
#2	Primary	62.45'	36.0" Round Culvert L= 108.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.45' / 61.10' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 137

Primary OutFlow Max=4.92 cfs @ 18.14 hrs HW=63.28' (Free Discharge)

└─2=Culvert (Inlet Controls 4.92 cfs @ 3.10 fps)

└─1=Orifice/Grate (Passes 4.92 cfs of 8.84 cfs potential flow)

Summary for Pond 2579: EX. CB 2579

Inflow Area = 265,649 sf, 67.27% Impervious, Inflow Depth = 4.60" for 25-YEAR event
 Inflow = 24.75 cfs @ 12.07 hrs, Volume= 101,851 cf
 Outflow = 24.74 cfs @ 12.07 hrs, Volume= 101,851 cf, Atten= 0%, Lag= 0.0 min
 Primary = 24.74 cfs @ 12.07 hrs, Volume= 101,851 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 67.65' @ 12.07 hrs Surf.Area= 13 sf Storage= 31 cf

Plug-Flow detention time= 0.1 min calculated for 101,851 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (867.2 - 867.1)

Volume	Invert	Avail.Storage	Storage Description
#1	65.18'	75 cf	4.00'D x 6.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	65.18'	30.0" Round P-??? L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 65.18' / 64.66' S= 0.0098 ' / Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=23.95 cfs @ 12.07 hrs HW=67.59' (Free Discharge)

└─1=P-??? (Barrel Controls 23.95 cfs @ 6.29 fps)

Summary for Pond 2723: EX. CB 2723

Inflow Area = 12,004 sf, 84.61% Impervious, Inflow Depth > 5.25" for 25-YEAR event
 Inflow = 1.61 cfs @ 12.02 hrs, Volume= 5,256 cf
 Primary = 1.61 cfs @ 12.02 hrs, Volume= 5,256 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Summary for Pond BIO #1: BIORETENTION #1

Inflow Area = 185,956 sf, 74.58% Impervious, Inflow Depth = 4.99" for 25-YEAR event
 Inflow = 22.31 cfs @ 12.06 hrs, Volume= 77,325 cf
 Outflow = 19.57 cfs @ 12.10 hrs, Volume= 77,120 cf, Atten= 12%, Lag= 2.8 min
 Primary = 19.57 cfs @ 12.10 hrs, Volume= 77,120 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 71.88' @ 12.10 hrs Surf.Area= 6,270 sf Storage= 8,637 cf

Plug-Flow detention time= 41.2 min calculated for 77,066 cf (100% of inflow)
 Center-of-Mass det. time= 39.4 min (814.7 - 775.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 138

Volume	Invert	Avail.Storage	Storage Description
#1	67.00'	1,462 cf	Gravels (Irregular) Listed below (Recalc) 3,655 cf Overall x 40.0% Voids
#2	69.50'	32,049 cf	Custom Stage Data (Irregular) Listed below (Recalc)
		33,511 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
67.00	1,462	315.0	0	0	1,462
69.50	1,462	315.0	3,655	3,655	2,250

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
69.50	1,462	315.0	0	0	1,462
70.00	2,069	392.3	878	878	5,816
71.00	3,391	480.0	2,703	3,581	11,920
72.00	5,018	566.6	4,178	7,759	19,151
73.00	6,986	676.1	5,975	13,734	29,998
74.00	9,128	727.6	8,033	21,767	35,793
75.00	11,481	796.0	10,282	32,049	44,121

Device	Routing	Invert	Outlet Devices
#1	Primary	67.25'	24.0" Round P-253 L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 67.25' / 67.00' S= 0.0093 ' S= 0.0093 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	67.35'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 2	67.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#4	Device 1	71.00'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#5	Primary	74.50'	10.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=19.47 cfs @ 12.10 hrs HW=71.88' (Free Discharge)

- 1=P-253 (Passes 19.47 cfs of 28.80 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.88 cfs @ 10.05 fps)
 3=Exfiltration (Passes 0.88 cfs of 1.50 cfs potential flow)
 4=Orifice/Grate (Orifice Controls 18.59 cfs @ 3.49 fps)
 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond BIO #11: BIORETENTION #11

Inflow Area =	118,428 sf, 87.53% Impervious, Inflow Depth = 5.28" for 25-YEAR event
Inflow =	16.16 cfs @ 12.03 hrs, Volume= 52,134 cf
Outflow =	15.67 cfs @ 12.05 hrs, Volume= 51,971 cf, Atten= 3%, Lag= 1.0 min
Primary =	15.67 cfs @ 12.05 hrs, Volume= 51,971 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 139

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 70.52' @ 12.05 hrs Surf.Area= 2,974 sf Storage= 3,890 cf

Plug-Flow detention time= 33.0 min calculated for 51,971 cf (100% of inflow)

Center-of-Mass det. time= 30.1 min (796.9 - 766.8)

Volume	Invert	Avail.Storage	Storage Description
#1	65.80'	1,234 cf	GRAVELS (Irregular) Listed below (Recalc) 3,085 cf Overall x 40.0% Voids
#2	68.30'	19,923 cf	SWALE (Irregular) Listed below (Recalc)
		21,157 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.80	1,234	220.1	0	0	1,234
68.30	1,234	220.1	3,085	3,085	1,784

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
68.30	837	194.4	0	0	837
70.00	1,367	223.9	1,855	1,855	1,881
71.00	2,130	261.2	1,734	3,590	3,342
72.00	3,008	299.4	2,556	6,146	5,069
73.00	4,007	338.8	3,496	9,642	7,095
74.00	5,129	379.3	4,556	14,198	9,437
75.00	6,342	411.5	5,725	19,923	11,501

Device	Routing	Invert	Outlet Devices
#1	Device 4	69.80'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Device 4	66.13'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 2	65.80'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#4	Primary	66.10'	18.0" Round P-262 L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.10' / 65.75' S= 0.0175 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#5	Primary	74.00'	10.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=15.96 cfs @ 12.05 hrs HW=70.51' (Free Discharge)

- 4=P-262 (Passes 15.96 cfs of 16.29 cfs potential flow)
 1=Orifice/Grate (Orifice Controls 15.24 cfs @ 2.86 fps)
 2=Orifice/Grate (Passes 0.72 cfs of 0.86 cfs potential flow)
 3=Exfiltration (Controls 0.72 cfs)
 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 140

Summary for Pond BIO #15: BIORETENTION #15

Inflow Area = 48,802 sf, 78.10% Impervious, Inflow Depth = 5.10" for 25-YEAR event
 Inflow = 6.66 cfs @ 12.05 hrs, Volume= 20,735 cf
 Outflow = 1.74 cfs @ 12.38 hrs, Volume= 20,423 cf, Atten= 74%, Lag= 19.8 min
 Primary = 1.74 cfs @ 12.38 hrs, Volume= 20,423 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 72.61' @ 12.38 hrs Surf.Area= 6,383 sf Storage= 7,488 cf

Plug-Flow detention time= 95.4 min calculated for 20,423 cf (98% of inflow)
 Center-of-Mass det. time= 85.0 min (851.7 - 766.7)

Volume	Invert	Avail.Storage	Storage Description
#1	68.50'	2,366 cf	GRAVELS (Irregular) Listed below (Recalc) 5,915 cf Overall x 40.0% Voids
#2	71.00'	6,770 cf	SWALE (Irregular) Listed below (Recalc)
		9,136 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
68.50	2,366	266.2	0	0	2,366
71.00	2,366	266.2	5,915	5,915	3,032

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
71.00	2,366	266.2	0	0	2,366
72.00	3,393	332.9	2,864	2,864	5,560
73.00	4,443	357.3	3,906	6,770	6,944

Device	Routing	Invert	Outlet Devices
#1	Primary	68.30'	18.0" Round P-246 L= 43.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.30' / 67.85' S= 0.0105 ' / Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	68.83'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	72.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=1.72 cfs @ 12.38 hrs HW=72.61' (Free Discharge)

1=P-246 (Passes 1.72 cfs of 16.05 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.80 cfs @ 9.15 fps)
 3=Orifice/Grate (Orifice Controls 0.92 cfs @ 1.06 fps)

Summary for Pond BIO #16: BIORETENTION #16

Inflow Area = 154,915 sf, 57.45% Impervious, Inflow Depth = 4.67" for 25-YEAR event
 Inflow = 17.94 cfs @ 12.06 hrs, Volume= 60,317 cf
 Outflow = 13.55 cfs @ 12.15 hrs, Volume= 54,802 cf, Atten= 24%, Lag= 4.9 min
 Primary = 13.55 cfs @ 12.15 hrs, Volume= 54,802 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 141

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 70.12' @ 12.15 hrs Surf.Area= 14,980 sf Storage= 21,340 cf

Plug-Flow detention time= 217.0 min calculated for 54,763 cf (91% of inflow)
 Center-of-Mass det. time= 172.4 min (953.8 - 781.4)

Volume	Invert	Avail.Storage	Storage Description
#1	65.50'	5,515 cf	GRAVELS (Irregular) Listed below (Recalc) 13,788 cf Overall x 40.0% Voids
#2	68.00'	37,066 cf	SWALE (Irregular) Listed below (Recalc)
		42,581 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.50	5,515	598.1	0	0	5,515
68.00	5,515	598.1	13,788	13,788	7,010

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
68.00	5,515	598.1	0	0	5,515
69.00	7,343	620.2	6,407	6,407	7,742
70.00	9,235	641.7	8,271	14,678	9,992
71.00	11,193	663.5	10,198	24,877	12,348
72.00	13,214	683.4	12,190	37,066	14,585

Device	Routing	Invert	Outlet Devices
#1	Primary	65.83'	18.0" Round P-324 L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 65.83' / 65.60' S= 0.0058 ' S= 0.0058 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	65.83'	8.0" Vert. Orifice/Grate C= 0.600
#3	Device 2	68.00'	10.000 in/hr Exfiltration over Surface area above 68.00' Conductivity to Groundwater Elevation = 0.00' Excluded Surface area = 11,030 sf
#4	Device 1	69.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=13.48 cfs @ 12.15 hrs HW=70.12' (Free Discharge)

- 1=P-324 (Passes 13.48 cfs of 16.01 cfs potential flow)
 2=Orifice/Grate (Passes 0.93 cfs of 3.34 cfs potential flow)
 3=Exfiltration (Controls 0.93 cfs)
 4=Orifice/Grate (Orifice Controls 12.55 cfs @ 2.53 fps)

Summary for Pond BIO #17: BIORETENTION #17

Inflow Area = 18,580 sf, 50.42% Impervious, Inflow Depth = 4.51" for 25-YEAR event
 Inflow = 2.28 cfs @ 12.03 hrs, Volume= 6,978 cf
 Outflow = 0.95 cfs @ 12.20 hrs, Volume= 6,973 cf, Atten= 58%, Lag= 10.2 min
 Primary = 0.95 cfs @ 12.20 hrs, Volume= 6,973 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 142

Starting Elev= 62.50' Surf.Area= 3,355 sf Storage= 3,394 cf

Peak Elev= 63.08' @ 12.20 hrs Surf.Area= 3,847 sf Storage= 5,486 cf (2,092 cf above start)

Plug-Flow detention time= 358.7 min calculated for 3,576 cf (51% of inflow)

Center-of-Mass det. time= 92.7 min (872.5 - 779.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	59.50'	9,390 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
59.50	189	192.4	0	0	189
60.00	485	201.9	163	163	503
61.00	1,119	220.7	780	943	1,170
62.00	1,809	239.6	1,450	2,393	1,899
62.49	2,168	248.8	973	3,366	2,276
62.50	3,355	277.2	27	3,394	3,465
63.00	3,778	286.6	1,782	5,176	3,910
64.00	4,666	305.5	4,214	9,390	4,848

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	10.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#2	Primary	63.06'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#3	Primary	62.50'	8.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.92 cfs @ 12.20 hrs HW=63.08' (Free Discharge)

1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

2=Orifice/Grate (Orifice Controls 0.08 cfs @ 0.47 fps)

3=Orifice/Grate (Orifice Controls 0.84 cfs @ 2.60 fps)

Summary for Pond BIO #18: BIORETENTION #18

Inflow Area = 37,567 sf, 72.89% Impervious, Inflow Depth = 4.76" for 25-YEAR event
 Inflow = 5.02 cfs @ 12.02 hrs, Volume= 14,907 cf
 Outflow = 2.15 cfs @ 12.17 hrs, Volume= 14,786 cf, Atten= 57%, Lag= 9.1 min
 Primary = 2.15 cfs @ 12.17 hrs, Volume= 14,786 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 62.64' @ 12.17 hrs Surf.Area= 4,098 sf Storage= 4,126 cf

Plug-Flow detention time= 49.0 min calculated for 14,786 cf (99% of inflow)
 Center-of-Mass det. time= 43.5 min (821.2 - 777.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 143

Volume	Invert	Avail.Storage	Storage Description
#1	58.50'	910 cf	GRAVELS (Irregular) Listed below (Recalc) 2,275 cf Overall x 40.0% Voids
#2	61.00'	9,047 cf	SWALE (Irregular) Listed below (Recalc)
		9,957 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
58.50	910	295.4	0	0	910
61.00	910	295.4	2,275	2,275	1,649

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	910	295.4	0	0	910
62.00	2,183	520.4	1,501	1,501	15,523
62.50	2,972	531.1	1,284	2,785	16,456
63.00	3,776	541.7	1,683	4,467	17,399
64.00	5,434	563.1	4,580	9,047	19,360

Device	Routing	Invert	Outlet Devices
#1	Primary	58.83'	12.0" Round P-343 L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 58.83' / 58.00' S= 0.0104 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	58.83'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 2	58.50'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#4	Device 1	62.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#5	Primary	63.50'	10.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=2.07 cfs @ 12.17 hrs HW=62.63' (Free Discharge)

- 1=P-343 (Passes 2.07 cfs of 6.30 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.80 cfs @ 9.18 fps)
 3=Exfiltration (Passes 0.80 cfs of 0.97 cfs potential flow)
 4=Orifice/Grate (Orifice Controls 1.27 cfs @ 1.18 fps)
 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond BIO #19: BIORETENTION #19

Inflow Area = 103,531 sf, 78.44% Impervious, Inflow Depth > 4.99" for 25-YEAR event
 Inflow = 13.77 cfs @ 12.03 hrs, Volume= 43,057 cf
 Outflow = 10.17 cfs @ 12.10 hrs, Volume= 42,697 cf, Atten= 26%, Lag= 4.0 min
 Primary = 10.17 cfs @ 12.10 hrs, Volume= 42,697 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 144

Peak Elev= 64.51' @ 12.10 hrs Surf.Area= 11,459 sf Storage= 9,781 cf

Plug-Flow detention time= 67.2 min calculated for 42,696 cf (99% of inflow)

Center-of-Mass det. time= 60.9 min (826.3 - 765.5)

Volume	Invert	Avail.Storage	Storage Description
#1	60.50'	1,636 cf	GRAVELS (Irregular) Listed below (Recalc) 4,091 cf Overall x 40.0% Voids
#2	63.00'	13,112 cf	SWALE (Irregular) Listed below (Recalc)
		14,748 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
60.50	2,727	515.0	0	0	2,727
62.00	2,727	515.0	4,091	4,091	3,500

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.00	2,727	515.0	0	0	2,727
64.00	6,226	1,050.6	4,358	4,358	69,460
65.00	11,554	1,598.7	8,754	13,112	185,021

Device	Routing	Invert	Outlet Devices
#1	Primary	60.83'	18.0" Round P-??? L= 48.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 60.83' / 60.50' S= 0.0069 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	60.83'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	64.00'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Primary	64.50'	20.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=10.14 cfs @ 12.10 hrs HW=64.51' (Free Discharge)

1=P-??? (Passes 10.10 cfs of 14.56 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.79 cfs @ 9.02 fps)

3=Orifice/Grate (Orifice Controls 9.31 cfs @ 2.29 fps)

4=Broad-Crested Rectangular Weir (Weir Controls 0.04 cfs @ 0.22 fps)

Summary for Pond BIO #2: BIORETENTION #2 SWALE

Inflow Area = 11,048 sf, 85.47% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 1.53 cfs @ 12.04 hrs, Volume= 4,799 cf
 Outflow = 1.54 cfs @ 12.04 hrs, Volume= 4,800 cf, Atten= 0%, Lag= 0.3 min
 Primary = 1.49 cfs @ 12.04 hrs, Volume= 2,713 cf
 Secondary = 0.05 cfs @ 12.04 hrs, Volume= 2,087 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 145

Peak Elev= 77.85' @ 12.04 hrs Surf.Area= 215 sf Storage= 105 cf

Plug-Flow detention time= 10.4 min calculated for 4,796 cf (100% of inflow)

Center-of-Mass det. time= 10.4 min (771.3 - 760.9)

Volume	Invert	Avail.Storage	Storage Description
#1	77.00'	140 cf	Swale Storage (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
77.00	51	40.0	0	0	51
78.00	256	101.5	140	140	747

Device	Routing	Invert	Outlet Devices
#1	Primary	77.70'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Secondary	77.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

Primary OutFlow Max=1.44 cfs @ 12.04 hrs HW=77.85' (Free Discharge)

1=Orifice/Grate (Orifice Controls 1.44 cfs @ 1.23 fps)

Secondary OutFlow Max=0.05 cfs @ 12.04 hrs HW=77.85' (Free Discharge)

2=Exfiltration (Controls 0.05 cfs)

Summary for Pond BIO #20: BIORETENTION #20

Inflow Area = 80,391 sf, 83.43% Impervious, Inflow Depth > 5.15" for 25-YEAR event
 Inflow = 7.55 cfs @ 12.03 hrs, Volume= 34,488 cf
 Outflow = 4.27 cfs @ 12.16 hrs, Volume= 34,157 cf, Atten= 43%, Lag= 7.4 min
 Primary = 4.27 cfs @ 12.16 hrs, Volume= 34,157 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.36' @ 12.16 hrs Surf.Area= 6,186 sf Storage= 7,930 cf

Plug-Flow detention time= 87.9 min calculated for 34,157 cf (99% of inflow)

Center-of-Mass det. time= 80.9 min (858.2 - 777.3)

Volume	Invert	Avail.Storage	Storage Description
#1	59.10'	2,505 cf	GRAVELS (Irregular) Listed below (Recalc) 6,263 cf Overall x 40.0% Voids
#2	61.60'	7,921 cf	SWALE (Irregular) Listed below (Recalc)
		10,426 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
59.10	2,505	206.2	0	0	2,505
61.60	2,505	206.2	6,263	6,263	3,021

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 146

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.60	2,505	206.2	0	0	2,505
62.00	2,757	213.7	1,052	1,052	2,769
63.00	3,426	232.6	3,085	4,137	3,477
64.00	4,152	251.4	3,783	7,921	4,240

Device	Routing	Invert	Outlet Devices
#1	Primary	59.43'	12.0" Round P-339 L= 75.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 59.43' / 59.05' S= 0.0051 ' / Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	59.43'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 2	59.10'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#4	Device 1	63.10'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#5	Primary	63.50'	10.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=4.21 cfs @ 12.16 hrs HW=63.36' (Free Discharge)

- 1=P-339 (Passes 4.21 cfs of 6.12 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.82 cfs @ 9.34 fps)
 3=Exfiltration (Passes 0.82 cfs of 1.49 cfs potential flow)
 4=Orifice/Grate (Orifice Controls 3.40 cfs @ 1.64 fps)
 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond BIO #21: BIORETENTION #21

Inflow Area = 190,233 sf, 61.84% Impervious, Inflow Depth = 4.74" for 25-YEAR event
 Inflow = 21.34 cfs @ 12.04 hrs, Volume= 75,153 cf
 Outflow = 10.98 cfs @ 12.21 hrs, Volume= 58,642 cf, Atten= 49%, Lag= 10.1 min
 Primary = 10.98 cfs @ 12.21 hrs, Volume= 58,642 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 65.71' @ 12.21 hrs Surf.Area= 9,674 sf Storage= 33,368 cf

Plug-Flow detention time= 292.5 min calculated for 58,601 cf (78% of inflow)
 Center-of-Mass det. time= 213.6 min (985.7 - 772.1)

Volume	Invert	Avail.Storage	Storage Description
#1	60.70'	72,589 cf	Custom Stage Data (Irregular) Listed below (Recalc)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 147

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
60.70	3,915	314.2	0	0	3,915
61.00	4,200	319.9	1,217	1,217	4,218
62.00	5,255	356.5	4,718	5,935	6,217
63.00	6,374	381.2	5,806	11,740	7,713
64.00	7,546	400.0	6,952	18,692	8,945
65.00	8,774	418.9	8,152	26,844	10,243
66.00	10,059	437.7	9,409	36,253	11,594
67.00	11,401	456.6	10,723	46,976	13,012
68.00	12,799	475.4	12,093	59,070	14,482
69.00	14,253	494.3	13,519	72,589	16,019

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	24.0" Round P-264 L= 132.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.80' S= 0.0053 ' ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	63.70'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	64.85'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=10.94 cfs @ 12.21 hrs HW=65.71' (Free Discharge)

1=P-264 (Passes 10.94 cfs of 15.53 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.57 cfs @ 6.53 fps)

3=Sharp-Crested Vee/Trap Weir (Weir Controls 10.37 cfs @ 3.03 fps)

Summary for Pond BIO #22A: BIO #22 - SWALE

Inflow Area = 46,931 sf, 91.70% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 6.57 cfs @ 12.03 hrs, Volume= 20,839 cf
 Outflow = 6.59 cfs @ 12.04 hrs, Volume= 20,840 cf, Atten= 0%, Lag= 0.4 min
 Primary = 6.47 cfs @ 12.04 hrs, Volume= 15,175 cf
 Secondary = 0.12 cfs @ 12.04 hrs, Volume= 5,664 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 66.40' @ 12.04 hrs Surf.Area= 499 sf Storage= 281 cf

Plug-Flow detention time= 6.4 min calculated for 20,825 cf (100% of inflow)
 Center-of-Mass det. time= 6.5 min (761.8 - 755.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	65.50'	333 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.50	141	109.7	0	0	141
66.00	334	136.2	115	115	663
66.50	546	146.8	218	333	912

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 148

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Secondary	65.50'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

Primary OutFlow Max=6.25 cfs @ 12.04 hrs HW=66.39' (Free Discharge)↑**1=Orifice/Grate** (Orifice Controls 6.25 cfs @ 2.00 fps)**Secondary OutFlow** Max=0.12 cfs @ 12.04 hrs HW=66.39' (Free Discharge)↑**2=Exfiltration** (Controls 0.12 cfs)**Summary for Pond BIO #22B: BIO #22 - GRAVELS**

Inflow Area = 45,484 sf, 84.96% Impervious, Inflow Depth = 6.64" for 25-YEAR event
 Inflow = 6.26 cfs @ 12.03 hrs, Volume= 25,162 cf
 Outflow = 6.47 cfs @ 12.05 hrs, Volume= 25,162 cf, Atten= 0%, Lag= 1.4 min
 Primary = 6.47 cfs @ 12.05 hrs, Volume= 25,162 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.20' @ 12.05 hrs Surf.Area= 1,653 sf Storage= 1,687 cf

Plug-Flow detention time= 11.0 min calculated for 25,144 cf (100% of inflow)

Center-of-Mass det. time= 11.1 min (798.4 - 787.3)

Volume	Invert	Avail.Storage	Storage Description
#1	60.65'	3,207 cf	Custom Stage Data (Irregular) Listed below (Recalc) 8,017 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
60.65	1,653	430.0	0	0	1,653
65.50	1,653	430.0	8,017	8,017	3,739

Device	Routing	Invert	Outlet Devices
#1	Primary	60.65'	8.0" Vert. Orifice/Grate C= 0.600
#2	Primary	62.75'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=6.29 cfs @ 12.05 hrs HW=63.19' (Free Discharge)↑**1=Orifice/Grate** (Orifice Controls 2.50 cfs @ 7.15 fps)↑**2=Sharp-Crested Vee/Trap Weir** (Weir Controls 3.80 cfs @ 2.17 fps)**Summary for Pond BIO #23A: BIO #23 - SWALE**

Inflow Area = 45,484 sf, 84.96% Impervious, Inflow Depth = 5.14" for 25-YEAR event
 Inflow = 6.21 cfs @ 12.02 hrs, Volume= 19,497 cf
 Outflow = 6.17 cfs @ 12.03 hrs, Volume= 19,497 cf, Atten= 1%, Lag= 0.6 min
 Primary = 6.05 cfs @ 12.03 hrs, Volume= 14,885 cf
 Secondary = 0.12 cfs @ 12.03 hrs, Volume= 4,613 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 149

Peak Elev= 66.88' @ 12.03 hrs Surf.Area= 503 sf Storage= 220 cf

Plug-Flow detention time= 4.9 min calculated for 19,484 cf (100% of inflow)

Center-of-Mass det. time= 4.9 min (767.3 - 762.4)

Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	285 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
66.00	65	47.3	0	0	65
67.00	593	191.0	285	285	2,793

Device	Routing	Invert	Outlet Devices
#1	Primary	66.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Secondary	66.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

Primary OutFlow Max=5.79 cfs @ 12.03 hrs HW=66.87' (Free Discharge)↑**1=Orifice/Grate** (Orifice Controls 5.79 cfs @ 1.95 fps)**Secondary OutFlow** Max=0.12 cfs @ 12.03 hrs HW=66.87' (Free Discharge)↑**2=Exfiltration** (Controls 0.12 cfs)**Summary for Pond BIO #23B: BIO #23 - GRAVELS**

Inflow = 0.12 cfs @ 12.03 hrs, Volume= 4,613 cf
 Outflow = 0.10 cfs @ 12.10 hrs, Volume= 4,613 cf, Atten= 12%, Lag= 4.5 min
 Primary = 0.10 cfs @ 12.10 hrs, Volume= 4,613 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 62.65' @ 12.10 hrs Surf.Area= 1,550 sf Storage= 95 cf

Plug-Flow detention time= 20.9 min calculated for 4,613 cf (100% of inflow)

Center-of-Mass det. time= 20.4 min (873.6 - 853.2)

Volume	Invert	Avail.Storage	Storage Description
#1	62.50'	2,170 cf	Custom Stage Data (Irregular) Listed below (Recalc) 5,425 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.50	1,550	351.2	0	0	1,550
66.00	1,550	351.2	5,425	5,425	2,779

Device	Routing	Invert	Outlet Devices
#1	Primary	62.50'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.10 cfs @ 12.10 hrs HW=62.65' (Free Discharge)↑**1=Orifice/Grate** (Orifice Controls 0.10 cfs @ 1.33 fps)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 150

Summary for Pond BIO #25: BIO #25 - SWALE

Inflow Area = 45,267 sf, 87.02% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 6.27 cfs @ 12.03 hrs, Volume= 19,665 cf
 Outflow = 6.28 cfs @ 12.03 hrs, Volume= 19,665 cf, Atten= 0%, Lag= 0.1 min
 Primary = 6.16 cfs @ 12.03 hrs, Volume= 12,800 cf
 Secondary = 0.12 cfs @ 12.03 hrs, Volume= 6,864 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 67.89' @ 12.03 hrs Surf.Area= 505 sf Storage= 151 cf

Plug-Flow detention time= 6.4 min calculated for 19,651 cf (100% of inflow)
 Center-of-Mass det. time= 6.4 min (766.8 - 760.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	67.00'	151 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
67.00	137	80.0	0	0	137
67.50	505	184.6	151	151	2,340

Device	Routing	Invert	Outlet Devices
#1	Primary	67.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Secondary	67.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

Primary OutFlow Max=5.89 cfs @ 12.03 hrs HW=67.87' (Free Discharge)

1=Orifice/Grate (Orifice Controls 5.89 cfs @ 1.96 fps)

Secondary OutFlow Max=0.12 cfs @ 12.03 hrs HW=67.87' (Free Discharge)

2=Exfiltration (Controls 0.12 cfs)

Summary for Pond BIO #26: BIORETENTION #26

Inflow Area = 32,205 sf, 58.39% Impervious, Inflow Depth = 4.53" for 25-YEAR event
 Inflow = 3.80 cfs @ 12.04 hrs, Volume= 12,167 cf
 Outflow = 0.72 cfs @ 12.47 hrs, Volume= 11,784 cf, Atten= 81%, Lag= 25.9 min
 Primary = 0.72 cfs @ 12.47 hrs, Volume= 11,784 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 62.92' @ 12.47 hrs Surf.Area= 4,992 sf Storage= 4,533 cf

Plug-Flow detention time= 97.8 min calculated for 11,784 cf (97% of inflow)
 Center-of-Mass det. time= 78.3 min (857.8 - 779.5)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 151

Volume	Invert	Avail.Storage	Storage Description
#1	59.50'	2,897 cf	GRAVELS (Irregular) Listed below (Recalc) 7,243 cf Overall x 40.0% Voids
#2	62.00'	4,312 cf	SWALE (Irregular) Listed below (Recalc)
		7,209 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
59.50	2,897	257.7	0	0	2,897
62.00	2,897	257.7	7,243	7,243	3,541

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.00	1,464	220.0	0	0	1,464
63.00	2,152	238.9	1,797	1,797	2,191
64.00	2,897	257.7	2,515	4,312	2,975

Device	Routing	Invert	Outlet Devices
#1	Device 4	63.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Device 3	59.50'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#3	Device 4	59.83'	4.0" Vert. Orifice/Grate C= 0.600
#4	Primary	59.83'	12.0" Round P-??? L= 67.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 59.83' / 59.50' S= 0.0049 ' / ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.72 cfs @ 12.47 hrs HW=62.92' (Free Discharge)

4=P-??? (Passes 0.72 cfs of 5.41 cfs potential flow)
 1=Orifice/Grate (Controls 0.00 cfs)
 3=Orifice/Grate (Orifice Controls 0.72 cfs @ 8.24 fps)
 2=Exfiltration (Passes 0.72 cfs of 1.20 cfs potential flow)

Summary for Pond BIO #27: BIORETENTION #27

Inflow Area = 21,338 sf, 83.48% Impervious, Inflow Depth = 5.13" for 25-YEAR event
 Inflow = 2.87 cfs @ 12.05 hrs, Volume= 9,121 cf
 Outflow = 1.02 cfs @ 12.27 hrs, Volume= 8,989 cf, Atten= 65%, Lag= 13.7 min
 Primary = 1.02 cfs @ 12.27 hrs, Volume= 8,989 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 64.56' @ 12.27 hrs Surf.Area= 2,830 sf Storage= 2,486 cf

Plug-Flow detention time= 50.7 min calculated for 8,983 cf (98% of inflow)
 Center-of-Mass det. time= 41.7 min (802.9 - 761.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 152

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	998 cf	GRAVELS (Irregular) Listed below (Recalc) 2,495 cf Overall x 40.0% Voids
#2	63.50'	2,389 cf	SWALE (Irregular) Listed below (Recalc)
		3,387 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	998	259.1	0	0	998
63.50	998	259.1	2,495	2,495	1,646

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	998	259.1	0	0	998
64.00	1,393	268.6	595	595	1,418
65.00	2,227	287.4	1,794	2,389	2,295

Device	Routing	Invert	Outlet Devices
#1	Primary	61.33'	12.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.33' / 60.00' S= 0.0332 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	61.33'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 2	61.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#4	Device 1	64.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=0.98 cfs @ 12.27 hrs HW=64.55' (Free Discharge)

- 1=Culvert (Passes 0.98 cfs of 6.24 cfs potential flow)
 2=Orifice/Grate (Passes 0.67 cfs of 0.73 cfs potential flow)
 3=Exfiltration (Controls 0.67 cfs)
 4=Orifice/Grate (Orifice Controls 0.31 cfs @ 0.74 fps)

Summary for Pond BIO #29: BIORETENTION #29

Inflow Area = 68,742 sf, 83.06% Impervious, Inflow Depth = 5.09" for 25-YEAR event
 Inflow = 9.41 cfs @ 12.02 hrs, Volume= 29,154 cf
 Outflow = 8.37 cfs @ 12.06 hrs, Volume= 29,080 cf, Atten= 11%, Lag= 2.3 min
 Primary = 8.37 cfs @ 12.06 hrs, Volume= 29,080 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 62.24' @ 12.06 hrs Surf.Area= 4,303 sf Storage= 4,217 cf

Plug-Flow detention time= 33.7 min calculated for 29,059 cf (100% of inflow)
 Center-of-Mass det. time= 32.1 min (797.2 - 765.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 153

Volume	Invert	Avail.Storage	Storage Description
#1	57.80'	563 cf	GRAVELS (Irregular) Listed below (Recalc) 1,408 cf Overall x 40.0% Voids
#2	60.30'	9,713 cf	SWALE (Irregular) Listed below (Recalc)
		10,276 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.80	563	111.6	0	0	563
60.30	563	111.6	1,408	1,408	842

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
60.30	563	111.6	0	0	563
61.00	843	141.5	489	489	1,172
62.00	4,011	879.7	2,231	2,720	61,163
63.00	2,950	384.5	3,467	6,187	110,985
64.00	4,135	405.7	3,526	9,713	112,376

Device	Routing	Invert	Outlet Devices
#1	Primary	58.13'	18.0" Round P-??? L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 58.13' / 57.50' S= 0.0079 ' S= 0.0079 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	58.13'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 2	57.80'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#4	Device 1	61.80'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=8.13 cfs @ 12.06 hrs HW=62.23' (Free Discharge)

- 1=P-??? (Passes 8.13 cfs of 15.38 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.83 cfs @ 9.55 fps)
 3=Exfiltration (Passes 0.83 cfs of 1.08 cfs potential flow)
 4=Orifice/Grate (Orifice Controls 7.29 cfs @ 2.11 fps)

Summary for Pond BIO #3: BIORETENTION #3 - SWALE

Inflow Area = 28,987 sf, 88.81% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 3.93 cfs @ 12.06 hrs, Volume= 12,871 cf
 Outflow = 3.87 cfs @ 12.07 hrs, Volume= 12,872 cf, Atten= 2%, Lag= 0.5 min
 Primary = 3.73 cfs @ 12.07 hrs, Volume= 7,719 cf
 Secondary = 0.13 cfs @ 12.07 hrs, Volume= 5,152 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 76.78' @ 12.07 hrs Surf.Area= 578 sf Storage= 257 cf

Plug-Flow detention time= 7.6 min calculated for 12,863 cf (100% of inflow)
 Center-of-Mass det. time= 7.6 min (764.7 - 757.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 154

Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	406 cf	Swale Storage (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
76.00	135	76.8	0	0	135
77.00	763	232.4	406	406	3,967

Device	Routing	Invert	Outlet Devices
#1	Primary	76.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Secondary	76.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

Primary OutFlow Max=3.60 cfs @ 12.07 hrs HW=76.77' (Free Discharge)

└─1=Orifice/Grate (Orifice Controls 3.60 cfs @ 1.67 fps)

Secondary OutFlow Max=0.13 cfs @ 12.07 hrs HW=76.77' (Free Discharge)

└─2=Exfiltration (Controls 0.13 cfs)

Summary for Pond BIO #4: BIORETENTION #4 - SWALE

Inflow Area = 34,922 sf, 92.10% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 4.89 cfs @ 12.04 hrs, Volume= 15,506 cf
 Outflow = 4.84 cfs @ 12.05 hrs, Volume= 15,507 cf, Atten= 1%, Lag= 0.5 min
 Primary = 4.67 cfs @ 12.05 hrs, Volume= 9,328 cf
 Secondary = 0.17 cfs @ 12.05 hrs, Volume= 6,179 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 76.82' @ 12.05 hrs Surf.Area= 730 sf Storage= 335 cf

Plug-Flow detention time= 7.6 min calculated for 15,496 cf (100% of inflow)

Center-of-Mass det. time= 7.7 min (763.5 - 755.8)

Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	482 cf	Swale Storage (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
76.00	157	84.1	0	0	157
77.00	911	292.3	482	482	6,396

Device	Routing	Invert	Outlet Devices
#1	Primary	76.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Secondary	76.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 155

Primary OutFlow Max=4.66 cfs @ 12.05 hrs HW=76.82' (Free Discharge)└─**1=Orifice/Grate** (Orifice Controls 4.66 cfs @ 1.82 fps)**Secondary OutFlow** Max=0.17 cfs @ 12.05 hrs HW=76.82' (Free Discharge)└─**2=Exfiltration** (Controls 0.17 cfs)**Summary for Pond BIO #5: BIORETENTION #5 - SWALE**

Inflow Area = 34,176 sf, 89.54% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 4.72 cfs @ 12.05 hrs, Volume= 15,175 cf
 Outflow = 4.65 cfs @ 12.06 hrs, Volume= 15,176 cf, Atten= 1%, Lag= 0.5 min
 Primary = 4.50 cfs @ 12.06 hrs, Volume= 9,403 cf
 Secondary = 0.15 cfs @ 12.06 hrs, Volume= 5,772 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 76.81' @ 12.06 hrs Surf.Area= 635 sf Storage= 300 cf

Plug-Flow detention time= 7.6 min calculated for 15,165 cf (100% of inflow)

Center-of-Mass det. time= 7.6 min (764.2 - 756.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	76.00'	433 cf	Swale Storage (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
76.00	157	84.1	0	0	157
77.00	790	235.6	433	433	4,015

Device	Routing	Invert	Outlet Devices
#1	Secondary	76.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#2	Primary	76.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=4.37 cfs @ 12.06 hrs HW=76.81' (Free Discharge)└─**2=Orifice/Grate** (Orifice Controls 4.37 cfs @ 1.78 fps)**Secondary OutFlow** Max=0.15 cfs @ 12.06 hrs HW=76.81' (Free Discharge)└─**1=Exfiltration** (Controls 0.15 cfs)**Summary for Pond BIO #8: BIORETENTION #8**

Inflow Area = 29,989 sf, 43.23% Impervious, Inflow Depth = 4.43" for 25-YEAR event
 Inflow = 2.79 cfs @ 12.05 hrs, Volume= 11,080 cf
 Outflow = 1.52 cfs @ 12.32 hrs, Volume= 10,984 cf, Atten= 46%, Lag= 15.9 min
 Primary = 1.52 cfs @ 12.32 hrs, Volume= 10,984 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 156

Peak Elev= 72.63' @ 12.32 hrs Surf.Area= 3,333 sf Storage= 3,739 cf

Plug-Flow detention time= 128.4 min calculated for 10,984 cf (99% of inflow)

Center-of-Mass det. time= 122.5 min (907.5 - 784.9)

Volume	Invert	Avail.Storage	Storage Description
#1	67.00'	1,165 cf	GRAVELS (Irregular) Listed below (Recalc) 2,912 cf Overall x 40.0% Voids
#2	71.00'	14,810 cf	SWALE (Irregular) Listed below (Recalc)
		15,975 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
67.00	728	242.5	0	0	728
71.00	728	242.5	2,912	2,912	1,698

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
71.00	728	242.5	0	0	728
72.00	1,755	386.6	1,204	1,204	7,949
73.00	3,175	472.3	2,430	3,635	13,822
74.00	5,497	681.7	4,283	7,918	33,060
75.00	8,389	890.6	6,892	14,810	59,210

Device	Routing	Invert	Outlet Devices
#1	Device 4	67.33'	2.0" Vert. Orifice/Grate C= 0.600
#2	Device 4	72.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#3	Primary	74.00'	10.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#4	Primary	67.20'	12.0" Round P-232 L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 67.20' / 66.95' S= 0.0093 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.45 cfs @ 12.32 hrs HW=72.63' (Free Discharge)

3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

4=P-232 (Passes 1.45 cfs of 8.40 cfs potential flow)**1=Orifice/Grate** (Orifice Controls 0.24 cfs @ 11.00 fps)**2=Orifice/Grate** (Orifice Controls 1.21 cfs @ 1.16 fps)**Summary for Pond BIO#10A: BIORETENTION #10 - SWALE**

Inflow Area =	57,274 sf, 93.46% Impervious,	Inflow Depth = 5.44" for 25-YEAR event
Inflow =	8.08 cfs @ 12.04 hrs, Volume=	25,987 cf
Outflow =	8.10 cfs @ 12.04 hrs, Volume=	25,987 cf, Atten= 0%, Lag= 0.3 min
Primary =	7.94 cfs @ 12.04 hrs, Volume=	18,268 cf
Secondary =	0.16 cfs @ 12.04 hrs, Volume=	7,719 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 157

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.76' @ 12.04 hrs Surf.Area= 693 sf Storage= 289 cf

Plug-Flow detention time= 6.2 min calculated for 25,969 cf (100% of inflow)
 Center-of-Mass det. time= 6.2 min (755.6 - 749.4)

Volume	Invert	Avail.Storage	Storage Description
#1	74.00'	489 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
74.00	141	80.0	0	0	141
75.00	959	232.9	489	489	3,951

Device	Routing	Invert	Outlet Devices
#1	Primary	74.50'	48.0" x 8.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#2	Secondary	74.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

Primary OutFlow Max=7.71 cfs @ 12.04 hrs HW=74.75' (Free Discharge)

↑**1=Orifice/Grate** (Weir Controls 7.71 cfs @ 1.64 fps)

Secondary OutFlow Max=0.16 cfs @ 12.04 hrs HW=74.75' (Free Discharge)

↑**2=Exfiltration** (Controls 0.16 cfs)

Summary for Pond BIO#10B: BIORETENTION #10 - GRAVELS

Inflow = 0.16 cfs @ 12.04 hrs, Volume= 7,719 cf
 Outflow = 0.16 cfs @ 12.08 hrs, Volume= 7,719 cf, Atten= 3%, Lag= 2.1 min
 Primary = 0.16 cfs @ 12.08 hrs, Volume= 7,719 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 71.69' @ 12.08 hrs Surf.Area= 574 sf Storage= 44 cf

Plug-Flow detention time= 6.3 min calculated for 7,719 cf (100% of inflow)
 Center-of-Mass det. time= 5.9 min (825.4 - 819.5)

Volume	Invert	Avail.Storage	Storage Description
#1	71.50'	574 cf	GRAVELS (Irregular) Listed below (Recalc) 1,435 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
71.50	574	189.2	0	0	574
74.00	574	189.2	1,435	1,435	1,047

Device	Routing	Invert	Outlet Devices
#1	Primary	71.50'	12.0" Vert. Orifice/Grate C= 0.600

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 158

Primary OutFlow Max=0.15 cfs @ 12.08 hrs HW=71.69' (Free Discharge)

↑1=Orifice/Grate (Orifice Controls 0.15 cfs @ 1.49 fps)

Summary for Pond BIO#12A: BIORETENTION #12 - SWALE

Inflow Area = 16,941 sf, 86.79% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 2.35 cfs @ 12.04 hrs, Volume= 7,359 cf
 Outflow = 2.36 cfs @ 12.04 hrs, Volume= 7,360 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.27 cfs @ 12.04 hrs, Volume= 3,547 cf
 Secondary = 0.09 cfs @ 12.04 hrs, Volume= 3,813 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.11' @ 12.04 hrs Surf.Area= 401 sf Storage= 208 cf

Plug-Flow detention time= 14.7 min calculated for 7,354 cf (100% of inflow)

Center-of-Mass det. time= 14.7 min (775.6 - 760.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	73.00'	208 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
73.00	64	46.9	0	0	64
74.00	401	150.3	208	208	1,690

Device	Routing	Invert	Outlet Devices
#1	Primary	74.00'	48.0" x 8.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#2	Secondary	73.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

Primary OutFlow Max=2.18 cfs @ 12.04 hrs HW=74.11' (Free Discharge)

↑1=Orifice/Grate (Weir Controls 2.18 cfs @ 1.08 fps)

Secondary OutFlow Max=0.09 cfs @ 12.04 hrs HW=74.11' (Free Discharge)

↑2=Exfiltration (Controls 0.09 cfs)

Summary for Pond BIO#12B: BIORETENTION #12 - GRAVELS

Inflow Area = 63,852 sf, 96.08% Impervious, Inflow Depth = 6.16" for 25-YEAR event
 Inflow = 9.18 cfs @ 12.02 hrs, Volume= 32,784 cf
 Outflow = 9.12 cfs @ 12.03 hrs, Volume= 32,784 cf, Atten= 1%, Lag= 0.6 min
 Primary = 9.12 cfs @ 12.03 hrs, Volume= 32,784 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.75' @ 12.03 hrs Surf.Area= 857 sf Storage= 942 cf

Plug-Flow detention time= 10.4 min calculated for 32,761 cf (100% of inflow)

Center-of-Mass det. time= 10.5 min (774.0 - 763.5)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 159

Volume	Invert	Avail.Storage	Storage Description
#1	70.00'	1,028 cf	GRAVELS (Irregular) Listed below (Recalc) 2,571 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
70.00	857	245.4	0	0	857
73.00	857	245.4	2,571	2,571	1,593

Device	Routing	Invert	Outlet Devices
#1	Primary	70.00'	4.0" Vert. Orifice/Grate C= 0.600
#2	Primary	72.00'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=8.73 cfs @ 12.03 hrs HW=72.72' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.67 cfs @ 7.70 fps)

2=Sharp-Crested Vee/Trap Weir (Weir Controls 8.06 cfs @ 2.79 fps)

Summary for Pond BIO#13A: BIORETENTION #13 - SWALE

Inflow Area = 63,852 sf, 96.08% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 9.19 cfs @ 12.01 hrs, Volume= 28,971 cf
 Outflow = 9.09 cfs @ 12.02 hrs, Volume= 28,971 cf, Atten= 1%, Lag= 0.4 min
 Primary = 8.93 cfs @ 12.02 hrs, Volume= 20,976 cf
 Secondary = 0.17 cfs @ 12.02 hrs, Volume= 7,995 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.78' @ 12.02 hrs Surf.Area= 715 sf Storage= 304 cf

Plug-Flow detention time= 5.9 min calculated for 28,951 cf (100% of inflow)

Center-of-Mass det. time= 5.9 min (754.2 - 748.3)

Volume	Invert	Avail.Storage	Storage Description
#1	74.00'	489 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
74.00	141	80.0	0	0	141
75.00	959	233.0	489	489	3,955

Device	Routing	Invert	Outlet Devices
#1	Primary	74.50'	48.0" x 8.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#2	Secondary	74.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 160

Primary OutFlow Max=8.52 cfs @ 12.02 hrs HW=74.77' (Free Discharge)

└─1=Orifice/Grate (Weir Controls 8.52 cfs @ 1.70 fps)

Secondary OutFlow Max=0.16 cfs @ 12.02 hrs HW=74.77' (Free Discharge)

└─2=Exfiltration (Controls 0.16 cfs)

Summary for Pond BIO#13B: BIORETENTION #13 - GRAVELS

Inflow = 0.17 cfs @ 12.02 hrs, Volume= 7,995 cf
 Outflow = 0.16 cfs @ 12.06 hrs, Volume= 7,995 cf, Atten= 3%, Lag= 2.2 min
 Primary = 0.16 cfs @ 12.06 hrs, Volume= 7,995 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.69' @ 12.06 hrs Surf.Area= 574 sf Storage= 45 cf

Plug-Flow detention time= 5.8 min calculated for 7,990 cf (100% of inflow)

Center-of-Mass det. time= 5.9 min (826.2 - 820.3)

Volume	Invert	Avail.Storage	Storage Description
#1	71.50'	574 cf	GRAVELS (Irregular) Listed below (Recalc) 1,435 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
71.50	574	189.3	0	0	574
74.00	574	189.3	1,435	1,435	1,047

Device	Routing	Invert	Outlet Devices
#1	Primary	71.50'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.16 cfs @ 12.06 hrs HW=71.69' (Free Discharge)

└─1=Orifice/Grate (Orifice Controls 0.16 cfs @ 1.50 fps)

Summary for Pond BIO#24A: BIO #24 - SWALE

Inflow Area = 34,046 sf, 93.22% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 4.62 cfs @ 12.06 hrs, Volume= 15,117 cf
 Outflow = 4.63 cfs @ 12.06 hrs, Volume= 15,117 cf, Atten= 0%, Lag= 0.0 min
 Primary = 4.52 cfs @ 12.06 hrs, Volume= 9,222 cf
 Secondary = 0.11 cfs @ 12.06 hrs, Volume= 5,896 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 68.18' @ 12.06 hrs Surf.Area= 458 sf Storage= 139 cf

Plug-Flow detention time= 6.8 min calculated for 15,107 cf (100% of inflow)

Center-of-Mass det. time= 6.8 min (763.9 - 757.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 161

Volume	Invert	Avail.Storage	Storage Description		
#1	67.50'	139 cf	SWALE (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
67.50	130	74.8	0	0	130
68.00	458	179.5	139	139	2,250
Device	Routing	Invert	Outlet Devices		
#1	Primary	68.00'	48.0" x 8.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads		
#2	Secondary	67.50'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'		

Primary OutFlow Max=4.42 cfs @ 12.06 hrs HW=68.17' (Free Discharge)↑**1=Orifice/Grate** (Weir Controls 4.42 cfs @ 1.36 fps)**Secondary OutFlow** Max=0.11 cfs @ 12.06 hrs HW=68.17' (Free Discharge)↑**2=Exfiltration** (Controls 0.11 cfs)**Summary for Pond BIO#24B: BIO #24 - GRAVELS**

Inflow Area = 45,267 sf, 87.02% Impervious, Inflow Depth = 6.78" for 25-YEAR event
 Inflow = 6.39 cfs @ 12.03 hrs, Volume= 25,560 cf
 Outflow = 5.33 cfs @ 12.07 hrs, Volume= 25,560 cf, Atten= 17%, Lag= 2.7 min
 Primary = 5.33 cfs @ 12.07 hrs, Volume= 25,560 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 64.48' @ 12.07 hrs Surf.Area= 970 sf Storage= 961 cf

Plug-Flow detention time= 5.1 min calculated for 25,560 cf (100% of inflow)
 Center-of-Mass det. time= 5.1 min (788.0 - 782.9)

Volume	Invert	Avail.Storage	Storage Description			
#1	62.00'	2,134 cf	SWALE (Irregular) Listed below (Recalc) 5,335 cf Overall x 40.0% Voids			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
62.00	970	266.3	0	0	970	
67.50	970	266.3	5,335	5,335	2,435	
Device	Routing	Invert	Outlet Devices			
#1	Primary	62.00'	12.0" Vert. Orifice/Grate C= 0.600			

Primary OutFlow Max=5.20 cfs @ 12.07 hrs HW=64.39' (Free Discharge)↑**1=Orifice/Grate** (Orifice Controls 5.20 cfs @ 6.63 fps)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 162

Summary for Pond BIO#28: BIORETENTION #28

Inflow Area = 28,968 sf, 88.24% Impervious, Inflow Depth = 5.27" for 25-YEAR event
 Inflow = 4.00 cfs @ 12.04 hrs, Volume= 12,717 cf
 Outflow = 0.78 cfs @ 12.44 hrs, Volume= 12,528 cf, Atten= 81%, Lag= 24.3 min
 Primary = 0.78 cfs @ 12.44 hrs, Volume= 12,528 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 63.42' @ 12.44 hrs Surf.Area= 3,679 sf Storage= 4,025 cf

Plug-Flow detention time= 63.0 min calculated for 12,528 cf (99% of inflow)
 Center-of-Mass det. time= 52.8 min (811.0 - 758.2)

Volume	Invert	Avail.Storage	Storage Description
#1	59.50'	1,428 cf	GRAVELS (Irregular) Listed below (Recalc) 3,570 cf Overall x 40.0% Voids
#2	62.00'	4,009 cf	SWALE (Irregular) Listed below (Recalc)
		5,437 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
59.50	1,428	180.6	0	0	1,428
62.00	1,428	180.6	3,570	3,570	1,880

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.00	1,428	180.6	0	0	1,428
63.00	1,998	199.4	1,705	1,705	2,027
64.00	2,625	218.3	2,304	4,009	2,689

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	12.0" Round Culvert L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 59.83' / 58.00' S= 0.0915 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	59.83'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 2	59.50'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'
#4	Device 1	63.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=0.78 cfs @ 12.44 hrs HW=63.42' (Free Discharge)

- 1=Culvert (Passes 0.78 cfs of 6.65 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.78 cfs @ 8.91 fps)
 3=Exfiltration (Passes 0.78 cfs of 0.88 cfs potential flow)
 4=Orifice/Grate (Controls 0.00 cfs)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 163

Summary for Pond BIO#6A: BIORETENTION #6 - SWALE

Inflow Area = 29,407 sf, 85.16% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 4.08 cfs @ 12.04 hrs, Volume= 12,775 cf
 Outflow = 4.07 cfs @ 12.05 hrs, Volume= 12,775 cf, Atten= 0%, Lag= 0.6 min
 Primary = 3.91 cfs @ 12.05 hrs, Volume= 7,324 cf
 Secondary = 0.16 cfs @ 12.05 hrs, Volume= 5,450 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 76.78' @ 12.05 hrs Surf.Area= 669 sf Storage= 300 cf

Plug-Flow detention time= 7.8 min calculated for 12,766 cf (100% of inflow)
 Center-of-Mass det. time= 7.8 min (768.7 - 760.9)

Volume	Invert	Avail.Storage	Storage Description			
#1	76.00'	468 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
76.00	157	84.1	0	0	157	
77.00	875	231.2	468	468	3,851	

Device	Routing	Invert	Outlet Devices			
#1	Primary	76.50'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads			
#2	Secondary	76.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'			

Primary OutFlow Max=3.85 cfs @ 12.05 hrs HW=76.78' (Free Discharge)
 ↑ **1=Orifice/Grate** (Weir Controls 3.85 cfs @ 1.73 fps)

Secondary OutFlow Max=0.16 cfs @ 12.05 hrs HW=76.78' (Free Discharge)
 ↑ **2=Exfiltration** (Controls 0.16 cfs)

Summary for Pond BIO#6B: BIORETENTION #6 - GRAVELS

Inflow Area = 26,584 sf, 88.43% Impervious, Inflow Depth = 7.79" for 25-YEAR event
 Inflow = 3.77 cfs @ 12.06 hrs, Volume= 17,254 cf
 Outflow = 3.89 cfs @ 12.11 hrs, Volume= 17,254 cf, Atten= 0%, Lag= 3.1 min
 Primary = 3.89 cfs @ 12.11 hrs, Volume= 17,254 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.39' @ 12.11 hrs Surf.Area= 601 sf Storage= 2,486 cf

Plug-Flow detention time= 27.0 min calculated for 17,242 cf (100% of inflow)
 Center-of-Mass det. time= 27.1 min (815.5 - 788.4)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 164

Volume	Invert	Avail.Storage	Storage Description
#1	70.25'	3,456 cf	GRAVELS (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
70.25	601	190.4	0	0	601
76.00	601	190.4	3,456	3,456	1,696

Device	Routing	Invert	Outlet Devices
#1	Primary	70.25'	4.0" Vert. Orifice/Grate C= 0.600
#2	Primary	74.00'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=3.53 cfs @ 12.11 hrs HW=74.35' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.83 cfs @ 9.55 fps)


2=Sharp-Crested Vee/Trap Weir (Weir Controls 2.70 cfs @ 1.93 fps)
Summary for Pond BIO#7A: BIORETENTION #7 - SWALE

Inflow Area = 26,584 sf, 88.43% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 3.68 cfs @ 12.05 hrs, Volume= 11,804 cf
 Outflow = 3.62 cfs @ 12.06 hrs, Volume= 11,804 cf, Atten= 1%, Lag= 0.5 min
 Primary = 3.49 cfs @ 12.06 hrs, Volume= 6,686 cf
 Secondary = 0.14 cfs @ 12.06 hrs, Volume= 5,118 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 76.76' @ 12.06 hrs Surf.Area= 596 sf Storage= 270 cf

Plug-Flow detention time= 7.9 min calculated for 11,796 cf (100% of inflow)

Center-of-Mass det. time= 7.9 min (764.4 - 756.5)

Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	433 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
76.00	157	84.1	0	0	157
77.00	789	235.6	433	433	4,015

Device	Routing	Invert	Outlet Devices
#1	Primary	76.50'	48.0" W x 8.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#2	Secondary	76.00'	10.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.00'

Primary OutFlow Max=3.39 cfs @ 12.06 hrs HW=76.76' (Free Discharge)

1=Orifice/Grate (Orifice Controls 3.39 cfs @ 1.63 fps)
Secondary OutFlow Max=0.14 cfs @ 12.06 hrs HW=76.76' (Free Discharge)

2=Exfiltration (Controls 0.14 cfs)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 165

Summary for Pond BIO#7B: BIORETENTION #7 - GRAVELS

Inflow = 0.14 cfs @ 12.06 hrs, Volume= 5,118 cf
 Outflow = 0.13 cfs @ 12.13 hrs, Volume= 5,118 cf, Atten= 7%, Lag= 4.5 min
 Primary = 0.13 cfs @ 12.13 hrs, Volume= 5,118 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.67' @ 12.13 hrs Surf.Area= 606 sf Storage= 105 cf

Plug-Flow detention time= 19.0 min calculated for 5,118 cf (100% of inflow)

Center-of-Mass det. time= 18.4 min (830.3 - 811.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	72.50'	2,121 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
72.50	606	190.5	0	0	606
76.00	606	190.5	2,121	2,121	1,273
Device	Routing	Invert	Outlet Devices		
#1	Primary	72.50'	12.0" Vert. Orifice/Grate C= 0.600		

Primary OutFlow Max=0.13 cfs @ 12.13 hrs HW=72.67' (Free Discharge)**1=Orifice/Grate** (Orifice Controls 0.13 cfs @ 1.41 fps)**Summary for Pond BIO#9B: BIORETENTION #9 - GRAVELS**

Inflow Area = 57,274 sf, 93.46% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 8.09 cfs @ 12.04 hrs, Volume= 25,987 cf
 Outflow = 8.10 cfs @ 12.05 hrs, Volume= 25,987 cf, Atten= 0%, Lag= 0.2 min
 Primary = 8.10 cfs @ 12.05 hrs, Volume= 25,987 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.82' @ 12.05 hrs Surf.Area= 475 sf Storage= 260 cf

Plug-Flow detention time= 3.8 min calculated for 25,969 cf (100% of inflow)

Center-of-Mass det. time= 3.8 min (761.2 - 757.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	70.45'	864 cf	GRAVELS (Irregular) Listed below (Recalc) 2,161 cf Overall x 40.0% Voids		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
70.45	475	165.3	0	0	475
75.00	475	165.3	2,161	2,161	1,227

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 166

Device	Routing	Invert	Outlet Devices
#1	Primary	70.45'	4.0" Vert. Orifice/Grate C= 0.600
#2	Primary	71.12'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=7.96 cfs @ 12.05 hrs HW=71.81' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.46 cfs @ 5.26 fps)

2=Sharp-Crested Vee/Trap Weir (Weir Controls 7.50 cfs @ 2.72 fps)

Summary for Pond CB 101: CB 101

Inflow Area = 28,735 sf, 72.53% Impervious, Inflow Depth = 4.97" for 25-YEAR event
 Inflow = 3.73 cfs @ 12.05 hrs, Volume= 11,906 cf
 Outflow = 3.74 cfs @ 12.05 hrs, Volume= 11,906 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.74 cfs @ 12.05 hrs, Volume= 11,906 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 79.09' @ 12.05 hrs Surf.Area= 13 sf Storage= 13 cf

Plug-Flow detention time= 0.2 min calculated for 11,898 cf (100% of inflow)
 Center-of-Mass det. time= 0.2 min (766.0 - 765.8)

Volume	Invert	Avail.Storage	Storage Description
#1	78.10'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	78.10'	18.0" Round P-201 L= 31.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 78.10' / 77.79' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.69 cfs @ 12.05 hrs HW=79.09' (Free Discharge)

1=P-201 (Barrel Controls 3.69 cfs @ 4.25 fps)

Summary for Pond CB 102: CB 102

Inflow Area = 94,010 sf, 86.19% Impervious, Inflow Depth > 5.28" for 25-YEAR event
 Inflow = 12.70 cfs @ 12.03 hrs, Volume= 41,344 cf
 Outflow = 12.71 cfs @ 12.03 hrs, Volume= 41,344 cf, Atten= 0%, Lag= 0.0 min
 Primary = 12.71 cfs @ 12.03 hrs, Volume= 41,344 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 76.95' @ 12.03 hrs Surf.Area= 13 sf Storage= 28 cf

Plug-Flow detention time= 0.1 min calculated for 41,315 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (755.6 - 755.5)

Volume	Invert	Avail.Storage	Storage Description
#1	74.75'	97 cf	4.00'D x 7.75'H Vertical Cone/Cylinder

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 167

Device	Routing	Invert	Outlet Devices
#1	Primary	74.75'	24.0" Round P-202 L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 74.75' / 74.60' S= 0.0050 ' S= 0.0050 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=12.21 cfs @ 12.03 hrs HW=76.88' (Free Discharge)↑**1=P-202** (Barrel Controls 12.21 cfs @ 4.53 fps)**Summary for Pond CB 103: CB 103**

Inflow Area = 82,423 sf, 84.98% Impervious, Inflow Depth > 5.25" for 25-YEAR event
 Inflow = 11.13 cfs @ 12.02 hrs, Volume= 36,087 cf
 Outflow = 11.12 cfs @ 12.02 hrs, Volume= 36,087 cf, Atten= 0%, Lag= 0.0 min
 Primary = 11.12 cfs @ 12.02 hrs, Volume= 36,087 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 76.89' @ 12.02 hrs Surf.Area= 13 sf Storage= 23 cf

Plug-Flow detention time= 0.1 min calculated for 36,087 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (756.5 - 756.3)

Volume	Invert	Avail.Storage	Storage Description
#1	75.05'	101 cf	4.00'D x 8.05'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	75.05'	24.0" Round P-203 L= 38.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.05' / 74.85' S= 0.0053 ' S= 0.0053 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=10.66 cfs @ 12.02 hrs HW=76.83' (Free Discharge)↑**1=P-203** (Barrel Controls 10.66 cfs @ 4.77 fps)**Summary for Pond CB 104: CB 104**

Inflow Area = 56,919 sf, 85.57% Impervious, Inflow Depth = 5.18" for 25-YEAR event
 Inflow = 7.74 cfs @ 12.03 hrs, Volume= 24,547 cf
 Outflow = 7.75 cfs @ 12.03 hrs, Volume= 24,547 cf, Atten= 0%, Lag= 0.0 min
 Primary = 7.75 cfs @ 12.03 hrs, Volume= 24,547 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.65' @ 12.03 hrs Surf.Area= 13 sf Storage= 18 cf

Plug-Flow detention time= 0.1 min calculated for 24,530 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (761.7 - 761.5)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 168

Volume	Invert	Avail.Storage	Storage Description
#1	73.20'	110 cf	4.00'D x 8.75'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.20'	24.0" Round P-204 L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.20' / 73.00' S= 0.0057 ' S= 0.0057 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.43 cfs @ 12.03 hrs HW=74.62' (Free Discharge)↑**1=P-204** (Barrel Controls 7.43 cfs @ 4.39 fps)**Summary for Pond CB 105: CB 105**

Inflow Area = 46,935 sf, 83.87% Impervious, Inflow Depth = 5.14" for 25-YEAR event
 Inflow = 6.35 cfs @ 12.03 hrs, Volume= 20,114 cf
 Outflow = 6.36 cfs @ 12.03 hrs, Volume= 20,114 cf, Atten= 0%, Lag= 0.0 min
 Primary = 6.36 cfs @ 12.03 hrs, Volume= 20,114 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.10' @ 12.03 hrs Surf.Area= 13 sf Storage= 19 cf

Plug-Flow detention time= 0.2 min calculated for 20,100 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (763.0 - 762.9)

Volume	Invert	Avail.Storage	Storage Description
#1	73.60'	99 cf	4.00'D x 7.85'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.60'	18.0" Round P-205 L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.60' / 73.30' S= 0.0053 ' S= 0.0053 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=6.11 cfs @ 12.03 hrs HW=75.06' (Free Discharge)↑**1=P-205** (Barrel Controls 6.11 cfs @ 4.42 fps)**Summary for Pond CB 106: CB 106**

Inflow Area = 20,090 sf, 83.94% Impervious, Inflow Depth = 5.14" for 25-YEAR event
 Inflow = 2.78 cfs @ 12.02 hrs, Volume= 8,603 cf
 Outflow = 2.78 cfs @ 12.02 hrs, Volume= 8,603 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.78 cfs @ 12.02 hrs, Volume= 8,603 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 76.18' @ 12.02 hrs Surf.Area= 13 sf Storage= 10 cf

Plug-Flow detention time= 0.2 min calculated for 8,597 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (763.4 - 763.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 169

Volume	Invert	Avail.Storage	Storage Description
#1	75.40'	31 cf	4.00'D x 2.45'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	75.40'	18.0" Round P-206 L= 60.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.40' / 74.80' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.65 cfs @ 12.02 hrs HW=76.16' (Free Discharge)↑ **1=P-206** (Inlet Controls 2.65 cfs @ 2.96 fps)**Summary for Pond CB 107: CB 107**

Inflow Area = 13,198 sf, 80.19% Impervious, Inflow Depth = 5.04" for 25-YEAR event
Inflow = 1.82 cfs @ 12.02 hrs, Volume= 5,543 cf
Outflow = 1.82 cfs @ 12.02 hrs, Volume= 5,543 cf, Atten= 0%, Lag= 0.1 min
Primary = 1.82 cfs @ 12.02 hrs, Volume= 5,543 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 76.51' @ 12.02 hrs Surf.Area= 13 sf Storage= 11 cf

Plug-Flow detention time= 0.4 min calculated for 5,543 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (767.8 - 767.4)

Volume	Invert	Avail.Storage	Storage Description
#1	75.65'	39 cf	4.00'D x 3.10'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	75.65'	12.0" Round P-207 L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.65' / 75.50' S= 0.0065 ' S= 0.0065 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.73 cfs @ 12.02 hrs HW=76.48' (Free Discharge)↑ **1=P-207** (Barrel Controls 1.73 cfs @ 3.37 fps)**Summary for Pond CB 108: CB 108**

Inflow Area = 3,430 sf, 52.97% Impervious, Inflow Depth = 4.33" for 25-YEAR event
Inflow = 0.42 cfs @ 12.04 hrs, Volume= 1,237 cf
Outflow = 0.42 cfs @ 12.05 hrs, Volume= 1,237 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.42 cfs @ 12.05 hrs, Volume= 1,237 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 76.42' @ 12.05 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 0.5 min calculated for 1,236 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (793.3 - 792.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 170

Volume	Invert	Avail.Storage	Storage Description
#1	76.10'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	76.10'	12.0" Round P-208 L= 44.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 76.10' / 74.80' S= 0.0295 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.42 cfs @ 12.05 hrs HW=76.42' (Free Discharge)

↑1=P-208 (Inlet Controls 0.42 cfs @ 1.93 fps)

Summary for Pond CB 109: CB 109

Inflow Area = 10,574 sf, 91.09% Impervious, Inflow Depth = 5.40" for 25-YEAR event
 Inflow = 1.47 cfs @ 12.04 hrs, Volume= 4,757 cf
 Outflow = 1.47 cfs @ 12.04 hrs, Volume= 4,757 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.47 cfs @ 12.04 hrs, Volume= 4,757 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.21' @ 12.04 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.4 min calculated for 4,757 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (752.5 - 752.1)

Volume	Invert	Avail.Storage	Storage Description
#1	74.50'	46 cf	4.00'D x 3.70'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.50'	12.0" Round P-209 L= 151.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.50' / 73.70' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.42 cfs @ 12.04 hrs HW=75.20' (Free Discharge)

↑1=P-209 (Barrel Controls 1.42 cfs @ 3.41 fps)

Summary for Pond CB 110: CB 110

Inflow Area = 4,653 sf, 92.69% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 0.65 cfs @ 12.05 hrs, Volume= 2,111 cf
 Outflow = 0.65 cfs @ 12.05 hrs, Volume= 2,111 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.65 cfs @ 12.05 hrs, Volume= 2,111 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.41' @ 12.05 hrs Surf.Area= 13 sf Storage= 6 cf

Plug-Flow detention time= 0.6 min calculated for 2,110 cf (100% of inflow)

Center-of-Mass det. time= 0.6 min (750.5 - 749.9)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 171

Volume	Invert	Avail.Storage	Storage Description
#1	74.95'	40 cf	4.00'D x 3.15'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.95'	12.0" Round P-210 L= 69.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.95' / 74.60' S= 0.0051 ' S= 0.0051 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 12.05 hrs HW=75.41' (Free Discharge)↑ **1=P-210** (Barrel Controls 0.65 cfs @ 2.69 fps)**Summary for Pond CB 111: CB 111**

Inflow Area = 1,730 sf, 95.32% Impervious, Inflow Depth = 5.44" for 25-YEAR event
Inflow = 0.25 cfs @ 12.01 hrs, Volume= 785 cf
Outflow = 0.25 cfs @ 12.01 hrs, Volume= 785 cf, Atten= 0%, Lag= 0.2 min
Primary = 0.25 cfs @ 12.01 hrs, Volume= 785 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.28' @ 12.02 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 1.0 min calculated for 784 cf (100% of inflow)

Center-of-Mass det. time= 1.0 min (749.1 - 748.2)

Volume	Invert	Avail.Storage	Storage Description
#1	75.00'	40 cf	4.00'D x 3.15'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	75.00'	12.0" Round P-211 L= 82.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.00' / 74.60' S= 0.0049 ' S= 0.0049 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.24 cfs @ 12.01 hrs HW=75.27' (Free Discharge)↑ **1=P-211** (Barrel Controls 0.24 cfs @ 2.06 fps)**Summary for Pond CB 112: CB 112**

Inflow Area = 74,076 sf, 86.28% Impervious, Inflow Depth = 5.19" for 25-YEAR event
Inflow = 9.67 cfs @ 12.05 hrs, Volume= 32,059 cf
Outflow = 9.67 cfs @ 12.05 hrs, Volume= 32,059 cf, Atten= 0%, Lag= 0.0 min
Primary = 9.67 cfs @ 12.05 hrs, Volume= 32,059 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.59' @ 12.05 hrs Surf.Area= 13 sf Storage= 21 cf

Plug-Flow detention time= 0.1 min calculated for 32,037 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (770.8 - 770.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 172

Volume	Invert	Avail.Storage	Storage Description
#1	69.95'	131 cf	4.00'D x 10.45'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	69.95'	24.0" Round P-212 L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.95' / 69.60' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.60 cfs @ 12.05 hrs HW=71.58' (Free Discharge)↑**1=P-212** (Barrel Controls 9.60 cfs @ 4.77 fps)**Summary for Pond CB 113: CB 113**

Inflow Area = 71,865 sf, 86.01% Impervious, Inflow Depth > 5.19" for 25-YEAR event
 Inflow = 9.39 cfs @ 12.05 hrs, Volume= 31,056 cf
 Outflow = 9.39 cfs @ 12.05 hrs, Volume= 31,056 cf, Atten= 0%, Lag= 0.0 min
 Primary = 9.39 cfs @ 12.05 hrs, Volume= 31,056 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.83' @ 12.05 hrs Surf.Area= 13 sf Storage= 21 cf

Plug-Flow detention time= 0.1 min calculated for 31,034 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (771.4 - 771.3)

Volume	Invert	Avail.Storage	Storage Description
#1	70.15'	115 cf	4.00'D x 9.15'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.15'	24.0" Round P-213 L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.15' / 70.05' S= 0.0063 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.30 cfs @ 12.05 hrs HW=71.82' (Free Discharge)↑**1=P-213** (Barrel Controls 9.30 cfs @ 4.50 fps)**Summary for Pond CB 114: CB 114**

Inflow Area = 58,273 sf, 87.45% Impervious, Inflow Depth = 5.23" for 25-YEAR event
 Inflow = 7.67 cfs @ 12.06 hrs, Volume= 25,383 cf
 Outflow = 7.67 cfs @ 12.06 hrs, Volume= 25,383 cf, Atten= 0%, Lag= 0.0 min
 Primary = 7.67 cfs @ 12.06 hrs, Volume= 25,383 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.17' @ 12.06 hrs Surf.Area= 13 sf Storage= 16 cf

Plug-Flow detention time= 0.1 min calculated for 25,366 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (772.6 - 772.4)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 173

Volume	Invert	Avail.Storage	Storage Description
#1	70.90'	103 cf	4.00'D x 8.20'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.90'	24.0" Round P-214 L= 72.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.90' / 70.25' S= 0.0090 ' S= 0.0090 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.50 cfs @ 12.06 hrs HW=72.15' (Free Discharge)

1=P-214 (Barrel Controls 7.50 cfs @ 5.18 fps)

Summary for Pond CB 115: CB 115

Inflow Area = 56,010 sf, 87.30% Impervious, Inflow Depth = 5.22" for 25-YEAR event
Inflow = 7.38 cfs @ 12.06 hrs, Volume= 24,379 cf
Outflow = 7.38 cfs @ 12.06 hrs, Volume= 24,379 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.38 cfs @ 12.06 hrs, Volume= 24,379 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.77' @ 12.06 hrs Surf.Area= 13 sf Storage= 17 cf

Plug-Flow detention time= 0.1 min calculated for 24,361 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (773.2 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	71.40'	87 cf	4.00'D x 6.95'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	71.40'	24.0" Round P-215 L= 77.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.40' / 71.00' S= 0.0052 ' S= 0.0052 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.20 cfs @ 12.06 hrs HW=72.75' (Free Discharge)

1=P-215 (Barrel Controls 7.20 cfs @ 4.53 fps)

Summary for Pond CB 118: CB 118

Inflow Area = 11,145 sf, 83.65% Impervious, Inflow Depth = 5.21" for 25-YEAR event
Inflow = 1.44 cfs @ 12.07 hrs, Volume= 4,842 cf
Outflow = 1.44 cfs @ 12.07 hrs, Volume= 4,842 cf, Atten= 0%, Lag= 0.1 min
Primary = 1.44 cfs @ 12.07 hrs, Volume= 4,842 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.19' @ 12.07 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.3 min calculated for 4,838 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (763.7 - 763.3)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 174

Volume	Invert	Avail.Storage	Storage Description
#1	73.55'	43 cf	4.00'D x 3.45'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.55'	12.0" Round P-218 L= 107.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.55' / 72.60' S= 0.0089 ' S= 0.0089 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.39 cfs @ 12.07 hrs HW=74.17' (Free Discharge)↑**1=P-218** (Inlet Controls 1.39 cfs @ 2.69 fps)**Summary for Pond CB 119: CB 119**

Inflow Area = 84,241 sf, 88.76% Impervious, Inflow Depth = 5.27" for 25-YEAR event
 Inflow = 11.13 cfs @ 12.06 hrs, Volume= 36,971 cf
 Outflow = 11.13 cfs @ 12.06 hrs, Volume= 36,971 cf, Atten= 0%, Lag= 0.0 min
 Primary = 11.13 cfs @ 12.06 hrs, Volume= 36,971 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.39' @ 12.06 hrs Surf.Area= 13 sf Storage= 23 cf

Plug-Flow detention time= 0.1 min calculated for 36,971 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (768.9 - 768.8)

Volume	Invert	Avail.Storage	Storage Description
#1	70.55'	97 cf	4.00'D x 7.70'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.55'	24.0" Round P-219 L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.55' / 70.35' S= 0.0050 ' S= 0.0050 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=10.91 cfs @ 12.06 hrs HW=72.37' (Free Discharge)↑**1=P-219** (Barrel Controls 10.91 cfs @ 4.78 fps)**Summary for Pond CB 120: CB 120**

Inflow Area = 74,301 sf, 89.38% Impervious, Inflow Depth = 5.29" for 25-YEAR event
 Inflow = 9.82 cfs @ 12.06 hrs, Volume= 32,748 cf
 Outflow = 9.83 cfs @ 12.06 hrs, Volume= 32,748 cf, Atten= 0%, Lag= 0.0 min
 Primary = 9.83 cfs @ 12.06 hrs, Volume= 32,748 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.51' @ 12.06 hrs Surf.Area= 13 sf Storage= 22 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.1 min (769.2 - 769.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 175

Volume	Invert	Avail.Storage	Storage Description
#1	70.80'	94 cf	4.00'D x 7.45'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.80'	24.0" Round P-220 L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.80' / 70.65' S= 0.0054 ' S= 0.0054 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.56 cfs @ 12.06 hrs HW=72.48' (Free Discharge)↑**1=P-220** (Barrel Controls 9.56 cfs @ 4.58 fps)**Summary for Pond CB 125: CB 125**

Inflow Area = 260,482 sf, 99.54% Impervious, Inflow Depth > 5.55" for 25-YEAR event
 Inflow = 37.02 cfs @ 12.03 hrs, Volume= 120,505 cf
 Outflow = 37.09 cfs @ 12.03 hrs, Volume= 120,505 cf, Atten= 0%, Lag= 0.1 min
 Primary = 37.09 cfs @ 12.03 hrs, Volume= 120,505 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.31' @ 12.03 hrs Surf.Area= 13 sf Storage= 87 cf

Plug-Flow detention time= 0.1 min calculated for 120,420 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (742.3 - 742.2)

Volume	Invert	Avail.Storage	Storage Description
#1	64.40'	135 cf	4.00'D x 10.75'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	64.40'	24.0" Round P-225 L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.40' / 64.15' S= 0.0061 ' S= 0.0061 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=35.38 cfs @ 12.03 hrs HW=70.87' (Free Discharge)↑**1=P-225** (Inlet Controls 35.38 cfs @ 11.26 fps)**Summary for Pond CB 126: CB 126**

Inflow Area = 28,119 sf, 81.55% Impervious, Inflow Depth = 5.16" for 25-YEAR event
 Inflow = 3.78 cfs @ 12.05 hrs, Volume= 12,094 cf
 Outflow = 3.76 cfs @ 12.05 hrs, Volume= 12,094 cf, Atten= 0%, Lag= 0.1 min
 Primary = 3.76 cfs @ 12.05 hrs, Volume= 12,094 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.69' @ 12.05 hrs Surf.Area= 13 sf Storage= 19 cf

Plug-Flow detention time= 0.2 min calculated for 12,085 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (763.0 - 762.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 176

Volume	Invert	Avail.Storage	Storage Description
#1	72.20'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.20'	12.0" Round P-226 L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.20' / 72.00' S= 0.0200 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=3.74 cfs @ 12.05 hrs HW=73.68' (Free Discharge)↑**1=P-226** (Inlet Controls 3.74 cfs @ 4.76 fps)**Summary for Pond CB 127: CB 127**

Inflow Area = 14,861 sf, 68.45% Impervious, Inflow Depth = 4.92" for 25-YEAR event
 Inflow = 1.89 cfs @ 12.05 hrs, Volume= 6,093 cf
 Outflow = 1.89 cfs @ 12.05 hrs, Volume= 6,093 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.89 cfs @ 12.05 hrs, Volume= 6,093 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 70.09' @ 12.05 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.3 min calculated for 6,089 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (771.2 - 770.9)

Volume	Invert	Avail.Storage	Storage Description
#1	69.45'	65 cf	4.00'D x 5.20'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	69.45'	18.0" Round P-227 L= 38.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.45' / 69.05' S= 0.0105 '/ Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=1.87 cfs @ 12.05 hrs HW=70.09' (Free Discharge)↑**1=P-227** (Barrel Controls 1.87 cfs @ 3.86 fps)**Summary for Pond CB 129: CB 129**

Inflow Area = 12,366 sf, 67.32% Impervious, Inflow Depth = 4.91" for 25-YEAR event
 Inflow = 1.58 cfs @ 12.05 hrs, Volume= 5,057 cf
 Outflow = 1.58 cfs @ 12.05 hrs, Volume= 5,057 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.58 cfs @ 12.05 hrs, Volume= 5,057 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 71.14' @ 12.05 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.1 min calculated for 5,053 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (771.2 - 771.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 177

Volume	Invert	Avail.Storage	Storage Description
#1	70.45'	48 cf	4.00'D x 3.80'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.35'	12.0" Round P-229 L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.35' / 70.25' S= 0.0083 ' S= 0.0083 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.57 cfs @ 12.05 hrs HW=71.13' (Free Discharge)

↑ **1=P-229** (Barrel Controls 1.57 cfs @ 3.27 fps)

Summary for Pond CB 130: CB 130

Inflow Area = 5,821 sf, 44.94% Impervious, Inflow Depth = 4.43" for 25-YEAR event
 Inflow = 0.69 cfs @ 12.07 hrs, Volume= 2,151 cf
 Outflow = 0.69 cfs @ 12.07 hrs, Volume= 2,151 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.69 cfs @ 12.07 hrs, Volume= 2,151 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.13' @ 12.07 hrs Surf.Area= 13 sf Storage= 6 cf

Plug-Flow detention time= 0.5 min calculated for 2,149 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (791.9 - 791.4)

Volume	Invert	Avail.Storage	Storage Description
#1	70.65'	46 cf	4.00'D x 3.65'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.65'	12.0" Round P-230 L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.65' / 70.45' S= 0.0057 ' S= 0.0057 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.07 hrs HW=71.12' (Free Discharge)

↑ **1=P-230** (Barrel Controls 0.66 cfs @ 2.69 fps)

Summary for Pond CB 131: CB 131

Inflow Area = 13,655 sf, 42.16% Impervious, Inflow Depth = 4.43" for 25-YEAR event
 Inflow = 1.56 cfs @ 12.08 hrs, Volume= 5,045 cf
 Outflow = 1.57 cfs @ 12.08 hrs, Volume= 5,045 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.57 cfs @ 12.08 hrs, Volume= 5,045 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.02' @ 12.08 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.3 min calculated for 5,041 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (792.3 - 792.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 178

Volume	Invert	Avail.Storage	Storage Description
#1	70.35'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.35'	12.0" Round P-231 L= 43.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.35' / 69.45' S= 0.0209 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.52 cfs @ 12.08 hrs HW=71.01' (Free Discharge)↑**1=P-231** (Inlet Controls 1.52 cfs @ 2.76 fps)**Summary for Pond CB 133: CB 133**

Inflow Area = 3,782 sf, 78.79% Impervious, Inflow Depth = 5.10" for 25-YEAR event
 Inflow = 0.52 cfs @ 12.04 hrs, Volume= 1,607 cf
 Outflow = 0.52 cfs @ 12.04 hrs, Volume= 1,607 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.52 cfs @ 12.04 hrs, Volume= 1,607 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.67' @ 12.04 hrs Surf.Area= 13 sf Storage= 5 cf

Plug-Flow detention time= 0.6 min calculated for 1,607 cf (100% of inflow)

Center-of-Mass det. time= 0.6 min (766.6 - 766.0)

Volume	Invert	Avail.Storage	Storage Description
#1	75.30'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	75.30'	12.0" Round P-233 L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.30' / 74.85' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.50 cfs @ 12.04 hrs HW=75.67' (Free Discharge)↑**1=P-233** (Barrel Controls 0.50 cfs @ 2.86 fps)**Summary for Pond CB 136: CB 136**

Inflow Area = 11,512 sf, 86.74% Impervious, Inflow Depth = 5.28" for 25-YEAR event
 Inflow = 1.60 cfs @ 12.04 hrs, Volume= 5,063 cf
 Outflow = 1.61 cfs @ 12.04 hrs, Volume= 5,063 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.61 cfs @ 12.04 hrs, Volume= 5,063 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.53' @ 12.04 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.3 min calculated for 5,060 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (758.4 - 758.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 179

Volume	Invert	Avail.Storage	Storage Description
#1	72.80'	42 cf	4.00'D x 3.35'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.80'	12.0" Round P-236 L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.80' / 72.55' S= 0.0109 ' S= 0.0109 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.55 cfs @ 12.04 hrs HW=73.51' (Free Discharge)
 **1=P-236** (Barrel Controls 1.55 cfs @ 3.64 fps)
Summary for Pond CB 137: CB 137

Inflow Area = 6,491 sf, 89.29% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 0.91 cfs @ 12.03 hrs, Volume= 2,882 cf
 Outflow = 0.91 cfs @ 12.03 hrs, Volume= 2,882 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.91 cfs @ 12.03 hrs, Volume= 2,882 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.75' @ 12.03 hrs Surf.Area= 13 sf Storage= 6 cf

Plug-Flow detention time= 0.4 min calculated for 2,880 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (755.7 - 755.3)

Volume	Invert	Avail.Storage	Storage Description
#1	73.25'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.25'	12.0" Round P-237 L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.25' / 72.90' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.87 cfs @ 12.03 hrs HW=73.74' (Free Discharge)
 **1=P-237** (Barrel Controls 0.87 cfs @ 3.33 fps)
Summary for Pond CB 138: CB 138

Inflow Area = 101,178 sf, 93.32% Impervious, Inflow Depth = 5.39" for 25-YEAR event
 Inflow = 14.23 cfs @ 12.03 hrs, Volume= 45,450 cf
 Outflow = 14.24 cfs @ 12.03 hrs, Volume= 45,450 cf, Atten= 0%, Lag= 0.0 min
 Primary = 14.24 cfs @ 12.03 hrs, Volume= 45,450 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 70.73' @ 12.03 hrs Surf.Area= 13 sf Storage= 17 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (766.1 - 766.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 180

Volume	Invert	Avail.Storage	Storage Description
#1	69.40'	67 cf	4.00'D x 5.30'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	68.55'	24.0" Round P-238 L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.55' / 68.30' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=13.66 cfs @ 12.03 hrs HW=70.66' (Free Discharge)↑**1=P-238** (Barrel Controls 13.66 cfs @ 5.12 fps)**Summary for Pond CB 139: CB 139**

Inflow Area = 94,457 sf, 94.03% Impervious, Inflow Depth = 5.40" for 25-YEAR event
 Inflow = 13.29 cfs @ 12.03 hrs, Volume= 42,530 cf
 Outflow = 13.30 cfs @ 12.03 hrs, Volume= 42,530 cf, Atten= 0%, Lag= 0.0 min
 Primary = 13.30 cfs @ 12.03 hrs, Volume= 42,530 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 70.90' @ 12.03 hrs Surf.Area= 13 sf Storage= 15 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.0 min (766.4 - 766.4)

Volume	Invert	Avail.Storage	Storage Description
#1	69.70'	63 cf	4.00'D x 5.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	68.80'	24.0" Round P-239 L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.80' / 68.65' S= 0.0052 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=12.74 cfs @ 12.03 hrs HW=70.84' (Free Discharge)↑**1=P-239** (Barrel Controls 12.74 cfs @ 4.94 fps)**Summary for Pond CB 142: CB 142**

Inflow Area = 9,805 sf, 94.26% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 1.40 cfs @ 12.02 hrs, Volume= 4,449 cf
 Outflow = 1.40 cfs @ 12.02 hrs, Volume= 4,449 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.40 cfs @ 12.02 hrs, Volume= 4,449 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 67.58' @ 12.02 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.3 min calculated for 4,446 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (748.9 - 748.5)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 181

Volume	Invert	Avail.Storage	Storage Description
#1	66.95'	94 cf	4.00'D x 7.45'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	66.95'	12.0" Round P-242 L= 51.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.95' / 66.45' S= 0.0098 ' S= 0.0098 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.34 cfs @ 12.02 hrs HW=67.57' (Free Discharge)

1=P-242 (Barrel Controls 1.34 cfs @ 3.77 fps)

Summary for Pond CB 143: CB 143

Inflow Area = 2,759 sf, 93.19% Impervious, Inflow Depth = 5.44" for 25-YEAR event
Inflow = 0.40 cfs @ 12.01 hrs, Volume= 1,252 cf
Outflow = 0.40 cfs @ 12.01 hrs, Volume= 1,252 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.40 cfs @ 12.01 hrs, Volume= 1,252 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 68.11' @ 12.01 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 0.5 min calculated for 1,251 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (748.7 - 748.2)

Volume	Invert	Avail.Storage	Storage Description
#1	67.80'	84 cf	4.00'D x 6.65'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	67.80'	12.0" Round P-243 L= 78.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 67.80' / 67.05' S= 0.0096 ' S= 0.0096 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.38 cfs @ 12.01 hrs HW=68.10' (Free Discharge)

1=P-243 (Inlet Controls 0.38 cfs @ 1.88 fps)

Summary for Pond CB 144: CB 144

Inflow Area = 60,347 sf, 80.26% Impervious, Inflow Depth = 5.08" for 25-YEAR event
Inflow = 2.30 cfs @ 12.03 hrs, Volume= 25,550 cf
Outflow = 2.30 cfs @ 12.03 hrs, Volume= 25,550 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.30 cfs @ 12.03 hrs, Volume= 25,550 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 68.53' @ 12.03 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (832.2 - 832.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 182

Volume	Invert	Avail.Storage	Storage Description
#1	68.50'	75 cf	4.00'D x 5.95'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	67.50'	18.0" Round P-244B L= 139.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 67.50' / 66.10' S= 0.0101 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.46 cfs @ 12.03 hrs HW=68.53' (Free Discharge)↑**1=P-244B** (Inlet Controls 4.46 cfs @ 3.45 fps)**Summary for Pond CB 145: CB 145**

Inflow Area = 54,543 sf, 78.66% Impervious, Inflow Depth = 5.04" for 25-YEAR event
 Inflow = 1.95 cfs @ 12.37 hrs, Volume= 22,917 cf
 Outflow = 1.95 cfs @ 12.37 hrs, Volume= 22,917 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.95 cfs @ 12.37 hrs, Volume= 22,917 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 69.41' @ 12.37 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (841.8 - 841.8)

Volume	Invert	Avail.Storage	Storage Description
#1	69.40'	62 cf	4.00'D x 4.95'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	67.75'	18.0" Round P-245 L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 67.75' / 67.60' S= 0.0136 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=7.42 cfs @ 12.37 hrs HW=69.41' (Free Discharge)↑**1=P-245** (Barrel Controls 7.42 cfs @ 4.72 fps)**Summary for Pond CB 147: CB 147**

Inflow Area = 10,533 sf, 83.14% Impervious, Inflow Depth = 5.24" for 25-YEAR event
 Inflow = 1.47 cfs @ 12.02 hrs, Volume= 4,599 cf
 Outflow = 1.47 cfs @ 12.02 hrs, Volume= 4,599 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.47 cfs @ 12.02 hrs, Volume= 4,599 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.24' @ 12.02 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.4 min calculated for 4,595 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (759.4 - 759.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 183

Volume	Invert	Avail.Storage	Storage Description
#1	71.50'	48 cf	4.00'D x 3.85'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	71.50'	12.0" Round P-247 L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.50' / 71.30' S= 0.0061 ' S= 0.0061 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.40 cfs @ 12.02 hrs HW=72.22' (Free Discharge)↑**1=P-247** (Barrel Controls 1.40 cfs @ 3.24 fps)**Summary for Pond CB 148: CB 148**

Inflow Area = 23,625 sf, 95.90% Impervious, Inflow Depth = 5.44" for 25-YEAR event
Inflow = 3.33 cfs @ 12.04 hrs, Volume= 10,719 cf
Outflow = 3.33 cfs @ 12.04 hrs, Volume= 10,719 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.33 cfs @ 12.04 hrs, Volume= 10,719 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.23' @ 12.04 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 10,712 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (749.6 - 749.6)

Volume	Invert	Avail.Storage	Storage Description
#1	71.20'	51 cf	4.00'D x 4.05'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	69.15'	12.0" Round P-248 L= 14.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.15' / 67.15' S= 0.1429 ' S= 0.1429 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=4.75 cfs @ 12.04 hrs HW=71.23' (Free Discharge)↑**1=P-248** (Inlet Controls 4.75 cfs @ 6.05 fps)**Summary for Pond CB 149: CB 149**

Inflow Area = 9,728 sf, 57.71% Impervious, Inflow Depth = 4.43" for 25-YEAR event
Inflow = 1.05 cfs @ 12.11 hrs, Volume= 3,594 cf
Outflow = 1.05 cfs @ 12.11 hrs, Volume= 3,594 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.05 cfs @ 12.11 hrs, Volume= 3,594 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.71' @ 12.11 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 3,592 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (794.0 - 794.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 184

Volume	Invert	Avail.Storage	Storage Description
#1	71.70'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.70'	12.0" Round P-249 L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.70' / 69.25' S= 0.0204 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.70 cfs @ 12.11 hrs HW=71.71' (Free Discharge)

↑1=P-249 (Inlet Controls 2.70 cfs @ 3.44 fps)

Summary for Pond CB 150: CB 150

Inflow Area = 7,718 sf, 85.92% Impervious, Inflow Depth = 5.29" for 25-YEAR event
 Inflow = 1.08 cfs @ 12.02 hrs, Volume= 3,403 cf
 Outflow = 1.07 cfs @ 12.02 hrs, Volume= 3,403 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.07 cfs @ 12.02 hrs, Volume= 3,403 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.36' @ 12.02 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.4 min calculated for 3,400 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (757.0 - 756.6)

Volume	Invert	Avail.Storage	Storage Description
#1	71.75'	42 cf	4.00'D x 3.35'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	71.75'	12.0" Round P-250 L= 21.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.75' / 71.60' S= 0.0071 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.03 cfs @ 12.02 hrs HW=72.35' (Free Discharge)

↑1=P-250 (Barrel Controls 1.03 cfs @ 3.01 fps)

Summary for Pond CB 151: CB 151

Inflow Area = 4,008 sf, 84.41% Impervious, Inflow Depth = 5.26" for 25-YEAR event
 Inflow = 0.55 cfs @ 12.03 hrs, Volume= 1,755 cf
 Outflow = 0.55 cfs @ 12.03 hrs, Volume= 1,755 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.55 cfs @ 12.03 hrs, Volume= 1,755 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.87' @ 12.03 hrs Surf.Area= 13 sf Storage= 5 cf

Plug-Flow detention time= 0.6 min calculated for 1,754 cf (100% of inflow)

Center-of-Mass det. time= 0.6 min (758.6 - 758.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 185

Volume	Invert	Avail.Storage	Storage Description
#1	72.45'	40 cf	4.00'D x 3.15'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.45'	12.0" Round P-251 L= 120.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.45' / 71.85' S= 0.0050 ' S= 0.0050 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 12.03 hrs HW=72.86' (Free Discharge)↑**1=P-251** (Barrel Controls 0.53 cfs @ 2.60 fps)**Summary for Pond CB 152: CB 152**

Inflow Area = 1,814 sf, 94.71% Impervious, Inflow Depth = 5.44" for 25-YEAR event
Inflow = 0.26 cfs @ 12.01 hrs, Volume= 823 cf
Outflow = 0.26 cfs @ 12.01 hrs, Volume= 823 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.26 cfs @ 12.01 hrs, Volume= 823 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.15' @ 12.02 hrs Surf.Area= 13 sf Storage= 3 cf

Plug-Flow detention time= 0.8 min calculated for 822 cf (100% of inflow)

Center-of-Mass det. time= 0.8 min (748.9 - 748.2)

Volume	Invert	Avail.Storage	Storage Description
#1	72.90'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.90'	12.0" Round P-252 L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.90' / 72.55' S= 0.0109 ' S= 0.0109 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.25 cfs @ 12.01 hrs HW=73.14' (Free Discharge)↑**1=P-252** (Inlet Controls 0.25 cfs @ 1.68 fps)**Summary for Pond CB 154: CB 154**

Inflow Area = 31,114 sf, 95.08% Impervious, Inflow Depth = 5.44" for 25-YEAR event
Inflow = 4.38 cfs @ 12.04 hrs, Volume= 14,117 cf
Outflow = 4.39 cfs @ 12.04 hrs, Volume= 14,117 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.39 cfs @ 12.04 hrs, Volume= 14,117 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 68.18' @ 12.04 hrs Surf.Area= 13 sf Storage= 15 cf

Plug-Flow detention time= 0.1 min calculated for 14,107 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (749.6 - 749.4)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 186

Volume	Invert	Avail.Storage	Storage Description
#1	67.00'	52 cf	4.00'D x 4.15'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	66.95'	15.0" Round P-254 L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.95' / 66.65' S= 0.0107 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.24 cfs @ 12.04 hrs HW=68.15' (Free Discharge)↑**1=P-254** (Barrel Controls 4.24 cfs @ 4.47 fps)**Summary for Pond CB 155: CB 155**

Inflow Area = 34,681 sf, 94.72% Impervious, Inflow Depth = 5.43" for 25-YEAR event
 Inflow = 4.87 cfs @ 12.04 hrs, Volume= 15,701 cf
 Outflow = 4.87 cfs @ 12.04 hrs, Volume= 15,701 cf, Atten= 0%, Lag= 0.1 min
 Primary = 4.87 cfs @ 12.04 hrs, Volume= 15,701 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 67.93' @ 12.04 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (750.1 - 750.1)

Volume	Invert	Avail.Storage	Storage Description
#1	67.25'	49 cf	4.00'D x 3.90'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	66.55'	15.0" Round P-255 L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.55' / 66.10' S= 0.0066 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.70 cfs @ 12.04 hrs HW=67.89' (Free Discharge)↑**1=P-255** (Barrel Controls 4.70 cfs @ 4.46 fps)**Summary for Pond CB 156: CB 156**

Inflow Area = 79,599 sf, 87.85% Impervious, Inflow Depth = 5.28" for 25-YEAR event
 Inflow = 10.85 cfs @ 12.04 hrs, Volume= 35,054 cf
 Outflow = 10.85 cfs @ 12.04 hrs, Volume= 35,054 cf, Atten= 0%, Lag= 0.0 min
 Primary = 10.85 cfs @ 12.04 hrs, Volume= 35,054 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 67.72' @ 12.04 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (756.7 - 756.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 187

Volume	Invert	Avail.Storage	Storage Description
#1	67.70'	32 cf	4.00'D x 2.55'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	65.35'	24.0" Round P-256 L= 117.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 65.35' / 64.15' S= 0.0103 ' S= 0.0103 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=17.67 cfs @ 12.04 hrs HW=67.72' (Free Discharge)
 **1=P-256** (Inlet Controls 17.67 cfs @ 5.63 fps)
Summary for Pond CB 157: CB 157

Inflow Area = 37,568 sf, 80.44% Impervious, Inflow Depth = 5.12" for 25-YEAR event
 Inflow = 4.96 cfs @ 12.04 hrs, Volume= 16,018 cf
 Outflow = 4.96 cfs @ 12.04 hrs, Volume= 16,018 cf, Atten= 0%, Lag= 0.0 min
 Primary = 4.96 cfs @ 12.04 hrs, Volume= 16,018 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 67.97' @ 12.04 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (764.5 - 764.5)

Volume	Invert	Avail.Storage	Storage Description
#1	67.95'	35 cf	4.00'D x 2.75'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	66.15'	18.0" Round P-257 L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.15' / 65.85' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=8.58 cfs @ 12.04 hrs HW=67.97' (Free Discharge)
 **1=P-257** (Barrel Controls 8.58 cfs @ 5.09 fps)
Summary for Pond CB 158: CB 158

Inflow Area = 30,587 sf, 82.27% Impervious, Inflow Depth = 5.15" for 25-YEAR event
 Inflow = 4.06 cfs @ 12.04 hrs, Volume= 13,118 cf
 Outflow = 4.06 cfs @ 12.04 hrs, Volume= 13,118 cf, Atten= 0%, Lag= 0.0 min
 Primary = 4.06 cfs @ 12.04 hrs, Volume= 13,118 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 68.68' @ 12.04 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (762.8 - 762.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 188

Volume	Invert	Avail.Storage	Storage Description
#1	68.65'	44 cf	4.00'D x 3.50'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	67.55'	15.0" Round P-258 L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 67.55' / 66.40' S= 0.0103 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.24 cfs @ 12.04 hrs HW=68.68' (Free Discharge)↑**1=P-258** (Inlet Controls 4.24 cfs @ 3.62 fps)**Summary for Pond CB 159: CB 159**

Inflow Area = 23,634 sf, 86.24% Impervious, Inflow Depth = 5.23" for 25-YEAR event
 Inflow = 3.17 cfs @ 12.04 hrs, Volume= 10,294 cf
 Outflow = 3.17 cfs @ 12.04 hrs, Volume= 10,294 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.17 cfs @ 12.04 hrs, Volume= 10,294 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 69.43' @ 12.05 hrs Surf.Area= 13 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (759.1 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	69.35'	59 cf	4.00'D x 4.70'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	68.50'	15.0" Round P-259 L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.50' / 67.65' S= 0.0076 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.09 cfs @ 12.04 hrs HW=69.42' (Free Discharge)↑**1=P-259** (Barrel Controls 3.09 cfs @ 4.43 fps)**Summary for Pond CB 160: CB 160**

Inflow Area = 19,448 sf, 89.12% Impervious, Inflow Depth = 5.30" for 25-YEAR event
 Inflow = 2.64 cfs @ 12.03 hrs, Volume= 8,594 cf
 Outflow = 2.65 cfs @ 12.03 hrs, Volume= 8,594 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.65 cfs @ 12.03 hrs, Volume= 8,594 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 70.92' @ 12.03 hrs Surf.Area= 13 sf Storage= 6 cf

Plug-Flow detention time= 0.0 min calculated for 8,588 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (755.7 - 755.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 189

Volume	Invert	Avail.Storage	Storage Description
#1	70.45'	56 cf	4.00'D x 4.45'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.10'	15.0" Round P-260 L= 199.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.10' / 68.60' S= 0.0075 ' S= 0.0075 ' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.54 cfs @ 12.03 hrs HW=70.90' (Free Discharge)

1=P-260 (Inlet Controls 2.54 cfs @ 3.05 fps)

Summary for Pond CB 161: CB 161

Inflow Area = 7,970 sf, 81.54% Impervious, Inflow Depth = 5.10" for 25-YEAR event
Inflow = 1.08 cfs @ 12.05 hrs, Volume= 3,386 cf
Outflow = 1.09 cfs @ 12.05 hrs, Volume= 3,386 cf, Atten= 0%, Lag= 0.1 min
Primary = 1.09 cfs @ 12.05 hrs, Volume= 3,386 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.70' @ 12.05 hrs Surf.Area= 13 sf Storage= 5 cf

Plug-Flow detention time= 0.1 min calculated for 3,384 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (766.9 - 766.8)

Volume	Invert	Avail.Storage	Storage Description
#1	71.30'	52 cf	4.00'D x 4.10'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	71.10'	12.0" Round P-261 L= 145.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.10' / 70.35' S= 0.0052 ' S= 0.0052 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.08 cfs @ 12.05 hrs HW=71.70' (Free Discharge)

1=P-261 (Barrel Controls 1.08 cfs @ 3.17 fps)

Summary for Pond CB 165: CB 165

Inflow Area = 11,723 sf, 87.49% Impervious, Inflow Depth = 5.33" for 25-YEAR event
Inflow = 1.58 cfs @ 12.06 hrs, Volume= 5,205 cf
Outflow = 1.58 cfs @ 12.06 hrs, Volume= 5,199 cf, Atten= 0%, Lag= 0.1 min
Primary = 1.58 cfs @ 12.06 hrs, Volume= 5,199 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.36' @ 12.06 hrs Surf.Area= 13 sf Storage= 16 cf

Plug-Flow detention time= 2.0 min calculated for 5,195 cf (100% of inflow)

Center-of-Mass det. time= 1.2 min (758.4 - 757.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 190

Volume	Invert	Avail.Storage	Storage Description
#1	70.06'	87 cf	4.00'D x 6.90'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.60'	12.0" Round P-265 L= 72.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.60' / 70.20' S= 0.0056 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.53 cfs @ 12.06 hrs HW=71.34' (Free Discharge)

↑1=P-265 (Barrel Controls 1.53 cfs @ 3.40 fps)

Summary for Pond CB 166: CB 166

Inflow Area = 86,124 sf, 87.35% Impervious, Inflow Depth = 5.27" for 25-YEAR event
 Inflow = 11.99 cfs @ 12.02 hrs, Volume= 37,797 cf
 Outflow = 11.98 cfs @ 12.02 hrs, Volume= 37,798 cf, Atten= 0%, Lag= 0.0 min
 Primary = 11.98 cfs @ 12.02 hrs, Volume= 37,798 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.91' @ 12.02 hrs Surf.Area= 13 sf Storage= 11 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (756.8 - 756.8)

Volume	Invert	Avail.Storage	Storage Description
#1	72.00'	57 cf	4.00'D x 4.50'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.95'	24.0" Round P-266C L= 14.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.95' / 70.85' S= 0.0071 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=11.47 cfs @ 12.02 hrs HW=72.85' (Free Discharge)

↑1=P-266C (Barrel Controls 11.47 cfs @ 4.79 fps)

Summary for Pond CB 167: CB 167

Inflow Area = 80,543 sf, 88.56% Impervious, Inflow Depth = 5.29" for 25-YEAR event
 Inflow = 11.23 cfs @ 12.02 hrs, Volume= 35,479 cf
 Outflow = 11.22 cfs @ 12.02 hrs, Volume= 35,479 cf, Atten= 0%, Lag= 0.0 min
 Primary = 11.22 cfs @ 12.02 hrs, Volume= 35,479 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.12' @ 12.02 hrs Surf.Area= 13 sf Storage= 10 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (756.0 - 756.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 191

Volume	Invert	Avail.Storage	Storage Description
#1	72.35'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	71.30'	24.0" Round P-267 L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.30' / 71.05' S= 0.0056 ' /' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=10.74 cfs @ 12.02 hrs HW=73.07' (Free Discharge)↑**1=P-267** (Barrel Controls 10.74 cfs @ 4.85 fps)**Summary for Pond CB 168: CB 168**

Inflow Area = 65,323 sf, 91.73% Impervious, Inflow Depth = 5.34" for 25-YEAR event
 Inflow = 9.18 cfs @ 12.02 hrs, Volume= 29,052 cf
 Outflow = 9.15 cfs @ 12.02 hrs, Volume= 29,052 cf, Atten= 0%, Lag= 0.1 min
 Primary = 9.15 cfs @ 12.02 hrs, Volume= 29,052 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.30' @ 12.02 hrs Surf.Area= 13 sf Storage= 20 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (753.7 - 753.7)

Volume	Invert	Avail.Storage	Storage Description
#1	72.75'	56 cf	4.00'D x 4.45'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.10'	18.0" Round P-268 L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.10' / 71.80' S= 0.0053 ' /' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=8.75 cfs @ 12.02 hrs HW=74.21' (Free Discharge)↑**1=P-268** (Barrel Controls 8.75 cfs @ 4.95 fps)**Summary for Pond CB 169: CB 169**

Inflow Area = 48,225 sf, 90.34% Impervious, Inflow Depth = 5.30" for 25-YEAR event
 Inflow = 6.74 cfs @ 12.02 hrs, Volume= 21,294 cf
 Outflow = 6.73 cfs @ 12.02 hrs, Volume= 21,294 cf, Atten= 0%, Lag= 0.1 min
 Primary = 6.73 cfs @ 12.02 hrs, Volume= 21,294 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.36' @ 12.02 hrs Surf.Area= 13 sf Storage= 11 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (755.7 - 755.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 192

Volume	Invert	Avail.Storage	Storage Description
#1	73.50'	46 cf	4.00'D x 3.70'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.85'	18.0" Round P-269 L= 124.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.85' / 72.20' S= 0.0052 ' /' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=6.44 cfs @ 12.02 hrs HW=74.31' (Free Discharge)↑**1=P-269** (Barrel Controls 6.44 cfs @ 4.66 fps)**Summary for Pond CB 170: CB 170**

Inflow Area = 30,237 sf, 86.67% Impervious, Inflow Depth = 5.22" for 25-YEAR event
 Inflow = 4.18 cfs @ 12.02 hrs, Volume= 13,156 cf
 Outflow = 4.17 cfs @ 12.03 hrs, Volume= 13,156 cf, Atten= 0%, Lag= 0.1 min
 Primary = 4.17 cfs @ 12.03 hrs, Volume= 13,156 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.69' @ 12.03 hrs Surf.Area= 13 sf Storage= 6 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.0 min (759.5 - 759.5)

Volume	Invert	Avail.Storage	Storage Description
#1	74.25'	37 cf	4.00'D x 2.95'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.60'	18.0" Round P-270 L= 123.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.60' / 72.95' S= 0.0053 ' /' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.00 cfs @ 12.03 hrs HW=74.66' (Free Discharge)↑**1=P-270** (Barrel Controls 4.00 cfs @ 4.21 fps)**Summary for Pond CB 171: CB 171**

Inflow Area = 26,614 sf, 85.77% Impervious, Inflow Depth = 5.19" for 25-YEAR event
 Inflow = 3.66 cfs @ 12.03 hrs, Volume= 11,512 cf
 Outflow = 3.66 cfs @ 12.03 hrs, Volume= 11,512 cf, Atten= 0%, Lag= 0.1 min
 Primary = 3.66 cfs @ 12.03 hrs, Volume= 11,512 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.90' @ 12.03 hrs Surf.Area= 13 sf Storage= 6 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.0 min (761.1 - 761.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 193

Volume	Invert	Avail.Storage	Storage Description
#1	74.45'	41 cf	4.00'D x 3.30'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.80'	18.0" Round P-271 L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.80' / 73.70' S= 0.0050 ' S= 0.0050 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.51 cfs @ 12.03 hrs HW=74.87' (Free Discharge)

1=P-271 (Barrel Controls 3.51 cfs @ 3.64 fps)

Summary for Pond CB 172: CB 172

Inflow Area = 15,933 sf, 83.27% Impervious, Inflow Depth = 5.10" for 25-YEAR event
 Inflow = 2.19 cfs @ 12.03 hrs, Volume= 6,770 cf
 Outflow = 2.19 cfs @ 12.03 hrs, Volume= 6,770 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.19 cfs @ 12.03 hrs, Volume= 6,770 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.43' @ 12.03 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.0 min calculated for 6,765 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (765.7 - 765.6)

Volume	Invert	Avail.Storage	Storage Description
#1	74.70'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.45'	12.0" Round P-272 L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.45' / 74.30' S= 0.0063 ' S= 0.0063 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.10 cfs @ 12.03 hrs HW=75.40' (Free Discharge)

1=P-272 (Barrel Controls 2.10 cfs @ 3.52 fps)

Summary for Pond CB 173: CB 173

Inflow Area = 9,735 sf, 69.71% Impervious, Inflow Depth = 4.99" for 25-YEAR event
 Inflow = 1.33 cfs @ 12.02 hrs, Volume= 4,044 cf
 Outflow = 1.32 cfs @ 12.02 hrs, Volume= 4,044 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.32 cfs @ 12.02 hrs, Volume= 4,044 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.00' @ 12.02 hrs Surf.Area= 13 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (769.8 - 769.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 194

Volume	Invert	Avail.Storage	Storage Description
#1	72.90'	44 cf	4.00'D x 3.50'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.40'	12.0" Round P-273 L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.40' / 71.80' S= 0.0171 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.27 cfs @ 12.02 hrs HW=72.99' (Free Discharge)↑**1=P-273** (Inlet Controls 1.27 cfs @ 2.62 fps)**Summary for Pond CB 174: CB 174**

Inflow Area = 1,621 sf, 91.12% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 0.23 cfs @ 12.01 hrs, Volume= 720 cf
 Outflow = 0.23 cfs @ 12.01 hrs, Volume= 712 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.23 cfs @ 12.01 hrs, Volume= 712 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.89' @ 12.01 hrs Surf.Area= 13 sf Storage= 11 cf

Plug-Flow detention time= 14.4 min calculated for 711 cf (99% of inflow)
 Center-of-Mass det. time= 7.0 min (761.1 - 754.2)

Volume	Invert	Avail.Storage	Storage Description
#1	74.00'	58 cf	4.00'D x 4.65'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.65'	12.0" Round P-274 L= 76.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.65' / 73.20' S= 0.0191 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.22 cfs @ 12.01 hrs HW=74.88' (Free Discharge)↑**1=P-274** (Inlet Controls 0.22 cfs @ 1.64 fps)**Summary for Pond CB 175: CB 175**

Inflow Area = 45,015 sf, 76.65% Impervious, Inflow Depth = 5.02" for 25-YEAR event
 Inflow = 5.97 cfs @ 12.04 hrs, Volume= 18,846 cf
 Outflow = 5.97 cfs @ 12.04 hrs, Volume= 18,846 cf, Atten= 0%, Lag= 0.0 min
 Primary = 5.97 cfs @ 12.04 hrs, Volume= 18,846 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 69.60' @ 12.04 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.0 min (766.4 - 766.4)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 195

Volume	Invert	Avail.Storage	Storage Description
#1	68.95'	42 cf	4.00'D x 3.35'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	68.20'	18.0" Round P-275 L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.20' / 68.00' S= 0.0111 ' S= 0.0111 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=5.76 cfs @ 12.04 hrs HW=69.56' (Free Discharge)↑**1=P-275** (Barrel Controls 5.76 cfs @ 4.49 fps)**Summary for Pond CB 176: CB 176**

Inflow Area = 29,995 sf, 67.99% Impervious, Inflow Depth = 4.81" for 25-YEAR event
 Inflow = 3.86 cfs @ 12.04 hrs, Volume= 12,031 cf
 Outflow = 3.86 cfs @ 12.04 hrs, Volume= 12,031 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.86 cfs @ 12.04 hrs, Volume= 12,031 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 69.85' @ 12.04 hrs Surf.Area= 13 sf Storage= 7 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (776.2 - 776.2)

Volume	Invert	Avail.Storage	Storage Description
#1	69.30'	39 cf	4.00'D x 3.10'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	68.90'	18.0" Round P-276 L= 58.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.90' / 68.30' S= 0.0103 ' S= 0.0103 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.74 cfs @ 12.04 hrs HW=69.83' (Free Discharge)↑**1=P-276** (Barrel Controls 3.74 cfs @ 4.66 fps)**Summary for Pond CB 177: CB 177**

Inflow Area = 14,715 sf, 71.52% Impervious, Inflow Depth = 4.90" for 25-YEAR event
 Inflow = 1.91 cfs @ 12.03 hrs, Volume= 6,011 cf
 Outflow = 1.91 cfs @ 12.04 hrs, Volume= 6,011 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.91 cfs @ 12.04 hrs, Volume= 6,011 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.16' @ 12.05 hrs Surf.Area= 13 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (772.0 - 772.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 196

Volume	Invert	Avail.Storage	Storage Description
#1	71.10'	43 cf	4.00'D x 3.40'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.40'	12.0" Round P-277 L= 124.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.40' / 69.40' S= 0.0081 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.86 cfs @ 12.04 hrs HW=71.15' (Free Discharge)

↑1=P-277 (Inlet Controls 1.86 cfs @ 2.95 fps)

Summary for Pond CB 178: CB 178

Inflow Area = 9,359 sf, 74.23% Impervious, Inflow Depth = 4.92" for 25-YEAR event
 Inflow = 1.22 cfs @ 12.02 hrs, Volume= 3,836 cf
 Outflow = 1.22 cfs @ 12.02 hrs, Volume= 3,836 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.22 cfs @ 12.02 hrs, Volume= 3,836 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.48' @ 12.02 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 3,833 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (770.1 - 770.1)

Volume	Invert	Avail.Storage	Storage Description
#1	71.45'	38 cf	4.00'D x 3.05'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	70.75'	12.0" Round P-278 L= 46.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 70.75' / 70.50' S= 0.0054 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.41 cfs @ 12.02 hrs HW=71.48' (Free Discharge)

↑1=P-278 (Barrel Controls 1.41 cfs @ 3.24 fps)

Summary for Pond CB 179: CB 179

Inflow Area = 5,822 sf, 85.66% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 0.83 cfs @ 12.01 hrs, Volume= 2,529 cf
 Outflow = 0.83 cfs @ 12.01 hrs, Volume= 2,529 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.83 cfs @ 12.01 hrs, Volume= 2,529 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 72.12' @ 12.01 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 2,527 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (759.8 - 759.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 197

Volume	Invert	Avail.Storage	Storage Description
#1	72.10'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	71.40'	12.0" Round P-279 L= 107.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.40' / 70.85' S= 0.0051 ' S= 0.0051 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.44 cfs @ 12.01 hrs HW=72.12' (Free Discharge)**1=P-279** (Barrel Controls 1.44 cfs @ 3.34 fps)**Summary for Pond CB 180: CB 180**

Inflow Area = 10,571 sf, 67.65% Impervious, Inflow Depth = 4.76" for 25-YEAR event
Inflow = 1.38 cfs @ 12.05 hrs, Volume= 4,195 cf
Outflow = 1.38 cfs @ 12.05 hrs, Volume= 4,195 cf, Atten= 0%, Lag= 0.1 min
Primary = 1.38 cfs @ 12.05 hrs, Volume= 4,195 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 70.37' @ 12.05 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.4 min calculated for 4,192 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (780.0 - 779.6)

Volume	Invert	Avail.Storage	Storage Description
#1	69.65'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	69.65'	12.0" Round P-280 L= 48.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.65' / 69.40' S= 0.0052 ' S= 0.0052 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.37 cfs @ 12.05 hrs HW=70.37' (Free Discharge)**1=P-280** (Barrel Controls 1.37 cfs @ 3.19 fps)**Summary for Pond CB 181: CB 181**

Inflow Area = 5,052 sf, 72.62% Impervious, Inflow Depth = 4.99" for 25-YEAR event
Inflow = 0.67 cfs @ 12.06 hrs, Volume= 2,099 cf
Outflow = 0.67 cfs @ 12.06 hrs, Volume= 2,099 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.67 cfs @ 12.06 hrs, Volume= 2,099 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 67.11' @ 12.06 hrs Surf.Area= 13 sf Storage= 5 cf

Plug-Flow detention time= 0.5 min calculated for 2,097 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (772.4 - 771.9)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 198

Volume	Invert	Avail.Storage	Storage Description
#1	66.70'	58 cf	4.00'D x 4.60'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	66.70'	12.0" Round P-281 L= 56.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.70' / 66.10' S= 0.0107 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 12.06 hrs HW=67.11' (Free Discharge)

↑1=P-281 (Inlet Controls 0.65 cfs @ 2.17 fps)

Summary for Pond CB 182: CB 182

Inflow Area = 32,880 sf, 82.28% Impervious, Inflow Depth > 5.10" for 25-YEAR event
 Inflow = 4.43 cfs @ 12.04 hrs, Volume= 13,970 cf
 Outflow = 4.43 cfs @ 12.05 hrs, Volume= 13,970 cf, Atten= 0%, Lag= 0.0 min
 Primary = 4.43 cfs @ 12.05 hrs, Volume= 13,970 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 67.15' @ 12.05 hrs Surf.Area= 13 sf Storage= 13 cf

Plug-Flow detention time= 0.1 min calculated for 13,960 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (766.1 - 766.0)

Volume	Invert	Avail.Storage	Storage Description
#1	66.10'	58 cf	4.00'D x 4.65'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	18.0" Round P-282 L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.00' / 65.60' S= 0.0056 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.36 cfs @ 12.05 hrs HW=67.14' (Free Discharge)

↑1=P-282 (Barrel Controls 4.36 cfs @ 4.20 fps)

Summary for Pond CB 183: CB 183

Inflow Area = 13,539 sf, 84.35% Impervious, Inflow Depth > 5.14" for 25-YEAR event
 Inflow = 1.85 cfs @ 12.03 hrs, Volume= 5,800 cf
 Outflow = 1.85 cfs @ 12.03 hrs, Volume= 5,800 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.85 cfs @ 12.03 hrs, Volume= 5,800 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 67.55' @ 12.03 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.3 min calculated for 5,800 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (762.8 - 762.5)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 199

Volume	Invert	Avail.Storage	Storage Description
#1	66.80'	74 cf	4.00'D x 5.90'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	66.80'	12.0" Round P-283 L= 60.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.80' / 66.20' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.78 cfs @ 12.03 hrs HW=67.53' (Free Discharge)

1=P-283 (Inlet Controls 1.78 cfs @ 2.90 fps)

Summary for Pond CB 184: CB 184

Inflow Area = 3,276 sf, 88.98% Impervious, Inflow Depth > 5.27" for 25-YEAR event
 Inflow = 0.46 cfs @ 12.02 hrs, Volume= 1,440 cf
 Outflow = 0.45 cfs @ 12.02 hrs, Volume= 1,440 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.45 cfs @ 12.02 hrs, Volume= 1,440 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 68.78' @ 12.02 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 0.5 min calculated for 1,439 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (752.4 - 751.9)

Volume	Invert	Avail.Storage	Storage Description
#1	68.45'	92 cf	4.00'D x 7.30'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	68.45'	12.0" Round P-284 L= 154.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.45' / 66.90' S= 0.0101 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.43 cfs @ 12.02 hrs HW=68.78' (Free Discharge)

1=P-284 (Inlet Controls 0.43 cfs @ 1.94 fps)

Summary for Pond CB 185: CB 185

Inflow Area = 2,440 sf, 100.00% Impervious, Inflow Depth > 5.56" for 25-YEAR event
 Inflow = 0.36 cfs @ 12.01 hrs, Volume= 1,131 cf
 Outflow = 0.36 cfs @ 12.01 hrs, Volume= 1,131 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.36 cfs @ 12.01 hrs, Volume= 1,131 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 69.18' @ 12.01 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 0.9 min calculated for 1,131 cf (100% of inflow)

Center-of-Mass det. time= 0.8 min (741.8 - 741.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 200

Volume	Invert	Avail.Storage	Storage Description
#1	68.85'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	68.85'	12.0" Round P-285 L= 56.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.85' / 68.55' S= 0.0054 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.01 hrs HW=69.18' (Free Discharge)↑**1=P-285** (Barrel Controls 0.34 cfs @ 2.30 fps)**Summary for Pond CB 186: CB 186**

Inflow Area = 12,004 sf, 84.61% Impervious, Inflow Depth > 5.25" for 25-YEAR event
 Inflow = 1.62 cfs @ 12.02 hrs, Volume= 5,256 cf
 Outflow = 1.61 cfs @ 12.02 hrs, Volume= 5,256 cf, Atten= 1%, Lag= 0.2 min
 Primary = 1.61 cfs @ 12.02 hrs, Volume= 5,256 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 73.86' @ 12.02 hrs Surf.Area= 13 sf Storage= 3 cf

Plug-Flow detention time= 0.0 min calculated for 5,253 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (755.9 - 755.9)

Volume	Invert	Avail.Storage	Storage Description
#1	73.65'	52 cf	4.00'D x 4.10'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.15'	12.0" Round P-286 L= 14.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.15' / 72.91' S= 0.0171 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.54 cfs @ 12.02 hrs HW=73.84' (Free Discharge)↑**1=P-286** (Barrel Controls 1.54 cfs @ 3.77 fps)**Summary for Pond CB 187: CB 187**

Inflow Area = 3,011 sf, 83.83% Impervious, Inflow Depth = 5.26" for 25-YEAR event
 Inflow = 0.43 cfs @ 12.01 hrs, Volume= 1,320 cf
 Outflow = 0.43 cfs @ 12.01 hrs, Volume= 1,320 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.43 cfs @ 12.01 hrs, Volume= 1,320 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.32' @ 12.01 hrs Surf.Area= 13 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 1,319 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (757.5 - 757.5)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 201

Volume	Invert	Avail.Storage	Storage Description
#1	74.30'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.80'	12.0" Round P-287 L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.80' / 73.25' S= 0.0102 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.00 cfs @ 12.01 hrs HW=74.32' (Free Discharge)↑**1=P-287** (Inlet Controls 1.00 cfs @ 2.44 fps)**Summary for Pond CB 188: CB 188**

Inflow Area = 3,760 sf, 83.16% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 0.54 cfs @ 12.01 hrs, Volume= 1,633 cf
 Outflow = 0.54 cfs @ 12.01 hrs, Volume= 1,633 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.54 cfs @ 12.01 hrs, Volume= 1,633 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.97' @ 12.01 hrs Surf.Area= 13 sf Storage= 5 cf

Plug-Flow detention time= 0.5 min calculated for 1,632 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (760.3 - 759.7)

Volume	Invert	Avail.Storage	Storage Description
#1	74.60'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.60'	12.0" Round P-288 L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.60' / 73.95' S= 0.0159 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.51 cfs @ 12.01 hrs HW=74.96' (Free Discharge)↑**1=P-288** (Inlet Controls 0.51 cfs @ 2.04 fps)**Summary for Pond CB 189: CB 189**

Inflow Area = 8,298 sf, 74.23% Impervious, Inflow Depth = 5.05" for 25-YEAR event
 Inflow = 1.15 cfs @ 12.02 hrs, Volume= 3,492 cf
 Outflow = 1.14 cfs @ 12.02 hrs, Volume= 3,492 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.14 cfs @ 12.02 hrs, Volume= 3,492 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.73' @ 12.02 hrs Surf.Area= 13 sf Storage= 7 cf

Plug-Flow detention time= 0.1 min calculated for 3,490 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (766.9 - 766.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 202

Volume	Invert	Avail.Storage	Storage Description
#1	75.20'	39 cf	4.00'D x 3.10'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	75.10'	12.0" Round P-289 L= 31.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.10' / 74.90' S= 0.0065 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.09 cfs @ 12.02 hrs HW=75.71' (Free Discharge)↑**1=P-289** (Barrel Controls 1.09 cfs @ 3.09 fps)**Summary for Pond CB 190: CB 190**

Inflow Area = 899 sf, 57.84% Impervious, Inflow Depth = 4.65" for 25-YEAR event
 Inflow = 0.12 cfs @ 12.04 hrs, Volume= 348 cf
 Outflow = 0.12 cfs @ 12.04 hrs, Volume= 348 cf, Atten= 0%, Lag= 0.2 min
 Primary = 0.12 cfs @ 12.04 hrs, Volume= 348 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.74' @ 12.04 hrs Surf.Area= 13 sf Storage= 2 cf

Plug-Flow detention time= 1.3 min calculated for 348 cf (100% of inflow)

Center-of-Mass det. time= 1.2 min (783.5 - 782.3)

Volume	Invert	Avail.Storage	Storage Description
#1	75.55'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	75.55'	12.0" Round P-290 L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.55' / 75.20' S= 0.0056 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.04 hrs HW=75.73' (Free Discharge)↑**1=P-290** (Barrel Controls 0.11 cfs @ 1.74 fps)**Summary for Pond CB 191: CB 191**

Inflow Area = 77,894 sf, 85.57% Impervious, Inflow Depth > 5.27" for 25-YEAR event
 Inflow = 10.63 cfs @ 12.02 hrs, Volume= 34,206 cf
 Outflow = 10.62 cfs @ 12.02 hrs, Volume= 34,206 cf, Atten= 0%, Lag= 0.0 min
 Primary = 10.62 cfs @ 12.02 hrs, Volume= 34,206 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 77.51' @ 12.02 hrs Surf.Area= 13 sf Storage= 21 cf

Plug-Flow detention time= 0.1 min calculated for 34,181 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (755.5 - 755.4)

141110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 203

Volume	Invert	Avail.Storage	Storage Description
#1	75.85'	106 cf	4.00'D x 8.45'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	75.85'	24.0" Round P-291 L= 134.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.85' / 75.15' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=10.17 cfs @ 12.02 hrs HW=77.47' (Free Discharge)↑**1=P-291** (Barrel Controls 10.17 cfs @ 5.10 fps)**Summary for Pond CB 192: CB 192**

Inflow Area = 57,163 sf, 80.89% Impervious, Inflow Depth > 5.17" for 25-YEAR event
 Inflow = 7.65 cfs @ 12.03 hrs, Volume= 24,647 cf
 Outflow = 7.66 cfs @ 12.03 hrs, Volume= 24,647 cf, Atten= 0%, Lag= 0.1 min
 Primary = 7.66 cfs @ 12.03 hrs, Volume= 24,647 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 77.91' @ 12.03 hrs Surf.Area= 13 sf Storage= 22 cf

Plug-Flow detention time= 0.2 min calculated for 24,647 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (760.4 - 760.2)

Volume	Invert	Avail.Storage	Storage Description
#1	76.15'	82 cf	4.00'D x 6.55'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	76.15'	18.0" Round P-292 L= 36.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 76.15' / 75.95' S= 0.0056 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=7.35 cfs @ 12.03 hrs HW=77.86' (Free Discharge)↑**1=P-292** (Barrel Controls 7.35 cfs @ 4.57 fps)**Summary for Pond CB 193: CB 193**

Inflow Area = 25,118 sf, 93.09% Impervious, Inflow Depth > 5.42" for 25-YEAR event
 Inflow = 3.61 cfs @ 12.01 hrs, Volume= 11,341 cf
 Outflow = 3.58 cfs @ 12.02 hrs, Volume= 11,341 cf, Atten= 1%, Lag= 0.2 min
 Primary = 3.58 cfs @ 12.02 hrs, Volume= 11,341 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 78.13' @ 12.02 hrs Surf.Area= 13 sf Storage= 21 cf

Plug-Flow detention time= 0.3 min calculated for 11,333 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (748.4 - 748.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 204

Volume	Invert	Avail.Storage	Storage Description
#1	76.50'	78 cf	4.00'D x 6.20'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	76.50'	12.0" Round P-293 L= 46.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 76.50' / 76.25' S= 0.0054 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=3.43 cfs @ 12.02 hrs HW=78.06' (Free Discharge)↑**1=P-293** (Barrel Controls 3.43 cfs @ 4.37 fps)**Summary for Pond CB 194: CB 194**

Inflow Area = 20,585 sf, 96.35% Impervious, Inflow Depth > 5.49" for 25-YEAR event
 Inflow = 2.98 cfs @ 12.01 hrs, Volume= 9,415 cf
 Outflow = 2.97 cfs @ 12.01 hrs, Volume= 9,415 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.97 cfs @ 12.01 hrs, Volume= 9,415 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 78.03' @ 12.01 hrs Surf.Area= 13 sf Storage= 17 cf

Plug-Flow detention time= 0.3 min calculated for 9,409 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (744.8 - 744.5)

Volume	Invert	Avail.Storage	Storage Description
#1	76.70'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	76.70'	12.0" Round P-294 L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 76.70' / 76.60' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.88 cfs @ 12.01 hrs HW=77.98' (Free Discharge)↑**1=P-294** (Barrel Controls 2.88 cfs @ 3.72 fps)**Summary for Pond CB 195: CB 195**

Inflow Area = 13,138 sf, 63.42% Impervious, Inflow Depth = 4.82" for 25-YEAR event
 Inflow = 1.58 cfs @ 12.04 hrs, Volume= 5,272 cf
 Outflow = 1.58 cfs @ 12.04 hrs, Volume= 5,272 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.58 cfs @ 12.04 hrs, Volume= 5,272 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 78.93' @ 12.04 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.3 min calculated for 5,269 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (777.5 - 777.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 205

Volume	Invert	Avail.Storage	Storage Description
#1	78.25'	73 cf	4.00'D x 5.80'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	78.25'	12.0" Round P-295 L= 76.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 78.25' / 77.50' S= 0.0099 ' S= 0.0099 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.55 cfs @ 12.04 hrs HW=78.92' (Free Discharge)↑**1=P-295** (Inlet Controls 1.55 cfs @ 2.78 fps)**Summary for Pond CB 196: CB 196**

Inflow Area = 9,993 sf, 60.63% Impervious, Inflow Depth = 4.76" for 25-YEAR event
Inflow = 1.20 cfs @ 12.05 hrs, Volume= 3,966 cf
Outflow = 1.20 cfs @ 12.05 hrs, Volume= 3,966 cf, Atten= 0%, Lag= 0.1 min
Primary = 1.20 cfs @ 12.05 hrs, Volume= 3,966 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 79.72' @ 12.05 hrs Surf.Area= 13 sf Storage= 7 cf

Plug-Flow detention time= 0.3 min calculated for 3,963 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (779.8 - 779.5)

Volume	Invert	Avail.Storage	Storage Description
#1	79.15'	62 cf	4.00'D x 4.90'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	79.15'	12.0" Round P-296 L= 81.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.15' / 78.35' S= 0.0099 ' S= 0.0099 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.18 cfs @ 12.05 hrs HW=79.72' (Free Discharge)↑**1=P-296** (Inlet Controls 1.18 cfs @ 2.57 fps)**Summary for Pond CB 197: CB 197**

Inflow Area = 7,513 sf, 54.79% Impervious, Inflow Depth = 4.65" for 25-YEAR event
Inflow = 0.92 cfs @ 12.07 hrs, Volume= 2,912 cf
Outflow = 0.92 cfs @ 12.07 hrs, Volume= 2,912 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.92 cfs @ 12.07 hrs, Volume= 2,912 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 80.54' @ 12.07 hrs Surf.Area= 13 sf Storage= 6 cf

Plug-Flow detention time= 0.4 min calculated for 2,910 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (784.9 - 784.5)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 206

Volume	Invert	Avail.Storage	Storage Description
#1	80.05'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	80.05'	12.0" Round P-297 L= 81.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.05' / 79.25' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.88 cfs @ 12.07 hrs HW=80.53' (Free Discharge)↑**1=P-297** (Inlet Controls 0.88 cfs @ 2.36 fps)**Summary for Pond CB 198: CB 198**

Inflow Area = 3,451 sf, 67.75% Impervious, Inflow Depth = 4.87" for 25-YEAR event
 Inflow = 0.47 cfs @ 12.01 hrs, Volume= 1,401 cf
 Outflow = 0.47 cfs @ 12.02 hrs, Volume= 1,401 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.47 cfs @ 12.02 hrs, Volume= 1,401 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 78.09' @ 12.02 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 0.5 min calculated for 1,400 cf (100% of inflow)
 Center-of-Mass det. time= 0.5 min (774.2 - 773.6)

Volume	Invert	Avail.Storage	Storage Description
#1	77.75'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	77.75'	12.0" Round P-298 L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 77.75' / 75.75' S= 0.0714 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.45 cfs @ 12.02 hrs HW=78.08' (Free Discharge)↑**1=P-298** (Inlet Controls 0.45 cfs @ 1.96 fps)**Summary for Pond CB 199: CB 199**

Inflow Area = 4,466 sf, 61.78% Impervious, Inflow Depth = 4.54" for 25-YEAR event
 Inflow = 0.57 cfs @ 12.03 hrs, Volume= 1,690 cf
 Outflow = 0.57 cfs @ 12.04 hrs, Volume= 1,690 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.57 cfs @ 12.04 hrs, Volume= 1,690 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 72.74' @ 12.04 hrs Surf.Area= 0.000 ac Storage= 0.000 af

Plug-Flow detention time= 0.5 min calculated for 1,689 cf (100% of inflow)
 Center-of-Mass det. time= 0.5 min (786.1 - 785.6)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 207

Volume	Invert	Avail.Storage	Storage Description
#1	72.30'	0.002 af	4.00'D x 6.66'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.30'	12.0" Round P-299 L= 26.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.30' / 72.15' S= 0.0058 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.55 cfs @ 12.04 hrs HW=72.73' (Free Discharge)**1=P-299** (Barrel Controls 0.55 cfs @ 2.53 fps)**Summary for Pond CB 200: CB 200**

Inflow Area = 11,338 sf, 90.45% Impervious, Inflow Depth = 5.38" for 25-YEAR event
 Inflow = 1.57 cfs @ 12.04 hrs, Volume= 5,082 cf
 Outflow = 1.57 cfs @ 12.04 hrs, Volume= 5,082 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.57 cfs @ 12.04 hrs, Volume= 5,082 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 75.32' @ 12.04 hrs Surf.Area= 0.000 ac Storage= 0.000 af

Plug-Flow detention time= 0.4 min calculated for 5,078 cf (100% of inflow)
 Center-of-Mass det. time= 0.4 min (753.7 - 753.3)

Volume	Invert	Avail.Storage	Storage Description
#1	74.50'	0.001 af	4.00'D x 3.75'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.50'	12.0" Round P-300 L= 25.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.50' / 74.40' S= 0.0040 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.52 cfs @ 12.04 hrs HW=75.31' (Free Discharge)**1=P-300** (Barrel Controls 1.52 cfs @ 3.06 fps)**Summary for Pond CB 201: CB 201**

Inflow Area = 20,198 sf, 87.78% Impervious, Inflow Depth = 5.26" for 25-YEAR event
 Inflow = 2.78 cfs @ 12.04 hrs, Volume= 8,846 cf
 Outflow = 2.78 cfs @ 12.04 hrs, Volume= 8,846 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.78 cfs @ 12.04 hrs, Volume= 8,846 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 75.16' @ 12.04 hrs Surf.Area= 0.000 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 8,840 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (759.5 - 759.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 208

Volume	Invert	Avail.Storage	Storage Description
#1	74.30'	0.001 af	4.00'D x 3.95'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.30'	18.0" Round P-301 L= 116.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.30' / 73.70' S= 0.0052 ' S= 0.0052 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=2.71 cfs @ 12.04 hrs HW=75.15' (Free Discharge)↑**1=P-301** (Barrel Controls 2.71 cfs @ 3.81 fps)**Summary for Pond CB 210: CB 210**

Inflow Area = 17,025 sf, 72.43% Impervious, Inflow Depth = 4.82" for 25-YEAR event
 Inflow = 1.88 cfs @ 12.06 hrs, Volume= 6,834 cf
 Outflow = 1.88 cfs @ 12.06 hrs, Volume= 6,834 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.88 cfs @ 12.06 hrs, Volume= 6,834 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.80' @ 12.06 hrs Surf.Area= 13 sf Storage= 10 cf

Plug-Flow detention time= 0.3 min calculated for 6,829 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (775.9 - 775.6)

Volume	Invert	Avail.Storage	Storage Description
#1	63.00'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	12.0" Round P-310 L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.00' / 62.70' S= 0.0103 ' S= 0.0103 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.84 cfs @ 12.06 hrs HW=63.79' (Free Discharge)↑**1=P-310** (Barrel Controls 1.84 cfs @ 3.83 fps)**Summary for Pond CB 211: CB 211**

Inflow Area = 5,623 sf, 61.21% Impervious, Inflow Depth = 4.65" for 25-YEAR event
 Inflow = 0.71 cfs @ 12.06 hrs, Volume= 2,179 cf
 Outflow = 0.71 cfs @ 12.06 hrs, Volume= 2,179 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.71 cfs @ 12.06 hrs, Volume= 2,179 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.88' @ 12.06 hrs Surf.Area= 13 sf Storage= 5 cf

Plug-Flow detention time= 0.5 min calculated for 2,178 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (784.2 - 783.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 209

Volume	Invert	Avail.Storage	Storage Description
#1	64.45'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	64.45'	12.0" Round P-311 L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.45' / 64.05' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.69 cfs @ 12.06 hrs HW=64.88' (Free Discharge)↑**1=P-311** (Barrel Controls 0.69 cfs @ 3.21 fps)**Summary for Pond CB 212: CB 212**

Inflow Area = 11,954 sf, 74.75% Impervious, Inflow Depth = 4.95" for 25-YEAR event
 Inflow = 1.55 cfs @ 12.04 hrs, Volume= 4,930 cf
 Outflow = 1.55 cfs @ 12.04 hrs, Volume= 4,930 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.55 cfs @ 12.04 hrs, Volume= 4,930 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.66' @ 12.04 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.3 min calculated for 4,926 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (771.2 - 770.9)

Volume	Invert	Avail.Storage	Storage Description
#1	63.95'	60 cf	4.00'D x 4.75'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	63.95'	12.0" Round P-312 L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.95' / 63.65' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.51 cfs @ 12.04 hrs HW=64.64' (Free Discharge)↑**1=P-312** (Barrel Controls 1.51 cfs @ 3.66 fps)**Summary for Pond CB 213: CB 213**

Inflow Area = 6,309 sf, 46.03% Impervious, Inflow Depth = 4.11" for 25-YEAR event
 Inflow = 0.67 cfs @ 12.09 hrs, Volume= 2,163 cf
 Outflow = 0.67 cfs @ 12.09 hrs, Volume= 2,163 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.67 cfs @ 12.09 hrs, Volume= 2,163 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 65.16' @ 12.09 hrs Surf.Area= 13 sf Storage= 6 cf

Plug-Flow detention time= 0.5 min calculated for 2,162 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (802.6 - 802.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 210

Volume	Invert	Avail.Storage	Storage Description
#1	64.70'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	64.70'	12.0" Round P-313 L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.70' / 64.40' S= 0.0058 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=65.16' (Free Discharge)↑**1=P-313** (Barrel Controls 0.66 cfs @ 2.76 fps)**Summary for Pond CB 214: CB 214**

Inflow Area = 10,671 sf, 57.83% Impervious, Inflow Depth = 4.42" for 25-YEAR event
 Inflow = 1.14 cfs @ 12.05 hrs, Volume= 3,934 cf
 Outflow = 1.14 cfs @ 12.05 hrs, Volume= 3,934 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.14 cfs @ 12.05 hrs, Volume= 3,934 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 64.93' @ 12.05 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.4 min calculated for 3,932 cf (100% of inflow)
 Center-of-Mass det. time= 0.4 min (790.0 - 789.6)

Volume	Invert	Avail.Storage	Storage Description
#1	64.30'	46 cf	4.00'D x 3.65'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	64.30'	12.0" Round P-314 L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.30' / 63.90' S= 0.0050 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.13 cfs @ 12.05 hrs HW=64.93' (Free Discharge)↑**1=P-314** (Barrel Controls 1.13 cfs @ 3.09 fps)**Summary for Pond CB 215: CB 215**

Inflow Area = 27,064 sf, 93.64% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 3.85 cfs @ 12.02 hrs, Volume= 12,280 cf
 Outflow = 3.82 cfs @ 12.02 hrs, Volume= 12,280 cf, Atten= 1%, Lag= 0.3 min
 Primary = 3.82 cfs @ 12.02 hrs, Volume= 12,280 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 65.80' @ 12.02 hrs Surf.Area= 13 sf Storage= 23 cf

Plug-Flow detention time= 0.2 min calculated for 12,271 cf (100% of inflow)
 Center-of-Mass det. time= 0.2 min (749.0 - 748.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 211

Volume	Invert	Avail.Storage	Storage Description
#1	64.00'	42 cf	4.00'D x 3.35'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	64.00'	12.0" Round P-315A L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.00' / 63.65' S= 0.0056 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=3.66 cfs @ 12.02 hrs HW=65.72' (Free Discharge)↑**1=P-315A** (Barrel Controls 3.66 cfs @ 4.66 fps)**Summary for Pond CB 216: CB 216**

Inflow Area = 8,340 sf, 92.45% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 1.20 cfs @ 12.02 hrs, Volume= 3,784 cf
 Outflow = 1.19 cfs @ 12.02 hrs, Volume= 3,784 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.19 cfs @ 12.02 hrs, Volume= 3,784 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 65.80' @ 12.02 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.5 min calculated for 3,784 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (748.8 - 748.3)

Volume	Invert	Avail.Storage	Storage Description
#1	65.15'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	65.15'	12.0" Round P-316 L= 78.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 65.15' / 64.75' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.14 cfs @ 12.02 hrs HW=65.78' (Free Discharge)↑**1=P-316** (Barrel Controls 1.14 cfs @ 3.12 fps)**Summary for Pond CB 217: CB 217**

Inflow Area = 27,461 sf, 68.48% Impervious, Inflow Depth = 4.80" for 25-YEAR event
 Inflow = 3.40 cfs @ 12.04 hrs, Volume= 10,974 cf
 Outflow = 3.39 cfs @ 12.04 hrs, Volume= 10,974 cf, Atten= 0%, Lag= 0.2 min
 Primary = 3.39 cfs @ 12.04 hrs, Volume= 10,974 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.21' @ 12.04 hrs Surf.Area= 13 sf Storage= 24 cf

Plug-Flow detention time= 0.3 min calculated for 10,966 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (774.5 - 774.3)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 212

Volume	Invert	Avail.Storage	Storage Description
#1	62.30'	55 cf	4.00'D x 4.40'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	62.30'	12.0" Round P-317B L= 183.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.30' / 61.35' S= 0.0052 ' / Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=3.33 cfs @ 12.04 hrs HW=64.14' (Free Discharge)↑**1=P-317B** (Barrel Controls 3.33 cfs @ 4.24 fps)**Summary for Pond CB 218: CB 218**

Inflow Area = 9,128 sf, 87.71% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 1.29 cfs @ 12.02 hrs, Volume= 3,965 cf
 Outflow = 1.29 cfs @ 12.02 hrs, Volume= 3,965 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.29 cfs @ 12.02 hrs, Volume= 3,965 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.13' @ 12.02 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.4 min calculated for 3,963 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (760.4 - 760.0)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	12.0" Round P-318 L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.75' S= 0.0067 ' / Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.23 cfs @ 12.02 hrs HW=64.11' (Free Discharge)↑**1=P-318** (Barrel Controls 1.23 cfs @ 3.50 fps)**Summary for Pond CB 219: CB 219**

Inflow Area = 31,656 sf, 82.82% Impervious, Inflow Depth = 5.08" for 25-YEAR event
 Inflow = 4.30 cfs @ 12.02 hrs, Volume= 13,397 cf
 Outflow = 4.30 cfs @ 12.02 hrs, Volume= 13,397 cf, Atten= 0%, Lag= 0.1 min
 Primary = 4.30 cfs @ 12.02 hrs, Volume= 13,397 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 61.97' @ 12.02 hrs Surf.Area= 13 sf Storage= 16 cf

Plug-Flow detention time= 0.2 min calculated for 13,387 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (765.0 - 764.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT
Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 213

Volume	Invert	Avail.Storage	Storage Description
#1	60.70'	55 cf	4.00'D x 4.35'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	15.0" Round P-319 L= 91.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 60.70' / 60.20' S= 0.0055 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.11 cfs @ 12.02 hrs HW=61.93' (Free Discharge)**1=P-319** (Barrel Controls 4.11 cfs @ 4.23 fps)**Summary for Pond CB 220: CB 220**

Inflow Area = 24,459 sf, 81.14% Impervious, Inflow Depth = 5.04" for 25-YEAR event
 Inflow = 3.40 cfs @ 12.01 hrs, Volume= 10,270 cf
 Outflow = 3.39 cfs @ 12.01 hrs, Volume= 10,270 cf, Atten= 0%, Lag= 0.1 min
 Primary = 3.39 cfs @ 12.01 hrs, Volume= 10,270 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 62.53' @ 12.01 hrs Surf.Area= 13 sf Storage= 14 cf

Plug-Flow detention time= 0.2 min calculated for 10,270 cf (100% of inflow)
 Center-of-Mass det. time= 0.2 min (765.8 - 765.5)

Volume	Invert	Avail.Storage	Storage Description
#1	61.45'	69 cf	4.00'D x 5.50'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	61.45'	15.0" Round P-320 L= 129.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.45' / 60.80' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.25 cfs @ 12.01 hrs HW=62.50' (Free Discharge)**1=P-320** (Barrel Controls 3.25 cfs @ 4.00 fps)**Summary for Pond CB 221: CB 221**

Inflow Area = 17,250 sf, 75.14% Impervious, Inflow Depth = 4.87" for 25-YEAR event
 Inflow = 2.38 cfs @ 12.01 hrs, Volume= 7,005 cf
 Outflow = 2.38 cfs @ 12.01 hrs, Volume= 7,005 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.38 cfs @ 12.01 hrs, Volume= 7,005 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 64.19' @ 12.01 hrs Surf.Area= 13 sf Storage= 11 cf

Plug-Flow detention time= 0.3 min calculated for 7,000 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (773.7 - 773.4)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 214

Volume	Invert	Avail.Storage	Storage Description
#1	63.30'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	63.30'	12.0" Round P-321 L= 137.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.30' / 61.70' S= 0.0117 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.28 cfs @ 12.01 hrs HW=64.16' (Free Discharge)↑**1=P-321** (Inlet Controls 2.28 cfs @ 3.16 fps)**Summary for Pond CB 222: CB 222**

Inflow Area = 5,297 sf, 100.00% Impervious, Inflow Depth > 5.56" for 25-YEAR event
 Inflow = 0.77 cfs @ 12.01 hrs, Volume= 2,455 cf
 Outflow = 0.77 cfs @ 12.01 hrs, Volume= 2,453 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.77 cfs @ 12.01 hrs, Volume= 2,453 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 62.46' @ 12.01 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 1.7 min calculated for 2,453 cf (100% of inflow)

Center-of-Mass det. time= 1.1 min (742.2 - 741.1)

Volume	Invert	Avail.Storage	Storage Description
#1	61.80'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	61.95'	12.0" Round P-322 L= 49.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.95' / 61.70' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.74 cfs @ 12.01 hrs HW=62.45' (Free Discharge)↑**1=P-322** (Barrel Controls 0.74 cfs @ 2.74 fps)**Summary for Pond CB 223: CB 223**

Inflow Area = 187,795 sf, 61.80% Impervious, Inflow Depth = 4.39" for 25-YEAR event
 Inflow = 16.29 cfs @ 12.12 hrs, Volume= 68,772 cf
 Outflow = 16.30 cfs @ 12.12 hrs, Volume= 68,772 cf, Atten= 0%, Lag= 0.0 min
 Primary = 16.30 cfs @ 12.12 hrs, Volume= 68,772 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 67.73' @ 12.12 hrs Surf.Area= 13 sf Storage= 28 cf

Plug-Flow detention time= 0.1 min calculated for 68,723 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (915.8 - 915.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 215

Volume	Invert	Avail.Storage	Storage Description
#1	65.50'	59 cf	4.00'D x 4.70'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	65.50'	24.0" Round P-323 L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 65.50' / 65.20' S= 0.0167 ' / Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=15.97 cfs @ 12.12 hrs HW=67.70' (Free Discharge)**1=P-323** (Barrel Controls 15.97 cfs @ 5.76 fps)**Summary for Pond CB 224: CB 224**

Inflow Area = 7,693 sf, 70.79% Impervious, Inflow Depth = 4.87" for 25-YEAR event
 Inflow = 1.02 cfs @ 12.05 hrs, Volume= 3,124 cf
 Outflow = 1.02 cfs @ 12.05 hrs, Volume= 3,124 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.02 cfs @ 12.05 hrs, Volume= 3,124 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 65.88' @ 12.05 hrs Surf.Area= 13 sf Storage= 7 cf

Plug-Flow detention time= 0.4 min calculated for 3,124 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (776.0 - 775.6)

Volume	Invert	Avail.Storage	Storage Description
#1	65.33'	40 cf	4.00'D x 3.22'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	65.33'	12.0" Round P-324 L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 65.33' / 65.05' S= 0.0100 ' / Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.02 cfs @ 12.05 hrs HW=65.88' (Free Discharge)**1=P-324** (Barrel Controls 1.02 cfs @ 3.35 fps)**Summary for Pond CB 226: CB 226**

Inflow Area = 2,627 sf, 81.35% Impervious, Inflow Depth = 5.10" for 25-YEAR event
 Inflow = 0.37 cfs @ 12.01 hrs, Volume= 1,116 cf
 Outflow = 0.37 cfs @ 12.01 hrs, Volume= 1,116 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.37 cfs @ 12.01 hrs, Volume= 1,116 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.20' @ 12.01 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 0.6 min calculated for 1,115 cf (100% of inflow)

Center-of-Mass det. time= 0.6 min (765.3 - 764.7)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 216

Volume	Invert	Avail.Storage	Storage Description
#1	63.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	63.90'	12.0" Round P-326 L= 79.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.90' / 63.10' S= 0.0101 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.35 cfs @ 12.01 hrs HW=64.19' (Free Discharge)

↑1=P-326 (Inlet Controls 0.35 cfs @ 1.84 fps)

Summary for Pond CB 229: CB 229

Inflow Area = 15,406 sf, 50.96% Impervious, Inflow Depth = 4.38" for 25-YEAR event
 Inflow = 1.78 cfs @ 12.05 hrs, Volume= 5,621 cf
 Outflow = 1.78 cfs @ 12.06 hrs, Volume= 5,621 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.78 cfs @ 12.06 hrs, Volume= 5,621 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.35' @ 12.06 hrs Surf.Area= 13 sf Storage= 11 cf

Plug-Flow detention time= 0.3 min calculated for 5,617 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (792.8 - 792.5)

Volume	Invert	Avail.Storage	Storage Description
#1	62.50'	40 cf	4.00'D x 3.15'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	62.50'	12.0" Round P-329 L= 13.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.50' / 62.40' S= 0.0077 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.75 cfs @ 12.06 hrs HW=63.34' (Free Discharge)

↑1=P-329 (Barrel Controls 1.75 cfs @ 3.34 fps)

Summary for Pond CB 230: CB 230

Inflow Area = 7,477 sf, 54.31% Impervious, Inflow Depth = 4.43" for 25-YEAR event
 Inflow = 0.94 cfs @ 12.04 hrs, Volume= 2,762 cf
 Outflow = 0.94 cfs @ 12.04 hrs, Volume= 2,762 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.94 cfs @ 12.04 hrs, Volume= 2,762 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.34' @ 12.04 hrs Surf.Area= 13 sf Storage= 7 cf

Plug-Flow detention time= 0.5 min calculated for 2,760 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (789.5 - 789.0)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 217

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	38 cf	4.00'D x 3.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	62.75'	12.0" Round P-330 L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.75' / 62.60' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.91 cfs @ 12.04 hrs HW=63.33' (Free Discharge)
 **1=P-330** (Barrel Controls 0.91 cfs @ 2.80 fps)
Summary for Pond CB 231: CB 231

Inflow Area = 11,804 sf, 79.36% Impervious, Inflow Depth = 5.03" for 25-YEAR event
 Inflow = 1.57 cfs @ 12.02 hrs, Volume= 4,945 cf
 Outflow = 1.56 cfs @ 12.03 hrs, Volume= 4,945 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.56 cfs @ 12.03 hrs, Volume= 4,945 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 61.53' @ 12.03 hrs Surf.Area= 13 sf Storage= 10 cf

Plug-Flow detention time= 0.4 min calculated for 4,941 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (766.8 - 766.4)

Volume	Invert	Avail.Storage	Storage Description
#1	60.75'	85 cf	4.00'D x 6.80'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	60.75'	12.0" Round P-331 L= 25.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 60.75' / 60.60' S= 0.0060 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.50 cfs @ 12.03 hrs HW=61.51' (Free Discharge)
 **1=P-331** (Barrel Controls 1.50 cfs @ 3.23 fps)
Summary for Pond CB 232: CB 232

Inflow Area = 10,865 sf, 79.42% Impervious, Inflow Depth = 5.02" for 25-YEAR event
 Inflow = 1.44 cfs @ 12.02 hrs, Volume= 4,546 cf
 Outflow = 1.43 cfs @ 12.03 hrs, Volume= 4,546 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.43 cfs @ 12.03 hrs, Volume= 4,546 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 61.75' @ 12.03 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.4 min calculated for 4,543 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (766.6 - 766.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 218

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	82 cf	4.00'D x 6.55'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	61.00'	12.0" Round P-332 L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.00' / 60.85' S= 0.0054 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.38 cfs @ 12.03 hrs HW=61.73' (Free Discharge)↑**1=P-332** (Barrel Controls 1.38 cfs @ 3.12 fps)**Summary for Pond CB 233: CB 233**

Inflow Area = 3,545 sf, 52.67% Impervious, Inflow Depth = 4.33" for 25-YEAR event
 Inflow = 0.41 cfs @ 12.07 hrs, Volume= 1,278 cf
 Outflow = 0.41 cfs @ 12.07 hrs, Volume= 1,278 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.41 cfs @ 12.07 hrs, Volume= 1,278 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.47' @ 12.07 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 0.5 min calculated for 1,277 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (795.3 - 794.7)

Volume	Invert	Avail.Storage	Storage Description
#1	63.15'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	63.15'	12.0" Round P-333 L= 39.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.15' / 62.60' S= 0.0141 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.07 hrs HW=63.46' (Free Discharge)↑**1=P-333** (Inlet Controls 0.39 cfs @ 1.89 fps)**Summary for Pond CB 235: CB 235**

Inflow Area = 8,050 sf, 84.29% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 1.13 cfs @ 12.02 hrs, Volume= 3,497 cf
 Outflow = 1.13 cfs @ 12.02 hrs, Volume= 3,497 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.13 cfs @ 12.02 hrs, Volume= 3,497 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 61.93' @ 12.02 hrs Surf.Area= 13 sf Storage= 7 cf

Plug-Flow detention time= 0.4 min calculated for 3,495 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (760.7 - 760.3)

141110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 219

Volume	Invert	Avail.Storage	Storage Description
#1	61.35'	55 cf	4.00'D x 4.40'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	61.35'	12.0" Round P-335 L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.35' / 61.00' S= 0.0095 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.08 cfs @ 12.02 hrs HW=61.91' (Free Discharge)**1=P-335** (Barrel Controls 1.08 cfs @ 3.44 fps)**Summary for Pond CB 236: CB 236**

Inflow Area = 4,700 sf, 84.53% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 0.66 cfs @ 12.02 hrs, Volume= 2,042 cf
 Outflow = 0.66 cfs @ 12.02 hrs, Volume= 2,042 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.66 cfs @ 12.02 hrs, Volume= 2,042 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 62.17' @ 12.02 hrs Surf.Area= 13 sf Storage= 5 cf

Plug-Flow detention time= 0.5 min calculated for 2,040 cf (100% of inflow)

Center-of-Mass det. time= 0.5 min (760.6 - 760.1)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	12.0" Round P-336 L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.75' / 61.45' S= 0.0107 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 12.02 hrs HW=62.16' (Free Discharge)**1=P-336** (Barrel Controls 0.63 cfs @ 3.09 fps)**Summary for Pond CB 237: CB 237**

Inflow Area = 7,622 sf, 79.97% Impervious, Inflow Depth = 5.10" for 25-YEAR event
 Inflow = 1.06 cfs @ 12.02 hrs, Volume= 3,238 cf
 Outflow = 1.06 cfs @ 12.02 hrs, Volume= 3,238 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.06 cfs @ 12.02 hrs, Volume= 3,238 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.64' @ 12.02 hrs Surf.Area= 13 sf Storage= 7 cf

Plug-Flow detention time= 0.4 min calculated for 3,236 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (765.7 - 765.3)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 220

Volume	Invert	Avail.Storage	Storage Description
#1	63.10'	57 cf	4.00'D x 4.50'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	63.10'	12.0" Round P-337 L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.10' / 62.70' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.01 cfs @ 12.02 hrs HW=63.63' (Free Discharge)↑**1=P-337** (Barrel Controls 1.01 cfs @ 3.48 fps)**Summary for Pond CB 238: CB 238**

Inflow Area = 3,671 sf, 81.12% Impervious, Inflow Depth = 5.10" for 25-YEAR event
 Inflow = 0.51 cfs @ 12.02 hrs, Volume= 1,560 cf
 Outflow = 0.51 cfs @ 12.02 hrs, Volume= 1,560 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.51 cfs @ 12.02 hrs, Volume= 1,560 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.01' @ 12.02 hrs Surf.Area= 13 sf Storage= 4 cf

Plug-Flow detention time= 0.6 min calculated for 1,559 cf (100% of inflow)

Center-of-Mass det. time= 0.6 min (765.6 - 765.1)

Volume	Invert	Avail.Storage	Storage Description
#1	63.65'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	63.65'	12.0" Round P-338 L= 44.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.65' / 63.20' S= 0.0102 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.48 cfs @ 12.02 hrs HW=64.00' (Free Discharge)↑**1=P-338** (Inlet Controls 0.48 cfs @ 2.00 fps)**Summary for Pond CB 239: CB 239**

Inflow Area = 19,256 sf, 91.62% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 2.70 cfs @ 12.04 hrs, Volume= 8,550 cf
 Outflow = 2.70 cfs @ 12.04 hrs, Volume= 8,550 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.70 cfs @ 12.04 hrs, Volume= 8,550 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 61.51' @ 12.04 hrs Surf.Area= 13 sf Storage= 13 cf

Plug-Flow detention time= 0.3 min calculated for 8,544 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (756.1 - 755.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 221

Volume	Invert	Avail.Storage	Storage Description
#1	60.50'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	12.0" Round P-339 L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 60.50' / 60.15' S= 0.0109 ' S= 0.0109 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.63 cfs @ 12.04 hrs HW=61.49' (Free Discharge)

1=P-339 (Barrel Controls 2.63 cfs @ 4.21 fps)

Summary for Pond CB 241: CB 241

Inflow Area = 16,888 sf, 97.48% Impervious, Inflow Depth > 5.51" for 25-YEAR event
 Inflow = 2.37 cfs @ 12.02 hrs, Volume= 7,753 cf
 Outflow = 2.37 cfs @ 12.02 hrs, Volume= 7,753 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.37 cfs @ 12.02 hrs, Volume= 7,753 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 62.40' @ 12.02 hrs Surf.Area= 13 sf Storage= 13 cf

Plug-Flow detention time= 0.3 min calculated for 7,747 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (745.1 - 744.8)

Volume	Invert	Avail.Storage	Storage Description
#1	61.40'	59 cf	4.00'D x 4.70'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	61.40'	12.0" Round P-341B L= 180.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.40' / 60.50' S= 0.0050 ' S= 0.0050 ' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.27 cfs @ 12.02 hrs HW=62.36' (Free Discharge)

1=P-341B (Barrel Controls 2.27 cfs @ 3.73 fps)

Summary for Pond CB 244: CB 244

Inflow Area = 7,605 sf, 97.20% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 1.07 cfs @ 12.04 hrs, Volume= 3,451 cf
 Outflow = 1.07 cfs @ 12.04 hrs, Volume= 3,451 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.07 cfs @ 12.04 hrs, Volume= 3,451 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 62.71' @ 12.04 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.4 min calculated for 3,448 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (749.7 - 749.3)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 222

Volume	Invert	Avail.Storage	Storage Description
#1	62.10'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	62.10'	12.0" Round P-344 L= 8.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.10' / 62.00' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.03 cfs @ 12.04 hrs HW=62.70' (Free Discharge)↑**1=P-344** (Barrel Controls 1.03 cfs @ 3.04 fps)**Summary for Pond CB 245: CB 245**

Inflow Area = 689 sf, 89.55% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 0.10 cfs @ 12.01 hrs, Volume= 306 cf
 Outflow = 0.10 cfs @ 12.01 hrs, Volume= 306 cf, Atten= 0%, Lag= 0.2 min
 Primary = 0.10 cfs @ 12.01 hrs, Volume= 306 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 62.35' @ 12.01 hrs Surf.Area= 13 sf Storage= 2 cf

Plug-Flow detention time= 0.9 min calculated for 306 cf (100% of inflow)
 Center-of-Mass det. time= 0.9 min (755.0 - 754.1)

Volume	Invert	Avail.Storage	Storage Description
#1	62.20'	51 cf	4.00'D x 4.05'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	62.20'	12.0" Round P-345 L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.20' / 61.85' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 12.01 hrs HW=62.35' (Free Discharge)↑**1=P-345** (Barrel Controls 0.09 cfs @ 1.99 fps)**Summary for Pond CB 248: CB 248**

Inflow Area = 89,500 sf, 86.24% Impervious, Inflow Depth = 5.24" for 25-YEAR event
 Inflow = 12.15 cfs @ 12.04 hrs, Volume= 39,116 cf
 Outflow = 12.16 cfs @ 12.04 hrs, Volume= 39,117 cf, Atten= 0%, Lag= 0.0 min
 Primary = 12.16 cfs @ 12.04 hrs, Volume= 39,117 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 65.88' @ 12.04 hrs Surf.Area= 13 sf Storage= 15 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.0 min (758.4 - 758.4)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 223

Volume	Invert	Avail.Storage	Storage Description
#1	64.70'	49 cf	4.00'D x 3.90'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	64.05'	24.0" Round P-348 L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.05' / 63.75' S= 0.0100 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=11.87 cfs @ 12.04 hrs HW=65.85' (Free Discharge)

1=P-348 (Barrel Controls 11.87 cfs @ 5.25 fps)
Summary for Pond CB 249: CB 249

Inflow Area = 625 sf, 94.56% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 0.09 cfs @ 12.01 hrs, Volume= 284 cf
 Outflow = 0.09 cfs @ 12.02 hrs, Volume= 284 cf, Atten= 1%, Lag= 0.2 min
 Primary = 0.09 cfs @ 12.02 hrs, Volume= 284 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.84' @ 12.02 hrs Surf.Area= 0.000 ac Storage= 0.000 af

Plug-Flow detention time= 0.9 min calculated for 283 cf (100% of inflow)
 Center-of-Mass det. time= 0.9 min (749.2 - 748.3)

Volume	Invert	Avail.Storage	Storage Description
#1	74.70'	0.001 af	4.00'D x 4.32'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.70'	12.0" Round P-349 L= 78.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.70' / 73.90' S= 0.0103 '/ Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 12.02 hrs HW=74.84' (Free Discharge)

1=P-349 (Inlet Controls 0.08 cfs @ 1.27 fps)
Summary for Pond CB 252: CB 252

Inflow Area = 21,619 sf, 88.88% Impervious, Inflow Depth = 5.31" for 25-YEAR event
 Inflow = 2.96 cfs @ 12.05 hrs, Volume= 9,574 cf
 Outflow = 2.94 cfs @ 12.05 hrs, Volume= 9,574 cf, Atten= 1%, Lag= 0.1 min
 Primary = 2.94 cfs @ 12.05 hrs, Volume= 9,574 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 70.49' @ 12.05 hrs Surf.Area= 13 sf Storage= 17 cf

Plug-Flow detention time= 0.3 min calculated for 9,574 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (757.4 - 757.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 224

Volume	Invert	Avail.Storage	Storage Description
#1	69.15'	76 cf	4.00'D x 6.05'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	69.15'	12.0" Round P-377 L= 38.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.15' / 68.95' S= 0.0053 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.91 cfs @ 12.05 hrs HW=70.49' (Free Discharge)↑**1=P-377** (Barrel Controls 2.91 cfs @ 3.71 fps)**Summary for Pond CB 253: CB 253**

Inflow Area = 19,006 sf, 89.37% Impervious, Inflow Depth = 5.33" for 25-YEAR event
 Inflow = 2.63 cfs @ 12.05 hrs, Volume= 8,439 cf
 Outflow = 2.63 cfs @ 12.05 hrs, Volume= 8,439 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.63 cfs @ 12.05 hrs, Volume= 8,439 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 70.59' @ 12.05 hrs Surf.Area= 13 sf Storage= 14 cf

Plug-Flow detention time= 0.3 min calculated for 8,433 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (756.8 - 756.5)

Volume	Invert	Avail.Storage	Storage Description
#1	69.45'	41 cf	4.00'D x 3.25'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	69.45'	12.0" Round P-379 L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.45' / 69.25' S= 0.0050 ' /' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.62 cfs @ 12.05 hrs HW=70.59' (Free Discharge)↑**1=P-379** (Barrel Controls 2.62 cfs @ 3.66 fps)**Summary for Pond DMH 508: DMH 508**

Inflow Area = 378,986 sf, 74.61% Impervious, Inflow Depth = 4.45" for 25-YEAR event
 Inflow = 30.95 cfs @ 12.09 hrs, Volume= 140,596 cf
 Outflow = 30.93 cfs @ 12.09 hrs, Volume= 140,596 cf, Atten= 0%, Lag= 0.0 min
 Primary = 30.93 cfs @ 12.09 hrs, Volume= 140,596 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 62.28' @ 12.09 hrs Surf.Area= 13 sf Storage= 33 cf

Plug-Flow detention time= 0.1 min calculated for 140,596 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (862.3 - 862.2)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 225

Volume	Invert	Avail.Storage	Storage Description
#1	59.65'	95 cf	4.00'D x 7.55'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	59.65'	36.0" Round P-360 L= 127.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 59.65' / 59.00' S= 0.0051 ' / Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=30.36 cfs @ 12.09 hrs HW=62.25' (Free Discharge)**1=P-360** (Barrel Controls 30.36 cfs @ 6.24 fps)**Summary for Pond DMH 509: DMH 509**

Inflow Area = 286,571 sf, 70.17% Impervious, Inflow Depth = 4.20" for 25-YEAR event
 Inflow = 20.03 cfs @ 12.11 hrs, Volume= 100,258 cf
 Outflow = 20.03 cfs @ 12.11 hrs, Volume= 100,258 cf, Atten= 0%, Lag= 0.0 min
 Primary = 20.03 cfs @ 12.11 hrs, Volume= 100,258 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 63.31' @ 12.12 hrs Surf.Area= 13 sf Storage= 39 cf

Plug-Flow detention time= 0.1 min calculated for 100,188 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (897.7 - 897.6)

Volume	Invert	Avail.Storage	Storage Description
#1	60.20'	99 cf	4.00'D x 7.85'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	60.20'	24.0" Round P-361 L= 90.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 60.20' / 59.75' S= 0.0050 ' / Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=19.66 cfs @ 12.11 hrs HW=63.24' (Free Discharge)**1=P-361** (Barrel Controls 19.66 cfs @ 6.26 fps)**Summary for Pond DMH 510: DMH 510**

Inflow Area = 286,571 sf, 70.17% Impervious, Inflow Depth = 4.20" for 25-YEAR event
 Inflow = 20.03 cfs @ 12.11 hrs, Volume= 100,258 cf
 Outflow = 20.03 cfs @ 12.11 hrs, Volume= 100,258 cf, Atten= 0%, Lag= 0.0 min
 Primary = 20.03 cfs @ 12.11 hrs, Volume= 100,258 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.08' @ 12.12 hrs Surf.Area= 13 sf Storage= 40 cf

Plug-Flow detention time= 0.1 min calculated for 100,258 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (897.6 - 897.6)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 226

Volume	Invert	Avail.Storage	Storage Description
#1	60.90'	92 cf	4.00'D x 7.35'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	60.90'	24.0" Round P-362 L= 122.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 60.90' / 60.30' S= 0.0049 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=19.66 cfs @ 12.11 hrs HW=64.00' (Free Discharge)↑**1=P-362** (Barrel Controls 19.66 cfs @ 6.26 fps)**Summary for Pond DMH 511: DMH 511**

Inflow Area = 286,571 sf, 70.17% Impervious, Inflow Depth = 4.20" for 25-YEAR event
 Inflow = 20.03 cfs @ 12.11 hrs, Volume= 100,259 cf
 Outflow = 20.03 cfs @ 12.11 hrs, Volume= 100,258 cf, Atten= 0%, Lag= 0.0 min
 Primary = 20.03 cfs @ 12.11 hrs, Volume= 100,258 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.51' @ 12.11 hrs Surf.Area= 13 sf Storage= 39 cf

Plug-Flow detention time= 0.1 min calculated for 100,258 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (897.6 - 897.5)

Volume	Invert	Avail.Storage	Storage Description
#1	61.45'	86 cf	4.00'D x 6.85'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	61.45'	24.0" Round P-363 L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.45' / 61.00' S= 0.0054 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=19.68 cfs @ 12.11 hrs HW=64.45' (Free Discharge)↑**1=P-363** (Barrel Controls 19.68 cfs @ 6.27 fps)**Summary for Pond DMH 512: DMH 512**

Inflow Area = 207,258 sf, 62.71% Impervious, Inflow Depth = 3.79" for 25-YEAR event
 Inflow = 12.13 cfs @ 12.18 hrs, Volume= 65,476 cf
 Outflow = 12.13 cfs @ 12.18 hrs, Volume= 65,476 cf, Atten= 0%, Lag= 0.1 min
 Primary = 12.13 cfs @ 12.18 hrs, Volume= 65,476 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.09' @ 12.18 hrs Surf.Area= 13 sf Storage= 23 cf

Plug-Flow detention time= 0.1 min calculated for 65,476 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (964.0 - 963.9)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 227

Volume	Invert	Avail.Storage	Storage Description
#1	62.25'	70 cf	4.00'D x 5.55'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	62.25'	24.0" Round P-364 L= 140.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.25' / 61.55' S= 0.0050 ' S= 0.0050 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=12.09 cfs @ 12.18 hrs HW=64.08' (Free Discharge)

1=P-364 (Barrel Controls 12.09 cfs @ 5.26 fps)
Summary for Pond DMH 513: DMH 513

Inflow Area = 190,233 sf, 61.84% Impervious, Inflow Depth = 3.70" for 25-YEAR event
 Inflow = 10.98 cfs @ 12.21 hrs, Volume= 58,642 cf
 Outflow = 10.98 cfs @ 12.21 hrs, Volume= 58,642 cf, Atten= 0%, Lag= 0.0 min
 Primary = 10.98 cfs @ 12.21 hrs, Volume= 58,642 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 64.54' @ 12.21 hrs Surf.Area= 13 sf Storage= 22 cf

Plug-Flow detention time= 0.1 min calculated for 58,601 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (985.8 - 985.7)

Volume	Invert	Avail.Storage	Storage Description
#1	62.80'	96 cf	4.00'D x 7.60'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	24.0" Round P- L= 82.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.80' / 62.35' S= 0.0055 ' S= 0.0055 ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=10.95 cfs @ 12.21 hrs HW=64.53' (Free Discharge)

1=P- (Barrel Controls 10.95 cfs @ 5.06 fps)
Summary for Pond DMH 514: DMH 514

Inflow Area = 8,340 sf, 92.45% Impervious, Inflow Depth = 5.44" for 25-YEAR event
 Inflow = 1.19 cfs @ 12.02 hrs, Volume= 3,784 cf
 Outflow = 1.19 cfs @ 12.02 hrs, Volume= 3,784 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.19 cfs @ 12.02 hrs, Volume= 3,784 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 65.29' @ 12.02 hrs Surf.Area= 13 sf Storage= 8 cf

Plug-Flow detention time= 0.4 min calculated for 3,784 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (749.2 - 748.8)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 228

Volume	Invert	Avail.Storage	Storage Description
#1	64.65'	48 cf	4.00'D x 3.85'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	64.65'	12.0" Round P-315B L= 103.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.65' / 64.10' S= 0.0053 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.14 cfs @ 12.02 hrs HW=65.27' (Free Discharge)

↑1=P-315B (Barrel Controls 1.14 cfs @ 3.19 fps)

Summary for Pond DMH 515: DMH 515

Inflow Area = 9,128 sf, 87.71% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 1.29 cfs @ 12.02 hrs, Volume= 3,965 cf
 Outflow = 1.28 cfs @ 12.02 hrs, Volume= 3,965 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.28 cfs @ 12.02 hrs, Volume= 3,965 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 61.96' @ 12.02 hrs Surf.Area= 13 sf Storage= 9 cf

Plug-Flow detention time= 0.4 min calculated for 3,963 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (760.8 - 760.4)

Volume	Invert	Avail.Storage	Storage Description
#1	61.25'	100 cf	4.00'D x 7.95'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	61.25'	12.0" Round P-317A L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.25' / 61.10' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.22 cfs @ 12.02 hrs HW=61.93' (Free Discharge)

↑1=P-317A (Barrel Controls 1.22 cfs @ 3.01 fps)

Summary for Pond DMH 516: DMH 516

Inflow Area = 16,888 sf, 97.48% Impervious, Inflow Depth > 5.51" for 25-YEAR event
 Inflow = 2.37 cfs @ 12.02 hrs, Volume= 7,753 cf
 Outflow = 2.36 cfs @ 12.02 hrs, Volume= 7,753 cf, Atten= 0%, Lag= 0.1 min
 Primary = 2.36 cfs @ 12.02 hrs, Volume= 7,753 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 61.43' @ 12.02 hrs Surf.Area= 13 sf Storage= 13 cf

Plug-Flow detention time= 0.3 min calculated for 7,747 cf (100% of inflow)

Center-of-Mass det. time= 0.3 min (745.4 - 745.1)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 229

Volume	Invert	Avail.Storage	Storage Description
#1	60.40'	60 cf	4.00'D x 4.80'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	60.40'	12.0" Round P-341A L= 58.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 60.40' / 60.10' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.26 cfs @ 12.02 hrs HW=61.39' (Free Discharge)

1=P-341A (Barrel Controls 2.26 cfs @ 3.61 fps)

Summary for Pond DMH 533: DMH 533

Inflow Area = 253,263 sf, 100.00% Impervious, Inflow Depth > 5.56" for 25-YEAR event
 Inflow = 35.90 cfs @ 12.02 hrs, Volume= 117,369 cf
 Outflow = 36.04 cfs @ 12.03 hrs, Volume= 117,369 cf, Atten= 0%, Lag= 0.1 min
 Primary = 36.04 cfs @ 12.03 hrs, Volume= 117,369 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 71.38' @ 12.03 hrs Surf.Area= 13 sf Storage= 83 cf

Plug-Flow detention time= 0.1 min calculated for 117,286 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (741.7 - 741.6)

Volume	Invert	Avail.Storage	Storage Description
#1	64.80'	161 cf	4.00'D x 12.80'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	64.80'	24.0" Round P-366 L= 67.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.80' / 64.15' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=34.43 cfs @ 12.03 hrs HW=70.98' (Free Discharge)

1=P-366 (Inlet Controls 34.43 cfs @ 10.96 fps)

Summary for Pond DMH 534: DMH 534

Inflow Area = 253,263 sf, 100.00% Impervious, Inflow Depth > 5.56" for 25-YEAR event
 Inflow = 36.03 cfs @ 12.02 hrs, Volume= 117,369 cf
 Outflow = 35.90 cfs @ 12.02 hrs, Volume= 117,369 cf, Atten= 0%, Lag= 0.2 min
 Primary = 35.90 cfs @ 12.02 hrs, Volume= 117,369 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.27' @ 12.02 hrs Surf.Area= 13 sf Storage= 91 cf

Plug-Flow detention time= 0.1 min calculated for 117,369 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (741.6 - 741.6)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 230

Volume	Invert	Avail.Storage	Storage Description
#1	67.00'	95 cf	4.00'D x 7.55'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	67.00'	24.0" Round P-367 L= 208.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 67.00' / 64.90' S= 0.0101 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=34.43 cfs @ 12.02 hrs HW=73.82' (Free Discharge)↑**1=P-367** (Barrel Controls 34.43 cfs @ 10.96 fps)**Summary for Pond DMH 535: DMH 535**

Inflow Area = 253,263 sf, 100.00% Impervious, Inflow Depth > 5.56" for 25-YEAR event
 Inflow = 36.14 cfs @ 12.02 hrs, Volume= 117,369 cf
 Outflow = 36.03 cfs @ 12.02 hrs, Volume= 117,369 cf, Atten= 0%, Lag= 0.1 min
 Primary = 36.03 cfs @ 12.02 hrs, Volume= 117,369 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.45' @ 12.02 hrs Surf.Area= 13 sf Storage= 83 cf

Plug-Flow detention time= 0.1 min calculated for 117,368 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (741.6 - 741.5)

Volume	Invert	Avail.Storage	Storage Description
#1	68.85'	88 cf	4.00'D x 7.00'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	68.85'	24.0" Round P-368 L= 135.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.85' / 67.50' S= 0.0100 '/ Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=34.49 cfs @ 12.02 hrs HW=75.05' (Free Discharge)↑**1=P-368** (Inlet Controls 34.49 cfs @ 10.98 fps)**Summary for Pond DMH 536: DMH 536**

Inflow Area = 98,310 sf, 100.00% Impervious, Inflow Depth > 5.56" for 25-YEAR event
 Inflow = 14.06 cfs @ 12.02 hrs, Volume= 45,559 cf
 Outflow = 13.94 cfs @ 12.02 hrs, Volume= 45,559 cf, Atten= 1%, Lag= 0.3 min
 Primary = 13.94 cfs @ 12.02 hrs, Volume= 45,559 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 76.65' @ 12.02 hrs Surf.Area= 13 sf Storage= 57 cf

Plug-Flow detention time= 0.1 min calculated for 45,559 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (741.7 - 741.5)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT
Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 231

Volume	Invert	Avail.Storage	Storage Description
#1	72.10'	74 cf	4.00'D x 5.90'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	72.10'	18.0" Round P-369 L= 300.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 72.10' / 69.35' S= 0.0092 ' S= 0.0092 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=13.36 cfs @ 12.02 hrs HW=76.33' (Free Discharge)↑**1=P-369** (Barrel Controls 13.36 cfs @ 7.56 fps)**Summary for Pond DMH 537: DMH 537**

Inflow Area = 41,990 sf, 100.00% Impervious, Inflow Depth > 5.56" for 25-YEAR event
 Inflow = 6.02 cfs @ 12.02 hrs, Volume= 19,459 cf
 Outflow = 6.02 cfs @ 12.02 hrs, Volume= 19,459 cf, Atten= 0%, Lag= 0.0 min
 Primary = 6.02 cfs @ 12.02 hrs, Volume= 19,459 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 74.86' @ 12.02 hrs Surf.Area= 13 sf Storage= 17 cf

Plug-Flow detention time= 0.2 min calculated for 19,459 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (741.6 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	73.50'	57 cf	4.00'D x 4.50'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	73.50'	18.0" Round P-370 L= 260.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 73.50' / 72.20' S= 0.0050 ' S= 0.0050 ' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=5.75 cfs @ 12.02 hrs HW=74.82' (Free Discharge)↑**1=P-370** (Barrel Controls 5.75 cfs @ 4.66 fps)**Summary for Pond EX. CB: EX. CB 2436**

Inflow Area = 3,760 sf, 83.16% Impervious, Inflow Depth = 5.21" for 25-YEAR event
 Inflow = 0.54 cfs @ 12.01 hrs, Volume= 1,633 cf
 Primary = 0.54 cfs @ 12.01 hrs, Volume= 1,633 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 232

Summary for Pond EX. CB 2470: EX. CB 2470

Inflow Area = 8,298 sf, 74.23% Impervious, Inflow Depth = 5.05" for 25-YEAR event
 Inflow = 1.14 cfs @ 12.02 hrs, Volume= 3,492 cf
 Outflow = 1.14 cfs @ 12.02 hrs, Volume= 3,492 cf, Atten= 0%, Lag= 0.1 min
 Primary = 1.14 cfs @ 12.02 hrs, Volume= 3,492 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 75.23' @ 12.02 hrs Surf.Area= 13 sf Storage= 7 cf

Plug-Flow detention time= 0.4 min calculated for 3,490 cf (100% of inflow)
 Center-of-Mass det. time= 0.4 min (767.3 - 766.9)

Volume	Invert	Avail.Storage	Storage Description
#1	74.63'	43 cf	4.00'D x 3.42'H Vertical Cone/Cylinder

Device	Routing	Invert	Outlet Devices
#1	Primary	74.63'	12.0" Round EX. 12" L= 171.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.63' / 73.62' S= 0.0059 ' / Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.09 cfs @ 12.02 hrs HW=75.21' (Free Discharge)
 1=EX. 12" (Barrel Controls 1.09 cfs @ 3.33 fps)

Summary for Pond FB#1: FOREBAY #1

Inflow Area = 56,919 sf, 85.57% Impervious, Inflow Depth = 5.18" for 25-YEAR event
 Inflow = 7.75 cfs @ 12.03 hrs, Volume= 24,547 cf
 Outflow = 7.78 cfs @ 12.04 hrs, Volume= 24,070 cf, Atten= 0%, Lag= 0.4 min
 Primary = 7.78 cfs @ 12.04 hrs, Volume= 24,070 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.83' @ 12.04 hrs Surf.Area= 583 sf Storage= 651 cf

Plug-Flow detention time= 22.9 min calculated for 24,053 cf (98% of inflow)
 Center-of-Mass det. time= 10.7 min (772.4 - 761.7)

Volume	Invert	Avail.Storage	Storage Description
#1	72.20'	756 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
72.20	60	32.1	0	0	60
73.00	100	71.4	63	63	386
74.00	342	90.2	209	272	641
75.00	641	109.1	484	756	957

Device	Routing	Invert	Outlet Devices
#1	Primary	74.50'	16.0' long x 2.0' breadth Broad-Crested Rectangular Weir

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 233

Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
 2.50 3.00 3.50
 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88
 2.85 3.07 3.20 3.32

Primary OutFlow Max=7.51 cfs @ 12.04 hrs HW=74.82' (Free Discharge)

1=Broad-Crested Rectangular Weir (Weir Controls 7.51 cfs @ 1.46 fps)

Summary for Pond GW1-C1: GRAVEL WETLAND #1

Inflow Area = 56,919 sf, 85.57% Impervious, Inflow Depth = 5.07" for 25-YEAR event
 Inflow = 7.78 cfs @ 12.04 hrs, Volume= 24,070 cf
 Outflow = 7.41 cfs @ 12.06 hrs, Volume= 24,070 cf, Atten= 5%, Lag= 1.3 min
 Primary = 7.41 cfs @ 12.06 hrs, Volume= 24,070 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 74.73' @ 12.06 hrs Surf.Area= 7,140 sf Storage= 6,261 cf

Plug-Flow detention time= 206.2 min calculated for 24,053 cf (100% of inflow)
 Center-of-Mass det. time= 206.4 min (978.8 - 772.4)

Volume	Invert	Avail.Storage	Storage Description
#1	72.00'	2,815 cf	Gravel Wetland #1 - Cell #1 (Irregular) Listed below (Recalc)
#2	72.00'	2,628 cf	Gravel Wetland #1 - Cell #2 (Irregular) Listed below (Recalc)
#3	74.50'	1,950 cf	GW #1 - Extended Storage (Irregular) Listed below (Recalc)
		7,393 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
72.00	581	126.2	0	0	581
73.00	1,002	148.6	782	782	1,090
74.00	1,476	167.4	1,231	2,013	1,588
74.50	1,734	176.8	802	2,815	1,860

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
72.00	598	101.7	0	0	598
73.00	944	123.6	764	764	1,006
74.00	1,343	142.4	1,138	1,902	1,426
74.50	1,563	151.9	726	2,628	1,660

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
74.50	3,358	293.1	0	0	3,358
75.00	4,467	273.3	1,950	1,950	4,262

Device	Routing	Invert	Outlet Devices
#1	Primary	74.50'	21.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 234

			Coef. (English)	2.54	2.61	2.61	2.60	2.66	2.70	2.77	2.89	2.88
				2.85	3.07	3.20	3.32					
#2	Primary	74.50'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)									
#3	Primary	71.67'	2.0" Vert. Orifice/Grate C= 0.600									

Primary OutFlow Max=7.21 cfs @ 12.06 hrs HW=74.72' (Free Discharge)

1=Broad-Crested Rectangular Weir (Weir Controls 5.65 cfs @ 1.20 fps)

2=Sharp-Crested Vee/Trap Weir (Weir Controls 1.38 cfs @ 1.55 fps)

3=Orifice/Grate (Orifice Controls 0.18 cfs @ 8.30 fps)

Summary for Pond SF#1: SAND FILTER #1

Inflow Area =	94,010 sf, 86.19% Impervious, Inflow Depth > 5.28" for 25-YEAR event
Inflow =	12.71 cfs @ 12.03 hrs, Volume= 41,344 cf
Outflow =	14.10 cfs @ 12.06 hrs, Volume= 40,994 cf, Atten= 0%, Lag= 1.8 min
Primary =	14.10 cfs @ 12.06 hrs, Volume= 40,994 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 75.96' @ 12.06 hrs Surf.Area= 2,655 sf Storage= 6,038 cf

Plug-Flow detention time= 28.3 min calculated for 40,965 cf (99% of inflow)

Center-of-Mass det. time= 23.0 min (778.6 - 755.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	70.90'	4,529 cf	21.50'W x 123.48'L x 4.83'H Field A 12,832 cf Overall - 1,509 cf Embedded = 11,322 cf x 40.0% Voids
#2A	73.90'	1,509 cf	ADS_StormTech SC-310 x 102 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 6 rows
		6,038 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 3	75.45'	10.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)
#2	Device 3	71.23'	8.0" Vert. Orifice/Grate C= 0.600
#3	Primary	71.10'	24.0" Round P-350 L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.10' / 70.00' S= 0.0333 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=13.10 cfs @ 12.06 hrs HW=75.89' (Free Discharge)

3=P-350 (Passes 13.10 cfs of 29.45 cfs potential flow)

1=Sharp-Crested Vee/Trap Weir (Weir Controls 9.61 cfs @ 2.18 fps)

2=Orifice/Grate (Orifice Controls 3.50 cfs @ 10.02 fps)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 235

Summary for Pond SF#2: SAND FILTER #2

Inflow Area = 86,124 sf, 87.35% Impervious, Inflow Depth = 5.27" for 25-YEAR event
 Inflow = 11.98 cfs @ 12.02 hrs, Volume= 37,798 cf
 Outflow = 6.91 cfs @ 12.14 hrs, Volume= 37,337 cf, Atten= 42%, Lag= 6.8 min
 Primary = 6.91 cfs @ 12.14 hrs, Volume= 37,337 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 73.85' @ 12.13 hrs Surf.Area= 3,478 sf Storage= 7,931 cf

Plug-Flow detention time= 39.8 min calculated for 37,311 cf (99% of inflow)
 Center-of-Mass det. time= 32.2 min (789.0 - 756.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	67.85'	5,919 cf	28.17'W x 123.48'L x 4.83'H Field A 16,810 cf Overall - 2,012 cf Embedded = 14,798 cf x 40.0% Voids
#2A	70.85'	2,012 cf	ADS_StormTech SC-310 x 136 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 8 rows
		7,931 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 3	73.38'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)
#2	Device 3	68.18'	8.0" Vert. Orifice/Grate C= 0.600
#3	Primary	68.15'	24.0" Round P-266B L= 96.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.15' / 67.65' S= 0.0052 ' ' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.47 cfs @ 12.14 hrs HW=73.72' (Free Discharge)

└─**3=P-266B** (Passes 6.47 cfs of 32.06 cfs potential flow)

└─**1=Sharp-Crested Vee/Trap Weir** (Weir Controls 2.63 cfs @ 1.92 fps)

└─**2=Orifice/Grate** (Orifice Controls 3.84 cfs @ 10.99 fps)

Summary for Pond SF#3: SAND FILTER #3

Inflow Area = 10,533 sf, 83.14% Impervious, Inflow Depth = 5.24" for 25-YEAR event
 Inflow = 1.47 cfs @ 12.02 hrs, Volume= 4,599 cf
 Outflow = 0.72 cfs @ 12.14 hrs, Volume= 4,542 cf, Atten= 51%, Lag= 7.0 min
 Primary = 0.72 cfs @ 12.14 hrs, Volume= 4,542 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 71.65' @ 12.14 hrs Surf.Area= 427 sf Storage= 651 cf

Plug-Flow detention time= 24.1 min calculated for 4,539 cf (99% of inflow)
 Center-of-Mass det. time= 16.3 min (775.7 - 759.4)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 236

Volume	Invert	Avail.Storage	Storage Description
#1A	68.20'	742 cf	8.17'W x 52.28'L x 4.83'H Field A 2,064 cf Overall - 208 cf Embedded = 1,855 cf x 40.0% Voids
#2A	71.20'	208 cf	ADS_StormTech SC-310 x 14 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 2 rows
		950 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	68.40'	12.0" Round P-??? L= 108.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 68.40' / 67.30' S= 0.0102 ' / Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	68.53'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	72.53'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=0.72 cfs @ 12.14 hrs HW=71.64' (Free Discharge)

1=P-??? (Passes 0.72 cfs of 5.50 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.72 cfs @ 8.26 fps)

3=Sharp-Crested Vee/Trap Weir (Controls 0.00 cfs)

Summary for Pond SF#4: SAND FILTER #4

Inflow Area = 28,735 sf, 72.53% Impervious, Inflow Depth = 4.97" for 25-YEAR event
 Inflow = 3.74 cfs @ 12.05 hrs, Volume= 11,906 cf
 Outflow = 3.70 cfs @ 12.06 hrs, Volume= 11,778 cf, Atten= 1%, Lag= 0.5 min
 Primary = 3.70 cfs @ 12.06 hrs, Volume= 11,778 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 76.87' @ 12.06 hrs Surf.Area= 971 sf Storage= 765 cf

Plug-Flow detention time= 25.9 min calculated for 11,778 cf (99% of inflow)

Center-of-Mass det. time= 18.1 min (784.1 - 766.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	74.90'	1,663 cf	21.50'W x 45.16'L x 4.83'H Field A 4,693 cf Overall - 536 cf Embedded = 4,157 cf x 40.0% Voids
#2A	77.90'	536 cf	ADS_StormTech SC-310 x 36 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 6 rows
		2,199 cf	Total Available Storage

Storage Group A created with Chamber Wizard

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 237

Device	Routing	Invert	Outlet Devices
#1	Device 3	76.48'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)
#2	Device 3	75.23'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	75.10'	18.0" Round P-??? L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.10' / 74.75' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.62 cfs @ 12.06 hrs HW=76.86' (Free Discharge)

3=P-??? (Passes 3.62 cfs of 8.48 cfs potential flow)

1=Sharp-Crested Vee/Trap Weir (Weir Controls 3.11 cfs @ 2.03 fps)

2=Orifice/Grate (Orifice Controls 0.51 cfs @ 5.83 fps)

Summary for Pond SF#5: SAND FILTER #5

Inflow Area = 56,635 sf, 68.61% Impervious, Inflow Depth = 4.92" for 25-YEAR event
 Inflow = 7.15 cfs @ 12.05 hrs, Volume= 23,232 cf
 Outflow = 3.11 cfs @ 12.22 hrs, Volume= 22,955 cf, Atten= 57%, Lag= 10.1 min
 Primary = 3.11 cfs @ 12.22 hrs, Volume= 22,955 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 70.04' @ 12.22 hrs Surf.Area= 2,095 sf Storage= 4,123 cf

Plug-Flow detention time= 31.2 min calculated for 22,955 cf (99% of inflow)
 Center-of-Mass det. time= 22.8 min (794.3 - 771.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	65.95'	3,570 cf	31.50'W x 66.52'L x 4.83'H Field A 10,128 cf Overall - 1,202 cf Embedded = 8,925 cf x 40.0% Voids
#2A	68.95'	1,202 cf	ADS_StormTech SC-310 x 81 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 9 rows
			4,772 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 3	70.28'	4.0' long Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)
#2	Device 3	66.28'	8.0" Vert. Orifice/Grate C= 0.600
#3	Primary	66.10'	18.0" Round Culvert L= 98.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.10' / 65.10' S= 0.0102 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.10 cfs @ 12.22 hrs HW=70.02' (Free Discharge)

3=Culvert (Passes 3.10 cfs of 15.08 cfs potential flow)

1=Sharp-Crested Vee/Trap Weir (Controls 0.00 cfs)

2=Orifice/Grate (Orifice Controls 3.10 cfs @ 8.89 fps)

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 25-YEAR Rainfall=5.80"

Printed 2/1/2016

Page 238

Summary for Link AP-1: Highway culvert

Inflow Area = 9,269,083 sf, 51.53% Impervious, Inflow Depth > 4.02" for 25-YEAR event

Inflow = 216.96 cfs @ 13.09 hrs, Volume= 3,104,230 cf

Primary = 216.96 cfs @ 13.09 hrs, Volume= 3,104,230 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 77

Time span=1.00-72.00 hrs, dt=0.05 hrs, 1421 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 101: Off-site/Mixed zone Runoff Area=3,782,192 sf 43.10% Impervious Runoff Depth=5.27"
Flow Length=3,330' Tc=46.6 min CN=86 Runoff=238.09 cfs 1,660,887 cf

Subcatchment 102: South of railroad Runoff Area=1,135,658 sf 6.62% Impervious Runoff Depth=4.38"
Flow Length=617' Tc=26.5 min CN=78 Runoff=79.78 cfs 414,913 cf

Subcatchment 103: Park & Ride Runoff Area=189,475 sf 30.32% Impervious Runoff Depth=5.04"
Flow Length=754' Tc=19.7 min CN=84 Runoff=17.12 cfs 79,658 cf

Subcatchment 1100: PR-WS-1100 Runoff Area=25,136 sf 96.39% Impervious Runoff Depth>6.54"
Flow Length=249' Slope=0.0300 '/' Tc=1.5 min CN=97 Runoff=4.24 cfs 13,704 cf

Subcatchment 1101: PR-WS-1101 Runoff Area=77,854 sf 80.46% Impervious Runoff Depth=6.19"
Flow Length=319' Slope=0.0200 '/' Tc=2.3 min CN=94 Runoff=12.85 cfs 40,153 cf

Subcatchment 1102: PR-WS-1102 Runoff Area=14,898 sf 100.00% Impervious Runoff Depth>6.66"
Flow Length=303' Tc=2.1 min CN=98 Runoff=2.51 cfs 8,266 cf

Subcatchment 1103: N/W of railroad Runoff Area=41,085 sf 0.00% Impervious Runoff Depth=4.38"
Flow Length=556' Tc=6.6 min CN=78 Runoff=4.66 cfs 15,010 cf

Subcatchment 1104: North of railroad Runoff Area=7,693 sf 70.79% Impervious Runoff Depth=5.96"
Flow Length=180' Tc=3.2 min CN=92 Runoff=1.23 cfs 3,818 cf

Subcatchment 1105: N/E of railroad Runoff Area=81,158 sf 0.00% Impervious Runoff Depth=5.38"
Flow Length=315' Slope=0.1000 '/' Tc=6.6 min CN=87 Runoff=10.91 cfs 36,404 cf

Subcatchment 1106: PR-WS-1106 Runoff Area=141,898 sf 6.92% Impervious Runoff Depth=3.54"
Flow Length=360' Tc=6.9 min CN=70 Runoff=12.91 cfs 41,806 cf

Subcatchment 1107: Quarry Runoff Area=944,293 sf 87.22% Impervious Runoff Depth=6.31"
Flow Length=55' Slope=0.3300 '/' Tc=2.9 min CN=95 Runoff=156.43 cfs 496,246 cf

Subcatchment 1110: Travelodge Runoff Area=203,088 sf 85.03% Impervious Runoff Depth=6.19"
Flow Length=170' Slope=0.0200 '/' Tc=1.4 min CN=94 Runoff=33.74 cfs 104,743 cf

Subcatchment 1111: PR-WS-1111 Runoff Area=322,054 sf 17.82% Impervious Runoff Depth=4.71"
Flow Length=375' Tc=4.1 min CN=81 Runoff=42.20 cfs 126,463 cf

Subcatchment PR-101A: PR-WS-101A Runoff Area=12,140 sf 41.37% Impervious Runoff Depth=5.38"
Flow Length=205' Tc=4.2 min CN=87 Runoff=1.76 cfs 5,446 cf

Subcatchment PR-101B: PR-WS-101B Runoff Area=16,595 sf 95.33% Impervious Runoff Depth>6.54"
Flow Length=226' Tc=2.3 min CN=97 Runoff=2.79 cfs 9,047 cf

Subcatchment PR-102: PR-102 Runoff Area=11,587 sf 94.81% Impervious Runoff Depth>6.54"
Flow Length=187' Tc=2.0 min CN=97 Runoff=1.95 cfs 6,317 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 78

Subcatchment PR-103: PR-103	Runoff Area=4,529 sf 74.81% Impervious Runoff Depth=6.07"
Flow Length=21'	Slope=0.0200 '/' Tc=4.1 min CN=93 Runoff=0.71 cfs 2,292 cf
Subcatchment PR-104: PR-104	Runoff Area=9,984 sf 93.60% Impervious Runoff Depth=6.42"
Flow Length=189'	Slope=0.0200 '/' Tc=1.5 min CN=96 Runoff=1.68 cfs 5,345 cf
Subcatchment PR-105: PR-WS-105	Runoff Area=3,217 sf 91.79% Impervious Runoff Depth=6.42"
Flow Length=96'	Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.55 cfs 1,722 cf
Subcatchment PR-106: PR-WS-106	Runoff Area=6,892 sf 91.12% Impervious Runoff Depth=6.42"
Flow Length=163'	Slope=0.0150 '/' Tc=1.6 min CN=96 Runoff=1.15 cfs 3,690 cf
Subcatchment PR-107: PR-WS-107	Runoff Area=9,747 sf 84.59% Impervious Runoff Depth=6.19"
Flow Length=134'	Slope=0.0150 '/' Tc=1.4 min CN=94 Runoff=1.62 cfs 5,027 cf
Subcatchment PR-108: PR-WS-108	Runoff Area=3,430 sf 52.97% Impervious Runoff Depth=5.38"
Flow Length=54'	Tc=2.7 min CN=87 Runoff=0.52 cfs 1,539 cf
Subcatchment PR-109: PR-WS-109	Runoff Area=4,191 sf 87.57% Impervious Runoff Depth=6.42"
Flow Length=66'	Tc=2.0 min CN=96 Runoff=0.70 cfs 2,244 cf
Subcatchment PR-110: PR-WS-110	Runoff Area=4,653 sf 92.69% Impervious Runoff Depth>6.54"
Flow Length=18'	Slope=0.0200 '/' Tc=2.9 min CN=97 Runoff=0.78 cfs 2,537 cf
Subcatchment PR-111: PR-WS-111	Runoff Area=1,730 sf 95.32% Impervious Runoff Depth>6.54"
Flow Length=94'	Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.30 cfs 943 cf
Subcatchment PR-112: PR-WS-112	Runoff Area=2,211 sf 94.93% Impervious Runoff Depth>6.54"
Flow Length=112'	Slope=0.0200 '/' Tc=1.1 min CN=97 Runoff=0.38 cfs 1,205 cf
Subcatchment PR-113: PR-WS-113	Runoff Area=3,982 sf 100.00% Impervious Runoff Depth>6.66"
Flow Length=40'	Slope=0.0200 '/' Tc=0.6 min CN=98 Runoff=0.70 cfs 2,209 cf
Subcatchment PR-114: PR-WS-114	Runoff Area=8,860 sf 84.37% Impervious Runoff Depth=6.19"
Flow Length=93'	Tc=3.0 min CN=94 Runoff=1.45 cfs 4,570 cf
Subcatchment PR-115: PR-WS-115	Runoff Area=4,830 sf 90.85% Impervious Runoff Depth=6.42"
Flow Length=63'	Tc=1.6 min CN=96 Runoff=0.81 cfs 2,586 cf
Subcatchment PR-116: PR-WS-116	Runoff Area=11,048 sf 85.47% Impervious Runoff Depth=6.31"
Flow Length=92'	Tc=2.2 min CN=95 Runoff=1.84 cfs 5,806 cf
Subcatchment PR-117: PR-WS-117	Runoff Area=28,987 sf 88.81% Impervious Runoff Depth=6.42"
Flow Length=141'	Tc=3.9 min CN=96 Runoff=4.70 cfs 15,518 cf
Subcatchment PR-118: PR-WS-118	Runoff Area=11,145 sf 83.65% Impervious Runoff Depth=6.31"
Flow Length=87'	Slope=0.0200 '/' Tc=4.8 min CN=95 Runoff=1.73 cfs 5,857 cf
Subcatchment PR-119: PR-WS-119	Runoff Area=9,940 sf 84.19% Impervious Runoff Depth=6.19"
Flow Length=272'	Slope=0.0200 '/' Tc=2.0 min CN=94 Runoff=1.64 cfs 5,127 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 79

Subcatchment PR-120: PR-WS-120	Runoff Area=5,203 sf 70.06% Impervious Runoff Depth=5.84" Flow Length=136' Tc=1.1 min CN=91 Runoff=0.85 cfs 2,532 cf
Subcatchment PR-121: PR-WS-121	Runoff Area=34,922 sf 92.10% Impervious Runoff Depth=6.42" Flow Length=67' Tc=2.6 min CN=96 Runoff=5.84 cfs 18,695 cf
Subcatchment PR-122: PR-WS-122	Runoff Area=34,176 sf 89.54% Impervious Runoff Depth=6.42" Flow Length=108' Tc=3.4 min CN=96 Runoff=5.64 cfs 18,296 cf
Subcatchment PR-123: PR-WS-123	Runoff Area=29,407 sf 85.16% Impervious Runoff Depth=6.31" Flow Length=109' Tc=2.2 min CN=95 Runoff=4.89 cfs 15,454 cf
Subcatchment PR-124: PR-WS-124	Runoff Area=26,584 sf 88.43% Impervious Runoff Depth=6.42" Flow Length=89' Tc=3.3 min CN=96 Runoff=4.40 cfs 14,231 cf
Subcatchment PR-125: PR-WS-125	Runoff Area=7,219 sf 83.46% Impervious Runoff Depth=6.31" Flow Length=185' Slope=0.0200 '/' Tc=2.8 min CN=95 Runoff=1.20 cfs 3,794 cf
Subcatchment PR-126: PR-WS-126	Runoff Area=6,500 sf 57.17% Impervious Runoff Depth=5.73" Flow Length=66' Tc=3.4 min CN=90 Runoff=1.01 cfs 3,101 cf
Subcatchment PR-127: PR-WS-127	Runoff Area=2,495 sf 74.07% Impervious Runoff Depth=6.07" Flow Length=121' Tc=1.0 min CN=93 Runoff=0.42 cfs 1,263 cf
Subcatchment PR-128: PR-WS-128	Runoff Area=19,006 sf 89.37% Impervious Runoff Depth=6.42" Flow Length=94' Tc=3.3 min CN=96 Runoff=3.14 cfs 10,175 cf
Subcatchment PR-129: PR-WS-129	Runoff Area=6,545 sf 87.23% Impervious Runoff Depth=6.42" Flow Length=64' Tc=2.5 min CN=96 Runoff=1.10 cfs 3,504 cf
Subcatchment PR-130: PR-WS-130	Runoff Area=5,821 sf 44.94% Impervious Runoff Depth=5.50" Flow Length=136' Tc=4.6 min CN=88 Runoff=0.84 cfs 2,666 cf
Subcatchment PR-131: PR-WS-131	Runoff Area=13,655 sf 42.16% Impervious Runoff Depth=5.50" Flow Length=163' Tc=5.3 min CN=88 Runoff=1.92 cfs 6,254 cf
Subcatchment PR-132: PR-WS-132	Runoff Area=27,639 sf 0.00% Impervious Runoff Depth=4.60" Flow Length=186' Slope=0.0300 '/' Tc=11.2 min CN=80 Runoff=2.84 cfs 10,600 cf
Subcatchment PR-133: PR-WS-133	Runoff Area=3,782 sf 78.79% Impervious Runoff Depth=6.19" Flow Length=61' Tc=2.3 min CN=94 Runoff=0.62 cfs 1,951 cf
Subcatchment PR-135: PR-WS-135	Runoff Area=57,274 sf 93.46% Impervious Runoff Depth>6.54" Flow Length=96' Tc=2.3 min CN=97 Runoff=9.64 cfs 31,225 cf
Subcatchment PR-136: PR-WS-136	Runoff Area=5,021 sf 83.43% Impervious Runoff Depth=6.31" Flow Length=152' Slope=0.0200 '/' Tc=2.6 min CN=95 Runoff=0.83 cfs 2,639 cf
Subcatchment PR-137: PR-WS-137	Runoff Area=6,491 sf 89.29% Impervious Runoff Depth=6.42" Flow Length=79' Tc=2.0 min CN=96 Runoff=1.09 cfs 3,475 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 80

Subcatchment PR-138: PR-WS-138	Runoff Area=6,721 sf 83.34% Impervious Runoff Depth=6.31" Flow Length=154' Tc=2.2 min CN=95 Runoff=1.12 cfs 3,532 cf
Subcatchment PR-139: PR-WS-139	Runoff Area=13,664 sf 93.38% Impervious Runoff Depth>6.54" Flow Length=73' Tc=2.1 min CN=97 Runoff=2.30 cfs 7,449 cf
Subcatchment PR-140: PR-WS-140	Runoff Area=16,941 sf 86.79% Impervious Runoff Depth=6.31" Flow Length=100' Tc=2.2 min CN=95 Runoff=2.82 cfs 8,903 cf
Subcatchment PR-141: PR-WS-141	Runoff Area=63,852 sf 96.08% Impervious Runoff Depth>6.54" Flow Length=153' Slope=0.0300 '/' Tc=1.1 min CN=97 Runoff=10.97 cfs 34,811 cf
Subcatchment PR-142: PR-WS-142	Runoff Area=7,046 sf 94.68% Impervious Runoff Depth>6.54" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=1.20 cfs 3,841 cf
Subcatchment PR-143: PR-WS-143	Runoff Area=2,759 sf 93.19% Impervious Runoff Depth>6.54" Flow Length=95' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.48 cfs 1,504 cf
Subcatchment PR-144: PR-WS-144	Runoff Area=5,804 sf 95.35% Impervious Runoff Depth>6.54" Flow Length=141' Slope=0.0200 '/' Tc=1.2 min CN=97 Runoff=0.99 cfs 3,164 cf
Subcatchment PR-145: PR-WS-145	Runoff Area=5,741 sf 83.43% Impervious Runoff Depth=6.31" Flow Length=105' Tc=2.3 min CN=95 Runoff=0.95 cfs 3,017 cf
Subcatchment PR-146: PR-WS-146	Runoff Area=48,802 sf 78.10% Impervious Runoff Depth=6.19" Flow Length=75' Tc=3.1 min CN=94 Runoff=7.99 cfs 25,170 cf
Subcatchment PR-147: PR-WS-147	Runoff Area=2,815 sf 75.52% Impervious Runoff Depth=6.19" Flow Length=105' Slope=0.0200 '/' Tc=1.0 min CN=94 Runoff=0.48 cfs 1,452 cf
Subcatchment PR-148: PR-WS-148	Runoff Area=23,625 sf 95.90% Impervious Runoff Depth>6.54" Flow Length=147' Tc=2.5 min CN=97 Runoff=3.97 cfs 12,880 cf
Subcatchment PR-149: PR-149	Runoff Area=9,728 sf 57.71% Impervious Runoff Depth=5.50" Flow Length=98' Tc=7.5 min CN=88 Runoff=1.29 cfs 4,456 cf
Subcatchment PR-150: PR-WS-150	Runoff Area=3,710 sf 87.55% Impervious Runoff Depth=6.42" Flow Length=98' Slope=0.0200 '/' Tc=1.0 min CN=96 Runoff=0.64 cfs 1,986 cf
Subcatchment PR-151: PR-WS-151	Runoff Area=2,194 sf 75.89% Impervious Runoff Depth=6.19" Flow Length=67' Tc=2.3 min CN=94 Runoff=0.36 cfs 1,132 cf
Subcatchment PR-152: PR-WS-152	Runoff Area=1,814 sf 94.71% Impervious Runoff Depth>6.54" Flow Length=100' Slope=0.0200 '/' Tc=1.0 min CN=97 Runoff=0.31 cfs 989 cf
Subcatchment PR-153: PR-WS-153	Runoff Area=14,695 sf 0.00% Impervious Runoff Depth=4.60" Flow Length=350' Slope=0.0200 '/' Tc=13.0 min CN=80 Runoff=1.43 cfs 5,636 cf
Subcatchment PR-154: PR-WS-154	Runoff Area=7,489 sf 92.48% Impervious Runoff Depth>6.54" Flow Length=60' Tc=2.0 min CN=97 Runoff=1.26 cfs 4,083 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 81

Subcatchment PR-155: PR-WS-155	Runoff Area=3,567 sf 91.56% Impervious Runoff Depth=6.42"
Flow Length=134'	Slope=0.0200 '/' Tc=1.2 min CN=96 Runoff=0.61 cfs 1,910 cf
Subcatchment PR-156: PR-WS-156	Runoff Area=7,350 sf 93.33% Impervious Runoff Depth>6.54"
Flow Length=80'	Tc=3.1 min CN=97 Runoff=1.23 cfs 4,007 cf
Subcatchment PR-157: PR-WS-157	Runoff Area=6,981 sf 72.41% Impervious Runoff Depth=6.07"
Flow Length=152'	Tc=4.0 min CN=93 Runoff=1.10 cfs 3,533 cf
Subcatchment PR-158: PR-WS-158	Runoff Area=6,953 sf 68.78% Impervious Runoff Depth=5.96"
Flow Length=127'	Tc=3.8 min CN=92 Runoff=1.10 cfs 3,451 cf
Subcatchment PR-159: PR-WS-159	Runoff Area=4,186 sf 72.81% Impervious Runoff Depth=5.96"
Flow Length=95'	Tc=3.8 min CN=92 Runoff=0.66 cfs 2,078 cf
Subcatchment PR-160: PR-WS-160	Runoff Area=11,478 sf 94.39% Impervious Runoff Depth>6.54"
Flow Length=156'	Slope=0.0200 '/' Tc=1.3 min CN=97 Runoff=1.95 cfs 6,258 cf
Subcatchment PR-161: PR-WS-161	Runoff Area=7,970 sf 81.54% Impervious Runoff Depth=6.19"
Flow Length=146'	Tc=3.2 min CN=94 Runoff=1.30 cfs 4,111 cf
Subcatchment PR-162: PR-WS-162	Runoff Area=7,445 sf 0.00% Impervious Runoff Depth=4.60"
Flow Length=88'	Slope=0.0900 '/' Tc=6.3 min CN=80 Runoff=0.89 cfs 2,855 cf
Subcatchment PR-165: PR-WS-165	Runoff Area=11,723 sf 87.49% Impervious Runoff Depth=6.42"
Flow Length=251'	Tc=4.1 min CN=96 Runoff=1.89 cfs 6,276 cf
Subcatchment PR-166: PR-WS-166	Runoff Area=5,581 sf 69.88% Impervious Runoff Depth=6.07"
Flow Length=163'	Slope=0.0300 '/' Tc=1.1 min CN=93 Runoff=0.93 cfs 2,824 cf
Subcatchment PR-167: PR-167	Runoff Area=5,485 sf 84.28% Impervious Runoff Depth=6.31"
Flow Length=218'	Slope=0.0200 '/' Tc=1.7 min CN=95 Runoff=0.91 cfs 2,882 cf
Subcatchment PR-168: PR-WS-168	Runoff Area=17,098 sf 95.64% Impervious Runoff Depth>6.54"
Flow Length=149'	Tc=1.2 min CN=97 Runoff=2.92 cfs 9,322 cf
Subcatchment PR-169: PR-WS-169	Runoff Area=16,367 sf 97.06% Impervious Runoff Depth>6.54"
Flow Length=149'	Tc=1.2 min CN=97 Runoff=2.80 cfs 8,923 cf
Subcatchment PR-170: PR-WS-170	Runoff Area=3,623 sf 93.21% Impervious Runoff Depth>6.54"
Flow Length=111'	Slope=0.0200 '/' Tc=1.1 min CN=97 Runoff=0.62 cfs 1,975 cf
Subcatchment PR-171: PR-WS-171	Runoff Area=10,681 sf 89.50% Impervious Runoff Depth=6.42"
Flow Length=141'	Slope=0.0200 '/' Tc=1.2 min CN=96 Runoff=1.82 cfs 5,718 cf
Subcatchment PR-172: PR-WS-172	Runoff Area=15,933 sf 83.27% Impervious Runoff Depth=6.19"
Flow Length=252'	Slope=0.0200 '/' Tc=1.9 min CN=94 Runoff=2.63 cfs 8,217 cf
Subcatchment PR-173: PR-WS-173	Runoff Area=9,735 sf 69.71% Impervious Runoff Depth=6.07"
Flow Length=195'	Slope=0.0200 '/' Tc=1.5 min CN=93 Runoff=1.60 cfs 4,926 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 82

Subcatchment PR-174: PR-WS-174	Runoff Area=1,621 sf 91.12% Impervious Runoff Depth=6.42" Flow Length=73' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.28 cfs 868 cf
Subcatchment PR-175: PR-WS-175	Runoff Area=15,020 sf 93.95% Impervious Runoff Depth>6.54" Flow Length=330' Slope=0.0300 '/' Tc=1.9 min CN=97 Runoff=2.52 cfs 8,189 cf
Subcatchment PR-176: PR-WS-176	Runoff Area=4,709 sf 57.74% Impervious Runoff Depth=5.73" Flow Length=147' Tc=1.1 min CN=90 Runoff=0.76 cfs 2,247 cf
Subcatchment PR-177: PR-WS-177	Runoff Area=5,356 sf 66.78% Impervious Runoff Depth=5.96" Flow Length=146' Slope=0.0300 '/' Tc=3.1 min CN=92 Runoff=0.86 cfs 2,658 cf
Subcatchment PR-178: PR-WS-178	Runoff Area=3,537 sf 55.41% Impervious Runoff Depth=5.50" Flow Length=95' Tc=3.0 min CN=88 Runoff=0.54 cfs 1,620 cf
Subcatchment PR-179: PR-WS-179	Runoff Area=5,822 sf 85.66% Impervious Runoff Depth=6.31" Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=95 Runoff=0.99 cfs 3,060 cf
Subcatchment PR-180: PR-WS-180	Runoff Area=10,571 sf 67.65% Impervious Runoff Depth=5.84" Flow Length=201' Tc=3.3 min CN=91 Runoff=1.67 cfs 5,145 cf
Subcatchment PR-181: PR-WS-181	Runoff Area=5,052 sf 72.62% Impervious Runoff Depth=6.07" Flow Length=47' Tc=3.8 min CN=93 Runoff=0.80 cfs 2,556 cf
Subcatchment PR-182: PR-WS-182	Runoff Area=14,289 sf 83.73% Impervious Runoff Depth=6.19" Flow Length=89' Tc=3.3 min CN=94 Runoff=2.33 cfs 7,370 cf
Subcatchment PR-183: PR-WS-183	Runoff Area=10,263 sf 82.87% Impervious Runoff Depth=6.19" Flow Length=28' Tc=2.2 min CN=94 Runoff=1.69 cfs 5,293 cf
Subcatchment PR-184: PR-WS-184	Runoff Area=836 sf 56.82% Impervious Runoff Depth=5.50" Flow Length=33' Tc=2.2 min CN=88 Runoff=0.13 cfs 383 cf
Subcatchment PR-185: PR-WS-185	Runoff Area=2,440 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=72' Tc=0.8 min CN=98 Runoff=0.43 cfs 1,354 cf
Subcatchment PR-186: PR-WS-186	Runoff Area=4,035 sf 66.27% Impervious Runoff Depth=5.96" Flow Length=126' Tc=3.4 min CN=92 Runoff=0.64 cfs 2,003 cf
Subcatchment PR-187: PR-WS-187	Runoff Area=2,386 sf 81.01% Impervious Runoff Depth=6.31" Flow Length=82' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.41 cfs 1,254 cf
Subcatchment PR-188: PR-WS-188	Runoff Area=3,760 sf 83.16% Impervious Runoff Depth=6.31" Flow Length=88' Slope=0.0200 '/' Tc=0.9 min CN=95 Runoff=0.64 cfs 1,976 cf
Subcatchment PR-189: PR-189	Runoff Area=7,399 sf 76.23% Impervious Runoff Depth=6.19" Flow Length=111' Slope=0.0200 '/' Tc=1.1 min CN=94 Runoff=1.25 cfs 3,816 cf
Subcatchment PR-190: PR-WS-190	Runoff Area=899 sf 57.84% Impervious Runoff Depth=5.73" Flow Length=15' Slope=0.0500 '/' Tc=2.2 min CN=90 Runoff=0.14 cfs 429 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 83

Subcatchment PR-191: PR-WS-191	Runoff Area=1,261 sf 75.02% Impervious Runoff Depth=6.19" Flow Length=38' Slope=0.0300 '/' Tc=0.5 min CN=94 Runoff=0.22 cfs 650 cf
Subcatchment PR-192: PR-192	Runoff Area=18,907 sf 76.83% Impervious Runoff Depth=6.19" Flow Length=331' Slope=0.0300 '/' Tc=1.9 min CN=94 Runoff=3.12 cfs 9,751 cf
Subcatchment PR-193: PR-WS-193	Runoff Area=4,533 sf 78.29% Impervious Runoff Depth=6.19" Flow Length=109' Slope=0.0300 '/' Tc=0.9 min CN=94 Runoff=0.77 cfs 2,338 cf
Subcatchment PR-194: PR-WS-194	Runoff Area=3,222 sf 76.66% Impervious Runoff Depth=6.19" Flow Length=79' Tc=1.6 min CN=94 Runoff=0.53 cfs 1,662 cf
Subcatchment PR-195: PR-WS-195	Runoff Area=3,145 sf 72.27% Impervious Runoff Depth=6.07" Flow Length=74' Slope=0.0200 '/' Tc=0.8 min CN=93 Runoff=0.53 cfs 1,591 cf
Subcatchment PR-196: PR-WS-196	Runoff Area=2,480 sf 78.35% Impervious Runoff Depth=6.19" Flow Length=54' Slope=0.0200 '/' Tc=0.7 min CN=94 Runoff=0.42 cfs 1,279 cf
Subcatchment PR-197: PR-WS-197	Runoff Area=7,513 sf 54.79% Impervious Runoff Depth=5.73" Flow Length=173' Tc=4.6 min CN=90 Runoff=1.12 cfs 3,584 cf
Subcatchment PR-198: PR-WS-198	Runoff Area=3,451 sf 67.75% Impervious Runoff Depth=5.96" Flow Length=120' Tc=1.1 min CN=92 Runoff=0.57 cfs 1,713 cf
Subcatchment PR-199: PR-WS-199	Runoff Area=19,470 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=90' Slope=0.0200 '/' Tc=0.9 min CN=98 Runoff=3.39 cfs 10,803 cf
Subcatchment PR-200: PR-WS-200	Runoff Area=4,958 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=43' Slope=0.0200 '/' Tc=0.6 min CN=98 Runoff=0.87 cfs 2,751 cf
Subcatchment PR-201: PR-WS-201	Runoff Area=17,363 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=62' Slope=0.0200 '/' Tc=0.8 min CN=98 Runoff=3.03 cfs 9,634 cf
Subcatchment PR-202: PR-WS-202	Runoff Area=41,990 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=155' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=7.18 cfs 23,298 cf
Subcatchment PR-203: PR-WS-203	Runoff Area=56,320 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=173' Slope=0.0200 '/' Tc=1.4 min CN=98 Runoff=9.58 cfs 31,250 cf
Subcatchment PR-204: PR-WS-204	Runoff Area=154,953 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=156' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=26.48 cfs 85,976 cf
Subcatchment PR-205: PR-WS-205	Runoff Area=5,000 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=57' Slope=0.0200 '/' Tc=0.8 min CN=98 Runoff=0.87 cfs 2,774 cf
Subcatchment PR-206: PR-WS-206	Runoff Area=46,931 sf 91.70% Impervious Runoff Depth=6.42" Flow Length=258' Tc=2.0 min CN=96 Runoff=7.85 cfs 25,124 cf
Subcatchment PR-207: PR-WS-207	Runoff Area=41,939 sf 87.69% Impervious Runoff Depth=6.31" Flow Length=203' Slope=0.0300 '/' Tc=1.3 min CN=95 Runoff=7.05 cfs 22,040 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 84

Subcatchment PR-208: PR-WS-208Runoff Area=34,046 sf 93.22% Impervious Runoff Depth=6.42"
Flow Length=133' Tc=3.9 min CN=96 Runoff=5.52 cfs 18,226 cf**Subcatchment PR-209: PR-WS-209**Runoff Area=45,267 sf 87.02% Impervious Runoff Depth=6.31"
Flow Length=226' Tc=1.7 min CN=95 Runoff=7.51 cfs 23,789 cf**Subcatchment PR-210: PR-WS-210**Runoff Area=7,297 sf 92.05% Impervious Runoff Depth=6.42"
Flow Length=63' Tc=1.9 min CN=96 Runoff=1.22 cfs 3,906 cf**Subcatchment PR-211: PR-WS-211**Runoff Area=5,623 sf 61.21% Impervious Runoff Depth=5.73"
Flow Length=62' Tc=3.8 min CN=90 Runoff=0.87 cfs 2,683 cf**Subcatchment PR-212: PR-WS-212**Runoff Area=6,331 sf 86.78% Impervious Runoff Depth=6.31"
Flow Length=180' Slope=0.0200 '/' Tc=1.5 min CN=95 Runoff=1.06 cfs 3,327 cf**Subcatchment PR-213: PR-WS-213**Runoff Area=6,309 sf 46.03% Impervious Runoff Depth=5.16"
Flow Length=71' Tc=6.2 min CN=85 Runoff=0.83 cfs 2,711 cf**Subcatchment PR-214: PR-WS-214**Runoff Area=4,362 sf 74.90% Impervious Runoff Depth=5.96"
Flow Length=131' Slope=0.0200 '/' Tc=1.2 min CN=92 Runoff=0.72 cfs 2,165 cf**Subcatchment PR-215: PR-WS-215**Runoff Area=18,724 sf 94.18% Impervious Runoff Depth>6.54"
Flow Length=190' Tc=1.4 min CN=97 Runoff=3.17 cfs 10,208 cf**Subcatchment PR-216: PR-WS-216**Runoff Area=8,340 sf 92.45% Impervious Runoff Depth>6.54"
Flow Length=147' Tc=1.2 min CN=97 Runoff=1.43 cfs 4,547 cf**Subcatchment PR-217: PR-WS-217**Runoff Area=12,055 sf 90.88% Impervious Runoff Depth=6.42"
Flow Length=202' Tc=1.5 min CN=96 Runoff=2.02 cfs 6,453 cf**Subcatchment PR-218: PR-WS-218**Runoff Area=9,128 sf 87.71% Impervious Runoff Depth=6.31"
Flow Length=150' Tc=1.2 min CN=95 Runoff=1.54 cfs 4,797 cf**Subcatchment PR-219: PR-WS-219**Runoff Area=7,197 sf 88.56% Impervious Runoff Depth=6.31"
Flow Length=150' Tc=2.8 min CN=95 Runoff=1.19 cfs 3,782 cf**Subcatchment PR-220: PR-WS-220**Runoff Area=1,912 sf 82.95% Impervious Runoff Depth=6.19"
Flow Length=43' Tc=1.9 min CN=94 Runoff=0.32 cfs 986 cf**Subcatchment PR-221: PR-WS-221**Runoff Area=17,250 sf 75.14% Impervious Runoff Depth=5.96"
Flow Length=102' Tc=0.9 min CN=92 Runoff=2.88 cfs 8,562 cf**Subcatchment PR-222: PR-WS-222**Runoff Area=5,297 sf 100.00% Impervious Runoff Depth>6.66"
Flow Length=102' Slope=0.0200 '/' Tc=1.0 min CN=98 Runoff=0.92 cfs 2,939 cf**Subcatchment PR-223: PR-WS-223**Runoff Area=3,545 sf 52.67% Impervious Runoff Depth=5.38"
Flow Length=47' Tc=4.8 min CN=87 Runoff=0.50 cfs 1,590 cf**Subcatchment PR-224: PR-WS-224**Runoff Area=2,359 sf 85.50% Impervious Runoff Depth=6.31"
Flow Length=70' Slope=0.0200 '/' Tc=0.8 min CN=95 Runoff=0.41 cfs 1,240 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 85

Subcatchment PR-225: PR-WS-225	Runoff Area=1,992 sf 76.61% Impervious Runoff Depth=6.07" Flow Length=62' Tc=1.7 min CN=93 Runoff=0.32 cfs 1,008 cf
Subcatchment PR-226: PR-WS-226 Flow Length=84'	Runoff Area=2,627 sf 81.35% Impervious Runoff Depth=6.19" Slope=0.0200 '/' Tc=0.9 min CN=94 Runoff=0.45 cfs 1,355 cf
Subcatchment PR-227: PR-WS-227 Flow Length=76'	Runoff Area=5,153 sf 92.16% Impervious Runoff Depth>6.54" Slope=0.0200 '/' Tc=0.9 min CN=97 Runoff=0.89 cfs 2,809 cf
Subcatchment PR-228: PR-WS-228	Runoff Area=8,230 sf 81.12% Impervious Runoff Depth=6.19" Flow Length=94' Tc=2.5 min CN=94 Runoff=1.36 cfs 4,245 cf
Subcatchment PR-229: PR-WS-229	Runoff Area=7,929 sf 47.80% Impervious Runoff Depth=5.38" Flow Length=276' Tc=5.4 min CN=87 Runoff=1.09 cfs 3,557 cf
Subcatchment PR-230: PR-WS-230 Flow Length=284'	Runoff Area=7,477 sf 54.31% Impervious Runoff Depth=5.50" Slope=0.0200 '/' Tc=2.1 min CN=88 Runoff=1.15 cfs 3,425 cf
Subcatchment PR-231: PR-WS-231 Flow Length=66'	Runoff Area=939 sf 78.70% Impervious Runoff Depth=6.19" Slope=0.0200 '/' Tc=0.8 min CN=94 Runoff=0.16 cfs 484 cf
Subcatchment PR-232: PR-WS-232	Runoff Area=1,737 sf 35.87% Impervious Runoff Depth=5.04" Flow Length=112' Tc=4.5 min CN=84 Runoff=0.24 cfs 730 cf
Subcatchment PR-233: PR-WS-233 Flow Length=212'	Runoff Area=6,441 sf 79.43% Impervious Runoff Depth=6.19" Slope=0.0200 '/' Tc=1.6 min CN=94 Runoff=1.06 cfs 3,322 cf
Subcatchment PR-234: PR-WS-234 Flow Length=138'	Runoff Area=4,885 sf 82.25% Impervious Runoff Depth=6.19" Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.82 cfs 2,519 cf
Subcatchment PR-235: PR-WS-235 Flow Length=111'	Runoff Area=3,350 sf 83.94% Impervious Runoff Depth=6.31" Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.57 cfs 1,760 cf
Subcatchment PR-236: PR-WS-236 Flow Length=160'	Runoff Area=4,700 sf 84.53% Impervious Runoff Depth=6.31" Slope=0.0200 '/' Tc=1.3 min CN=95 Runoff=0.79 cfs 2,470 cf
Subcatchment PR-237: PR-WS-237 Flow Length=146'	Runoff Area=3,951 sf 78.89% Impervious Runoff Depth=6.19" Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.66 cfs 2,038 cf
Subcatchment PR-238: PR-WS-238 Flow Length=146'	Runoff Area=3,671 sf 81.12% Impervious Runoff Depth=6.19" Slope=0.0200 '/' Tc=1.3 min CN=94 Runoff=0.61 cfs 1,893 cf
Subcatchment PR-239: PR-WS-239	Runoff Area=19,256 sf 91.62% Impervious Runoff Depth=6.42" Flow Length=89' Tc=2.6 min CN=96 Runoff=3.22 cfs 10,308 cf
Subcatchment PR-240: PR-WS-240	Runoff Area=19,732 sf 91.24% Impervious Runoff Depth=6.42" Flow Length=89' Tc=2.6 min CN=96 Runoff=3.30 cfs 10,563 cf
Subcatchment PR-241: PR-WS-241 Flow Length=76'	Runoff Area=9,283 sf 97.71% Impervious Runoff Depth>6.66" Slope=0.0300 '/' Tc=0.7 min CN=98 Runoff=1.63 cfs 5,151 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 86

Subcatchment PR-242: PR-WS-242	Runoff Area=13,884 sf 95.45% Impervious Runoff Depth>6.54" Flow Length=145' Tc=2.5 min CN=97 Runoff=2.34 cfs 7,569 cf
Subcatchment PR-243: PR-WS-243	Runoff Area=7,454 sf 61.20% Impervious Runoff Depth=5.61" Flow Length=59' Tc=3.8 min CN=89 Runoff=1.13 cfs 3,485 cf
Subcatchment PR-244: PR-WS-244	Runoff Area=7,605 sf 97.20% Impervious Runoff Depth>6.54" Flow Length=96' Tc=2.2 min CN=97 Runoff=1.28 cfs 4,146 cf
Subcatchment PR-245: PR-WS-245	Runoff Area=689 sf 89.55% Impervious Runoff Depth=6.42" Flow Length=54' Slope=0.0200 '/' Tc=0.7 min CN=96 Runoff=0.12 cfs 369 cf
Subcatchment PR-246: PR-WS-246	Runoff Area=1,614 sf 90.58% Impervious Runoff Depth=6.42" Flow Length=66' Slope=0.0200 '/' Tc=0.8 min CN=96 Runoff=0.28 cfs 864 cf
Subcatchment PR-247: PR-WS-247	Runoff Area=36,063 sf 0.00% Impervious Runoff Depth=4.71" Flow Length=452' Slope=0.0200 '/' Tc=15.0 min CN=81 Runoff=3.42 cfs 14,161 cf
Subcatchment PR-248: PR-WS-248	Runoff Area=37,567 sf 72.89% Impervious Runoff Depth=5.84" Flow Length=160' Tc=1.3 min CN=91 Runoff=6.08 cfs 18,284 cf
Subcatchment PR-249: PR-WS-249	Runoff Area=98,177 sf 45.05% Impervious Runoff Depth=5.50" Flow Length=351' Tc=5.9 min CN=88 Runoff=13.62 cfs 44,968 cf
Subcatchment PR-250: PR-WS-250	Runoff Area=153,797 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=272' Slope=0.0200 '/' Tc=2.0 min CN=98 Runoff=25.94 cfs 85,337 cf
Subcatchment PR-251: PR-WS-251	Runoff Area=38,613 sf 100.00% Impervious Runoff Depth>6.66" Flow Length=145' Slope=0.0200 '/' Tc=1.3 min CN=98 Runoff=6.60 cfs 21,425 cf
Subcatchment PR-252: PR-WS-252	Runoff Area=64,918 sf 65.62% Impervious Runoff Depth=5.73" Flow Length=152' Tc=2.5 min CN=90 Runoff=10.28 cfs 30,972 cf
Subcatchment PR-253: PR-WS-253	Runoff Area=35,545 sf 27.56% Impervious Runoff Depth=5.16" Flow Length=288' Slope=0.0500 '/' Tc=8.7 min CN=85 Runoff=4.32 cfs 15,276 cf
Subcatchment PR-254: PR-WS-254	Runoff Area=14,981 sf 0.00% Impervious Runoff Depth=3.96" Flow Length=20' Slope=0.3300 '/' Tc=1.3 min CN=74 Runoff=1.75 cfs 4,938 cf
Subcatchment PR-255: PR-WS-255	Runoff Area=6,776 sf 0.00% Impervious Runoff Depth=4.60" Flow Length=21' Slope=0.2500 '/' Tc=1.5 min CN=80 Runoff=0.90 cfs 2,599 cf
Subcatchment PR-256: PR-WS-256	Runoff Area=6,540 sf 0.00% Impervious Runoff Depth=4.38" Flow Length=28' Slope=0.3000 '/' Tc=1.7 min CN=78 Runoff=0.84 cfs 2,389 cf
Subcatchment PR-257: PR-WS-257	Runoff Area=2,263 sf 91.21% Impervious Runoff Depth=6.42" Flow Length=64' Tc=1.6 min CN=96 Runoff=0.38 cfs 1,211 cf
Subcatchment PR-258: PR-WS-258	Runoff Area=5,144 sf 79.92% Impervious Runoff Depth=6.07" Flow Length=52' Tc=3.0 min CN=93 Runoff=0.84 cfs 2,603 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 87

Subcatchment PR-259: PR-WS-259Runoff Area=4,466 sf 61.78% Impervious Runoff Depth=5.61"
Flow Length=124' Tc=2.0 min CN=89 Runoff=0.70 cfs 2,088 cf**Subcatchment PR-260: PR-WS-260**Runoff Area=625 sf 94.56% Impervious Runoff Depth>6.54"
Flow Length=29' Tc=1.1 min CN=97 Runoff=0.11 cfs 341 cf**Subcatchment PR-261: PR-WS-261**Runoff Area=2,208 sf 82.11% Impervious Runoff Depth=6.19"
Flow Length=139' Slope=0.0200 '/' Tc=1.2 min CN=94 Runoff=0.37 cfs 1,139 cf**Subcatchment PR-262: PR-WS-262**Runoff Area=37,086 sf 83.27% Impervious Runoff Depth=6.19"
Flow Length=199' Tc=1.5 min CN=94 Runoff=6.14 cfs 19,127 cf**Subcatchment PR-263: PR-WS-263**Runoff Area=2,613 sf 85.27% Impervious Runoff Depth=6.31"
Flow Length=121' Slope=0.0200 '/' Tc=1.1 min CN=95 Runoff=0.44 cfs 1,373 cf**Subcatchment PR-266: PR-WS-266**Runoff Area=29,645 sf 60.48% Impervious Runoff Depth=5.84"
Flow Length=80' Slope=0.0200 '/' Tc=0.9 min CN=91 Runoff=4.89 cfs 14,428 cf**Subcatchment PR-267: PR-WS-267**Runoff Area=4,744 sf 0.00% Impervious Runoff Depth=3.96"
Flow Length=15' Slope=0.3300 '/' Tc=1.0 min CN=74 Runoff=0.56 cfs 1,564 cf**Subcatchment PR-268: PR-WS-268**Runoff Area=764 sf 81.54% Impervious Runoff Depth=6.19"
Flow Length=43' Slope=0.0200 '/' Tc=0.6 min CN=94 Runoff=0.13 cfs 394 cf**Reach 1R: 60" RCP Culvert**Avg. Flow Depth=0.95' Max Vel=6.55 fps Inflow=17.12 cfs 79,658 cf
60.0" Round Pipe n=0.011 L=153.0' S=0.0049 '/' Capacity=215.50 cfs Outflow=17.01 cfs 79,658 cf**Reach 2R: Small Stream**Avg. Flow Depth=0.94' Max Vel=2.49 fps Inflow=22.74 cfs 105,590 cf
n=0.040 L=117.0' S=0.0085 '/' Capacity=512.90 cfs Outflow=22.51 cfs 105,590 cf**Reach 3R: Small Stream**Avg. Flow Depth=2.26' Max Vel=3.87 fps Inflow=195.06 cfs 2,114,927 cf
n=0.040 L=390.0' S=0.0064 '/' Capacity=426.71 cfs Outflow=193.53 cfs 2,114,927 cf**Reach 4R: Arch Culvert**Avg. Flow Depth=0.90' Max Vel=13.52 fps Inflow=207.56 cfs 2,247,231 cf
204.0" x 80.0", R=240.0" Arch Pipe n=0.011 L=50.3' S=0.0131 '/' Capacity=2,796.75 cfs Outflow=207.51 cfs 2,247,231 cf**Reach 5R: Small Stream**Avg. Flow Depth=57.72' Max Vel=1.22 fps Inflow=229.83 cfs 2,421,866 cf
n=0.040 L=685.0' S=0.0059 '/' Capacity=0.43 cfs Outflow=210.31 cfs 2,421,861 cf**Reach 6R: Small Stream**Avg. Flow Depth=72.42' Max Vel=0.74 fps Inflow=216.82 cfs 2,568,814 cf
n=0.040 L=245.0' S=0.0021 '/' Capacity=0.34 cfs Outflow=212.99 cfs 2,568,811 cf**Reach 7R: Small Stream**Avg. Flow Depth=38.99' Max Vel=2.26 fps Inflow=221.50 cfs 3,382,442 cf
n=0.040 L=630.0' S=0.0272 '/' Capacity=0.53 cfs Outflow=219.38 cfs 3,381,768 cf**Reach 8R: 30" RCP Storm Sewer**Avg. Flow Depth=2.50' Max Vel=9.84 fps Inflow=58.51 cfs 301,953 cf
30.0" Round Pipe n=0.012 L=857.0' S=0.0091 '/' Capacity=42.42 cfs Outflow=42.81 cfs 301,953 cf**Reach 9R: P-352**Avg. Flow Depth=1.51' Max Vel=7.23 fps Inflow=26.11 cfs 802,944 cf
36.0" Round Pipe n=0.012 L=358.0' S=0.0050 '/' Capacity=51.24 cfs Outflow=25.08 cfs 802,756 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 88

Reach 10R: 48" RCP Storm Sewer Avg. Flow Depth=1.37' Max Vel=11.24 fps Inflow=42.81 cfs 301,953 cf
48.0" Round Pipe n=0.011 L=364.0' S=0.0100 '/' Capacity=169.76 cfs Outflow=42.61 cfs 301,953 cf

Reach 11R: 60" Arch culvert Avg. Flow Depth=1.90' Max Vel=6.89 fps Inflow=47.00 cfs 325,230 cf
60.0" Round Pipe n=0.022 L=54.0' S=0.0100 '/' Capacity=153.90 cfs Outflow=46.97 cfs 325,230 cf

Reach 12R: Roadside Ditch Avg. Flow Depth=1.83' Max Vel=3.80 fps Inflow=46.97 cfs 325,230 cf
n=0.030 L=321.0' S=0.0050 '/' Capacity=243.58 cfs Outflow=46.87 cfs 325,230 cf

Reach 13R: 54" RCP Culvert Avg. Flow Depth=1.00' Max Vel=17.73 fps Inflow=46.87 cfs 325,230 cf
54.0" Round Pipe n=0.011 L=111.0' S=0.0342 '/' Capacity=430.00 cfs Outflow=46.83 cfs 325,230 cf

Reach 14R: Roadside ditch Avg. Flow Depth=1.23' Max Vel=4.15 fps Inflow=46.83 cfs 325,230 cf
n=0.030 L=225.0' S=0.0094 '/' Capacity=591.21 cfs Outflow=46.82 cfs 325,230 cf

Reach 15R: 54" RCP Culvert Avg. Flow Depth=4.50' Max Vel=11.97 fps Inflow=280.25 cfs 1,986,116 cf
54.0" Round Pipe n=0.011 L=290.0' S=0.0052 '/' Capacity=167.14 cfs Outflow=173.80 cfs 1,986,116 cf

Reach 16R: Culvert to Stream Avg. Flow Depth=30.80' Max Vel=1.86 fps Inflow=173.80 cfs 1,986,116 cf
n=0.040 L=51.0' S=0.0137 '/' Capacity=0.65 cfs Outflow=170.68 cfs 1,986,116 cf

Reach 17R: DITCH Avg. Flow Depth=0.89' Max Vel=1.41 fps Inflow=6.40 cfs 25,932 cf
n=0.030 L=442.0' S=0.0018 '/' Capacity=190.53 cfs Outflow=5.81 cfs 25,932 cf

Reach 18R: P-351 Avg. Flow Depth=1.45' Max Vel=7.39 fps Inflow=25.08 cfs 802,756 cf
36.0" Round Pipe n=0.012 L=93.0' S=0.0054 '/' Capacity=52.98 cfs Outflow=24.97 cfs 802,708 cf

Reach 20R: CULVERT Avg. Flow Depth=0.97' Max Vel=3.80 fps Inflow=5.71 cfs 22,329 cf
24.0" Round Pipe n=0.012 L=82.0' S=0.0024 '/' Capacity=12.10 cfs Outflow=5.67 cfs 22,329 cf

Reach 21R: Culvert under railroad Avg. Flow Depth=1.53' Max Vel=7.26 fps Inflow=26.37 cfs 802,997 cf
36.0" Round Pipe n=0.012 L=101.0' S=0.0050 '/' Capacity=50.84 cfs Outflow=26.11 cfs 802,944 cf

Reach 22R: Small Stream Avg. Flow Depth=4.18' Max Vel=1.12 fps Inflow=30.53 cfs 99,765 cf
n=0.040 L=419.0' S=0.0050 '/' Capacity=0.66 cfs Outflow=22.80 cfs 99,760 cf

Reach 23R: CB to Street Avg. Flow Depth=2.00' Max Vel=5.79 fps Inflow=33.74 cfs 104,743 cf
24.0" Round Pipe n=0.013 L=761.0' S=0.0050 '/' Capacity=16.01 cfs Outflow=16.87 cfs 104,743 cf

Reach 24R: 30" RCP Storm Sewer? Avg. Flow Depth=1.14' Max Vel=9.47 fps Inflow=21.09 cfs 118,447 cf
30.0" Round Pipe n=0.011 L=810.0' S=0.0100 '/' Capacity=48.47 cfs Outflow=20.25 cfs 118,447 cf

Reach 26R: EX. DRAIN Avg. Flow Depth=1.00' Max Vel=6.16 fps Inflow=6.59 cfs 23,277 cf
12.0" Round Pipe n=0.012 L=91.0' S=0.0130 '/' Capacity=4.40 cfs Outflow=4.40 cfs 23,276 cf

Reach 27R: (new Reach) Avg. Flow Depth=0.48' Max Vel=3.68 fps Inflow=1.37 cfs 4,245 cf
12.0" Round Pipe n=0.012 L=171.0' S=0.0059 '/' Capacity=2.97 cfs Outflow=1.31 cfs 4,245 cf

Reach 28R: (new Reach) Avg. Flow Depth=0.70' Max Vel=3.20 fps Inflow=1.90 cfs 6,221 cf
12.0" Round Pipe n=0.012 L=201.0' S=0.0034 '/' Capacity=2.24 cfs Outflow=1.79 cfs 6,221 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 89

Reach 29R: (new Reach)	Avg. Flow Depth=1.00'	Max Vel=3.95 fps	Inflow=3.61 cfs	12,569 cf
12.0" Round Pipe n=0.012 L=207.0' S=0.0050 '/	Capacity=2.74 cfs	Outflow=2.80 cfs	12,569 cf	
Reach 30R: EX. DRAIN	Avg. Flow Depth=0.46'	Max Vel=13.38 fps	Inflow=4.66 cfs	15,010 cf
12.0" Round Pipe n=0.012 L=52.0' S=0.0806 '/	Capacity=10.96 cfs	Outflow=4.64 cfs	15,010 cf	
Reach 31R: (new Reach)	Avg. Flow Depth=0.60'	Max Vel=7.22 fps	Inflow=3.54 cfs	45,187 cf
12.0" Round Pipe n=0.012 L=50.0' S=0.0188 '/	Capacity=5.29 cfs	Outflow=3.54 cfs	45,187 cf	
Reach 32R: (new Reach)	Avg. Flow Depth=1.00'	Max Vel=5.06 fps	Inflow=12.32 cfs	45,187 cf
12.0" Round Pipe n=0.012 L=237.0' S=0.0084 '/	Capacity=3.54 cfs	Outflow=3.54 cfs	45,187 cf	
Reach 33R: P-221	Avg. Flow Depth=1.14'	Max Vel=6.03 fps	Inflow=11.27 cfs	36,992 cf
24.0" Round Pipe n=0.012 L=65.0' S=0.0054 '/	Capacity=17.98 cfs	Outflow=11.07 cfs	36,992 cf	
Reach 34R: P-308	Avg. Flow Depth=1.08'	Max Vel=6.64 fps	Inflow=11.55 cfs	42,017 cf
24.0" Round Pipe n=0.012 L=22.0' S=0.0068 '/	Capacity=20.24 cfs	Outflow=11.51 cfs	42,017 cf	
Reach 35R: (new Reach)	Avg. Flow Depth=1.03'	Max Vel=16.81 fps	Inflow=32.08 cfs	125,750 cf
30.0" Round Pipe n=0.012 L=15.0' S=0.0413 '/	Capacity=90.34 cfs	Outflow=32.06 cfs	125,750 cf	
Reach P-216: P-216	Avg. Flow Depth=1.00'	Max Vel=6.49 fps	Inflow=8.09 cfs	26,903 cf
18.0" Round Pipe n=0.012 L=12.0' S=0.0083 '/	Capacity=10.39 cfs	Outflow=8.07 cfs	26,903 cf	
Reach P-223: P-223	Avg. Flow Depth=1.25'	Max Vel=6.46 fps	Inflow=8.98 cfs	29,687 cf
15.0" Round Pipe n=0.012 L=120.0' S=0.0100 '/	Capacity=7.00 cfs	Outflow=7.50 cfs	29,687 cf	
Reach P-234: P-234	Avg. Flow Depth=1.06'	Max Vel=7.26 fps	Inflow=9.66 cfs	31,225 cf
18.0" Round Pipe n=0.012 L=79.0' S=0.0101 '/	Capacity=11.45 cfs	Outflow=9.54 cfs	31,225 cf	
Reach P-240: P-240	Avg. Flow Depth=1.26'	Max Vel=6.48 fps	Inflow=13.57 cfs	43,715 cf
24.0" Round Pipe n=0.012 L=17.0' S=0.0059 '/	Capacity=18.80 cfs	Outflow=13.56 cfs	43,715 cf	
Reach P-306: P-306	Avg. Flow Depth=1.50'	Max Vel=6.88 fps	Inflow=15.17 cfs	48,754 cf
18.0" Round Pipe n=0.012 L=25.0' S=0.0100 '/	Capacity=11.38 cfs	Outflow=11.38 cfs	48,754 cf	
Pond 1P: BIORETENTION#4 - GRAVELS	Peak Elev=73.42'	Storage=471 cf	Inflow=5.72 cfs	25,102 cf
			Outflow=5.71 cfs	25,102 cf
Pond 2P: BIORETENTION#5 - GRAVELS	Peak Elev=72.71'	Storage=48 cf	Inflow=0.16 cfs	6,340 cf
			Outflow=0.15 cfs	6,340 cf
Pond 3P: BIORETENTION#3 - GRAVELS	Peak Elev=74.07'	Storage=341 cf	Inflow=0.14 cfs	5,674 cf
			Outflow=0.13 cfs	5,396 cf
Pond 4P: DMH ???	Peak Elev=67.56'	Storage=1 cf	Inflow=4.39 cfs	33,813 cf
18.0" Round Culvert n=0.012 L=92.0' S=0.0103 '/			Outflow=4.39 cfs	33,813 cf
Pond 5P: BIO #25 - GRAVELS	Peak Elev=63.66'	Storage=89 cf	Inflow=0.12 cfs	7,510 cf
			Outflow=0.12 cfs	7,510 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 90

Pond 34P: BIORETENTION#2 - GRAVELSPeak Elev=73.48' Storage=36 cf Inflow=6.39 cfs 23,409 cf
Outflow=6.37 cfs 23,409 cf**Pond 1107P: QUARRY**Peak Elev=63.43' Storage=2,792,621 cf Inflow=291.62 cfs 1,032,203 cf
Outflow=6.77 cfs 724,787 cf**Pond 2579: EX. CB 2579**Peak Elev=68.28' Storage=39 cf Inflow=32.09 cfs 125,750 cf
30.0" Round Culvert n=0.012 L=53.0' S=0.0098 ' Outflow=32.08 cfs 125,750 cf**Pond 2723: EX. CB 2723**Inflow=1.93 cfs 6,348 cf
Primary=1.93 cfs 6,348 cf**Pond BIO #1: BIORETENTION#1**Peak Elev=72.07' Storage=9,587 cf Inflow=26.86 cfs 94,057 cf
Outflow=22.77 cfs 93,852 cf**Pond BIO #11: BIORETENTION#11**Peak Elev=70.73' Storage=4,282 cf Inflow=19.34 cfs 62,898 cf
Outflow=16.86 cfs 62,735 cf**Pond BIO #15: BIORETENTION#15**Peak Elev=72.71' Storage=7,908 cf Inflow=7.99 cfs 25,170 cf
Outflow=3.35 cfs 24,857 cf**Pond BIO #16: BIORETENTION#16**Peak Elev=70.27' Storage=22,771 cf Inflow=21.85 cfs 74,156 cf
Outflow=16.38 cfs 68,641 cf**Pond BIO #17: BIORETENTION#17**Peak Elev=63.14' Storage=5,719 cf Inflow=2.78 cfs 8,610 cf
Outflow=1.54 cfs 8,605 cf**Pond BIO #18: BIORETENTION#18**Peak Elev=62.75' Storage=4,481 cf Inflow=6.08 cfs 18,284 cf
Outflow=4.00 cfs 18,164 cf**Pond BIO #19: BIORETENTION#19**Peak Elev=64.58' Storage=10,452 cf Inflow=16.61 cfs 52,397 cf
Outflow=13.42 cfs 52,037 cf**Pond BIO #2: BIORETENTION#2 SWALE**Peak Elev=77.87' Storage=109 cf Inflow=1.84 cfs 5,806 cf
Primary=1.79 cfs 3,494 cf Secondary=0.05 cfs 2,313 cf Outflow=1.84 cfs 5,806 cf**Pond BIO #20: BIORETENTION#20**Peak Elev=63.51' Storage=8,485 cf Inflow=8.97 cfs 41,764 cf
Outflow=6.33 cfs 41,433 cf**Pond BIO #21: BIORETENTION#21**Peak Elev=65.99' Storage=36,169 cf Inflow=25.81 cfs 92,014 cf
Outflow=16.59 cfs 75,501 cf**Pond BIO #22A: BIO #22 - SWALE**Peak Elev=66.45' Storage=307 cf Inflow=7.85 cfs 25,124 cf
Primary=7.75 cfs 19,104 cf Secondary=0.12 cfs 6,020 cf Outflow=7.87 cfs 25,124 cf**Pond BIO #22B: BIO #22 - GRAVELS**Peak Elev=63.27' Storage=1,731 cf Inflow=7.50 cfs 29,650 cf
Outflow=7.43 cfs 29,650 cf**Pond BIO #23A: BIO #23 - SWALE**Peak Elev=66.93' Storage=246 cf Inflow=7.45 cfs 23,630 cf
Primary=7.27 cfs 18,770 cf Secondary=0.13 cfs 4,860 cf Outflow=7.40 cfs 23,630 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 91

Pond BIO #23B: BIO #23 - GRAVELS	Peak Elev=62.66' Storage=98 cf Inflow=0.13 cfs 4,860 cf Outflow=0.11 cfs 4,860 cf
Pond BIO #25: BIO #25 - SWALE	Peak Elev=67.94' Storage=151 cf Inflow=7.51 cfs 23,789 cf Primary=7.39 cfs 16,280 cf Secondary=0.12 cfs 7,510 cf Outflow=7.51 cfs 23,790 cf
Pond BIO #26: BIORETENTION#26	Peak Elev=63.44' Storage=5,706 cf Inflow=4.66 cfs 14,998 cf Outflow=0.78 cfs 14,616 cf
Pond BIO #27: BIORETENTION#27	Peak Elev=64.64' Storage=2,639 cf Inflow=3.45 cfs 11,054 cf Outflow=2.00 cfs 10,923 cf
Pond BIO #29: BIORETENTION#29	Peak Elev=62.31' Storage=4,474 cf Inflow=11.30 cfs 35,395 cf Outflow=10.22 cfs 35,320 cf
Pond BIO #3: BIORETENTION#3 - SWALE	Peak Elev=76.81' Storage=278 cf Inflow=4.70 cfs 15,518 cf Primary=4.48 cfs 9,844 cf Secondary=0.14 cfs 5,674 cf Outflow=4.63 cfs 15,518 cf
Pond BIO #4: BIORETENTION#4 - SWALE	Peak Elev=76.86' Storage=367 cf Inflow=5.84 cfs 18,695 cf Primary=5.61 cfs 11,890 cf Secondary=0.18 cfs 6,806 cf Outflow=5.79 cfs 18,696 cf
Pond BIO #5: BIORETENTION#5 - SWALE	Peak Elev=76.85' Storage=327 cf Inflow=5.64 cfs 18,296 cf Primary=5.40 cfs 11,956 cf Secondary=0.16 cfs 6,340 cf Outflow=5.55 cfs 18,297 cf
Pond BIO #8: BIORETENTION#8	Peak Elev=72.69' Storage=3,893 cf Inflow=3.40 cfs 13,700 cf Outflow=2.39 cfs 13,604 cf
Pond BIO#10A: BIORETENTION#10 - SWALE	Peak Elev=74.79' Storage=312 cf Inflow=9.64 cfs 31,225 cf Primary=9.49 cfs 22,959 cf Secondary=0.17 cfs 8,266 cf Outflow=9.66 cfs 31,225 cf
Pond BIO#10B: BIORETENTION#10 - GRAVELS	Peak Elev=71.70' Storage=45 cf Inflow=0.17 cfs 8,266 cf Outflow=0.16 cfs 8,266 cf
Pond BIO#12A: BIORETENTION#12 - SWALE	Peak Elev=74.13' Storage=208 cf Inflow=2.82 cfs 8,903 cf Primary=2.71 cfs 4,635 cf Secondary=0.09 cfs 4,268 cf Outflow=2.80 cfs 8,904 cf
Pond BIO#12B: BIORETENTION#12 -	Peak Elev=72.85' Storage=976 cf Inflow=10.93 cfs 39,080 cf Outflow=10.87 cfs 39,080 cf
Pond BIO#13A: BIORETENTION#13 - SWALE	Peak Elev=74.81' Storage=330 cf Inflow=10.97 cfs 34,811 cf Primary=10.67 cfs 26,329 cf Secondary=0.17 cfs 8,482 cf Outflow=10.85 cfs 34,811 cf
Pond BIO#13B: BIORETENTION#13 - GRAVELS	Peak Elev=71.70' Storage=46 cf Inflow=0.17 cfs 8,482 cf Outflow=0.17 cfs 8,482 cf
Pond BIO#24A: BIO #24 - SWALE	Peak Elev=68.20' Storage=139 cf Inflow=5.52 cfs 18,226 cf Primary=5.42 cfs 11,756 cf Secondary=0.11 cfs 6,471 cf Outflow=5.53 cfs 18,228 cf
Pond BIO#24B: BIO #24 - GRAVELS	Peak Elev=65.15' Storage=1,222 cf Inflow=7.62 cfs 30,261 cf Outflow=6.17 cfs 30,261 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 92

Pond BIO#28: BIORETENTION#28Peak Elev=63.61' Storage=4,459 cf Inflow=4.78 cfs 15,358 cf
Outflow=1.71 cfs 15,170 cf**Pond BIO#6A: BIORETENTION#6 - SWALE**Peak Elev=76.82' Storage=325 cf Inflow=4.89 cfs 15,454 cf
Primary=4.71 cfs 9,413 cf Secondary=0.16 cfs 6,043 cf Outflow=4.88 cfs 15,455 cf**Pond BIO#6B: BIORETENTION#6 -**Peak Elev=74.41' Storage=2,503 cf Inflow=4.48 cfs 20,274 cf
Outflow=4.32 cfs 20,274 cf**Pond BIO#7A: BIORETENTION#7 - SWALE**Peak Elev=76.80' Storage=291 cf Inflow=4.40 cfs 14,231 cf
Primary=4.19 cfs 8,568 cf Secondary=0.15 cfs 5,663 cf Outflow=4.33 cfs 14,231 cf**Pond BIO#7B: BIORETENTION#7 - GRAVELS**Peak Elev=72.68' Storage=107 cf Inflow=0.15 cfs 5,663 cf
Outflow=0.13 cfs 5,663 cf**Pond BIO#9B: BIORETENTION#9 - GRAVELS**Peak Elev=71.91' Storage=277 cf Inflow=9.65 cfs 31,225 cf
Outflow=9.66 cfs 31,225 cf**Pond CB 101: CB 101**Peak Elev=79.22' Storage=14 cf Inflow=4.51 cfs 14,493 cf
18.0" Round Culvert n=0.012 L=31.0' S=0.0100 ' Outflow=4.51 cfs 14,493 cf**Pond CB 102: CB 102**Peak Elev=77.33' Storage=32 cf Inflow=15.21 cfs 49,902 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0050 ' Outflow=15.23 cfs 49,902 cf**Pond CB 103: CB 103**Peak Elev=77.13' Storage=26 cf Inflow=13.32 cfs 43,585 cf
24.0" Round Culvert n=0.012 L=38.0' S=0.0053 ' Outflow=13.31 cfs 43,585 cf**Pond CB 104: CB 104**Peak Elev=74.83' Storage=20 cf Inflow=9.28 cfs 29,722 cf
24.0" Round Culvert n=0.012 L=35.0' S=0.0057 ' Outflow=9.29 cfs 29,722 cf**Pond CB 105: CB 105**Peak Elev=75.34' Storage=22 cf Inflow=7.63 cfs 24,377 cf
18.0" Round Culvert n=0.012 L=57.0' S=0.0053 ' Outflow=7.63 cfs 24,377 cf**Pond CB 106: CB 106**Peak Elev=76.27' Storage=11 cf Inflow=3.33 cfs 10,429 cf
18.0" Round Culvert n=0.012 L=60.0' S=0.0100 ' Outflow=3.33 cfs 10,429 cf**Pond CB 107: CB 107**Peak Elev=76.62' Storage=12 cf Inflow=2.19 cfs 6,740 cf
12.0" Round Culvert n=0.012 L=23.0' S=0.0065 ' Outflow=2.18 cfs 6,740 cf**Pond CB 108: CB 108**Peak Elev=76.46' Storage=5 cf Inflow=0.52 cfs 1,539 cf
12.0" Round Culvert n=0.012 L=44.0' S=0.0295 ' Outflow=0.52 cfs 1,539 cf**Pond CB 109: CB 109**Peak Elev=75.30' Storage=10 cf Inflow=1.75 cfs 5,723 cf
12.0" Round Culvert n=0.012 L=151.0' S=0.0053 ' Outflow=1.76 cfs 5,723 cf**Pond CB 110: CB 110**Peak Elev=75.46' Storage=6 cf Inflow=0.78 cfs 2,537 cf
12.0" Round Culvert n=0.012 L=69.0' S=0.0051 ' Outflow=0.78 cfs 2,537 cf**Pond CB 111: CB 111**Peak Elev=75.31' Storage=4 cf Inflow=0.30 cfs 943 cf
12.0" Round Culvert n=0.012 L=82.0' S=0.0049 ' Outflow=0.30 cfs 943 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 93

Pond CB 112: CB 112

Peak Elev=71.80' Storage=23 cf Inflow=11.58 cfs 38,806 cf
24.0" Round Culvert n=0.012 L=70.0' S=0.0050 '/' Outflow=11.58 cfs 38,806 cf

Pond CB 113: CB 113

Peak Elev=72.03' Storage=24 cf Inflow=11.24 cfs 37,600 cf
24.0" Round Culvert n=0.012 L=16.0' S=0.0063 '/' Outflow=11.24 cfs 37,600 cf

Pond CB 114: CB 114

Peak Elev=72.32' Storage=18 cf Inflow=9.17 cfs 30,700 cf
24.0" Round Culvert n=0.012 L=72.0' S=0.0090 '/' Outflow=9.17 cfs 30,700 cf

Pond CB 115: CB 115

Peak Elev=72.93' Storage=19 cf Inflow=8.81 cfs 29,488 cf
24.0" Round Culvert n=0.012 L=77.0' S=0.0052 '/' Outflow=8.82 cfs 29,488 cf

Pond CB 118: CB 118

Peak Elev=74.26' Storage=9 cf Inflow=1.73 cfs 5,857 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0089 '/' Outflow=1.73 cfs 5,857 cf

Pond CB 119: CB 119

Peak Elev=72.64' Storage=26 cf Inflow=13.34 cfs 44,651 cf
24.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=13.34 cfs 44,651 cf

Pond CB 120: CB 120

Peak Elev=72.73' Storage=24 cf Inflow=11.79 cfs 39,524 cf
24.0" Round Culvert n=0.012 L=28.0' S=0.0054 '/' Outflow=11.78 cfs 39,524 cf

Pond CB 125: CB 125

Peak Elev=73.75' Storage=118 cf Inflow=43.95 cfs 144,319 cf
24.0" Round Culvert n=0.012 L=41.0' S=0.0061 '/' Outflow=44.06 cfs 144,319 cf

Pond CB 126: CB 126

Peak Elev=74.12' Storage=24 cf Inflow=4.53 cfs 14,649 cf
12.0" Round Culvert n=0.012 L=10.0' S=0.0200 '/' Outflow=4.51 cfs 14,649 cf

Pond CB 127: CB 127

Peak Elev=70.17' Storage=9 cf Inflow=2.28 cfs 7,432 cf
18.0" Round Culvert n=0.012 L=38.0' S=0.0105 '/' Outflow=2.28 cfs 7,432 cf

Pond CB 129: CB 129

Peak Elev=71.24' Storage=10 cf Inflow=1.91 cfs 6,170 cf
12.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=1.91 cfs 6,170 cf

Pond CB 130: CB 130

Peak Elev=71.19' Storage=7 cf Inflow=0.84 cfs 2,666 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0057 '/' Outflow=0.84 cfs 2,666 cf

Pond CB 131: CB 131

Peak Elev=71.11' Storage=10 cf Inflow=1.92 cfs 6,254 cf
12.0" Round Culvert n=0.012 L=43.0' S=0.0209 '/' Outflow=1.92 cfs 6,254 cf

Pond CB 133: CB 133

Peak Elev=75.71' Storage=5 cf Inflow=0.62 cfs 1,951 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=0.63 cfs 1,951 cf

Pond CB 136: CB 136

Peak Elev=73.62' Storage=10 cf Inflow=1.92 cfs 6,113 cf
12.0" Round Culvert n=0.012 L=23.0' S=0.0109 '/' Outflow=1.92 cfs 6,113 cf

Pond CB 137: CB 137

Peak Elev=73.81' Storage=7 cf Inflow=1.09 cfs 3,475 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0100 '/' Outflow=1.09 cfs 3,475 cf

Pond CB 138: CB 138

Peak Elev=71.12' Storage=22 cf Inflow=16.99 cfs 54,697 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=17.00 cfs 54,697 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 94

Pond CB 139: CB 139Peak Elev=71.22' Storage=19 cf Inflow=15.86 cfs 51,164 cf
24.0" Round Culvert n=0.012 L=29.0' S=0.0052 '/' Outflow=15.87 cfs 51,165 cf**Pond CB 142: CB 142**Peak Elev=67.66' Storage=9 cf Inflow=1.67 cfs 5,346 cf
12.0" Round Culvert n=0.012 L=51.0' S=0.0098 '/' Outflow=1.67 cfs 5,346 cf**Pond CB 143: CB 143**Peak Elev=68.14' Storage=4 cf Inflow=0.48 cfs 1,504 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0096 '/' Outflow=0.48 cfs 1,504 cf**Pond CB 144: CB 144**Peak Elev=68.55' Storage=1 cf Inflow=4.07 cfs 31,039 cf
18.0" Round Culvert n=0.012 L=139.0' S=0.0101 '/' Outflow=4.08 cfs 31,039 cf**Pond CB 145: CB 145**Peak Elev=69.42' Storage=0 cf Inflow=3.71 cfs 27,874 cf
18.0" Round Culvert n=0.012 L=11.0' S=0.0136 '/' Outflow=3.71 cfs 27,874 cf**Pond CB 147: CB 147**Peak Elev=72.33' Storage=10 cf Inflow=1.76 cfs 5,558 cf
12.0" Round Culvert n=0.012 L=33.0' S=0.0061 '/' Outflow=1.76 cfs 5,558 cf**Pond CB 148: CB 148**Peak Elev=71.23' Storage=0 cf Inflow=3.97 cfs 12,880 cf
12.0" Round Culvert n=0.012 L=14.0' S=0.1429 '/' Outflow=3.97 cfs 12,880 cf**Pond CB 149: CB 149**Peak Elev=71.71' Storage=0 cf Inflow=1.29 cfs 4,456 cf
12.0" Round Culvert n=0.012 L=71.0' S=0.0204 '/' Outflow=1.29 cfs 4,456 cf**Pond CB 150: CB 150**Peak Elev=72.43' Storage=9 cf Inflow=1.29 cfs 4,107 cf
12.0" Round Culvert n=0.012 L=21.0' S=0.0071 '/' Outflow=1.29 cfs 4,107 cf**Pond CB 151: CB 151**Peak Elev=72.91' Storage=6 cf Inflow=0.66 cfs 2,121 cf
12.0" Round Culvert n=0.012 L=120.0' S=0.0050 '/' Outflow=0.66 cfs 2,121 cf**Pond CB 152: CB 152**Peak Elev=73.17' Storage=3 cf Inflow=0.31 cfs 989 cf
12.0" Round Culvert n=0.012 L=32.0' S=0.0109 '/' Outflow=0.31 cfs 989 cf**Pond CB 154: CB 154**Peak Elev=68.37' Storage=17 cf Inflow=5.23 cfs 16,963 cf
15.0" Round Culvert n=0.012 L=28.0' S=0.0107 '/' Outflow=5.23 cfs 16,963 cf**Pond CB 155: CB 155**Peak Elev=68.32' Storage=13 cf Inflow=5.80 cfs 18,873 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0066 '/' Outflow=5.78 cfs 18,874 cf**Pond CB 156: CB 156**Peak Elev=67.72' Storage=0 cf Inflow=12.94 cfs 42,313 cf
24.0" Round Culvert n=0.012 L=117.0' S=0.0103 '/' Outflow=12.94 cfs 42,314 cf**Pond CB 157: CB 157**Peak Elev=67.97' Storage=0 cf Inflow=5.94 cfs 19,432 cf
18.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=5.94 cfs 19,432 cf**Pond CB 158: CB 158**Peak Elev=68.84' Storage=2 cf Inflow=4.88 cfs 15,897 cf
15.0" Round Culvert n=0.012 L=112.0' S=0.0103 '/' Outflow=4.86 cfs 15,899 cf**Pond CB 159: CB 159**Peak Elev=69.56' Storage=3 cf Inflow=3.80 cfs 12,446 cf
15.0" Round Culvert n=0.012 L=112.0' S=0.0076 '/' Outflow=3.80 cfs 12,446 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 95

Pond CB 160: CB 160

Peak Elev=71.02' Storage=7 cf Inflow=3.16 cfs 10,368 cf
15.0" Round Culvert n=0.012 L=199.0' S=0.0075 ' Outflow=3.17 cfs 10,368 cf

Pond CB 161: CB 161

Peak Elev=71.77' Storage=6 cf Inflow=1.30 cfs 4,111 cf
12.0" Round Culvert n=0.012 L=145.0' S=0.0052 ' Outflow=1.30 cfs 4,111 cf

Pond CB 165: CB 165

Peak Elev=71.45' Storage=17 cf Inflow=1.89 cfs 6,276 cf
12.0" Round Culvert n=0.012 L=72.0' S=0.0056 ' Outflow=1.89 cfs 6,269 cf

Pond CB 166: CB 166

Peak Elev=73.17' Storage=15 cf Inflow=14.34 cfs 45,648 cf
24.0" Round Culvert n=0.012 L=14.0' S=0.0071 ' Outflow=14.34 cfs 45,648 cf

Pond CB 167: CB 167

Peak Elev=73.36' Storage=13 cf Inflow=13.43 cfs 42,823 cf
24.0" Round Culvert n=0.012 L=45.0' S=0.0056 ' Outflow=13.42 cfs 42,824 cf

Pond CB 168: CB 168

Peak Elev=74.72' Storage=25 cf Inflow=10.96 cfs 35,015 cf
18.0" Round Culvert n=0.012 L=57.0' S=0.0053 ' Outflow=10.93 cfs 35,015 cf

Pond CB 169: CB 169

Peak Elev=74.61' Storage=14 cf Inflow=8.06 cfs 25,693 cf
18.0" Round Culvert n=0.012 L=124.0' S=0.0052 ' Outflow=8.05 cfs 25,693 cf

Pond CB 170: CB 170

Peak Elev=74.82' Storage=7 cf Inflow=5.00 cfs 15,911 cf
18.0" Round Culvert n=0.012 L=123.0' S=0.0053 ' Outflow=5.00 cfs 15,911 cf

Pond CB 171: CB 171

Peak Elev=75.03' Storage=7 cf Inflow=4.39 cfs 13,935 cf
18.0" Round Culvert n=0.012 L=20.0' S=0.0050 ' Outflow=4.39 cfs 13,935 cf

Pond CB 172: CB 172

Peak Elev=75.57' Storage=11 cf Inflow=2.63 cfs 8,217 cf
12.0" Round Culvert n=0.012 L=24.0' S=0.0063 ' Outflow=2.63 cfs 8,217 cf

Pond CB 173: CB 173

Peak Elev=73.08' Storage=2 cf Inflow=1.60 cfs 4,926 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0171 ' Outflow=1.59 cfs 4,926 cf

Pond CB 174: CB 174

Peak Elev=74.91' Storage=11 cf Inflow=0.28 cfs 868 cf
12.0" Round Culvert n=0.012 L=76.0' S=0.0191 ' Outflow=0.28 cfs 860 cf

Pond CB 175: CB 175

Peak Elev=69.80' Storage=11 cf Inflow=7.19 cfs 22,919 cf
18.0" Round Culvert n=0.012 L=18.0' S=0.0111 ' Outflow=7.19 cfs 22,919 cf

Pond CB 176: CB 176

Peak Elev=69.97' Storage=8 cf Inflow=4.68 cfs 14,730 cf
18.0" Round Culvert n=0.012 L=58.0' S=0.0103 ' Outflow=4.68 cfs 14,730 cf

Pond CB 177: CB 177

Peak Elev=71.27' Storage=2 cf Inflow=2.31 cfs 7,338 cf
12.0" Round Culvert n=0.012 L=124.0' S=0.0081 ' Outflow=2.31 cfs 7,338 cf

Pond CB 178: CB 178

Peak Elev=71.48' Storage=0 cf Inflow=1.48 cfs 4,680 cf
12.0" Round Culvert n=0.012 L=46.0' S=0.0054 ' Outflow=1.48 cfs 4,680 cf

Pond CB 179: CB 179

Peak Elev=72.12' Storage=0 cf Inflow=0.99 cfs 3,060 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0051 ' Outflow=0.99 cfs 3,060 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 96

Pond CB 180: CB 180Peak Elev=70.46' Storage=10 cf Inflow=1.67 cfs 5,145 cf
12.0" Round Culvert n=0.012 L=48.0' S=0.0052 '/' Outflow=1.67 cfs 5,145 cf**Pond CB 181: CB 181**Peak Elev=67.16' Storage=6 cf Inflow=0.80 cfs 2,556 cf
12.0" Round Culvert n=0.012 L=56.0' S=0.0107 '/' Outflow=0.80 cfs 2,556 cf**Pond CB 182: CB 182**Peak Elev=67.30' Storage=15 cf Inflow=5.32 cfs 16,956 cf
18.0" Round Culvert n=0.012 L=71.0' S=0.0056 '/' Outflow=5.32 cfs 16,956 cf**Pond CB 183: CB 183**Peak Elev=67.65' Storage=11 cf Inflow=2.22 cfs 7,030 cf
12.0" Round Culvert n=0.012 L=60.0' S=0.0100 '/' Outflow=2.22 cfs 7,030 cf**Pond CB 184: CB 184**Peak Elev=68.82' Storage=5 cf Inflow=0.55 cfs 1,737 cf
12.0" Round Culvert n=0.012 L=154.0' S=0.0101 '/' Outflow=0.55 cfs 1,737 cf**Pond CB 185: CB 185**Peak Elev=69.22' Storage=5 cf Inflow=0.43 cfs 1,354 cf
12.0" Round Culvert n=0.012 L=56.0' S=0.0054 '/' Outflow=0.43 cfs 1,354 cf**Pond CB 186: CB 186**Peak Elev=73.95' Storage=4 cf Inflow=1.94 cfs 6,348 cf
12.0" Round Culvert n=0.012 L=14.0' S=0.0171 '/' Outflow=1.93 cfs 6,348 cf**Pond CB 187: CB 187**Peak Elev=74.32' Storage=0 cf Inflow=0.52 cfs 1,595 cf
12.0" Round Culvert n=0.012 L=54.0' S=0.0102 '/' Outflow=0.52 cfs 1,595 cf**Pond CB 188: CB 188**Peak Elev=75.00' Storage=5 cf Inflow=0.64 cfs 1,976 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0159 '/' Outflow=0.64 cfs 1,976 cf**Pond CB 189: CB 189**Peak Elev=75.81' Storage=8 cf Inflow=1.38 cfs 4,245 cf
12.0" Round Culvert n=0.012 L=31.0' S=0.0065 '/' Outflow=1.38 cfs 4,245 cf**Pond CB 190: CB 190**Peak Elev=75.76' Storage=3 cf Inflow=0.14 cfs 429 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0056 '/' Outflow=0.14 cfs 429 cf**Pond CB 191: CB 191**Peak Elev=77.73' Storage=24 cf Inflow=12.71 cfs 41,293 cf
24.0" Round Culvert n=0.012 L=134.0' S=0.0052 '/' Outflow=12.71 cfs 41,293 cf**Pond CB 192: CB 192**Peak Elev=78.33' Storage=27 cf Inflow=9.17 cfs 29,840 cf
18.0" Round Culvert n=0.012 L=36.0' S=0.0056 '/' Outflow=9.19 cfs 29,840 cf**Pond CB 193: CB 193**Peak Elev=78.50' Storage=25 cf Inflow=4.31 cfs 13,633 cf
12.0" Round Culvert n=0.012 L=46.0' S=0.0054 '/' Outflow=4.27 cfs 13,633 cf**Pond CB 194: CB 194**Peak Elev=78.25' Storage=19 cf Inflow=3.56 cfs 11,296 cf
12.0" Round Culvert n=0.012 L=20.0' S=0.0050 '/' Outflow=3.54 cfs 11,296 cf**Pond CB 195: CB 195**Peak Elev=79.01' Storage=10 cf Inflow=1.91 cfs 6,455 cf
12.0" Round Culvert n=0.012 L=76.0' S=0.0099 '/' Outflow=1.91 cfs 6,455 cf**Pond CB 196: CB 196**Peak Elev=79.79' Storage=8 cf Inflow=1.45 cfs 4,863 cf
12.0" Round Culvert n=0.012 L=81.0' S=0.0099 '/' Outflow=1.45 cfs 4,863 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 97

Pond CB 197: CB 197Peak Elev=80.60' Storage=7 cf Inflow=1.12 cfs 3,584 cf
12.0" Round Culvert n=0.012 L=81.0' S=0.0099 '/' Outflow=1.12 cfs 3,584 cf**Pond CB 198: CB 198**Peak Elev=78.13' Storage=5 cf Inflow=0.57 cfs 1,713 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0714 '/' Outflow=0.57 cfs 1,713 cf**Pond CB 199: CB 199**Peak Elev=72.79' Storage=0.000 af Inflow=0.70 cfs 2,088 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0058 '/' Outflow=0.70 cfs 2,088 cf**Pond CB 200: CB 200**Peak Elev=75.42' Storage=0.000 af Inflow=1.87 cfs 6,118 cf
12.0" Round Culvert n=0.012 L=25.0' S=0.0040 '/' Outflow=1.88 cfs 6,118 cf**Pond CB 201: CB 201**Peak Elev=75.25' Storage=0.000 af Inflow=3.32 cfs 10,687 cf
18.0" Round Culvert n=0.012 L=116.0' S=0.0052 '/' Outflow=3.33 cfs 10,687 cf**Pond CB 210: CB 210**Peak Elev=63.91' Storage=11 cf Inflow=2.27 cfs 8,362 cf
12.0" Round Culvert n=0.012 L=29.0' S=0.0103 '/' Outflow=2.28 cfs 8,362 cf**Pond CB 211: CB 211**Peak Elev=64.93' Storage=6 cf Inflow=0.87 cfs 2,683 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=0.86 cfs 2,683 cf**Pond CB 212: CB 212**Peak Elev=64.75' Storage=10 cf Inflow=1.87 cfs 6,010 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=1.87 cfs 6,010 cf**Pond CB 213: CB 213**Peak Elev=65.22' Storage=7 cf Inflow=0.83 cfs 2,711 cf
12.0" Round Culvert n=0.012 L=52.0' S=0.0058 '/' Outflow=0.83 cfs 2,711 cf**Pond CB 214: CB 214**Peak Elev=65.01' Storage=9 cf Inflow=1.39 cfs 4,876 cf
12.0" Round Culvert n=0.012 L=80.0' S=0.0050 '/' Outflow=1.40 cfs 4,876 cf**Pond CB 215: CB 215**Peak Elev=66.29' Storage=29 cf Inflow=4.59 cfs 14,755 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0056 '/' Outflow=4.55 cfs 14,755 cf**Pond CB 216: CB 216**Peak Elev=65.87' Storage=9 cf Inflow=1.43 cfs 4,547 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0051 '/' Outflow=1.42 cfs 4,547 cf**Pond CB 217: CB 217**Peak Elev=65.10' Storage=35 cf Inflow=4.12 cfs 13,435 cf
12.0" Round Culvert n=0.012 L=183.0' S=0.0052 '/' Outflow=4.13 cfs 13,435 cf**Pond CB 218: CB 218**Peak Elev=64.20' Storage=9 cf Inflow=1.54 cfs 4,797 cf
12.0" Round Culvert n=0.012 L=112.0' S=0.0067 '/' Outflow=1.54 cfs 4,797 cf**Pond CB 219: CB 219**Peak Elev=62.20' Storage=19 cf Inflow=5.17 cfs 16,267 cf
15.0" Round Culvert n=0.012 L=91.0' S=0.0055 '/' Outflow=5.16 cfs 16,267 cf**Pond CB 220: CB 220**Peak Elev=62.68' Storage=15 cf Inflow=4.09 cfs 12,485 cf
15.0" Round Culvert n=0.012 L=129.0' S=0.0050 '/' Outflow=4.08 cfs 12,485 cf**Pond CB 221: CB 221**Peak Elev=64.37' Storage=13 cf Inflow=2.88 cfs 8,562 cf
12.0" Round Culvert n=0.012 L=137.0' S=0.0117 '/' Outflow=2.87 cfs 8,562 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 98

Pond CB 222: CB 222Peak Elev=62.52' Storage=9 cf Inflow=0.92 cfs 2,939 cf
12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.92 cfs 2,937 cf**Pond CB 223: CB 223**Peak Elev=68.32' Storage=35 cf Inflow=20.35 cfs 85,597 cf
24.0" Round Culvert n=0.012 L=18.0' S=0.0167 '/' Outflow=20.37 cfs 85,597 cf**Pond CB 224: CB 224**Peak Elev=65.95' Storage=8 cf Inflow=1.23 cfs 3,818 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0100 '/' Outflow=1.23 cfs 3,818 cf**Pond CB 226: CB 226**Peak Elev=64.23' Storage=4 cf Inflow=0.45 cfs 1,355 cf
12.0" Round Culvert n=0.012 L=79.0' S=0.0101 '/' Outflow=0.45 cfs 1,355 cf**Pond CB 229: CB 229**Peak Elev=63.48' Storage=12 cf Inflow=2.19 cfs 6,981 cf
12.0" Round Culvert n=0.012 L=13.0' S=0.0077 '/' Outflow=2.19 cfs 6,981 cf**Pond CB 230: CB 230**Peak Elev=63.41' Storage=8 cf Inflow=1.15 cfs 3,425 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=1.16 cfs 3,425 cf**Pond CB 231: CB 231**Peak Elev=61.63' Storage=11 cf Inflow=1.88 cfs 6,012 cf
12.0" Round Culvert n=0.012 L=25.0' S=0.0060 '/' Outflow=1.88 cfs 6,012 cf**Pond CB 232: CB 232**Peak Elev=61.84' Storage=11 cf Inflow=1.73 cfs 5,527 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0054 '/' Outflow=1.73 cfs 5,527 cf**Pond CB 233: CB 233**Peak Elev=63.50' Storage=4 cf Inflow=0.50 cfs 1,590 cf
12.0" Round Culvert n=0.012 L=39.0' S=0.0141 '/' Outflow=0.50 cfs 1,590 cf**Pond CB 235: CB 235**Peak Elev=61.99' Storage=8 cf Inflow=1.36 cfs 4,230 cf
12.0" Round Culvert n=0.012 L=37.0' S=0.0095 '/' Outflow=1.35 cfs 4,230 cf**Pond CB 236: CB 236**Peak Elev=62.22' Storage=6 cf Inflow=0.79 cfs 2,470 cf
12.0" Round Culvert n=0.012 L=28.0' S=0.0107 '/' Outflow=0.79 cfs 2,470 cf**Pond CB 237: CB 237**Peak Elev=63.71' Storage=8 cf Inflow=1.27 cfs 3,931 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=1.27 cfs 3,931 cf**Pond CB 238: CB 238**Peak Elev=64.04' Storage=5 cf Inflow=0.61 cfs 1,893 cf
12.0" Round Culvert n=0.012 L=44.0' S=0.0102 '/' Outflow=0.61 cfs 1,893 cf**Pond CB 239: CB 239**Peak Elev=61.72' Storage=15 cf Inflow=3.22 cfs 10,308 cf
12.0" Round Culvert n=0.012 L=32.0' S=0.0109 '/' Outflow=3.22 cfs 10,308 cf**Pond CB 241: CB 241**Peak Elev=62.57' Storage=15 cf Inflow=2.83 cfs 9,297 cf
12.0" Round Culvert n=0.012 L=180.0' S=0.0050 '/' Outflow=2.82 cfs 9,297 cf**Pond CB 244: CB 244**Peak Elev=62.78' Storage=9 cf Inflow=1.28 cfs 4,146 cf
12.0" Round Culvert n=0.012 L=8.0' S=0.0125 '/' Outflow=1.28 cfs 4,146 cf**Pond CB 245: CB 245**Peak Elev=62.37' Storage=2 cf Inflow=0.12 cfs 369 cf
12.0" Round Culvert n=0.012 L=33.0' S=0.0106 '/' Outflow=0.12 cfs 369 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 99

Pond CB 248: CB 248Peak Elev=66.14' Storage=18 cf Inflow=14.51 cfs 47,271 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0100 ' ' Outflow=14.51 cfs 47,274 cf**Pond CB 249: CB 249**Peak Elev=74.86' Storage=0.000 af Inflow=0.11 cfs 341 cf
12.0" Round Culvert n=0.012 L=78.0' S=0.0103 ' ' Outflow=0.11 cfs 341 cf**Pond CB 252: CB 252**Peak Elev=70.73' Storage=20 cf Inflow=3.52 cfs 11,548 cf
12.0" Round Culvert n=0.012 L=38.0' S=0.0053 ' ' Outflow=3.51 cfs 11,548 cf**Pond CB 253: CB 253**Peak Elev=70.88' Storage=18 cf Inflow=3.14 cfs 10,175 cf
12.0" Round Culvert n=0.012 L=40.0' S=0.0050 ' ' Outflow=3.12 cfs 10,175 cf**Pond DMH 508: DMH 508**Peak Elev=62.84' Storage=40 cf Inflow=40.28 cfs 174,635 cf
36.0" Round Culvert n=0.012 L=127.0' S=0.0051 ' ' Outflow=40.27 cfs 174,635 cf**Pond DMH 509: DMH 509**Peak Elev=64.98' Storage=60 cf Inflow=28.90 cfs 125,881 cf
24.0" Round Culvert n=0.012 L=90.0' S=0.0050 ' ' Outflow=28.90 cfs 125,881 cf**Pond DMH 510: DMH 510**Peak Elev=65.97' Storage=64 cf Inflow=28.89 cfs 125,881 cf
24.0" Round Culvert n=0.012 L=122.0' S=0.0049 ' ' Outflow=28.90 cfs 125,881 cf**Pond DMH 511: DMH 511**Peak Elev=66.13' Storage=59 cf Inflow=28.89 cfs 125,881 cf
24.0" Round Culvert n=0.012 L=83.0' S=0.0054 ' ' Outflow=28.89 cfs 125,881 cf**Pond DMH 512: DMH 512**Peak Elev=65.17' Storage=37 cf Inflow=18.40 cfs 83,863 cf
24.0" Round Culvert n=0.012 L=140.0' S=0.0050 ' ' Outflow=18.43 cfs 83,863 cf**Pond DMH 513: DMH 513**Peak Elev=65.21' Storage=30 cf Inflow=16.59 cfs 75,501 cf
24.0" Round Culvert n=0.012 L=82.0' S=0.0055 ' ' Outflow=16.60 cfs 75,501 cf**Pond DMH 514: DMH 514**Peak Elev=65.36' Storage=9 cf Inflow=1.42 cfs 4,547 cf
12.0" Round Culvert n=0.012 L=103.0' S=0.0053 ' ' Outflow=1.42 cfs 4,547 cf**Pond DMH 515: DMH 515**Peak Elev=62.04' Storage=10 cf Inflow=1.54 cfs 4,797 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0050 ' ' Outflow=1.54 cfs 4,797 cf**Pond DMH 516: DMH 516**Peak Elev=61.59' Storage=15 cf Inflow=2.82 cfs 9,297 cf
12.0" Round Culvert n=0.012 L=58.0' S=0.0052 ' ' Outflow=2.82 cfs 9,297 cf**Pond DMH 533: DMH 533**Peak Elev=73.66' Storage=111 cf Inflow=42.86 cfs 140,525 cf
24.0" Round Culvert n=0.012 L=67.0' S=0.0097 ' ' Outflow=42.73 cfs 140,525 cf**Pond DMH 534: DMH 534**Peak Elev=77.46' Storage=95 cf Inflow=42.95 cfs 140,525 cf
24.0" Round Culvert n=0.012 L=208.0' S=0.0101 ' ' Outflow=42.86 cfs 140,525 cf**Pond DMH 535: DMH 535**Peak Elev=77.88' Storage=88 cf Inflow=43.00 cfs 140,524 cf
24.0" Round Culvert n=0.012 L=135.0' S=0.0100 ' ' Outflow=42.95 cfs 140,525 cf**Pond DMH 536: DMH 536**Peak Elev=79.14' Storage=74 cf Inflow=16.75 cfs 54,548 cf
18.0" Round Culvert n=0.012 L=300.0' S=0.0092 ' ' Outflow=16.57 cfs 54,548 cf

14110-PROP

Prepared by Jones & Beach Engineers

HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC

POST-DEVELOPMENT

Type III 24-hr 100-YEAR Rainfall=6.90"

Printed 2/1/2016

Page 100

Pond DMH 537: DMH 537Peak Elev=75.05' Storage=20 cf Inflow=7.18 cfs 23,298 cf
18.0" Round Culvert n=0.012 L=260.0' S=0.0050 ' Outflow=7.17 cfs 23,298 cf**Pond EX. CB: EX. CB 2436**Inflow=0.64 cfs 1,976 cf
Primary=0.64 cfs 1,976 cf**Pond EX. CB 2470: EX. CB 2470**Peak Elev=75.29' Storage=8 cf Inflow=1.38 cfs 4,245 cf
12.0" Round Culvert n=0.012 L=171.0' S=0.0059 ' Outflow=1.37 cfs 4,245 cf**Pond FB#1: FOREBAY #1**Peak Elev=74.87' Storage=675 cf Inflow=9.29 cfs 29,722 cf
Outflow=9.33 cfs 29,245 cf**Pond GW1-C1: GRAVEL WETLAND #1**Peak Elev=74.76' Storage=6,379 cf Inflow=9.33 cfs 29,245 cf
Outflow=8.94 cfs 29,245 cf**Pond SF#1: SAND FILTER #1**Peak Elev=76.05' Storage=6,038 cf Inflow=15.23 cfs 49,902 cf
Outflow=18.59 cfs 49,551 cf**Pond SF#2: SAND FILTER #2**Peak Elev=74.33' Storage=7,931 cf Inflow=14.34 cfs 45,648 cf
Outflow=12.32 cfs 45,187 cf**Pond SF#3: SAND FILTER #3**Peak Elev=72.34' Storage=830 cf Inflow=1.76 cfs 5,558 cf
Outflow=0.80 cfs 5,502 cf**Pond SF#4: SAND FILTER #4**Peak Elev=76.93' Storage=788 cf Inflow=4.51 cfs 14,493 cf
Outflow=4.47 cfs 14,365 cf**Pond SF#5: SAND FILTER #5**Peak Elev=70.65' Storage=4,662 cf Inflow=8.64 cfs 28,336 cf
Outflow=6.34 cfs 28,059 cf**Link AP-1: Highway culvert**Inflow=246.27 cfs 3,896,441 cf
Primary=246.27 cfs 3,896,441 cf**Total Runoff Area = 9,269,083 sf Runoff Volume = 4,231,257 cf Average Runoff Depth = 5.48"**
48.47% Pervious = 4,492,702 sf 51.53% Impervious = 4,776,381 sf

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #1

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 3.7 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 13.66 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 16.66 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.44 ft. 5.26 in.
Use 3" minimum D₅₀ ==> D50 = 5.259 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 13.14842 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #2

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 14.1 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 22.97 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 28.97 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 1.25 ft. 14.97 in.

Use 3" minimum D₅₀ ==> D50 = 14.97 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 37.42537 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #3

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 7.75 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 18.93 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 24.93 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.57 ft. 6.88 in.

Use 3" minimum D₅₀ ==> D50 = 6.876 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 17.1899 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #4

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 9.67 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 20.15 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 26.15 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.76 ft. 9.17 in.

Use 3" minimum D₅₀ ==> D50 = 9.168 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 22.92111 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #5

Pipe Size (Do): 15 in. = 1.25 ft

Q25 (cfs): 6.3 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 16.86 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 20.61 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.70 ft. 8.40 in.
Use 3" minimum D₅₀ ==> D50 = 8.404 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 21.01087 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3.75 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #6

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 1.61 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 9.90 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 12.90 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.15 ft. 1.78 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #7

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 11.36 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 21.23 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 27.23 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.94 ft. 11.30 in.

Use 3" minimum D₅₀ ==> D50 = 11.3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 28.26006 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #8

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 2.86 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 15.82 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂)

TW < Do $W_2 = 3Do + La$
W₂ = 21.82 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.16 ft. 1.88 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #9

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 1.4 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 9.52 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 12.52 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.12 ft. 1.49 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #10

Pipe Size (Do): 18 in. = 1.5 ft

Q25 (cfs): 15.67 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 25.85 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 30.35 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 1.91 ft. 22.90 in.

Use 3" minimum D₅₀ ==> D50 = 22.9 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 57.24132 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 4.5 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #11

Pipe Size (Do): 18 in. = 1.5 ft

Q25 (cfs): 3.01 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 13.45 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 17.95 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.22 ft. 2.68 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 4.5 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #12

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 0.72 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 8.30 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 11.30 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.05 ft. 0.63 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #13

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 1.58 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 9.84 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 12.84 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.14 ft. 1.74 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #14

Pipe Size (Do): 18 in. = 1.5 ft

Q25 (cfs): 5.97 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 16.35 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 20.85 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.54 ft. 6.53 in.
Use 3" minimum D₅₀ ==> D50 = 6.531 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 16.32626 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 4.5 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #15

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 12.16 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 21.74 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂)

TW < Do $W_2 = 3Do + La$
W₂ = 27.74 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 1.03 ft. 12.35 in.

Use 3" minimum D₅₀ ==> D50 = 12.35 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 30.87414 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #16

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 3.82 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 13.88 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 16.88 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.46 ft. 5.48 in.
Use 3" minimum D₅₀ ==> D50 = 5.482 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 13.70546 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #17

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 1.55 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 9.79 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 12.79 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.14 ft. 1.70 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #18

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 1.14 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 9.05 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 12.05 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.09 ft. 1.14 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #19

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 0.37 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 7.67 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 10.67 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.02 ft. 0.26 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #20

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 1.56 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 9.81 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 12.81 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.14 ft. 1.71 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #21

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 3.42 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 13.16 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 16.16 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.40 ft. 4.75 in.
Use 3" minimum D₅₀ ==> D50 = 4.748 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 11.86985 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #22

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 0.72 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 8.30 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 11.30 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.05 ft. 0.63 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #23

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 30.93 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 33.68 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 39.68 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 3.46 ft. 41.57 in.

Use 3" minimum D₅₀ ==> D50 = 41.57 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 103.9143 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #24

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 2.15 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 10.87 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 13.87 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.22 ft. 2.60 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #25

Pipe Size (Do): 36 in. = 3 ft

Q25 (cfs): 19.07 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 27.61 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 36.61 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 1.23 ft. 14.78 in.

Use 3" minimum D₅₀ ==> D50 = 14.78 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 36.94417 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 9 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #26

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 8.37 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 22.07 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 25.07 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 1.27 ft. 15.20 in.

Use 3" minimum D₅₀ ==> D50 = 15.2 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 37.99744 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #27

Pipe Size (Do): 15 in. = 1.25 ft

Q25 (cfs): 4.3 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 14.29 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 18.04 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.43 ft. 5.12 in.

Use 3" minimum D₅₀ ==> D50 = 5.115 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 12.78822 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3.75 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #28

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 4.27 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 14.69 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 17.69 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.53 ft. 6.34 in.

Use 3" minimum D₅₀ ==> D50 = 6.336 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 15.84045 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #29

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 1.13 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 9.03 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 12.03 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.09 ft. 1.13 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #30

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 2.36 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 11.25 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 14.25 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.24 ft. 2.93 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #31

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 1.06 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 8.91 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 11.91 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.09 ft. 1.04 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #32

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 10.17 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 25.31 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 28.31 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 1.63 ft. 19.58 in.

Use 3" minimum D₅₀ ==> D50 = 19.58 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 48.94727 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #33

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 2.87 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 12.17 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 15.17 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.32 ft. 3.78 in.

Use 3" minimum D₅₀ ==> D50 = 3.78 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 9.450564 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #34

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 11.13 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 21.08 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 27.08 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.92 ft. 11.01 in.

Use 3" minimum D₅₀ ==> D50 = 11.01 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 27.51851 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #35

Pipe Size (Do): 24 in. = 2 ft

Q25 (cfs): 4.6 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 16.93 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 22.93 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.29 ft. 3.49 in.

Use 3" minimum D₅₀ ==> D50 = 3.49 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 8.72502 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 6 ft.

Project Name: "Dirigo Plaza"

JBE #: 14110

Town/City: Westbrook, ME

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #36

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 0.94 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 8.69 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 11.69 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.07 ft. 0.89 in.

Use 3" minimum D₅₀ ==> D50 = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Project Name: "Dirigo Plaza"

Town/City: Westbrook, ME

JBE #: 14110

Date: 1/1/2016

Rip Rap Outlet Protection Calculation

Outlet Designation: Rip Rap #37

Pipe Size (Do): 12 in. = 1 ft

Q25 (cfs): 0.95 cfs

Tailwater Elevation (TW): 0.25 (FT) if TW = 0, assume 3"/0.25'

Apron Length (La):

TW < Do YES $La = 1.8Q/Do^{1.5} + 7Do$
La = 8.71 ft

TW > Do No $La = 3.0Q/Do^{1.5} + 7Do$
La =

Apron Width (W₂):

TW < Do $W_2 = 3Do + La$
W₂ = 11.71 ft.

TW > Do $W_2 = 3Do + .4La$
W₂ = ft.

Rip-Rap Diameter (D₅₀):

D₅₀: $D_{50} = 0.02Q^{1.3}/TW*Do$
D₅₀ = 0.07 ft. 0.90 in.

Use 3" minimum D₅₀ ==> D₅₀ = 3 in.

Rip-Rap Thickness (T):

$T = 2.5*D_{50}$
T = 7.5 in.

Apron Width (W₁):

$W_1 = 3*Do$
W₁ = 3 ft.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Class B High Intensity Soil Map

Pike Facility

Westbrook Arterial, Larrabee Road, and Main Street

Westbrook and Portland, Maine

prepared for:

Jones and Beach Engineers, Inc.

85 Portsmouth Avenue

Stratham, NH 03885



Michael Cuomo

July 2015

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

This report is in reference to the Pike industrial property located between Main Street and the Westbrook Arterial in Westbrook and Portland, Maine. In June 2015 a class 'B' high intensity soil survey was completed in compliance with the standards created by the Maine Association of Professional Soil Scientists. The purpose of this work is to assist in the permitting of this site for commercial development served by municipal sewer and water service. This report will explain the methods, limitations, and results of this work.

A high intensity soil survey is comprised of two components: a soil map and a report. The soil map is made by traversing the property and observing the soil at locations thought to be representative of the landform. Because soil is highly variable, it is not possible to represent every soil variation on the soil map. The soil map is a simplified two-dimensional interpretation of the complex three dimensional soil-landscape relationship. Class B standards allow for inclusions of soils other than those named in the soil map unit label, so long as no inclusion limiting for the proposed land use is greater than one acre in size. Boundaries between different soils are shown as lines on the soil map, but may be diffuse transition zones.

Soil names are typically selected using best fit with soils already researched in detail and found to occur extensively in Maine by the USDA Natural Resource Conservation Service. The Elmwood and Roundabout soils are mapped on this parcel because they fit this approach. The remaining soil map units were created specifically to describe the human disturbed or created soil found on this parcel. The map unit design and the interpretations of soil properties in this report are specific to this site and were selected considering the proposed use. Therefore, the interpretations and limitation information in this report is insufficient for other uses.

This soil map is based on twelve test pits dug with an excavator and two soil observations made with hand tools. The data for these

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

are attached at the rear of this report. The soil map is presented on a base plan: a two foot contour interval, 1"=100' scale 'Existing Conditions Plan' prepared by Jones and Beach Engineers, Inc., revision date 7 April 2015.

Two soil types and seven miscellaneous land types (varieties of fill and human disturbed areas) are found on the property and are described below.

Compact Reclaim over Sandy Fill (CR)

Drainage class: Well drained.

Parent material: Fill.

Texture range: Crushed concrete dust and chips, sometimes with continuous layers of old pavement at the surface or buried; overlying sand to stony loamy sand fill. Compact layers may occur at any depth.

Description: See test pit three.

Landscape position: Flat areas created by and for industrial use of parcel.

Landform: Fill site.

Slope range: 0 - 8%.

Permeability: Very slow in the surface horizon, moderately slow to very fast depending on texture and compaction in the lower horizons.

Bedrock class: Very deep.

Hydrologic group: D.

Flood hazard: none.

Inclusions: See test pit six; this inclusion has firm stony fine sand loam is the lower part.

Use and management:

Structures and Paving: Well suited.

Underground utilities: Well suited.

Landscape Areas: Poorly suited due to compaction, slow permeability, and low organic matter and fines.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Elmwood (Em)

Drainage class: Moderately well to somewhat poorly drained.

Parent material: Glacial age aeolian over marine.

Texture range: Very fine sandy loam over silty clay loam.

Description: See test pit 10.

Landscape position: Lowland and footslope.

Landform: Glacial era deltas and bays.

Slope range: 0 to 8%.

Permeability: Moderately slow in the upper layers and slow in the lower layers.

Bedrock class: Very deep.

Hydrologic group: C.

Flood hazard: None.

Inclusions: None noted.

Use and management: Land uses are limited by seasonal wetness close to the surface. These are not wetland soils and may be drained or filled to overcome this limitation.

Quarry (OU)

Drainage class: Not applicable.

Parent material: Bedrock exposed by excavation.

Texture range: Not applicable.

Description: Exposed bedrock in former quarry, with steep sides, some soil and debris on the gently sloping bottom areas, and ponded water at the deepest portion.

Landscape position: Deep excavation.

Landform: Deep excavation.

Slope range: 0 to more than 33%.

Permeability: Not applicable.

Bedrock class: Very shallow.

Hydrologic group: D.

Flood hazard: none.

Inclusions: None noted.

Use and management:

Structures and Paving: Poorly suited due to shallow bedrock.

Underground utilities: Poorly suited due to shallow bedrock.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Landscape Areas: Poorly suited due to shallow bedrock.

Roundabout (Rd)

Drainage class: Poorly drained.

Parent material: Glacial age lacustrine or shallow marine environments.

Texture range: Very fine sandy loam in the upper part over stratified fine sand and silt to silt loam.

Description: See soil observation B.

Landscape position: Wetland.

Landform: Depressions, lowlands.

Slope range: 0 to 8%.

Permeability: Moderate in the upper part and moderately slow in the lower part.

Bedrock class: Very deep.

Hydrologic group: C.

Flood hazard: Undefined flood hazard may exist.

Inclusions: None noted.

Use and management: Land uses are limited by wetness at or close to the surface. Portions of these soils are identified as wetlands and may be not be drained or filled without permits.

Silty Poorly Drained Fill (SI)

Drainage class: Poorly drained.

Parent material: Fill and recently transported sediment.

Texture range: gravely crushed concrete, stone dust, and sediment overflowed from sedimentation trap or eroded into stream channel.

Description: See soil observation A.

Landscape position: Depressions, lowlands.

Landform: Fill over natural wetlands.

Slope range: 0 to 8%.

Permeability: Moderately slow.

Bedrock class: Very deep.

Hydrologic group: D.

Flood hazard: Undefined flood hazard may exist.

Inclusions: Stream.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Use and management: Land uses are limited by wetness at or close to the surface. Portions of these soils are identified as wetlands and may be not be drained or filled without permits.

Structures and Paving: Poorly suited.

Underground utilities: Poorly suited.

Landscape Areas: Poorly suited.

Soil Fill & Reclaimed Pavement in Pile (SO)

Drainage class: Well drained.

Parent material: Fill.

Texture range: Stony loamy sand to silt loam soil, with non soil reclaimed pavement and crushed concrete.

Description: See test pit one.

Landscape position: Piles.

Landform: Fill

Slope range: 0 to more than 33%.

Permeability: Highly variable. Moderate in friable layers and slow to very slow in compact layers.

Bedrock class: Very deep.

Hydrologic group: C

Flood hazard: none.

Inclusions: None noted.

Use and management:

Structures and Paving: Poorly suited due to lack of stability.

Underground utilities: Poorly suited due to lack of stability.

Landscape Areas: Poorly suited due to lack of stability.

Stone Dust & Wash Tailings in Pile (SP)

Drainage class: Well drained.

Parent material: Fill.

Texture range: Silt from stone dust and wash tailings.

Description: See test pit eight.

Landscape position: Pile.

Landform: Fill.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Slope range: 0 to more than 33%

Permeability: Slow.

Bedrock class: Very deep.

Hydrologic group: D

Flood hazard: None.

Inclusions: See test pit 11, a moderately well drained inclusion.

Use and management:

Structures and Paving: Poorly suited due to lack of stability.

Underground utilities: Poorly suited due to lack of stability.

Landscape Areas: Poorly suited due to lack of stability.

Stone Dust & Wash Tailings (SW)

Drainage class: Somewhat poorly drained.

Parent material: Fill over wet soils.

Texture range: reclaimed asphalt, crushed concrete dust and chips, and wash tailings.

Description: See test pit seven.

Landscape position: Flat areas created by and for industrial use of parcel.

Landform: Fill.

Slope range: 0 to 8%.

Permeability: Moderately slow to slow.

Bedrock class: Very deep.

Hydrologic group: C

Flood hazard: none.

Inclusions: None noted.

Use and management:

Structures and Paving: Moderate due to settling associated with drainage and filling.

Underground utilities: Moderate due to settling associated with drainage and filling; facilities would be beneath water table.

Landscape Areas: Poorly suited due to compaction, slow

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

permeability, and settling risk.

Unstable Concrete Waste (UC)

Drainage class: Somewhat poorly drained.

Parent material: Fill over wet soils.

Texture range: Crushed concrete dust and chips with large slabs of concrete overlying silt loam.

Description: See test pit 9.

Landscape position: Flat areas created by and for industrial use of parcel.

Landform: Fill.

Slope range: 0 to 8%.

Permeability: Rapid in the upper part, slow in the lower part.

Bedrock class: Very deep.

Hydrologic group: C

Flood hazard: none.

Inclusions: Detention pond.

Use and management:

Structures and Paving: Poorly suited, structurally unstable.

Underground utilities: Poorly suited, structurally unstable.

Landscape Areas: Poorly suited, structurally unstable.

Discussion

The descriptions above are given to assist the reader in interpreting what limitations are present and how the soil or fill will behave when used as described. Additional geotechnical investigations regarding bearing strength are recommended at the proposed building locations.

The descriptive soil names were tailored specifically to this site, as most of the soil map units identified (with the exception of Elmwood and Roundabout) are the result of human disturbance of the natural environment. The hydrologic soil groups and permeability classes for fill and disturbed soils were selected based on the professional judgment of the author.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Human manipulated landscapes such as this parcel are difficult to soil map because they can be highly variable over short distances. For example, a foot away from any test pit, the fill might be entirely different and there would be no way of knowing this unless the entire site were dug up and examined. Soil maps are generalizations based on observations and assumptions. The landscape-soil relationships which serve us well in natural landscapes do not work on sites such as this.

Wetlands were identified by others. There are two wetlands soils identified on this parcel, map units RdB and SIB. Wetland soils are one of three components used to identify wetlands; not all wetland soils are regulated as wetlands.

Conclusion

The majority of this site has been highly modified by human activity associated with the historic rock quarry and ongoing recycling of concrete and pavement. Heavy truck traffic and creation of stable surfaces for those trucks has lead to widespread compaction of the surface and buried paved or compacted layers within the soil. Considerable volume of stone has been removed from the quarry and large volumes of soil, pavement waste, and concrete waste has been brought to the site for recycling.

Site specific engineering of drainage structures, removal of unsuitable material, and compaction will be necessary for the proposed use.

This report has described the soil and fill found on this site and identified their limitations. Engineering and design measures can overcome these limitations, when properly designed and implemented.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Test Pit: **One**
Soil Description: Soil Fill in Pile (SO)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 24" Very dark grayish brown (10YR 3/2) fine sandy loam, granular, friable.
24 - 48" Light yellowish brown (2.5Y 6/3) stony fine sandy loam, friable, blocky.
48 - 60" Very dark brown (2.5Y 3/3) stony fine sandy loam, friable, blocky.
60 - 72" Dark yellowish brown (10YR 4/4) gravely fine sandy loam, firm, blocky.
72 - 84" Light gray (2.5Y 7/1) silt loam, firm, blocky, with redoximorphic ('redox.') features.

Test Pit: **Two**
Soil Description: Compact Reclaim over Sandy Fill (CR)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 12" Grayish brown (2.5Y 5/2) crushed concrete dust and chips less than 2" with some continuous buried pavement.
12 - 32" Light olive brown (2.5Y 5/4) sand, loose to compact, massive.
32 - 72" Light yellowish brown (2.5Y 6/3) stony loamy sand, firm, massive.

Test Pit: **Three**
Soil Description: Compact Reclaim over Sandy Fill (CR)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 24" Gray (2.5Y 5/1) crushed concrete dust and chips less than 2" with some continuous buried pavement.
24 - 36" Brownish yellow (10YR 6/6) loamy sand, friable, blocky.
36 - 72" Light olive brown (2.5Y 5/6) sand, loose to compact, massive.

Test Pit: **Four**
Soil Description: Compact Reclaim over Sandy Fill (CR)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 36" Gray (2.5Y 5/1) crushed concrete dust and chips less than 2" and crushed stone, with two continuous buried pavement layers.
24 - 36" Brownish yellow (10YR 6/6) loamy sand, friable, blocky.
36 - 72" Light olive brown (2.5Y 5/6) sand, loose to compact,

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

massive.

Test Pit: **Five**
Soil Description: Compact Reclaim over Sandy Fill (CR)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 12" Very dark gray (2.5Y 3/1) reclaimed asphalt, concrete dust and chips less than 2", firm.
12 - 30" Pale olive (5Y 6/3) stony fine sandy loam, firm, massive.
30 - 72" Light olive brown (2.5Y 5/3) stony loamy sand, friable, massive.

Test Pit: **Six**
Soil Description: Compact Reclaim over Sandy Fill (CR)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 36" Alternating layers of olive brown (2.5Y 4/4) gravely sandy loam, firm, massive; olive brown (2.5Y 4/3) crushed concrete, firm, massive; and pale olive (2.5Y 7/3) gravely sand, loose, single grain.
36 - 72" Olive brown (2.5Y 4/3) gravely fine sandy loam, firm, massive.

Test Pit: **Seven**
Soil Description: Stone Dust and Wash Tailings (SW)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 30" Very dark gray (2.5Y 3/1) reclaimed asphalt, crushed concrete dust and chips less than 2".
30 - 72" Gray (5Y 5/1) concrete dust and wash tailings, firm, blocky.

Observed water flowing into the pit from top to bottom.

Test Pit: **Eight**
Soil Description: Stone Dust & Wash Tailings in Pile (SP)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 30" Gray (5Y 5/1) silt from stone dust and wash tailings, firm, blocky.
30 - 84" Grayish brown (2.5Y 5/2) silt from stone dust wash tailings, firm, blocky.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Test Pit: **Nine**
Soil Description: Unstable Concrete Waste (UC)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 5" Very dark grayish brown (10YR 3/2) stony fine sandy loam fill, friable, granular.
5 - 72" Gray (5Y 6/1) crushed concrete dust and chips with large slabs of concrete.
72 - 84" Gray (2.5Y 5/1) silt loam, friable, massive, with redox. (Buried wetland surface).
Observed water flowing into pit at 30" depth.

Test Pit: **Ten**
Soil Description: Elmwood Soil (Em)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 10" Very dark gray (2.5Y 3/2) very fine sandy loam, granular, friable.
10 - 20" Dark yellowish brown (10YR 4/4) very fine sandy loam, blocky, friable.
20 - 36" Olive (5Y 5/4) very fine sandy loam, blocky, friable, with redox.
36 - 76" Gray (2.5Y 5/1) silty clay loam, firm, blocky, redox.

Test Pit: **Eleven**
Soil Description: Stone Dust and Wash Tailings (SW)
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 30" Dark brown (10YR 3/3) silt from stone dust and wash tailings, granular, friable.
30 - 48" Light olive brown (2.5Y 5/3) silt from stone dust and wash tailings, friable, blocky, with redox.
48 - 90" Olive gray (5Y 5/2) silt from stone dust and wash tailings, friable, blocky, with redox.

Test Pit: **Twelve**
Soil Description: Soil Fill in Pile
Job Site: Pike, Westbrook, Maine
Date: 22 June 2015

0 - 12" Dark gray (2.5Y 5/1) gravely crushed concrete.
12 - 30" Light olive brown (2.5Y 5/3) stony loamy sand, firm, massive.
30 - 48" Pale olive (2.5Y 6/3) stony loamy sand, firm, massive.
48 - 84" Pale olive (5Y 6/4) stony loamy sand, friable, massive.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com

Soil Observation:

A

Soil Description:

Silty Poorly Drained Fill (SI)

Job Site:

Pike, Westbrook, Maine

Date:

22 June 2015

- 0 - 15" Light gray (2.5Y 7/2) gravely crushed concrete and sediment overflowed from sedimentation trap.
- 15 - 30" Dark gray (2.5Y 4/1) gravely crushed concrete and sediment overflowed from sedimentation trap.
- 30 - 40" Dark gray (2.5Y 4/1) gravely crushed concrete and sediment overflowed from sedimentation trap mixed with organic soils (muck) from underlying natural wetland.

Observation discontinued.

Soil Observation:

B

Soil Name:

Roundabout (Rd)

Job Site:

Pike, Westbrook, Maine

Date:

22 June 2015

- 0 - 7" Very dark gray (2.5Y 3/1) very fine sandy loam, granular, friable, with redox.
- 7 - 14" Light gray (2.5Y 7/2) very fine sandy loam, blocky, friable with redox.
- 14 - 21" Light olive brown (2.5Y 5/3) loamy very fine sandy loam, blocky, friable, with redox.
- 21 - 40" Olive brown (2.5Y 4/4) silt loam, firm, blocky, with redox.

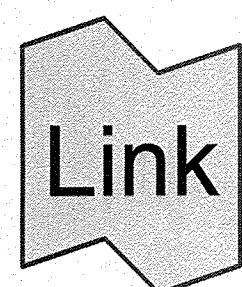
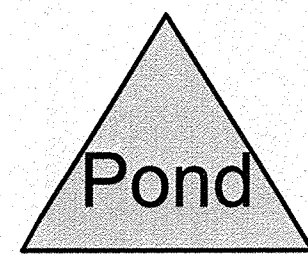
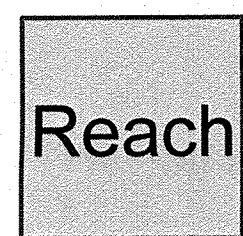
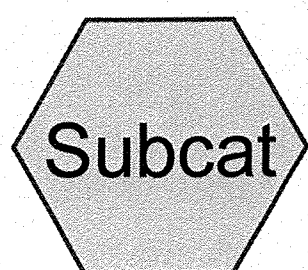
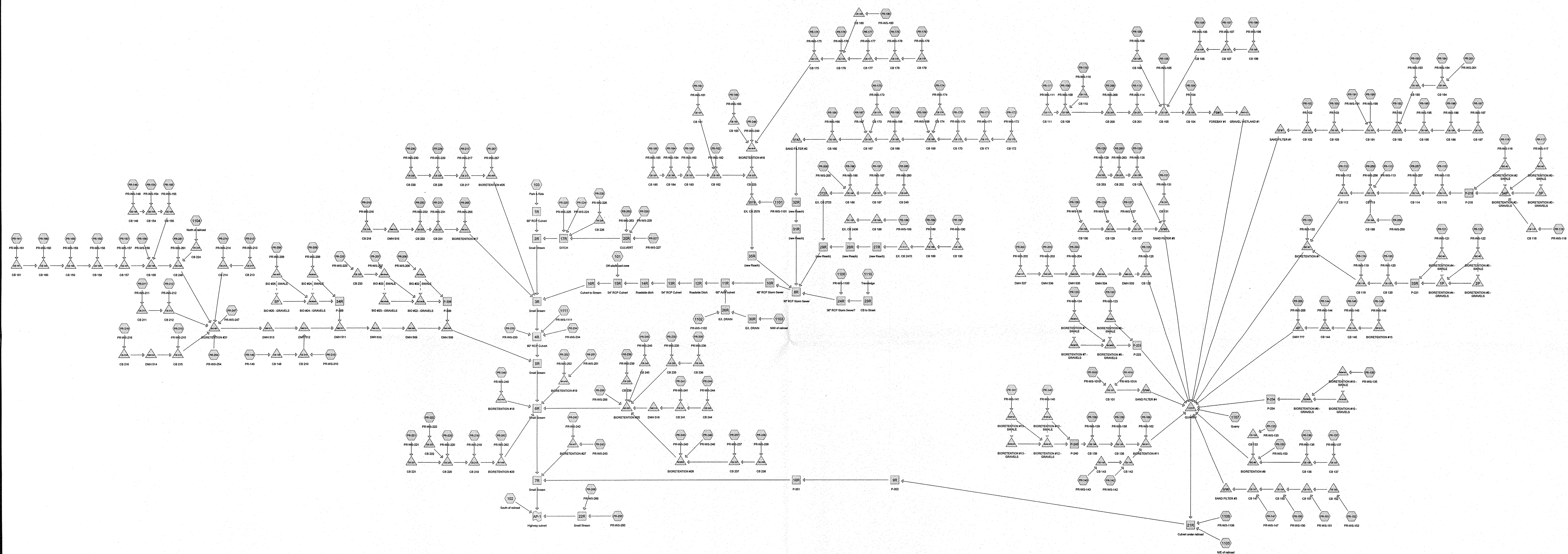
Observation discontinued.

Michael Cuomo, Soil Scientist

6 York Pond Road, York, Maine 03909

(207) 363-4532

mcuomosoil@gmail.com



Routing Diagram for 14110-PROP

Prepared by Jones & Beach Engineers, Printed 1/31/2016
HydroCAD® 10.00-13 s/n 03433 © 2014 HydroCAD Software Solutions LLC



F:\CADD\MASTER STANDARD\dwg\JB-LAYOUTS.dwg 2/15/2015 11:44:58 AM EST

Design: BWG	Draft: BWG	Date: 06/18/2015
Checked: WGM	Scale: AS NOTED	Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE).		
ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.		

0	2/2/16	ISSUED FOR REVIEW	BWG
REV.	DATE	REVISION	BY

J/B

Jones & Beach Engineers, Inc.

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Civil Engineering Services

603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

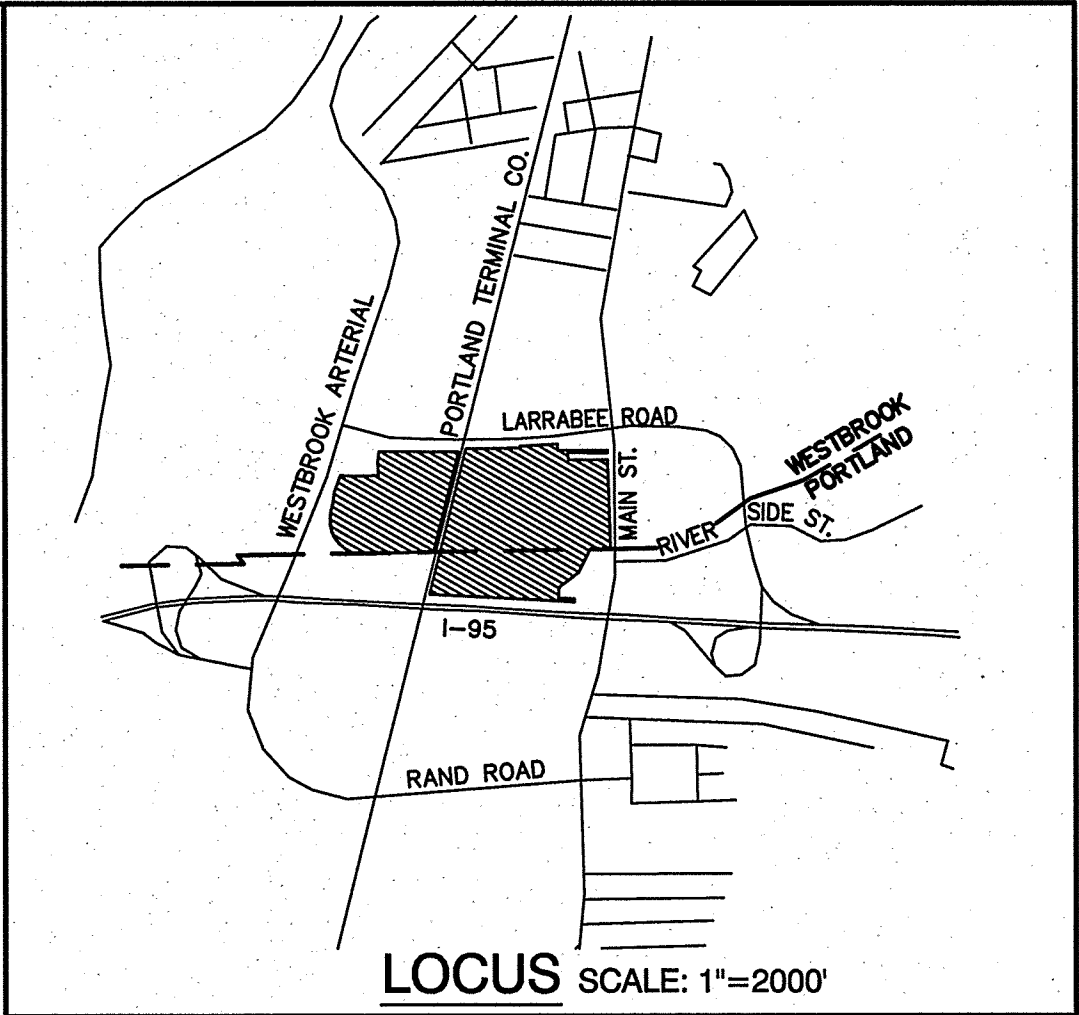
Designed and Produced in NH

Plan Name:	EXISTING OVERALL DRAINAGE PLAN
Project:	"DIRIGO PLAZA" 58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record:	PIKE INDUSTRIES, INC. 3 EASTGATE PARK ROAD, BELMONT, NH 03220

DRAWING No.

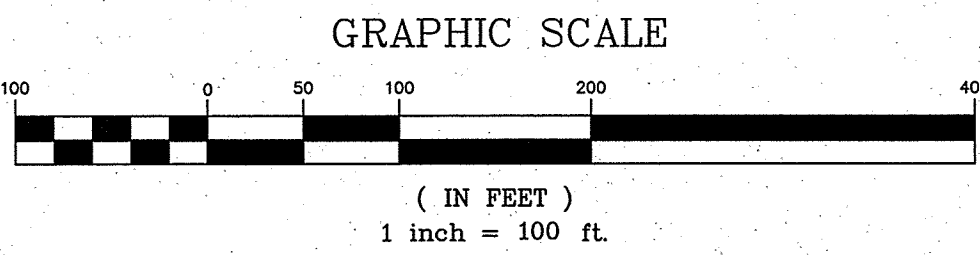
W1

SHEET 1 OF 12
JBE PROJECT NO. 14110



LEGEND

- SUBCATCHMENT BOUNDARY
- SUBCATCHMENT
- REACH
- POND
- TC PATH
- WETLANDS
- HISS SOILS
- FLOW ARROW



PROJECT PARCEL
TOWN OF WESTBROOK
TAX MAP 42B, LOTS 9, 10, 11 & 14

CITY OF PORTLAND
TAX MAP 264, LOTS A002 & A004

APPLICANT
J & J GOVE DEVELOPMENT
7 SWAIN DRIVE
HAMPTON FALLS, NH 03844

TOTAL LOT AREA
3,562,179 SQ. FT.
81.78 ACRES

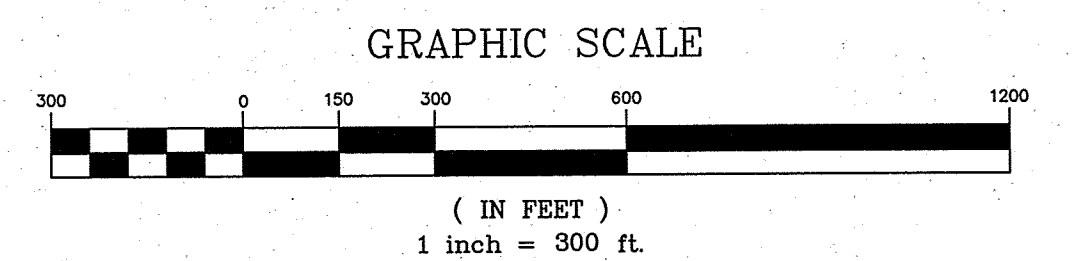
Design: BWG Draft: BWG Date: 06/18/2015
Checked: WGM Scale: AS NOTED Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

0	2/2/16	ISSUED FOR REVIEW	BWG
REV.	DATE	REVISION	BY

J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
Civil Engineering Services
603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING WATERSHED PLAN
Project: "DIRIGO PLAZA" 58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record: PIKE INDUSTRIES, INC. 3 EASTGATE PARK ROAD, BELMONT, NH 03220

DRAWING No.
W1-2
SHEET 3 OF 12
JBE PROJECT NO. 14110



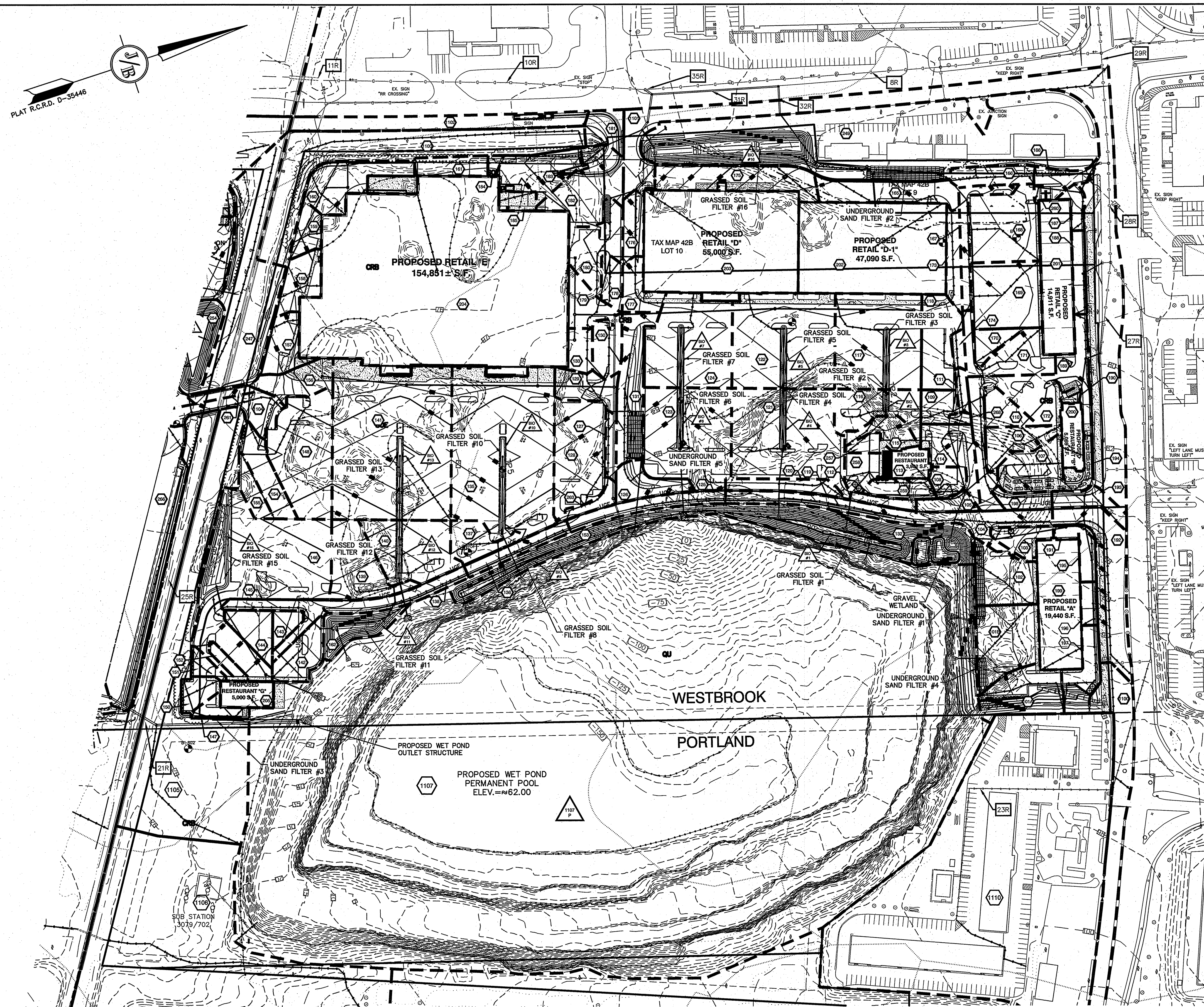
Design: BWG Draft: BWG Date: 06/18/2015
Checked: WGM Scale: AS NOTED Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN
PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE).
ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE
AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

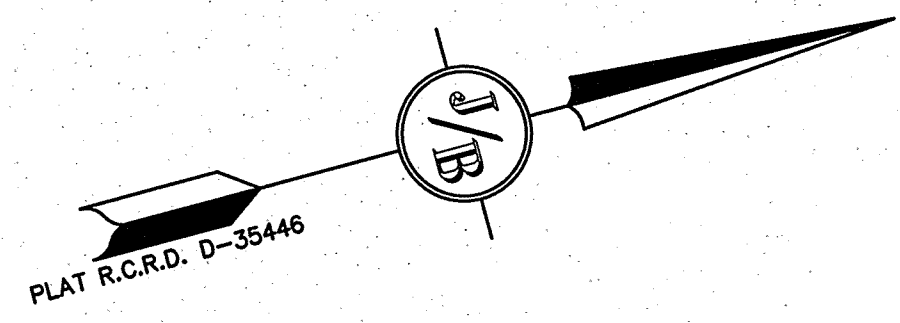
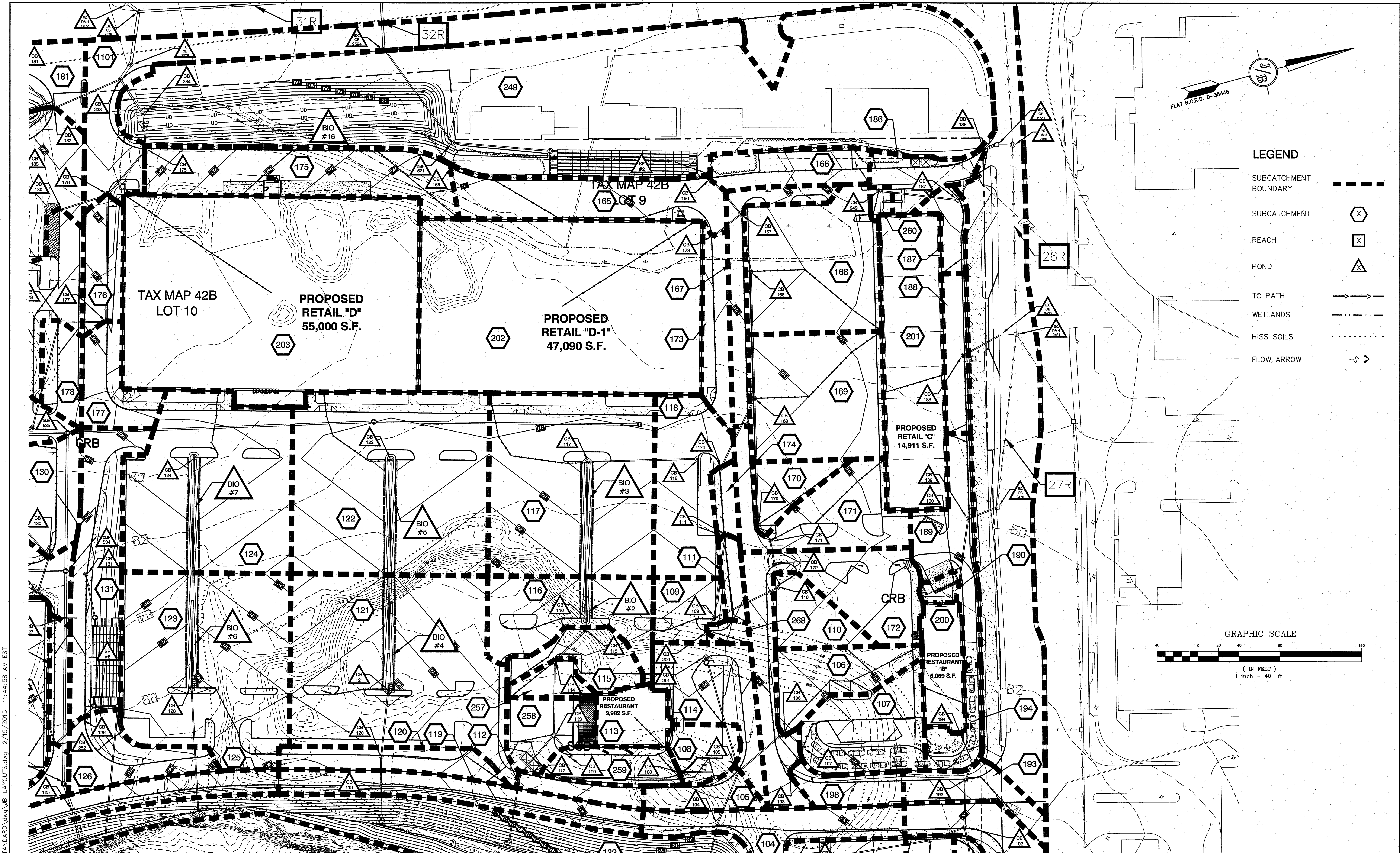
REV.	DATE	REVISION	BY
0	2/2/16	ISSUED FOR REVIEW	BWG

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
603-772-4746 FAX: 603-772-0227 E-Mail: JBE@JONESANDBEACH.COM

Plan Name: **PROPOSED OVERALL DRAINAGE PLAN**
Project: **"DIRIGO PLAZA"
58 & 80 MAIN STREET, WESTBROOK, ME 04092**
Owner of Record: **PIKE INDUSTRIES, INC.
3 EASTGATE PARK ROAD, BELMONT, NH 03220**

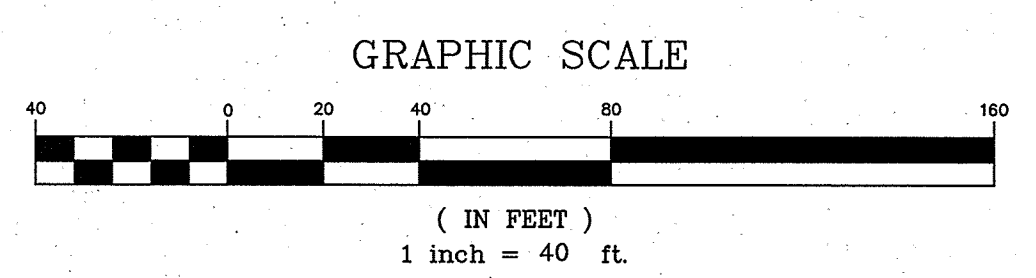
DRAWING No.
W2
SHEET 4 OF 12
JBE PROJECT NO. 14110





LEGEND

- SUBCATCHMENT BOUNDARY
- SUBCATCHMENT
- REACH
- POND
- TC PATH
- WETLANDS
- HISS SOILS
- FLOW ARROW



F:\CADD MASTER STANDARD\dwg\JB-LAYOUTS.dwg 2/15/2015 11:44:58 AM EST

Design: BWG Draft: BWG Date: 06/18/2015
Checked: WGM Scale: AS NOTED Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	ISSUED FOR REVIEW	BY
0	2/2/16	ISSUED FOR REVIEW	BWG
		REVISION	BY

**Jones & Beach Engineers, Inc.**
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Designed and Produced in NH
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

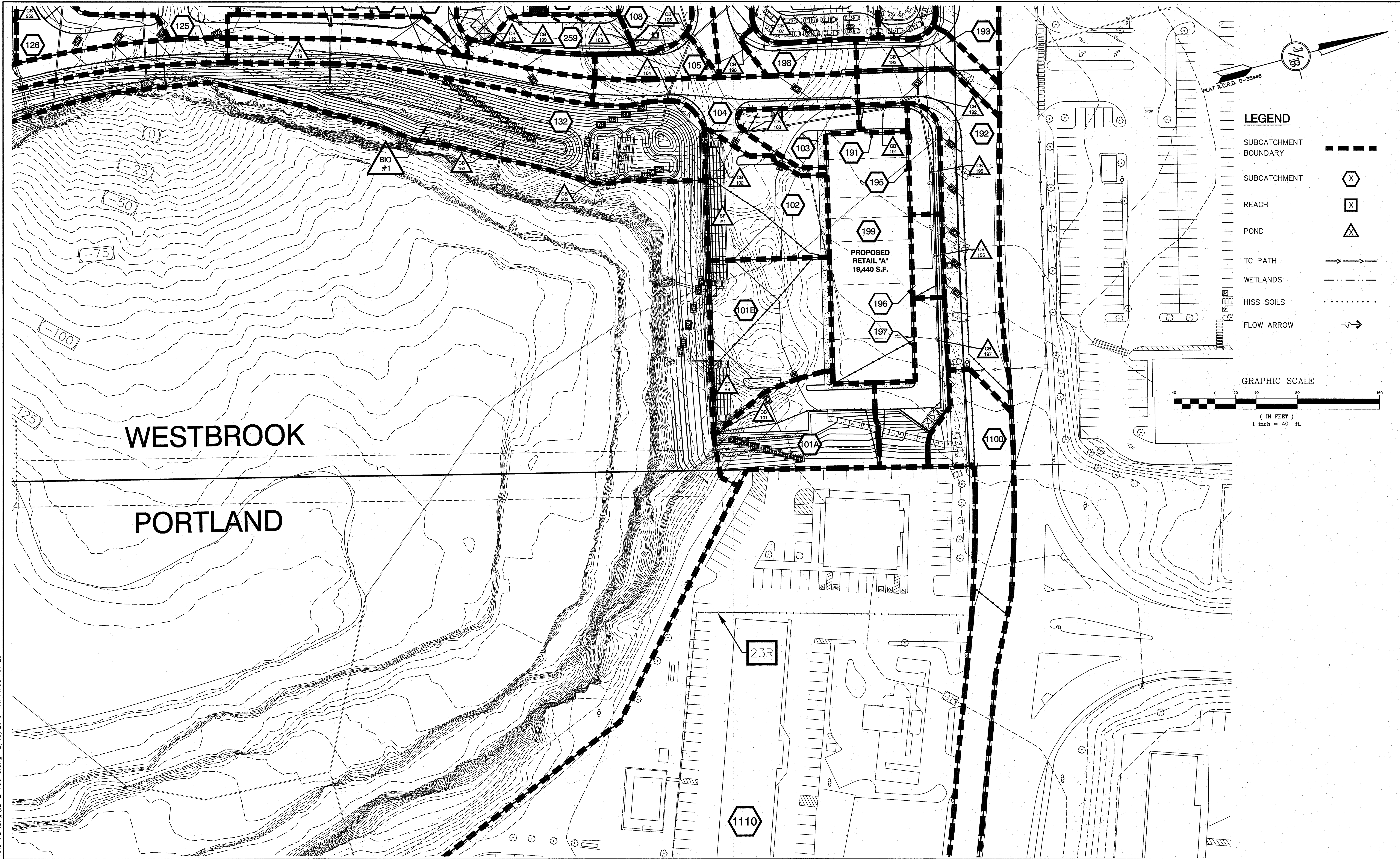
Plan Name: **PROPOSED WATERSHED PLAN**

Project: **"DIRIGO PLAZA"**
58 & 80 MAIN STREET, WESTBROOK, ME 04092

Owner of Record: **PIKE INDUSTRIES, INC.**
3 EASTGATE PARK ROAD, BELMONT, NH 03220

DRAWING No.
W2-1-1

SHEET 6 OF 12
JBE PROJECT NO. 14110



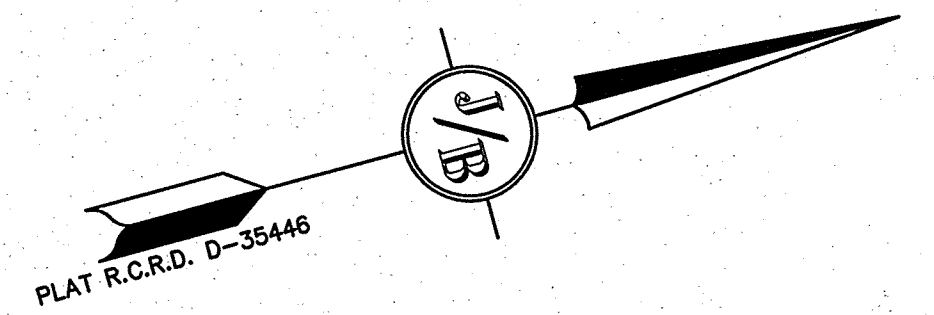
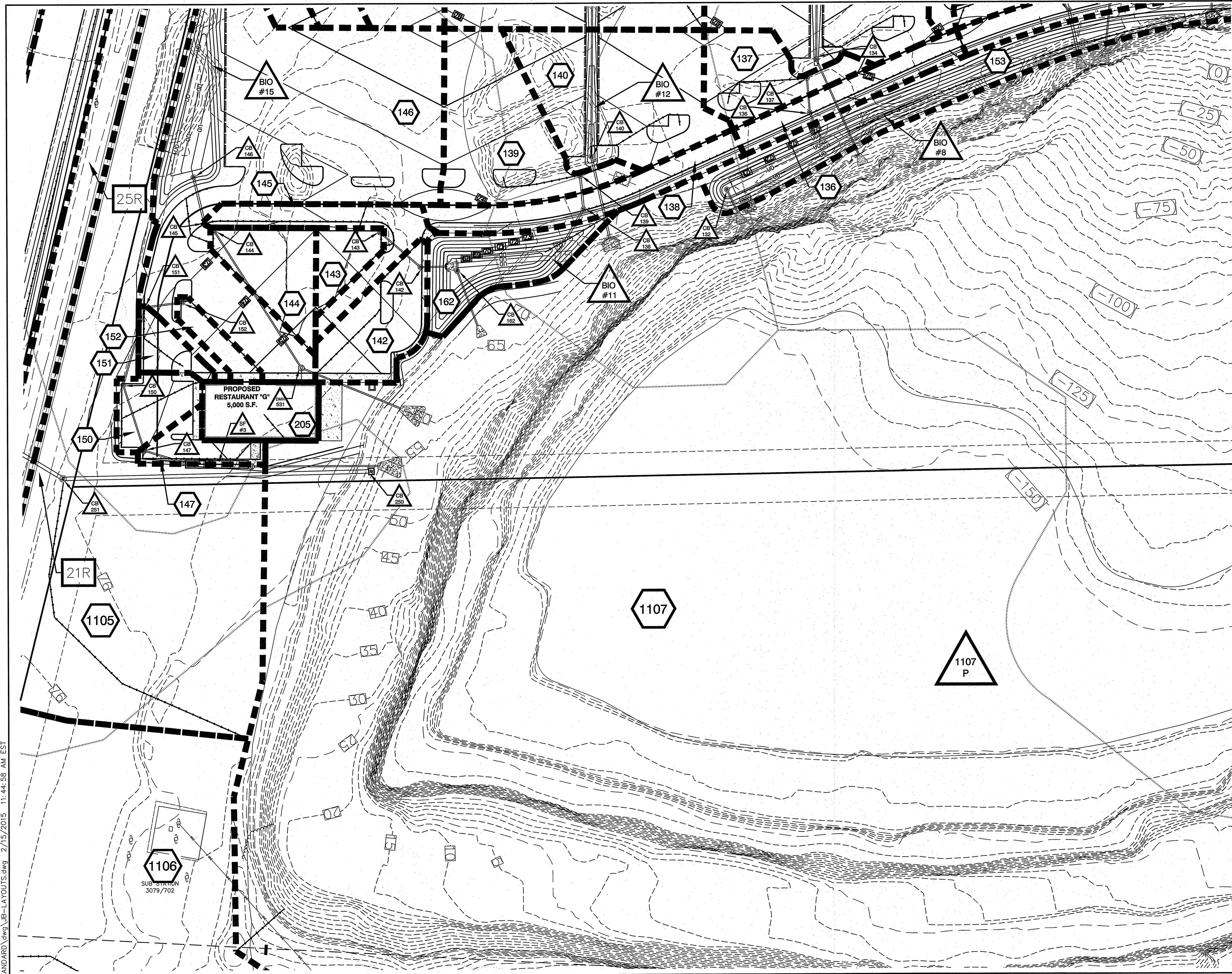
Design: BWG Draft: BWG Date: 06/18/2015
Checked: WGM Scale: AS NOTED Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN
PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE).
ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE
AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

0	2/2/16	ISSUED FOR REVIEW	BWG
REV.	DATE	REVISION	BY

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave. PO Box 211 Stratham, NH 03885
Civil Engineering Services
603-772-4746 FAX: 603-772-0227 E-Mail: JBE@JONESANDBEACH.COM

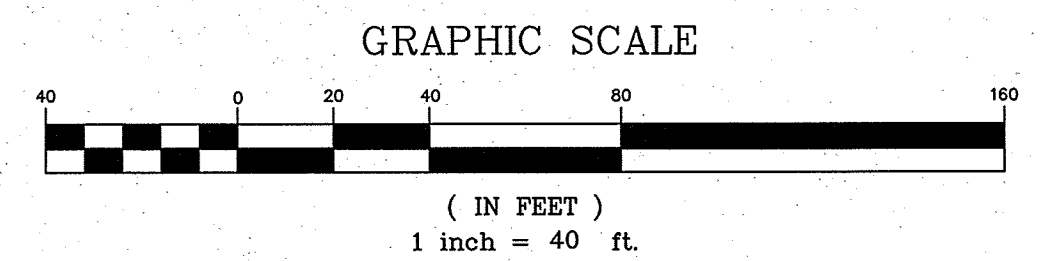
Plan Name: **PROPOSED WATERSHED PLAN**
Project: **"DIRIGO PLAZA"
58 & 80 MAIN STREET, WESTBROOK, ME 04092**
Owner of Record: **PIKE INDUSTRIES, INC.
3 EASTGATE PARK ROAD, BELMONT, NH 03220**

DRAWING No.
W2-1-2
SHEET 7 OF 12
JBE PROJECT NO. 14110



LEGEND

- SUBCATCHMENT BOUNDARY: Dashed line
- SUBCATCHMENT: Hexagon with 'X'
- REACH: Square with 'X'
- POND: Triangle with 'A'
- TC PATH: Solid line with arrows
- WETLANDS: Dashed line
- HISS SOILS: Dotted line
- FLOW ARROW: Arrow with a wavy line



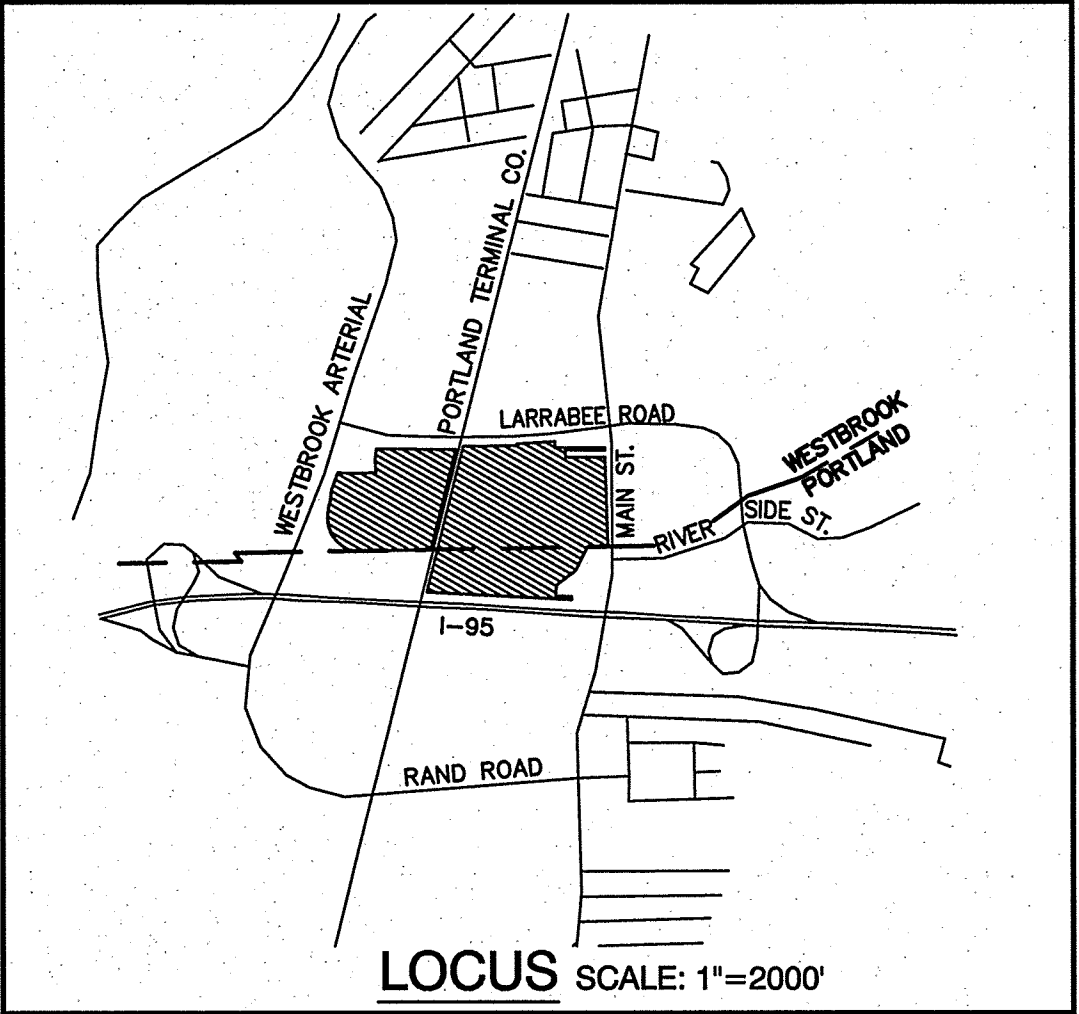
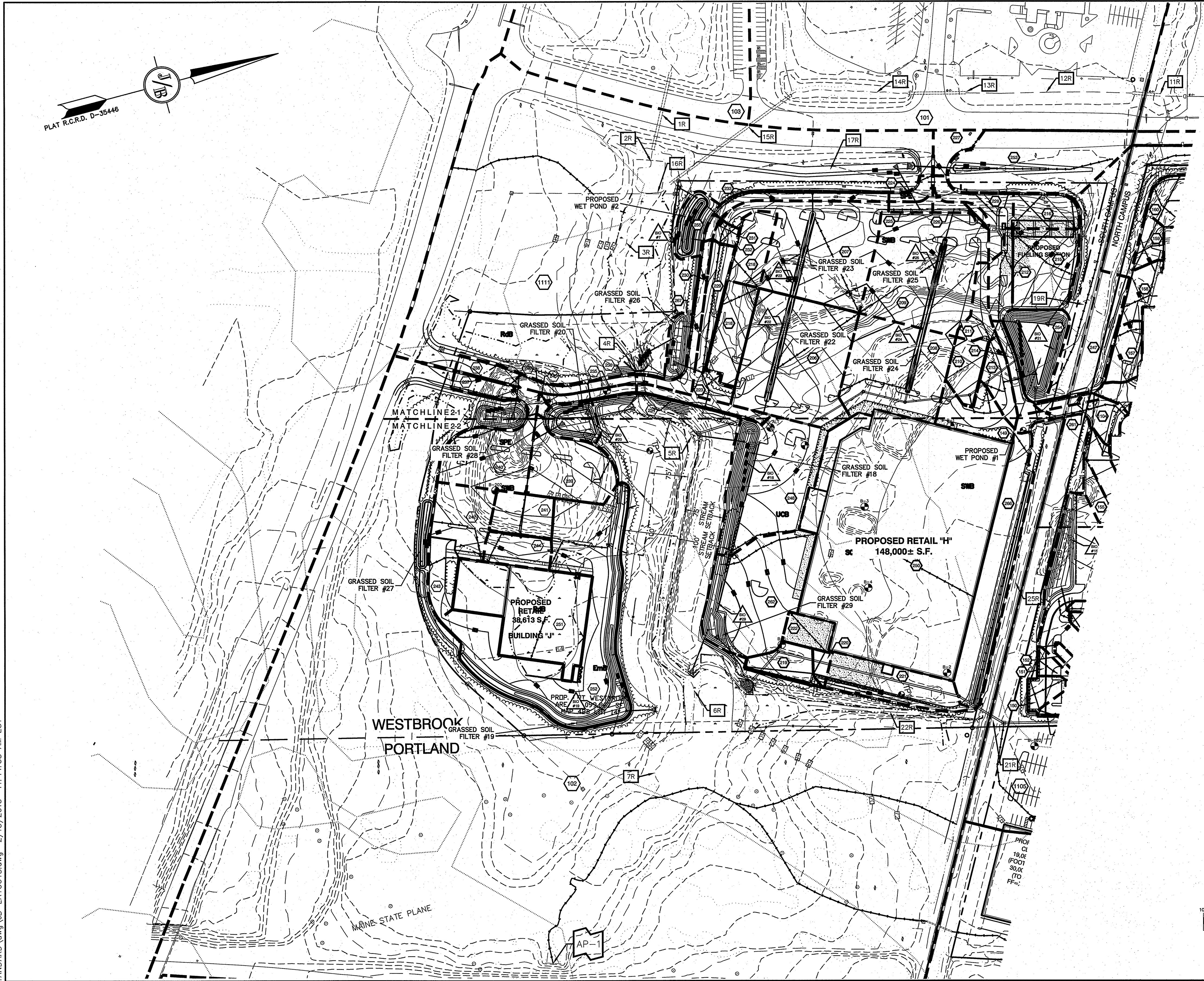
Design: BWG | Draft: BWG | Date: 06/18/2015
Checked: WGM | Scale: AS NOTED | Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
0	2/2/16	ISSUED FOR REVIEW	BWG

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Designed and Produced in NH
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

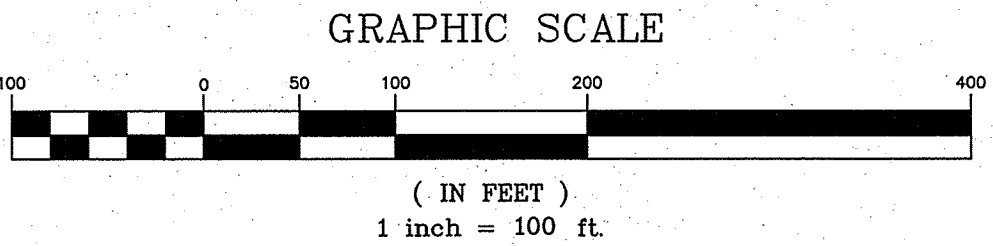
Plan Name: **PROPOSED WATERSHED PLAN**
Project: **"DIRIGO PLAZA"**
58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record: **PIKE INDUSTRIES, INC.**
3 EASTGATE PARK ROAD, BELMONT, NH 03220

DRAWING No.
W2-1-4
SHEET 9 OF 12
JBE PROJECT NO. 14110



LEGEND

- SUBCATCHMENT BOUNDARY
- SUBCATCHMENT
- REACH
- POND
- TC PATH
- WETLANDS
- HISS SOILS
- FLOW ARROW



PROJECT PARCEL
TOWN OF WESTBROOK
TAX MAP 42B, LOTS 9, 10, 11 & 14

CITY OF PORTLAND
TAX MAP 264, LOTS A002 & A004

APPLICANT
J & J GOVE DEVELOPMENT
7 SWAIN DRIVE
HAMPTON FALLS, NH 03844

TOTAL LOT AREA
3,562,179 SQ. FT.
81.78 ACRES

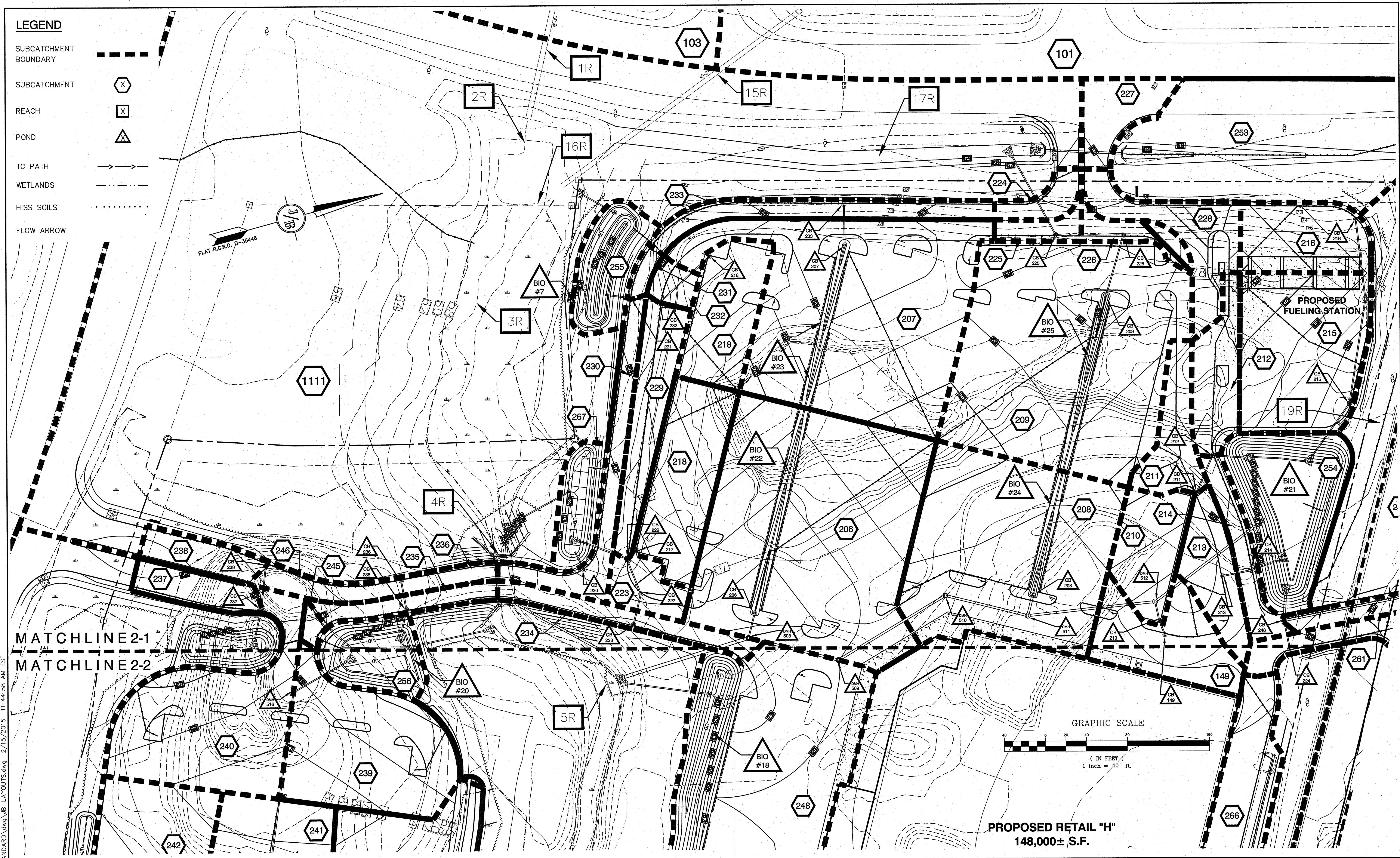
Design: BWG Draft: BWG Date: 06/18/2015
Checked: WGM Scale: AS NOTED Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
0	2/2/16	ISSUED FOR REVIEW	BWG

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: PROPOSED WATERSHED PLAN - SOUTH CAMPUS
Project: "DIRIGO PLAZA" 58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record: PIKE INDUSTRIES, INC. 3 EASTGATE PARK ROAD, BELMONT, NH 03220

DRAWING No.
W2-2
SHEET 10 OF 12
JBE PROJECT NO. 14110



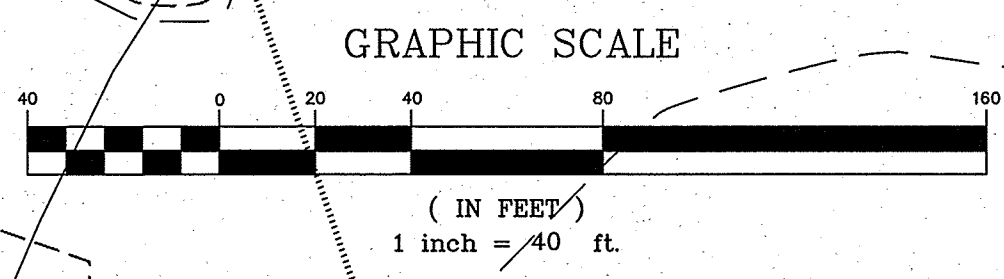
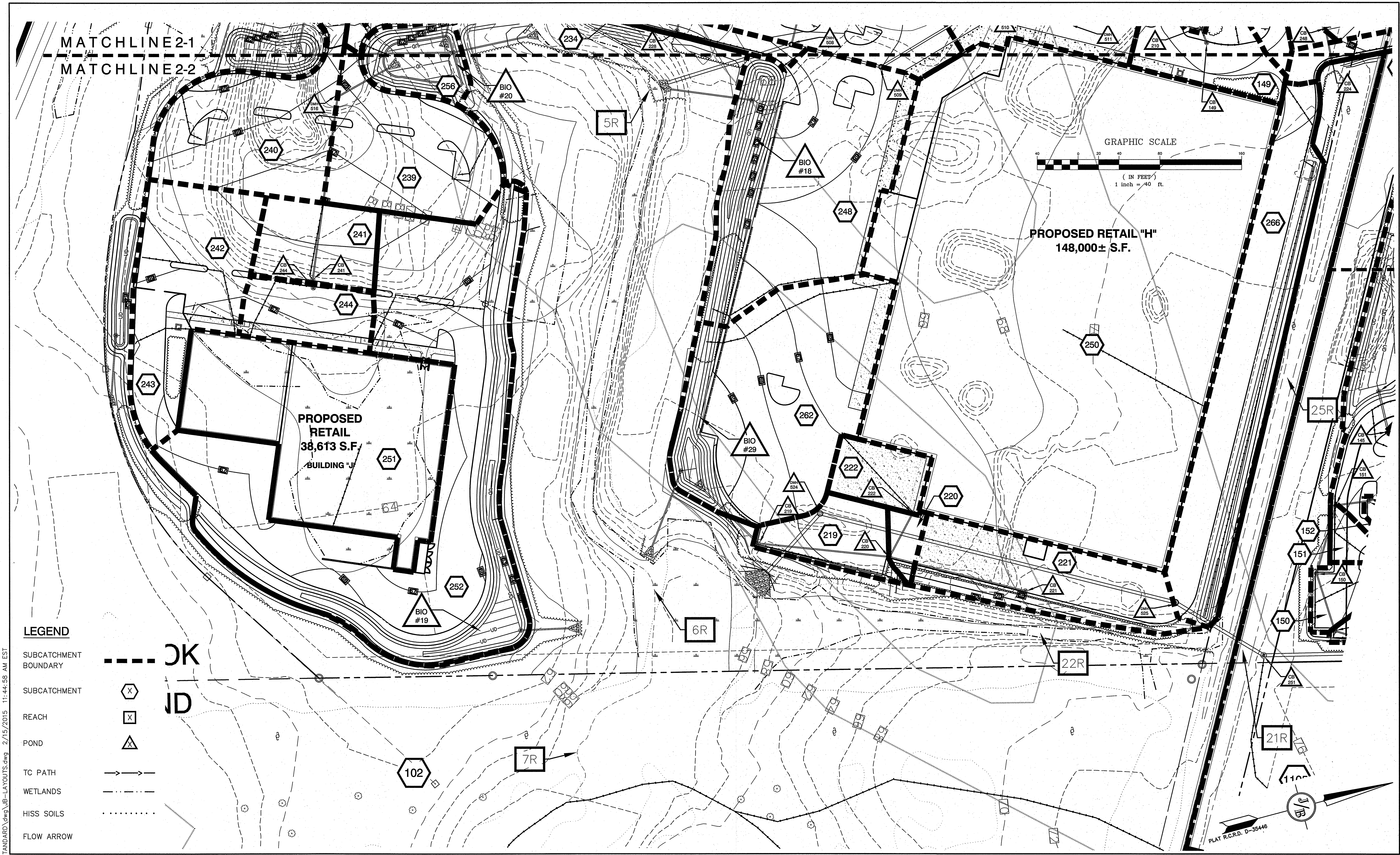
Design: BWG Draft: BWG Date: 06/18/2015
Checked: WGM Scale: AS NOTED Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	ISSUED FOR REVIEW	BY
0	2/2/16	ISSUED FOR REVIEW	BWG

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Designed and Produced in NH
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name: **PROPOSED WATERSHED PLAN**
Project: **"DIRIGO PLAZA"**
58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record: **PIKE INDUSTRIES, INC.**
3 EASTGATE PARK ROAD, BELMONT, NH 03220

DRAWING No.
W2-2-1
SHEET 11 OF 12
JBE PROJECT NO. 14110



LEGEND

----- JK
ID

SUBCATCHMENT BOUNDARY

SUBCATCHMENT

REACH

POND

TC PATH

WETLANDS

HISS SOILS

FLOW ARROW

F:\CADD\MASTER STANDARD\dwg\JB-LAYOUTS.dwg 2/15/2015 11:44:58 AM EST

Design: BWG	Draft: BWG	Date: 06/18/2015
Checked: WGM	Scale: AS NOTED	Project No.: 14110
Drawing Name: 14110-DRAINAGE.dwg		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.		

REV.	DATE	REVISION	BY
0	2/2/16	ISSUED FOR REVIEW	BWG

J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Designed and Produced in NH
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name:	PROPOSED WATERSHED PLAN
Project:	"DIRIGO PLAZA" 58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record:	PIKE INDUSTRIES, INC. 3 EASTGATE PARK ROAD, BELMONT, NH 03220

DRAWING No.

W2-2-2

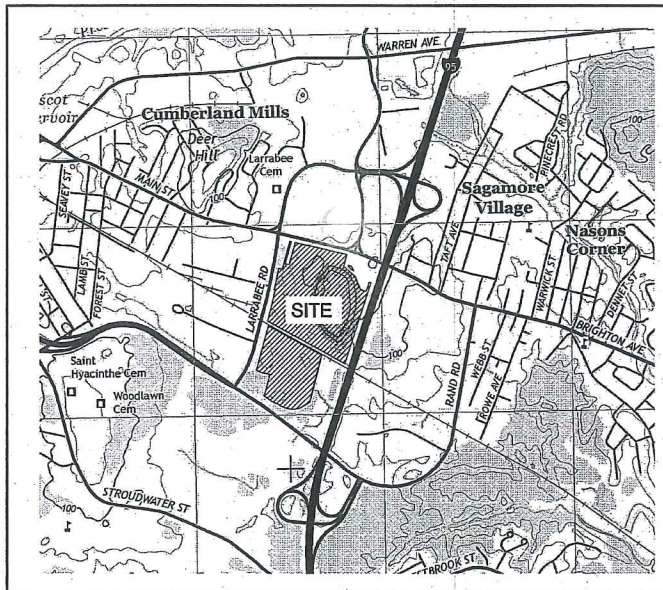
SHEET 12 OF 12
JBE PROJECT NO. 14110

COMMERCIAL DEVELOPMENT "DIRIGO PLAZA"

TAX MAP 42B, LOTS 9, 10, 11 & 14 58 & 80 MAIN STREET, WESTBROOK, ME

SHEET INDEX

CS	COVER SHEET
A1	EXISTING CONDITIONS PLAN
A2	EXISTING CONDITIONS DETAILS & NOTES
A3	SUBDIVISION / LOT CONSOLIDATION
A4	OVERALL SITE PLAN - PHASE 1
C1-2-1	DEMOLITION PLAN
C2	OVERALL SITE PLAN
C2-1	OVERALL SITE PLAN - NORTH CAMPUS
C2-1-1 - C2-1-4	SITE PLAN - NORTH CAMPUS
C2-2	OVERALL SITE PLAN - SOUTH CAMPUS
C2-2-1 - C2-2-2	SITE PLAN - SOUTH CAMPUS
C3	OVERALL GRADING AND DRAINAGE PLAN
C3-1	OVERALL GRADING AND DRAINAGE PLAN - NORTH CAMPUS
C3-1-1 - C3-1-4	GRADING AND DRAINAGE PLAN - NORTH CAMPUS
C3-2	OVERALL GRADING AND DRAINAGE PLAN - SOUTH CAMPUS
C3-2-1 - C3-2-2	GRADING AND DRAINAGE PLAN - SOUTH CAMPUS
C4	OVERALL UTILITY PLAN
C4-1	OVERALL UTILITY PLAN - NORTH CAMPUS
C4-1-1 - C4-1-4	UTILITY PLAN - NORTH CAMPUS
C4-2	OVERALL UTILITY PLAN - SOUTH CAMPUS
C4-2-1 - C4-2-2	UTILITY PLAN - SOUTH CAMPUS
C4-3-1 - C4-3-5	SEWER PLAN & PROFILES
L1.0	LANDSCAPE NOTES AND LEGENDS
L2.0	LANDSCAPE OVERALL PLAN
L3.0 - L3.2	HARDSCAPE PLANS
L4.0 - L4.1	HARDSCAPE DETAILS
L5.0 - L5.9	PLANTING PLAN - NORTH CAMPUS
L5.10 - L5.15	PLANTING PLAN - SOUTH CAMPUS
L6.0 - L6.1	PLANTING PLAN ENLARGEMENT
L7.0 - L7.1	PLANTING DETAILS
L8.0	LANDSCAPE SPECIFICATIONS
L1	OVERALL LIGHTING PLAN
L1-1 - L1-6	LIGHTING PLANS
PP1 - PP8	PLAN AND PROFILE
D1-D13	DETAIL SHEETS
E1	EROSION AND SEDIMENT CONTROL DETAILS
EC-1 - EC-4	EROSION CONTROL SHEETS
VA1-VA15	EXTERIOR ELEVATION BUILDING "A" EXTERIOR ELEVATION BUILDING "B" EXTERIOR ELEVATION BUILDING "C" EXTERIOR ELEVATION BUILDING "D" EXTERIOR ELEVATION BUILDING "E" EXTERIOR ELEVATION BUILDING "G" CONCEPTUAL IMPROVEMENT PLAN



LOCUS MAP
SCALE 1" = 2000'

PERMITS

TYPE OF PERMIT

WESTBROOK SITE PLAN APPROVAL:
CITY OF WESTBROOK
2 YORK STREET
WESTBROOK, ME 04092
(207)-854-9105
RESPONSIBLE CONSULTANT:
JONES & BEACH ENGINEERS, INC.

WESTBROOK SUBDIVISION APPROVAL:
CITY OF WESTBROOK
2 YORK STREET
WESTBROOK, ME 04092
(207)-854-9105
RESPONSIBLE CONSULTANT:
JONES & BEACH ENGINEERS, INC.

WESTBROOK SPECIAL EXCEPTION:
CITY OF WESTBROOK
2 YORK STREET
WESTBROOK, ME 04092
(207)-854-9105
RESPONSIBLE CONSULTANT:
JONES & BEACH ENGINEERS, INC.

PORTLAND SUBDIVISION APPROVAL:
CITY OF PORTLAND
399 CONGRESS STREET
PORTLAND, ME 04101
(207)-874-8719
RESPONSIBLE CONSULTANT:
JONES & BEACH ENGINEERS, INC.

**USEPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT,
NOTICE OF INTENT (NOI), AND NOTICE OF TERMINATION
(NOT) TO BE FILED IN ACCORDANCE WITH FEDERAL AND
LOCAL REGULATIONS PRIOR TO AND FOLLOWING CONSTRUCTION:**
EPA STORMWATER NOTICE PROCESSING CENTER
MAIL CODE 4203M,
US EPA
1200 PENNSYLVANIA AVENUE, NW
WASHINGTON, DC 20460
RESPONSIBLE CONSULTANT:
JONES & BEACH ENGINEERS, INC.

STATUS

SUBMITTED:
2/9/16
PERMIT NO.

DATED:

EXPIRATION:

SUBMITTED:
2/9/16
PERMIT NO.

DATED:

EXPIRATION:

SUBMITTED:
2/9/16
PERMIT NO.

DATED:

EXPIRATION:

SUBMITTED:
3/22/16
PERMIT NO.

DATED:

EXPIRATION:

TYPE OF PERMIT

SITE LOCATION OF DEVELOPMENT PERMIT:
MDEP - SOUTHERN MAINE REGIONAL OFFICE
312 CANCO ROAD
PORTLAND, ME 04103
(207)-822-6365
RESPONSIBLE CONSULTANT:
JONES & BEACH ENGINEERS, INC.

U.S. ARMY CORPS OF ENGINEERS:
NEW ENGLAND DIVISION:
424 TRAPELO ROAD
WALTHAM, MA 02254-9149
(800) 343-4789
RESPONSIBLE CONSULTANT:
JONES & BEACH ENGINEERS, INC.

NATURAL RESOURCE PROTECTION ACT PERMIT
MDEP - SOUTHERN MAINE REGIONAL OFFICE
312 CANCO ROAD
PORTLAND, ME 04103
(207)-822-6365
RESPONSIBLE CONSULTANT:
GOVE ENVIRONMENTAL SERVICES

MAINE DOT TRAFFIC MOVEMENT PERMIT:
STATE OF MAINE DEPARTMENT OF
TRANSPORTATION - REGION 1
P.O. BOX 358
SCARBOROUGH, ME 04070-0358
(207)-885-7000
RESPONSIBLE CONSULTANT:
VANASSE & ASSOCIATES

STATUS

SUBMITTED:
3/4/16
PERMIT NO.

DATED:

EXPIRATION:

SUBMITTED:
3/4/16
PERMIT NO.

DATED:

EXPIRATION:

SUBMITTED:
3/4/16
PERMIT NO.

DATED:

EXPIRATION:

SUBMITTED:
12/22/15
PERMIT NO.

DATED:

EXPIRATION:

PROJECT PARCEL
TOWN OF WESTBROOK
TAX MAP 42B, LOTS 9, 10, 11 & 14

CITY OF PORTLAND
TAX MAP 284, LOTS A002 & A004
TAX MAP 285, LOTS A003 & A005

APPLICANT/OWNER
J & J GOVE DEVELOPMENT
7 SWAIN DRIVE
HAMPTON FALLS, NH 03844

TOTAL LOT AREA
3,562,179 SQ. FT.
81.78 ACRES

APPROVED - WESTBROOK, ME
PLANNING BOARD

DATE:

F:\CADD\MASTER STANDARD\dwg\JB-LAYOUTS.dwg 2/15/2015 11:44:58 AM EST

Design: BWG	Draft: BWG	Date: 10/20/15
Checked: WGM	Scale: AS NOTED	Project No.: 14110
Drawing Name: 14110-PLAN.dwg		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.		

REV.	DATE	REVISION	BY
2	4/28/16	REVISED PER CITY PLANNER REVIEW	IAN
1	3/4/16	REVISED PER CITY COMMENTS	BWG
0	2/2/16	ISSUED FOR REVIEW	BWG

Designed and Produced in NH

J/B Jones & Beach Engineers, Inc.

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Civil Engineering Services

603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name:	COVER SHEET
Project:	"DIRIGO PLAZA" 58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record:	PIKE INDUSTRIES, INC. - 3 EASTGATE PARK ROAD, BELMONT, NH 03220 LL LATHROP LLC - 10 MOULTON STREET SUITE 4, PORTLAND, ME 04101

DRAWING No.	CS
SHEET 1 OF 89	JBE PROJECT NO. 14110

WESTBROOK ME
JBE # 14110
REVISION 1 - 2/2/16



CERTIFICATION:
THIS SURVEY MAP IS IN ACCORDANCE WITH CHAPTER 80, PARTS 1 & 2 OF THE STATE
BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS EXCEPTING A WRITTEN REPORT
GORDON D. HISLOP, JR. FEB 2, 2016
ON BEHALF OF JONES & BEACH ENGINEERS, INC.



Design: WGM Draft: MJS Date: 2/23/16
Checked: WGM Scale: AS NOTED Project No.: 14110
Drawing Name: EX-CONDITIONS-DWGNAME.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN
PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE).
ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE
AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
0	2/2/16	ISSUED FOR REVIEW	BWG

J/B Jones & Beach Engineers, Inc.
Designed and Produced in NH
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name:	EXISTING CONDITIONS PLAN
Project:	"DIRIGO PLAZA" 58 & 80 MAIN STREET, WESTBROOK, ME
Owner of Record:	PIKE INDUSTRIES, INC. 3 EASTGATE PARK ROAD, BELMONT, NH 03220

PROJECT PARCEL
TOWN OF WESTBROOK
TAX MAP 428, LOTS 9, 10, 11 & 14
CITY OF PORTLAND
TAX MAP 264, LOT A002
TAX MAP 265, LOT A004
APPLICANT
J & J GOVE DEVELOPMENT
7 SWAIN DRIVE
HAMPTON FALLS, NH 03844
TOTAL LOT AREA
3,562,179 SQ. FT.
81.78 ACRES

DRAWING No:
A1
SHEET 2 OF 89
JBE PROJECT NO. 14110

SITE NOTES:

- THE INTENT OF THIS PLAN IS TO CONSOLIDATE WESTBROOK TAX MAP 42B, LOTS 9, 10 & 11 INTO 1 LOT WITH 2 LEASE PARCELS B & E, AND TO SHOW THE EXTENT OF WESTBROOK TAX MAP 42B, LOT 14 AND PORTLAND TAX MAP 264, LOTS A002 AND A004 AND TAX MAP 265, LOTS A003.
- OWNER OF RECORD: PIKE INDUSTRIES, INC. CORD BOOK 23504, PAGE 113, CORRECTED BY BOOK 23578, PAGE 296.
 - WESTBROOK TAX MAP 42B, LOT 14 REFERENCE DEED 8964/221, 2001/491, 2198/493.
 - WESTBROOK TAX MAP 42B, LOT 11 REFERENCE DEED 2198/493, 1737/445.
 - WESTBROOK TAX MAP 42B, LOT 10 REFERENCE DEED 21632/224, 4168/68.
 - WESTBROOK TAX MAP 42B, LOT 9 REFERENCE DEED DEED 1668/410.
 - PORTLAND TAX MAP 264, LOT A002 REFERENCE DEED 3162/899, 1921/59.
 - PORTLAND TAX MAP 264, LOT A004 REFERENCE DEED 2755/81.
- WESTBROOK ZONING DISTRICT: GATEWAY COMMERCIAL DISTRICT
LOT AREA MINIMUM = 20,000 SF
LOT FRONTAGE MINIMUM = 200'
BUILDING SETBACKS (MINIMUM):
FRONT SETBACK = 20'
SIDE SETBACK = 20'
REAR SETBACK = 20'
MAX. BUILDING HEIGHT = 50'
- PORTLAND ZONING DISTRICT: B-4 COMMERCIAL CORRIDOR ZONE
LOT AREA MINIMUM = 10,000 SF
LOT FRONTAGE MINIMUM = 60'
BUILDING SETBACKS (MINIMUM):
FRONT SETBACK = 20'
SIDE SETBACK 1-2 STORIES = 10'
SIDE SETBACK 3 OR MORE STORIES = 12'
REAR SETBACK = 20'
WETLAND SETBACK = 50'
MAX. BUILDING HEIGHT = 65'
MAX. SEALED SURFACE = 80%
- THIS PLAN SET HAS BEEN PREPARED BY JONES & BEACH ENGINEERS, INC., FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS, INCLUDING ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS ON THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS, MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
- BASIS OF BEARING FOR THIS SURVEY IS MAINE ME2000 STATE PLANE COORDINATES. ELEVATIONS ARE BASE ON NGVD 29. STATIONS "POR 4" AND "CHARTER" WERE USED TO ESTABLISH HORIZONTAL CONTROL. STATIONS "CHARTER", "GERALD" AND "GERALD RM 1" WERE USED TO ESTABLISH VERTICAL CONTROL.
- LOT AREAS:
MAP 42B LOT 9: 30,401 SQ. FT., 0.78 ACRES
MAP 42B LOT 10: 176,685 SQ. FT., 4.056 ACRES
MAP 42B LOT 11: 1,530,124 SQ. FT., 35.127 ACRES
MAP 42B LOT 14: 1,106,677 SQ. FT., 25.410 ACRES
MAP 264 LOT A002 (265/A003): 652,513 SQ. FT., 14.980 ACRES
MAP 264 LOT A004 (265/A005): 65,497 SQ. FT., 1.504 ACRES
TOTAL AREA: 3531697 SQ. FT., 81.077 ACRES
- PART OF THE SUBJECT PROPERTY IS LOCATED WITHIN FEDERALLY DESIGNATED "C" ZONE - AREAS OF MINIMAL FLOODING. REFERENCE FEMA COMMUNITY PANEL NO. 230054 0008 B, DATED JANUARY 2, 1981; 230051 008 C, DATED DECEMBER 8, 1998; AND 230051 0012C, DATED DECEMBER 8, 1998.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES AND BONDS.
- ALL CONSTRUCTION WILL CONFORM TO TOWN AND CITY STANDARDS AND REGULATIONS, AND MEDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS MORE STRINGENT.
- ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
- GRANITE BOUNDS TO BE SET AT ALL ROADWAY POINTS OF CURVATURE AND TANGENCY. IRON RODS WITH SURVEY CAPS TO BE SET AT ALL PROPERTY CORNERS AND ANGLE POINTS, UNLESS OTHERWISE INDICATED. ALL MONUMENTS SET ARE 5/8" IRON RODS WITH ALUMINUM CAPS MARKED "JONES & BEACH ENGINEERS BOUNDARY, DO NOT DISTURB, STRATHAM, N.H." AS SHOWN.
- THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN QUIGLEY OF GOVE ENVIRONMENTAL SERVICES DURING THE MONTH OF OCTOBER 2014, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
 - THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
 - THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
 - THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
 - THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
- LANDOWNERS ARE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING PERMITTING REQUIRED UNDER THESE REGULATIONS.
- ALL BOOK AND PAGE NUMBERS REFER TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- THE TAX MAP AND LOT NUMBERS AND ABUTTING OWNERS ARE BASED ON THE CITY OF WESTBROOK AND CITY OF PORTLAND TAX RECORDS AND ARE SUBJECT TO CHANGE.
- RESEARCH WAS PERFORMED AT THE CITY OF WESTBROOK ASSESSOR'S OFFICE, THE CITY OF PORTLAND ASSESSOR'S OFFICE, AND THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- THIS SURVEY IS NOT A CERTIFICATION TO OWNERSHIP OR TITLE OF LANDS SHOWN. OWNERSHIP AND ENCUMBRANCES ARE MATTERS OF TITLE EXAMINATION NOT OF A BOUNDARY SURVEY. THE INTENT OF THIS PLAN IS TO RETRACE THE BOUNDARY LINES OF DEEDS REFERENCED HEREON. OWNERSHIP OF ADJOINING PROPERTIES IS ACCORDING TO ASSESSOR'S RECORDS. THIS PLAN MAY OR MAY NOT INDICATE ALL ENCUMBRANCES EXPRESSED, IMPLIED OR PRESRIPTIVE.
- ANY USE OF THIS PLAN AND OR ACCOMPANYING DESCRIPTIONS SHOULD BE DONE WITH LEGAL COUNSEL TO BE CERTAIN THAT TITLES ARE CLEAR, THAT INFORMATION IS CURRENT, AND THAT ANY NECESSARY CERTIFICATES ARE IN PLACE FOR A PARTICULAR CONVEYANCE, OR OTHER USES.
- PER PLAN REFERENCE 6, WESTBROOK TAX MAP 42B LOT 11 IS ALLOWED ONE ENTRANCE TO STATE HIGHWAY 12, AND TAX MAP 42B LOT 14 IS ALLOWED TWO ENTRANCES TO STATE HIGHWAY 12.
- SUBJECT LOT MAY BENEFIT FROM A "FARM CROSSING" SHOWN ON THE RAILROAD PLAN, REFERENCE 3. THE PLAN LOCATION IS SHOWN HEREON.
- A SITE-SPECIFIC CLASS "B" HIGH INTENSITY SOIL SURVEY WAS PERFORMED BY MICHAEL CUOMO, SOIL SCIENTIST, DURING JUNE, 2015, BASED ON THE STANDARDS OF THE MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS. THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY.

ABUTTERS

WESTBROOK

TAX MAP 9(1) LOT 5
PORTLAND WATER DISTRICT
PO BOX 3553
PORTLAND, ME 04104-3553

TAX MAP 9(1) LOT 6
LLEWELLYN A. RANDALL, SR, DEVISEES
C/O LLEWELLYN A. RANDALL, JR
681 STROUDWATER STREET
WESTBROOK, ME 04092
BK 2685/PG 105

TAX MAP 9(1) LOT 8B
MAINE TURNPIKE AUTHORITY
430 RIVERSIDE STREET
PORTLAND, ME 04103
BK 16036/PG 331

TAX MAP 42A LOT 8
WALLACE E. CAMPT, SR., TRUSTEE
CAMP SIBLING TRUST
PO BOX 109
WESTBROOK, ME 04098
BK 30134/PG 136

TAX MAP 42A LOT 10
PORTLAND ASSOC. LLC
C/O WS ASSET MANAGEMENT INC.
35 BOYLSTON STREET, SUITE 3000
CHESTNUT HILL, MA 02467
BK 25490/PG 39

TAX MAP 42B LOT 6
W E 100 LARRABEE ROAD LLC
C/O WINSTANLEY ENTERPRISES LLC
150 BAKER AVENUE EXT. SUITE 303
CONCORD, MA 01742
BK 26693/PG 280

TAX MAP 42B LOT 7
MIDAS PROPERTIES, INC.
C/O MARVIN F. POER & CO.
PO BOX 62427
ATLANTA, GA 30355
BK 8662/PG 169

TAX MAP 42B LOT 8
SHOEMAKER LLC
C/O CHARLOTTE SHOEMAKER
5100 SW 111 LANE ROAD
OCALA, FL 34473
BK 20854/PG 0074

TAX MAP 42B LOT 9
LL LATHROP LLC
C/O MOUTON STREET SUITE 4
PORTLAND, ME 04101
BK 21632/PG 224

TAX MAP 42B LOT 12B
DAVID B. MOORE REVOC. TRUST
DAVID B. MOORE, TRUSTEE
C/O HARCROS CHEMICAL INC.
8200 SPEAKER ROAD
KANSAS CITY, KS 66108
BK 20860/PG 218

TAX MAP 42B LOT 15
PORTLAND TERMINAL COMPANY
GUILFORD TRANSPORTATION
IRON HORSE PARK
NORTH BILLERICA, MA 01862-1681
BK 2580/PG 301

TAX MAP 42B LOTS 101 & 113
WBS PROPERTIES LLC
C/O BILL DODGE AUTO GROUP INC.
PO BOX 5567
WESTBROOK, ME 04098-5067

ABUTTERS

PORTLAND

TAX MAP 243 LOT 8001001
CITY OF PORTLAND
389 CONGRESS STREET
PORTLAND, ME 04101

TAX MAP 264 LOT A001
SAI PRASAD LLC
1150 BRIGHTON AVENUE
PORTLAND, ME 04102
BK 29899/PG 331

TAX MAP 264 LOT A005
RAND ROAD HOLDINGS LLC
7 RAND ROAD
PORTLAND, ME 04104
BK 31342/PG 191

TAX MAP 265 LOT A001, A008 & A009
PORTLAND HOTELS REALTY INC.
1200 BRIGHTON AVENUE
PORTLAND, ME 04102
BK 26152/PG 307

TAX MAP 266 LOT C002
CENTRAL MAINE POWER CO.
LOCAL TAX
70 FARM VIEW DRIVE
NEW GLOUCESTER, ME 04260

MAINE DEPT. OF TRANSPORTATION
REGION 1
51 PLEASANT HILL ROAD
SCARBOROUGH, ME 04070-0358

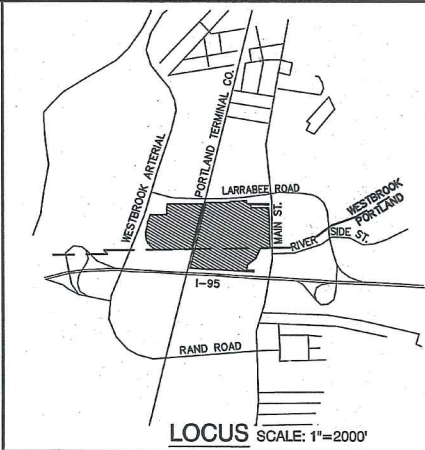
MAINE DEPT. OF TRANSPORTATION
REGION 3
PO BOX 917
ROUTE 2
DIXFIELD, ME 04224

GENERAL LEGEND

EXISTING	DESCRIPTION
	PROPERTY LINES
	SETBACK LINES
	TREE LINE
	MAJOR CONTOUR
	MINOR CONTOUR
	EDGE OF PAVEMENT
	OVERHEAD ELECTRIC
	IRON PIPE/IRON ROD
	CONCRETE BOUND
	BENCHMARK (TBM)
	UTILITY POLE
	SOIL BOUNDARY

LINE TABLE		
LINE	LENGTH	BEARING
L1	3.12'	S78°35'19"E
L2	25.35'	N68°25'34"W
L3	15.00'	N77°29'27"W
L4	4.90'	N13°44'59"E
L5	50.23'	S76°01'52"E

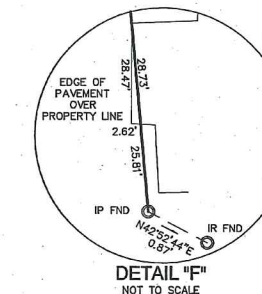
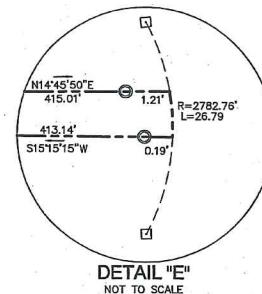
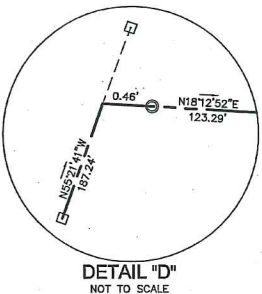
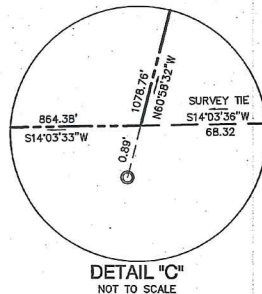
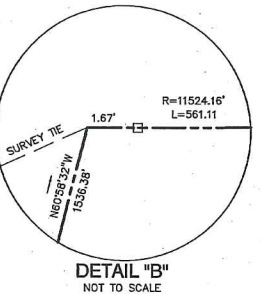
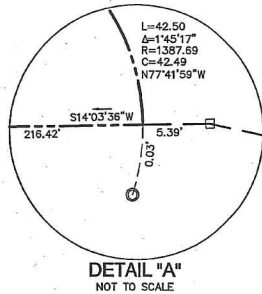
CURVE TABLE					
CURVE	LENGTH	DELTA	RADIUS	CHORD	BEARING
C1	11524.16	0°02'09"	11524.16'	7.23'	N12°31'38"E



PLAN REFERENCES

- "PROPERTY OF BLUE ROCK QUARRY, WESTBROOK, MAINE" DATED: FEBRUARY 24, 1965, SCALE 1" = 100', BY ENGINEERING LABORATORY SERVICE. CORD PAGE 68 VOLUME 40.
- "ALTA/ASCM LAND TITLE SURVEY FOR SUSSE CHALET PROJECT, B&C SITE NO. 97620-6, 1200 BRIGHTON AVENUE, PORTLAND, MAINE" DATED: MAY 2, 1997, SCALE 1" = 30', BY BOCK & CLARK'S NATION SURVEYORS NETWORK.
- "RIGHT-OF-WAY AND TRACK MAP, THE PORTLAND & OGDENSBURG RY., OWNED & OPERATED BY THE PORTLAND TERMINAL COMPANY. STATION 158+40 TO STATION 211+20" DATED: JUNE 10, 1916, SCALE 1" = 100', OFFICE OF CHIEF ENGINEER, PORTLAND, MAINE. SHEET V-2/4.
- "MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, STATE HIGHWAY '12' PORTLAND-WESTBROOK CUMBERLAND COUNTY, STATE PROJECT NO U-012-1(502)" DATED: AUGUST 1963, SCALE 1" = 50'. S.H.C FILE NO 3-165. CORD PLAN BOOK 74, PAGES 3-4.
- "MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, STATE HIGHWAY '12' WESTBROOK CUMBERLAND COUNTY, FEDERAL AID PROJECT NO SU-0127(2) SECT. II" DATED: MAY 1968, SCALE 1" = 50'. S.H.C FILE NO 3-190. CORD PLAN BOOK 103, PAGE 26.
- "MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, STATE HIGHWAY '12' WESTBROOK CUMBERLAND COUNTY, FEDERAL AID PROJECT NO F-012-1(9)" DATED: OCTOBER 1972, SCALE 1" = 50'. S.H.C FILE NO 3-189. CORD PLAN BOOK 127, PAGES 25-26.
- "MAINE TURNPIKE AUTHORITY, MAINE TURNPIKE, SECTION 2-PORTLAND TO AUGUSTA, PROPERTY PLAN, CITY OF PORTLAND CUMBERLAND COUNTY" SHEET 4. DATED: AUGUST 18, 1952, SCALE 1" = 100'.
- "MAINE TURNPIKE AUTHORITY, MAINE TURNPIKE, SECTION 2-PORTLAND TO AUGUSTA, PROPERTY PLAN, CITY OF PORTLAND CUMBERLAND COUNTY" SUPPLEMENTAL SHEET 14, DATED: JANUARY 1955, SCALE 1" = 200'.
- "MAINE TURNPIKE AUTHORITY, MAINE TURNPIKE, PROPERTY AND RIGHT-OF-WAY PLAN, SECTION 2 - PORTLAND TO AUGUSTA, BRIDGE REPLACEMENT PROJECT, BRIGHTON AVENUE UNDERPASS, PORTLAND, MAINE. SUPPLEMENTAL DRAWING 1 OF 1. DATED: APRIL 2004, SCALE 1" = 25'.
- "MIDAS REALTY CORP., BOUNDARY AND TOPOGRAPHIC SURVEY, MAIN ST. AND LARRABEE ROAD, WESTBROOK, MAINE" DATED: APRIL 15, 1980, SCALE 1" = 20', BY TIMOTHY O. BROWN PE.
- "PLAN OF STATE AID ROAD, LOWER MAIN STREET, CITY OF WESTBROOK, MAINE" DATED: JUNE 1916, SCALE 1" = 50', BY D. R. DURAN. ON FILE AT CITY OF WESTBROOK ENGINEERING OFFICE.
- "CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS, TOWN LINE BETWEEN PORTLAND AND WESTBROOK" DATED JANUARY 3, 1946, SCALE 1" = 500', CITY OF PORTLAND PLAN 471/45.
- "CITY OF PORTLAND MAINE DEPT. OF PUBLIC WORKS, BRIGHTON AT RIVERSIDE" DATED OCTOBER 1, 1973, SCALE 1" = 30', CITY OF PORTLAND PLAN 574/1.
- "BOUNDARY & TOPOGRAPHIC SURVEY AT 1200 BRIGHTON AVENUE, PORTLAND, MAINE FOR WALSH ENGINEERING, 1 KAREN DRIVE #2A, WESTBROOK, MAINE 04092" DATED: JULY 2, 2014, SCALE 1" = 30', BY OWEN HASKELL, INC.
- "CITY OF PORTLAND PROPERTY REVALUATION SHEET" SHEETS 141 AND 142. SCALE 1" = 300'.

SOIL LEGEND		
SOIL SERIES SYMBOL	SOIL SERIES NAME	DESCRIPTION
CR	COMPACT RECLAIM OVER SANDY FILL	CRUSHED CONCRETE DUST & CHIPS, SOMETIMES WITH LAYERS OF OLD PAVEMENT AT THE SURFACE OR BURIED
En	ELUVIUM	VERY FINE SANDY LOAM OVER SILTY CLAY LOAM
QU	QUARRY	EXPOSED BEDROCK IN FORMER QUARRY, WITH STEEP SLOPES. SOME SOIL/DEBRIS IN BOTTOM AREAS, FLOODED WATER AT DEEPEST AREA
Rd	ROADSIDE	VERY FINE SANDY LOAM IN THE UPPER PART OVER STRATIFIED FINE SAND AND SILT TO SILT LOAM
SI	SILTY POORLY DRAINED FILL	GRAVELLY CRUSHED CONCRETE, STONE DUST, AND SEDIMENT OVERFLOWED FROM SEDIMENTATION TRAP OR ERODED INTO STREAM CHANNEL
SD		STONY LOAMY SAND TO SILTY LOAM SOIL, WITH HORIZONTAL RECLAIMED PAVEMENT AND CRUSHED CONCRETE
SP	STONE DUST & WASH TAILINGS IN FILL	SILT FROM STONE DUST AND WASH TAILINGS
SV	STONE DUST & WASH TAILINGS	RECLAIMED ASPHALT, CRUSHED CONCRETE DUST AND CHIPS, AND WASH TAILINGS
UC	UNSTABLE CONCRETE WASTE	CRUSHED CONCRETE DUST AND CHIPS WITH LARGE SLABS OF CONCRETE OVERLYING SILT LOAM



CERTIFICATION:

THIS SURVEY MAP IS IN ACCORDANCE WITH CHAPTERS 60, PARTS 1 & 2 OF THE STATE BOARD OF LICENSES FOR PROFESSIONAL LAND SURVEYORS EXCEPTING A WRITTEN REPORT.

GORDON D. HISLOP, JR. PLS #2293 DATE: 10/21/2015
ON BEHALF OF JONES & BEACH ENGINEERS, INC.

PROJECT PARCEL
TOWN OF WESTBROOK
TAX MAP 42B, LOTS 10, 11 & 14
CITY OF PORTLAND
TAX MAP 264, LOTS A002 & A004
TAX MAP 265, LOT A003

APPLICANT
J & J GOVE DEVELOPMENT
7 SWAIN DRIVE
HAMPTON FALLS, NH 03844

TOTAL LOT AREA
3,582,179 SQ. FT.
81.78 ACRES

W:\14110-V\14110-V-DRIVE\14110-EX-CONDITIONS.dwg 10/21/2015 10:21:06 AM EDT

Design: WGM Draft: MJS Date: 2/23/15
Checked: WGM Scale: AS NOTED Project No: 14110
Drawing Name: EX-CONDITIONS-DWGNAME.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

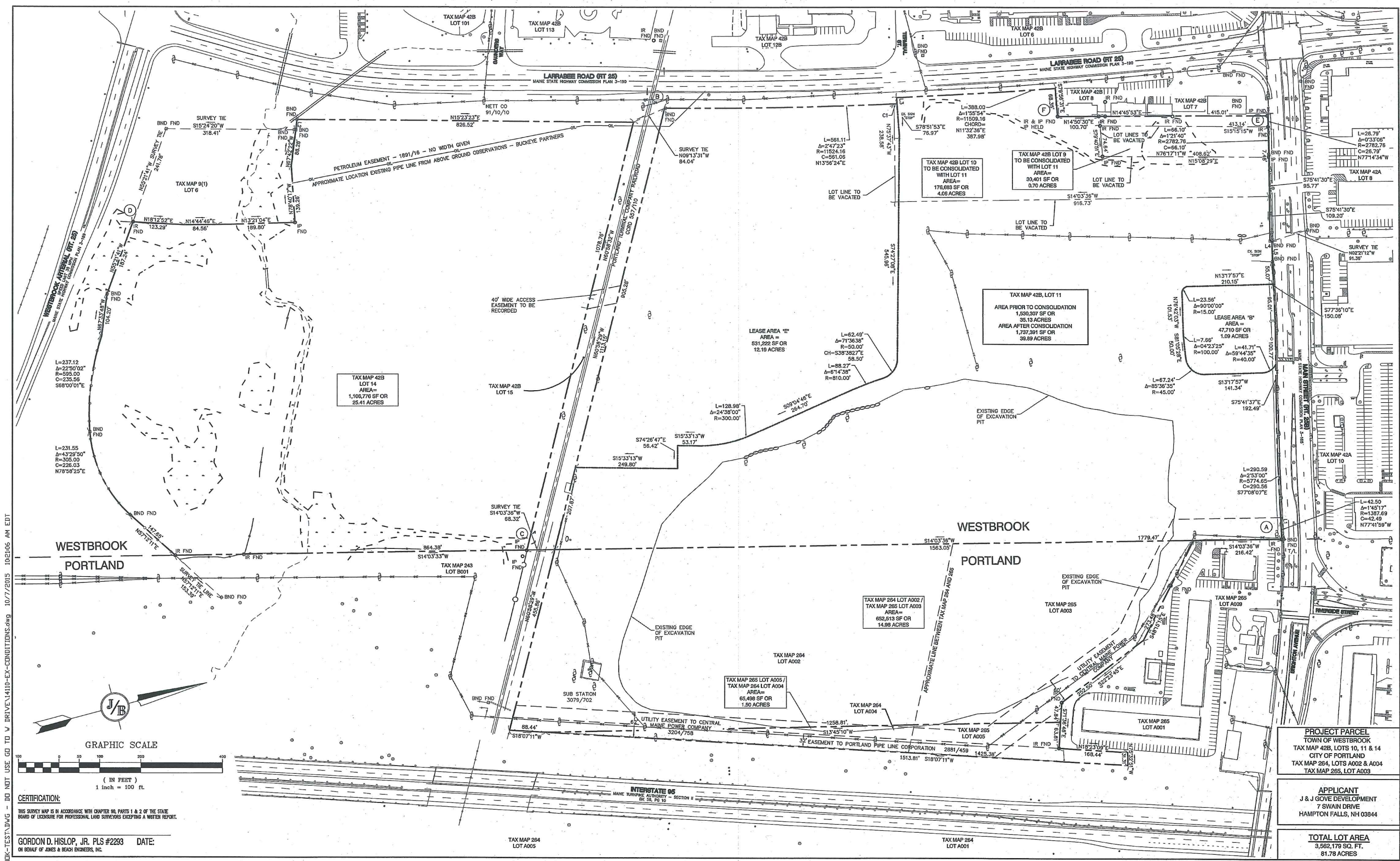
REV.	DATE	ISSUED FOR REVIEW	BY
0	2/2/16	ISSUED FOR REVIEW	BWG
		REVISION	BY

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name: **SUBDIVISION - LOT CONSOLIDATION PLAT**
Project: **"DIRIGO PLAZA"**
58 & 80 MAIN STREET, WESTBROOK, ME
Owner of Record: **PIKE INDUSTRIES, INC. - 3 EASTGATE PARK ROAD, BELMONT, NH 03220**
LL LATHROP LLC - 10 MOULTON STREET SUITE 4, PORTLAND, ME 04101

DRAWING No.
A2
SHEET 1 OF X
JBE PROJECT NO. 14110

W:\14110-VT\BROOK-TEST\DWG - DO NOT USE GO TO V DRIVE\14110-EX-CONDITIONS.dwg 10/7/2015 10:21:06 AM EDT



CERTIFICATION:
THIS SURVEY MAP IS IN ACCORDANCE WITH CHAPTER 90, PARTS 1 & 2 OF THE STATE BOARD OF LICENSING FOR PROFESSIONAL LAND SURVEYORS EXCEPTING A WRITTEN REPORT.

GORDON D. HISLOP, JR. PLS #2293 DATE:
ON BEHALF OF JONES & BEACH ENGINEERS, INC.

Design: WGM	Draft: MJS	Date: 2/23/15
Checked: WGM	Scale: AS NOTED	Project No.: 14110
Drawing Name: 14110-LLC.DWG		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.		

REV.	DATE	ISSUED FOR REVIEW	BY
0	2/2/16	ISSUED FOR REVIEW	BWG
1		REVISION	

Designed and Produced in NH

J/B Jones & Beach Engineers, Inc.

Civil Engineering Services

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

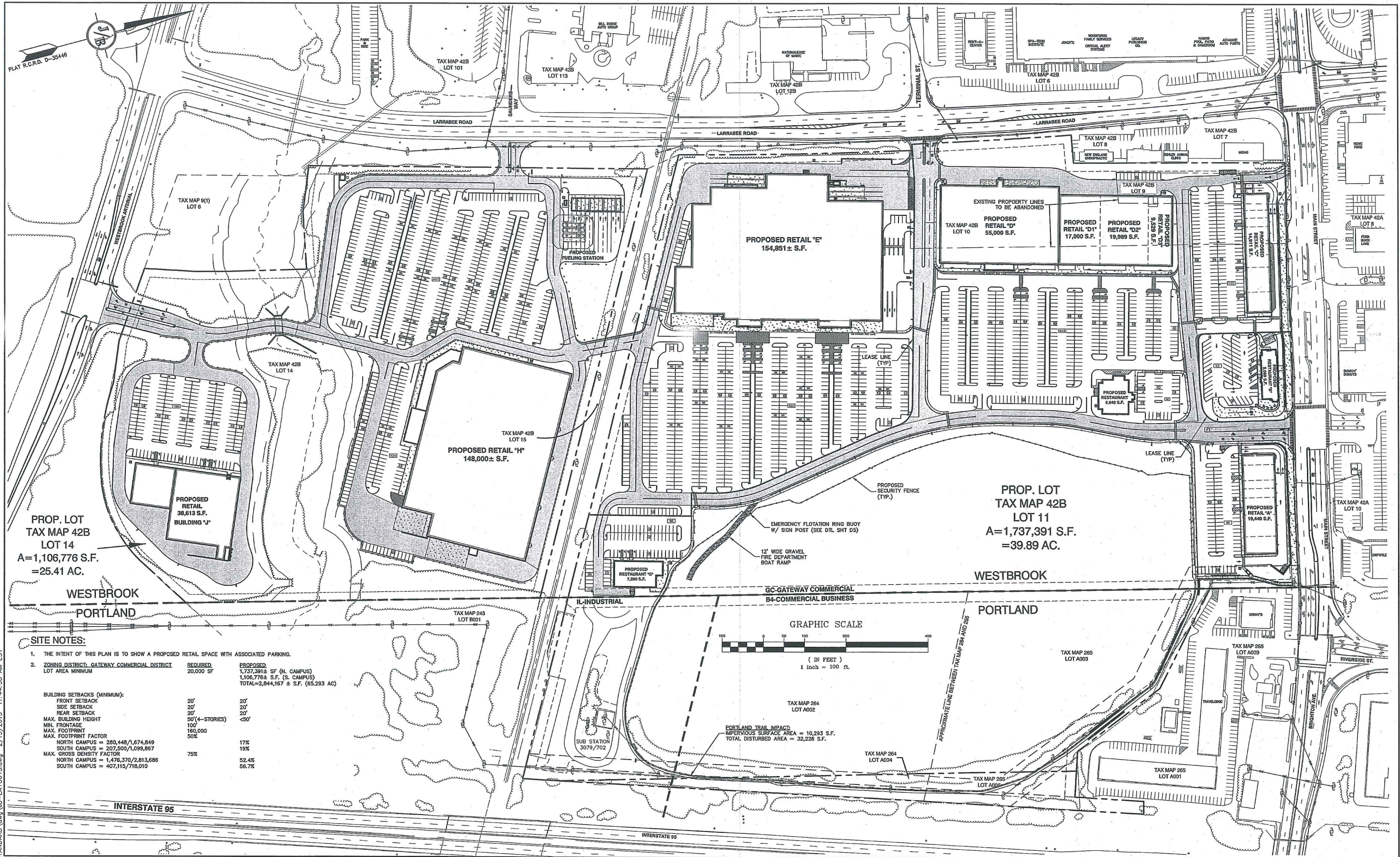
603-772-4748
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name:	SUBDIVISION - LOT CONSOLIDATION PLAT
Project:	"DIRIGO PLAZA" 58 & 80 MAIN STREET, WESTBROOK, ME
Owner of Record:	PIKE INDUSTRIES, INC. - 3 EASTGATE PARK ROAD, BELMONT, NH 03220 LL LATHROP LLC - 10 MOULTON STREET SUITE 4, PORTLAND, ME 04101

DRAWING No.

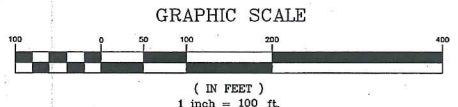
A3

SHEET 4 OF 89
JBE PROJECT NO. 14110

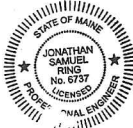


SITE NOTES:

1. THE INTENT OF THIS PLAN IS TO SHOW A PROPOSED RETAIL SPACE WITH ASSOCIATED PARKING.		
2. ZONING DISTRICT: GATEWAY COMMERCIAL DISTRICT		
LOT AREA MINIMUM	REQUIRED 20,000 SF	PROPOSED 1,737,391± SF (N. CAMPUS) 1,106,776± SF (S. CAMPUS) TOTAL=2,844,167 ± S.F. (65.293 AC)
BUILDING SETBACKS (MINIMUM):		
FRONT SETBACK	20'	20'
SIDE SETBACK	20'	20'
REAR SETBACK	20'	20'
MAX. BUILDING HEIGHT	50' (4-STORIES)	<50'
MIN. FRONTAGE	100	
MAX. FOOTPRINT	160,000	
MAX. FOOTPRINT FACTOR	50%	
NORTH CAMPUS = 280,448/1,674,849		17%
SOUTH CAMPUS = 207,500/1,099,867		19%
MAX. GROSS DENSITY FACTOR	75%	
NORTH CAMPUS = 1,476,370/2,813,686		52.4%
SOUTH CAMPUS = 407,115/718,010		56.7%



Design: BWG Draft: BWG Date: 10/20/15
Checked: WGM Scale: AS SHOWN Project No.: 14110
Drawing Name: 14110-PLAN.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

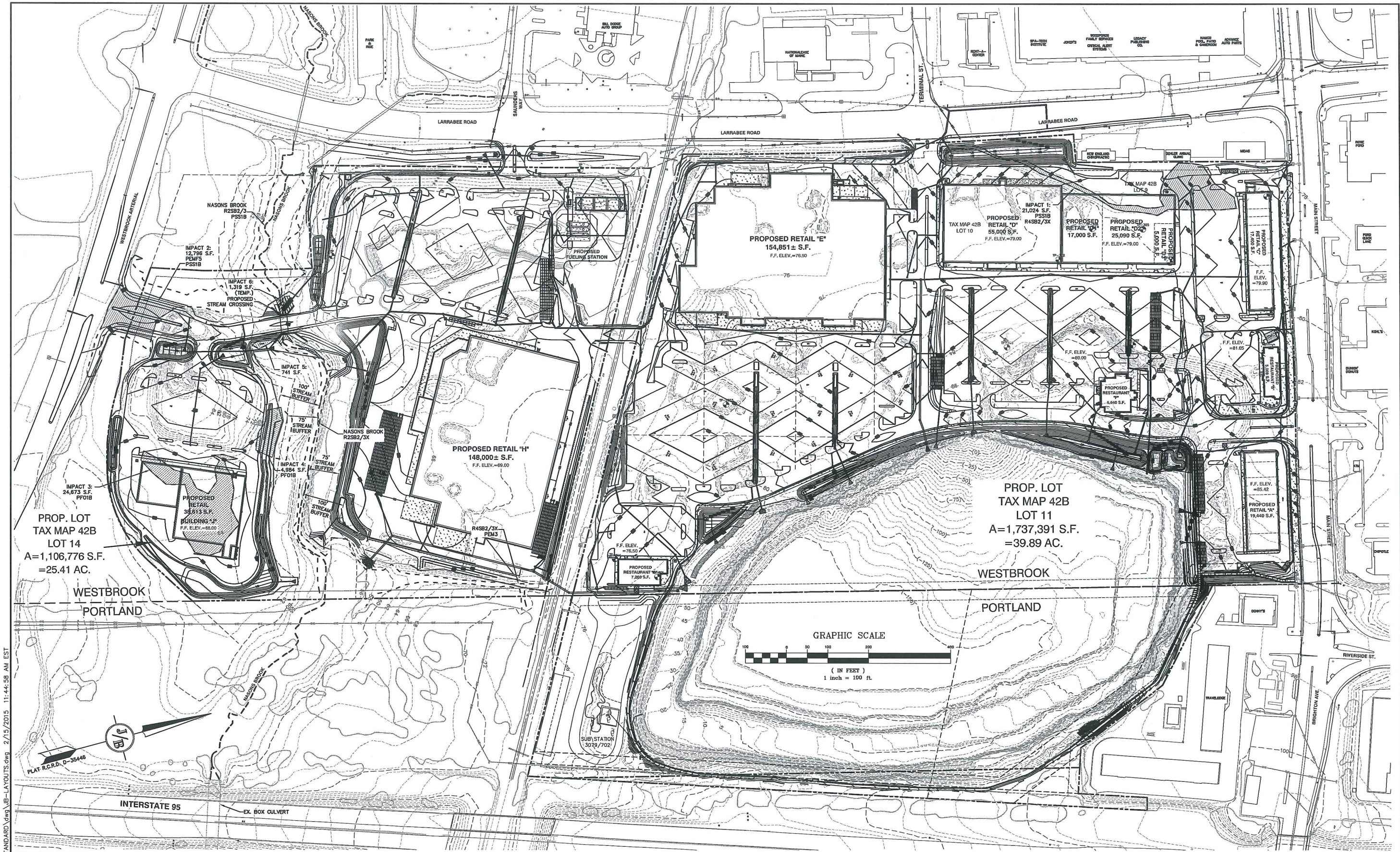


REV.	DATE	REVISION	BY
1	3/4/16	REVISED PER CITY COMMENTS	BWG
0	2/2/16	ISSUED FOR REVIEW	BWG

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Designed and Produced in NH
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name: **OVERALL SITE PLAN**
Project: **"DIRIGO PLAZA"**
58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record: **PIKE INDUSTRIES, INC. - 3 EASTGATE PARK ROAD, BELMONT, NH 03220**
LL LATHROP LLC - 10 MOULTON STREET SUITE 4, PORTLAND, ME 04101

DRAWING No.
C2
SHEET 7 OF 99
JBE PROJECT NO. 14110



C:\CADD\MASTER STANDARD\dwg\JB-LAYOUTS.dwg 2/15/2015 11:44:58 AM EST

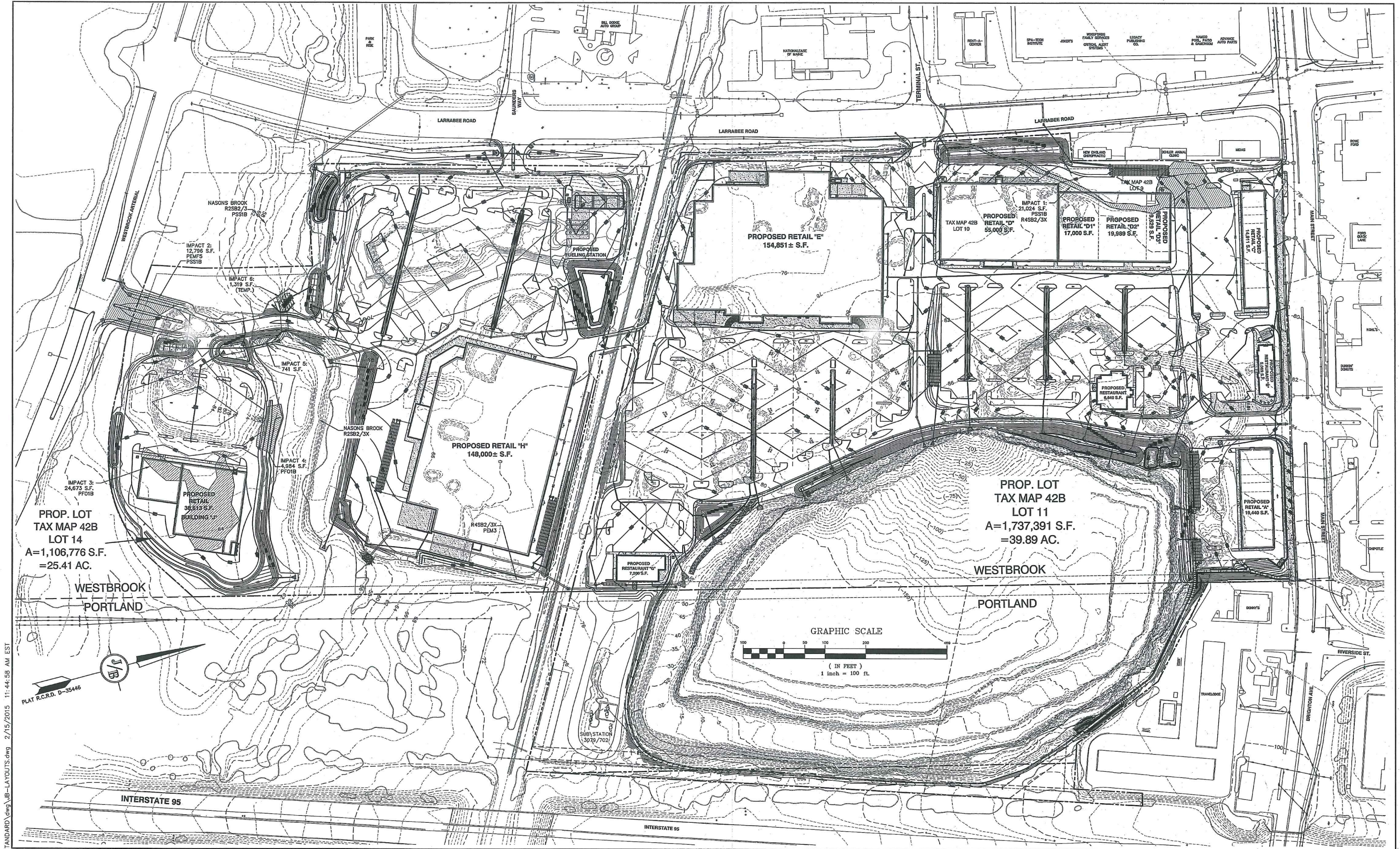
Design: BWG Draft: BWG Date: 10/20/15
Checked: WGM Scale: AS SHOWN Project No.: 14110
Drawing Name: 14110-PLAN.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
2	4/28/16	REVISED PER CITY PLANNER REVIEW	ISM
1	3/4/16	REVISED PER CITY COMMENTS	BWG
0	2/2/16	ISSUED FOR REVIEW	BWG

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
Designed and Produced in NH
603-772-4746 FAX: 603-772-0227 E-Mail: JBE@JONESANDBEACH.COM

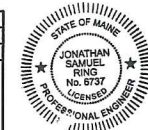
Plan Name: OVERALL GRADING & DRAINAGE PLAN
Project: "DIRIGO PLAZA" 58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record: PIKE INDUSTRIES, INC. - 3 EASTGATE PARK ROAD, BELMONT, NH 03220
LL LATHROP LLC - 10 MOULTON STREET SUITE 4, PORTLAND, ME 04101

DRAWING No. **C3**
SHEET 16 OF 89
JBE PROJECT NO. 14110



F:\CADD MASTER STANDARD\dwg\JB-LAYOUTS.dwg 2/15/2015 11:44:58 AM EST

Design: BWG Draft: BWG Date: 10/20/15
Checked: WGM Scale: AS SHOWN Project No.: 14110
Drawing Name: 14110-PLAN.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.



REV.	DATE	REVISION	BY
1	3/4/16	REVISED PER CITY COMMENTS	BWG
0	2/2/16	ISSUED FOR REVIEW	BWG

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name: **OVERALL GRADING & DRAINAGE PLAN**
Project: **"DIRIGO PLAZA"**
58 & 80 MAIN STREET, WESTBROOK, ME 04092
Owner of Record: **PIKE INDUSTRIES, INC. - 3 EASTGATE PARK ROAD, BELMONT, NH 03220**
LL LATHROP LLC - 10 MOULTON STREET SUITE 4, PORTLAND, ME 04101

DRAWING No.
C3
SHEET 16 OF 89
JBE PROJECT NO. 14110

GENERAL PROJECT NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS, DETAILS, AND SPECIFICATIONS, AND PER ALL APPLICABLE CODES AND REQUIREMENTS.
2. THE CONTRACTOR SHALL CAREFULLY INSPECT THE SITE AND VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH ANY WORK DESCRIBED HEREIN. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES WITH THESE DOCUMENTS PRIOR TO BEGINNING ANY CONSTRUCTION.
3. THE CONTRACTOR SHALL CARRY ALL WORKER'S COMPENSATION, PUBLIC LIABILITY, AND PROPERTY DAMAGE INSURANCE AS REQUIRED BY THE OWNER.
4. HOLD HARMLESS AND INDEMNIFICATION CLAUSE - THE CONTRACTOR SHALL AGREE THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY TO ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE LANDSCAPE ARCHITECT HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE LANDSCAPE ARCHITECT.
5. DAMAGE RESPONSIBILITY - CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE IMPOSED, INTENTIONALLY OR ACCIDENTALLY, TO EXISTING UTILITIES, BUILDINGS, OR OTHER AMENITIES, DUE TO THE ACTIONS OF THE CONTRACTOR, CONTRACTOR'S EMPLOYEES, AND/OR CONTRACTOR'S SUB CONTRACTORS. CONTRACTOR SHALL AT ALL TIMES PROTECT HIS WORK FROM DAMAGE AND THEFT AND REPLACE ALL DAMAGE OR STOLEN PARTS AT HIS EXPENSE UNTIL THE WORK IS ACCEPTED IN WRITING FROM THE OWNER.
6. UNAUTHORIZED CHANGES TO PLANS - THE LANDSCAPE ARCHITECT PREPARING THESE PLANS SHALL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY WORK.
7. REVISED LANDSCAPE PLANS MUST BE SUBMITTED FOR APPROVAL IF ANY REVISIONS ARE MADE TO THE DEVELOPMENT PLAN OR PLAT FOR PAVING, GRADING, OR IMPROVEMENT PLANS.
8. THE CONTRACTOR SHALL APPLY, OBTAIN, AND PAY FOR ALL REQUIRED PERMITS TO COMPLETE THE SCOPE OF WORK.
9. TRADE COORDINATION - CONSTRUCTION AND INSTALLATION OF ALL ITEMS WITHIN THESE DOCUMENTS SHALL REQUIRE CLOSE COORDINATION BETWEEN TRADES INVOLVED IN UNDERGROUND AND UTILITY INSTALLATION, AND TREE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE TO INSURE PROPER COORDINATION BETWEEN TRADES TO INSURE AND AVOID CONSTRUCTION DELAYS OR DAMAGE TO ANY IMPROVEMENTS OR UTILITIES.
10. UNDERGROUND SERVICE ALERT - CONTRACTOR SHALL NOTIFY BLUE STAKE 48 HOURS PRIOR TO DIGGING AT 1-800-STAKE-IT. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN WORKING NEAR EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND CONDITION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
11. INSPECTIONS - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE MUNICIPAL REPRESENTATIVE AT LEAST 48 HOURS IN ADVANCE PRIOR TO ANY REQUIRED MUNICIPAL INSPECTION.
12. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 48 HOURS IN ADVANCE PRIOR TO ANY REQUIRED OR DESIRED INSPECTION. CONTACT NUMBER IS (978) 764-6155.
13. THESE DRAWINGS AND SPECIFICATIONS ARE PROPERTY AND COPYRIGHT OF AMORY LAND DESIGN, LLC. THESE DRAWINGS SHALL NOT TO BE USED ON ANY OTHER WORK EXCEPT BY WRITTEN AUTHORIZATION FROM AMORY LAND DESIGN, LLC.
14. WRITTEN DIMENSIONS TAKE PREFERENCE OVER SCALED DIMENSIONS AND SHALL BE VERIFIED ON THE JOB SITE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF WORK.
15. ALL QUANTITIES INDICATED ON THE PLANS ARE PROVIDED AS A COURTESY ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE QUANTITIES SHOWN BY CONDUCTING A INDEPENDENT QUANTITY TAKE OFF.
16. THE LANDSCAPE ARCHITECT SHALL DECIDE ALL QUESTIONS RELATING TO THE INTERPRETATION OF THE DRAWINGS AND THE ACCEPTABLE FULFILLMENT OF THE CONTRACT DOCUMENTS.
17. THE CONTRACTOR SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS, AND RUBBISH INCIDENTAL OF HIS WORK AT ALL TIMES INCLUDING WEEKENDS AND HOLIDAYS. ALL RUBBLE, TRASH, OR DISPOSABLE ITEMS RESULTING FOR THE DEMOLITION OF CONSTRUCTION SHALL BE DISPOSED OF IN A LEGAL, LAWFUL, AND SAFE MANNER TO AN APPROVED DISPOSAL SITE.
18. PLANT MATERIAL TO BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ALL TREES SHALL HAVE A NUMBERED TAG.
19. ALL PLANT MATERIAL TO BE STAKED BY THE LANDSCAPE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY HOLES BEING DUG.
20. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FINISHED GRADES.
21. THE LANDSCAPE CONTRACTOR SHALL VERIFY BERM AND RETENTION BASIN LOCATIONS SHOWN ON THESE PLANS WITH THOSE ON THE CIVIL ENGINEERING PLANS. SHOULD A DISCREPANCY EXIST BETWEEN THE PLANS, THIS OFFICE SHALL BE NOTIFIED IMMEDIATELY.
22. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS DURING THE FINISH GRADING PROCESS.

23. NO SLOPES TO EXCEED 4:1 IN LANDSCAPE AREAS UNLESS OTHERWISE NOTED ON THE PLAN.
24. UNDER NO CIRCUMSTANCES SHALL ANY TREE BE PLANTED WITHIN 6' OF ANY BUILDING WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. TREES MUST BE LOCATED AT LEAST 10' FROM A SEWER LINE EASEMENT CENTERLINE. PLANT MATERIALS WITH INTRUSIVE ROOT SYSTEMS SHALL NOT BE PLACED WITHIN DRAINAGE BASINS WITH ENGINEERED BOTTOMS.
25. ALL PLANT MATERIAL WITHIN SIGHT VISIBILITY TRIANGLES SHALL BE PLACED SO AS NOT TO INTERFERE WITH A VISIBILITY PLANE DESCRIBED BY TWO HORIZONTAL LINES LOCATED 30 INCHES AND 72 INCHES ABOVE FINISHED GRADE OF THE ROADWAY SURFACE.
26. IT IS RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO INFORM THE LANDSCAPE ARCHITECT / OWNER / OWNER REPRESENTATIVE OF ANY PLANT MATERIAL CONCERNS BASED ON PLANTING SEASON (E.G. WINTER, SUMMER). SHOULD THE LANDSCAPE CONTRACTOR HAVE ANY CONCERNS ABOUT PLANT MATERIAL DUE TO FROST OR EXPOSURE, HE SHALL REQUEST A SUBSTITUTION OR DELAY IN PLANTING. ONCE PLANTED, ALL PLANT MATERIAL IS SUBJECT TO SPECIFIED WARRANTIES.
27. REFER SHEET L4.0 FOR ADDITIONAL SPECIFICATIONS.

LANDSCAPE NOTES

1. AREAS OF ORGANIC MULCH WITHOUT PLANT MATERIALS SHALL NOT EXCEED DIMENSIONS OF MORE THAN 7 FEET IN ANY ONE DIRECTION, MEASURED BETWEEN PLANT CANOPIES AND / OR COVERAGE.
2. A SINGLE TRUNK TREE'S CALIPER SIZE, THAT IS TO BE EQUAL TO OR LESS THAN 4-INCHES, SHALL BE DETERMINED BY UTILIZING THE SMALLEST DIAMETER OF THE TRUNK 6-INCHES ABOVE FINISHED GRADE ADJACENT TO THE TRUNK.
3. A TREES CALIPER SIZE, FOR SINGLE TRUNK TREES THAT ARE TO HAVE A DIAMETER GREATER THAN 4-INCHES, SHALL BE DETERMINED BY UTILIZING THE SMALLEST DIAMETER OF THE TRUNK 12-INCHES ABOVE FINISHED GRADE ADJACENT TO THE TRUNK.
4. A MULTIPLE TRUNK TREE'S CALIPER SIZE IS MEASURED AT 6" ABOVE THE LOCATION THAT THE TRUNK SPLITS ORIGINATES, OR 6" ABOVE THE FINISHED GRADE IF ALL TRUNKS ORIGINATE FROM THE SOIL.
5. AREA WITHIN THE SIGHT DISTANCE TRIANGLE IS TO BE CLEAR OF LANDSCAPING, SIGNS, OR OTHER VISIBILITY OBSTRUCTIONS WITH A HEIGHT GREATER THAN 2 FEET. TREES WITHIN THE SAFETY TRIANGLE SHALL HAVE A CANOPY THAT BEGINS AT 7 FEET IN HEIGHT UPON INSTALLATION. ALL HEIGHTS ARE MEASURED FROM NEAREST STREET LINE ELEVATION.
6. RETENTION / DETENTION BASINS SHALL BE CONSTRUCTED SOLELY FROM THE APPROVED CIVIL PLANS WITH PLANT MATERIAL AS SPECIFIED. ANY ALTERATION OF THE APPROVED DESIGN (ADDITIONAL FILL, CHANGE OF GRADE, ECT.) SHALL REQUIRE ADDITIONAL FINAL PLANS STAFF REVIEW AND APPROVAL.
7. ALL SIGNS MAY REQUIRE SEPERATE PERMITS AND APPROVALS.
8. NEW LANDSCAPING, INCLUDING SALVAGED PLANT MATERIAL, AND LANDSCAPING INDICATED TO REMAIN, WHICH IS DESTROYED, DAMAGED, OR EXPIRED DURING CONSTRUCTION SHALL BE REPLACED WITH LIKE SIZE, KIND, AND QUANTITY.

LIMIT OF WORK NOTES

1. LIMIT OF WORK (LOWL) AS DESIGNATED ON THE CIVIL DRAWINGS:
2. ALL AREAS OUTSIDE OF THE LOWL AREA REQUIRED TO BE REVEGETATED DUE TO CONSTRUCTION ACTIVITIES SHALL BE WATERED UNTIL PLANT MATERIAL IS ESTABLISHED.
3. NO CONSTRUCTION ACTIVITY SHALL ENCR OACH INTO AREAS NOT DELINEATED BY EROSION CONTROL UNLESS PREVIOUSLY AUTHORIZED OR REQUIRED FOR THE INSTALLATION OF SITE IMPROVEMENTS SHOWN OUTSIDE OF THE EROSION CONTROL BARRIER.
4. ALL AREA OUTSIDE OF THE LIMIT OF WORK SHALL BE PROTECTED FROM DAMAGE PRIOR TO AND DURING CONSTRUCTION.
5. IF REQUIRED, A REGISTERED LAND SURVEYOR SHALL STAKE ALL LOWL AND AREAS BASED ON CIVIL DRAWINGS.
6. ALL PLANT MATERIAL OUTSIDE OF THE LOWL LINE SHALL REMAIN UNLESS OTHERWISE SHOWN.

SITE PREPARATION AND DEMOLITION NOTES

1. REFER TO COVER SHEET AND CIVIL DRAWINGS FOR ADDITIONAL GENERAL NOTES.
2. LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE DIAGRAMMATIC ONLY. EXISTING UTILITIES MAY NOT BE SHOWN. CONTACT OWNER, PROPER LOCAL AUTHORITIES, OR RESPECTIVE UTILITY COMPANY TO CONFIRM LOCATION OF UTILITIES BEFORE COMMENCING WORK. REPAIR DAMAGE TO EXISTING UTILITIES DUE TO EXECUTION OF WORK.
3. COORDINATE DEMOLITION AND RELOCATION OF UTILITIES WITH ALL TRADES.
4. BE RESPONSIBLE FOR DAMAGE TO EXISTING ITEMS TO BE PROTECTED AND TO REMAIN. CONTRACTOR IS TO PAY FOR DAMAGES TO EXISTING ITEMS TO BE PROTECTED AND TO REMAIN. REPLACE DAMAGED ITEMS AT NO ADDITIONAL COST TO OWNER.
5. REMOVE ITEMS REQUIRING REMOVAL TO FULL DEPTH INCLUDING BASE MATERIALS AND FOOTINGS AND DISPOSE OF LEGALLY OFF-SITE AND SAVE, RELOCATE, STOCKPILE AND PROTECT ON-SITE ITEMS NOTED AND AS DESIGNATED BY OWNER.
6. PERFORM DEMOLITION AND SALVAGE UNDER DRIP LINE OF EXISTING TREE CANOPIES, THAT ARE TO REMAIN, IN A MANNER THAT DOES NOT DAMAGE TREE.
7. LAYOUT THE LIMITS OF CLEARING, AND GRUBBING, AS WELL AS TREES TO REMAIN, PRIOR TO COMMENCING WORK. RECEIVE OWNER APPROVAL PRIOR TO CONSTRUCTION.
8. PROTECT EXISTING PLANT MATERIAL DESIGNATED TO REMAIN OR BE TRANSPLANTED FROM DAMAGE CAUSED BY CUTTING OF LIVE ROOTS OR BRANCHES OR OTHER MEANS. DO NOT PARK OR OPERATE VEHICLES WITHIN DRIP LINE OF TREES OR WHERE DAMAGE MAY RESULT WITHOUT OWNER APPROVAL. DO NOT STORE OR DISPOSE OF CONSTRUCTION MATERIALS BENEATH TREES TO BE PROTECTED OR TO REMAIN AS DESIGNATED ON THE SITE PREPERATION PLANS.
9. REFER TO CIVIL DRAWINGS FOR UTILITY WORK:

JONES AND BEACH ENGINEERS, INC.
85 PORTSMOUTH AVENUE
P.O. BOX 219
STRATHAM, NH 03885
CONTACT: GIFFORD COLBURN, P.E.
PHONE: (603) 7772-4746 EXT. 12
EMAIL: GCOLBURN@JONESANDBEACH.COM

PLANT LEGEND

SHADE TREES	SIZE	NOTES	QTY
 Acer rubrum 'Red Sunset' Red Maple	2.0' - 2.5' Cal. Street Tree	Zone: 4 Salt: Low	XX
 Catalpa speciosa Northern Catalpa	2.0' - 2.5' Cal. Street Tree	Zone: 4 Salt: Moderate	XX
 Fagus grandiflora American Beech	2.0' - 2.5' Cal.	Zone: 3 Salt: Low	XX
 Liriodendron tulipifera Tuliptree	2.0' - 2.5' Cal. Street Tree	Zone: 4 Salt: Moderate	XX
 Magnolia fraseri Fraser Magnolia	2.0' - 2.5' Cal.	Zone: 5 Salt: Moderate	XX
 Quercus palustris 'Green Pillar' Pin Oak	2.0' - 2.5' Cal. Street Tree	Zone: 4 Salt: Tolerant	XX
 Zelkova serrata 'Green Vase' Zelkova	2.0' - 2.5' Cal.	Zone: 4 Salt: Moderate	XX
CONIFER TREES	SIZE	NOTES	QTY
 Chamaecyparis thyoides Atlantic Whitecedar	10' - 12'	Zone: 4 Salt: Low	XX
 Juniperus virginiana Eastern Redcedar	12' - 14'	Zone: 2 Salt: Moderate	XX
 Picea omorika Serbian Spruce	6' - 8'	Zone: 5 Salt: Low	XX
MEDIUM TREES	SIZE	NOTES	QTY
 Carya ovata Shagbark Hickory	1.5' - 2.0' Cal.	Zone: 3 Salt: Tolerant	XX
 Celtis occidentalis Common Hackberry	1.5' - 2.0' Cal. Street Tree	Zone: 3 Salt: Moderate	XX
 Cercidiphyllum japonicum Katsuratree	1.5' - 2.0' Cal. Street Tree	Zone: 4 Salt: Moderate	XX
 Gleditsia triacanthos inermis 'Skyline' Thornless Honeylocust	1.5' - 2.0' Cal. Street Tree	Zone: 4 Salt: Tolerant	XX
ORNAMENTAL TREES	SIZE	NOTES	QTY
 Acer campestre Hedge Maple	1.5' - 2.0' Cal. Street Tree	Zone: 5 Salt: Moderate	XX
 Amelanchier arborea Downy Serviceberry	1.5' - 2.0' Cal. Street Tree	Zone: 3 Salt: Moderate	XX
 Carpinus caroliniana American Hornbeam	1.5' - 2.0' Cal. Street Tree	Zone: 3 Salt: Low	XX
 Maackia amurensis Amur Maackia	1.5' - 2.0' Cal. Street Tree	Zone: 4 Salt: Moderate	XX
 Ostrya virginiana Eastern Hophornbeam	1.5' - 2.0' Cal. Street Tree	Zone: 3 Salt: Tolerant	XX
 Oxydendron arboreum Sourwood	1.5' - 2.0' Cal.	Zone: 5 Salt: Tolerant	XX
DECIDUOUS SHRUBS	SIZE	NOTES	QTY
 Aronia arbutifolia Red Chokeberry	3 Gallon	Zone: 4 Salt: Tolerant	XX
 Betula pumila Bog Birch	2 Gallon	Zone: 2 Salt: Moderate	XX
 Clethra alnifolia Summersweet Clethra	3 Gallon	Zone: 4 Salt: Moderate	XX
 Comptonia peregrina Sweetfern	3 Gallon	Zone: 3 Salt: Tolerant	XX
 Cornus sericea Red Osier Dogwood	2 Gallon	Zone: 5 Salt: Moderate	XX
 Fothergilla gardenii Dwarf Fothergilla	3 Gallon	Zone: 5 Salt: Moderate	XX
 Hypericum prolificum Shrubby St. John's Wort	3 Gallon	Zone: 4 Salt: Moderate	XX
 Ilex verticillata 'Nana' Common Winterberry	3 Gallon	Zone: 3 Salt: Tolerant	XX
 Leucothoe fontanesiana Drooping Leucothoe	3 Gallon	Zone: 4 Salt: Moderate	XX
 Myrica gale Sweetgale	2 Gallon	Zone: 3 Salt: Moderate	XX
 Rhus aromatica 'Gro-low' Dwarf Fragrant Sumac	3 Gallon	Zone: 3 Salt: Tolerant	XX
 Spiraea tomentosa Hardhack	3 Gallon	Zone: 4 Salt: Tolerant	XX
 Vaccinium corymbosum Highbush Blueberry	3 Gallon	Zone: 4 Salt: Moderate	XX
 Viburnum trilobum American Cranberrybush	3 Gallon	Zone: 2 Salt: Moderate	XX

EVERGREEN SHRUBS	SIZE	NOTES	QTY
 Kalmia latifolia Mountain Laurel	5 Gallon	Zone: 5 Salt: Low	XX
 Pieris floribunda Mountain Andromeda	3 Gallon	Zone: 4 Salt: Low	XX
 Rhododendron calantheae 'Rhododendron 'Grandiflorum'	5 Gallon	Zone: 5 Salt: Low	XX
 Viburnum acerifolium Mapleleaf Viburnum	3 Gallon	Zone: 2 Salt: Moderate	XX
GRASSES	SIZE	NOTES	QTY
 Eragrostis spectabilis Purple lovegrass	2 Gallon	Zone: 4 Salt: Low	XX
 Juncus bufonius Toad Rush	2 Gallon	Zone: 3 Salt: Low	XX
 Schizachyrium scoparium Little Bluestem	2 Gallon	Zone: 4 Salt: Tolerant	XX
GROUNDCOVERS	SIZE	NOTES	QTY
 Arctostaphylos uva-ursi Bearberry	1 Gallon	Zone: 3 Salt:	XX
 Cornus canadensis Bunchberry Dogwood	2 Gallon	Zone: 3 Salt: Moderate	XX
 Hedera helix English Ivy	Flat	Zone: 3 Salt: Low	XX
 Juniperus chinensis sagittalis Sargent Juniper	2 Gallon	Zone: 3 Salt: Low	XX
 Vaccinium vitis-idaea Mountain Cranberry	2 Gallon	Zone: 2 Salt: Tolerant	XX
 Vinca minor Periwinkle	Flat	Zone: 3 Salt: Low	XX
VINES	SIZE	NOTES	QTY
 Aristolochia macrophylla Dutchman's Pipe	1 Gallon	Zone: 4	XX
 Wisteria frutescens American Wisteria	1 Gallon	Zone: 5	XX

TURF AND SEED MIX	QTY
Hydrosseed Fescue, Ryegrass & Kentucky Bluegrass seed mix per installer's blend	XX,XXX S.F.
Conservation Seed Mix Refer Detail 10 / Sheet L-7.1 for specifications	XX,XXX S.F.
Wetland Seed Mix Refer Detail 11 / Sheet L-7.1 for specifications	XX,XXX S.F.
Wildflower Seed Mix Refer Detail 12 / Sheet L-7.1 for Specification	XX,XXX S.F.
LANDSCAPE MATERIALS	QTY
Bark Mulch Shredded Organic Bark Mulch	3" depth all planting areas XX,XXX S.F.
Landscape Border Landscape edging material	TBD LN. FT.

- NOTES:
1. Installation of an irrigation system to be determined prior to City of Westbrook approval.
2. Landscaping shall be maintained in a healthy condition. If within two years from the date of installation any plant is in a deteriorating state or is dead it shall be replaced in kind in a timely manner. Refer Sheet L7.0 for additional specifications.

Design: HAS Draft: 5th Coord Set Date: 02/02/2016
Checked: HAS Scale: AS-NOTED Project No.: 14110
ALD Project No.: 15.016

AMORY LAND DESIGN, LLC
68 PROSPECT STREET
NEWBURYPORT, MA
01950 - 2629



4	---	REVISED PER	---
3	---	REVISED PER	---
2	---	REVISED PER	---
1	---	REVISED PER	---
0	02/02/16	ISSUED FOR FIRST COORDINATION AND REVIEW	HAS
REV.	DATE	REVISION	BY

J/B Jones & Beach Engineers, Inc.

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Designed and Produced in NH

Civil Engineering Services

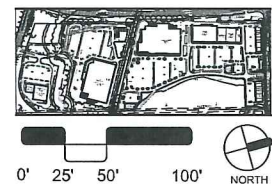
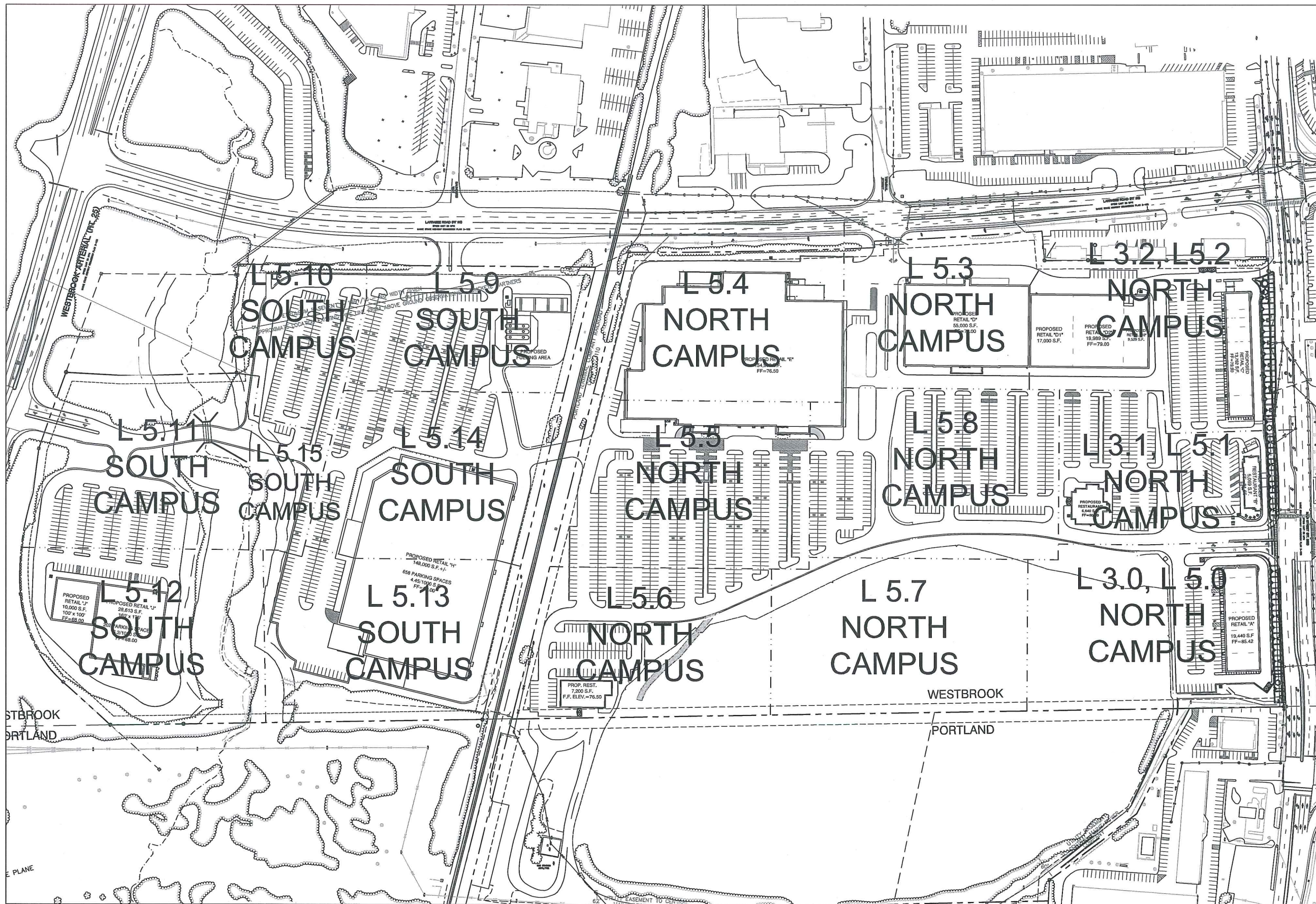
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name:	LANDSCAPE NOTES AND LEGENDS
Project:	WESTBROOK PIKE LARRABEE ROAD & MAIN STREET, WESTBROOK, ME
Owner of Record:	J & J GOVE DEVELOPMENT, LLC 7 SWAIN DRIVE, HAMPTON FALLS, NH 03844

DRAWING No.

L-1.0

SHEET xx OF xx
JBE PROJECT NO. 14110



APPROVED - WESTBROOK, ME
PLANNING BOARD

DATE:

Design: HAS Draft: 5th Coord Set Date: 02/02/2016
Checked: HAS Scale: 1" = 100' Project No.: 14110
ALD Project No.: 15.016
AMORY LAND DESIGN, LLC
68 PROSPECT STREET
NEWBURYPORT, MA
01950 • 2629



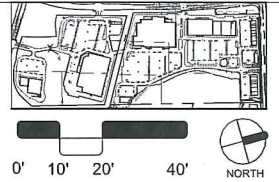
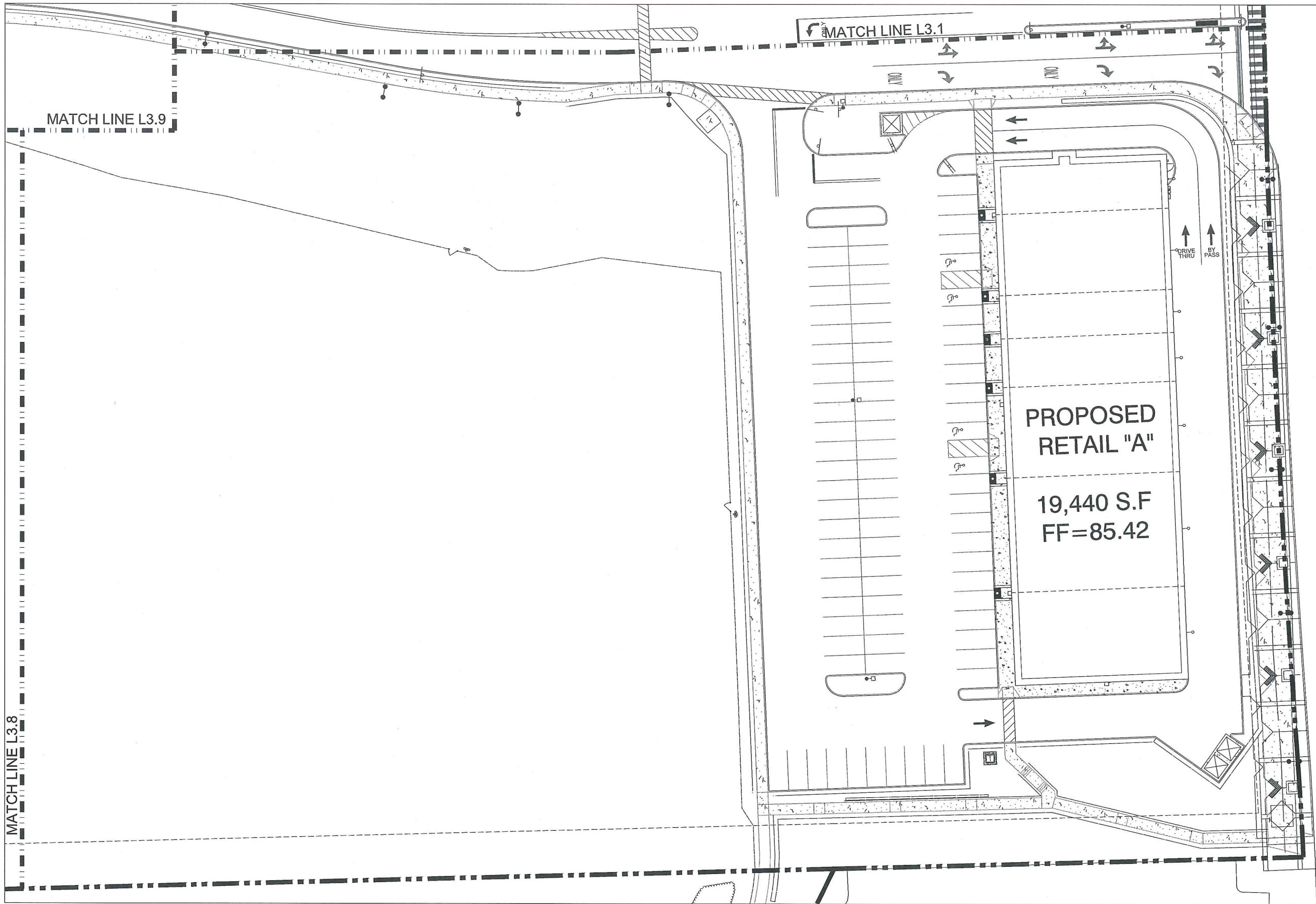
4	---	REVISED PER	---
3	---	REVISED PER	---
2	---	REVISED PER	---
1	---	REVISED PER	---
0	02/02/16	ISSUED FOR FIRST COORDINATION AND REVIEW	HAS
REV.	DATE	REVISION	BY

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name: **LANDSCAPE OVERALL PLAN**
Project: **WESTBROOK PIKE
LARRABEE ROAD & MAIN STREET, WESTBROOK, ME**
Owner of Record: **J & J GOVE DEVELOPMENT, LLC
7 SWAIN DRIVE, HAMPTON FALLS, NH 03844**

DRAWING No.
L-2.0
SHEET xx OF xx
JBE PROJECT NO. 14110

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE) AND AMORY LAND DESIGN (ALD) ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE AND ALD.



APPROVED - WESTBROOK, ME
PLANNING BOARD

DATE:

Design: HAS Draft: 5th Coord Set Date: 02/02/2016
Checked: HAS Scale: 1" = 20' Project No.: 14110
ALD Project No.: 15,016
AMORY LAND DESIGN, LLC
68 PROSPECT STREET
NEWBURYPORT, MA
01950 - 2629



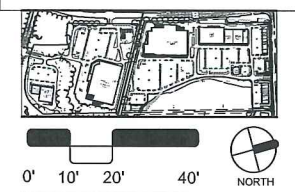
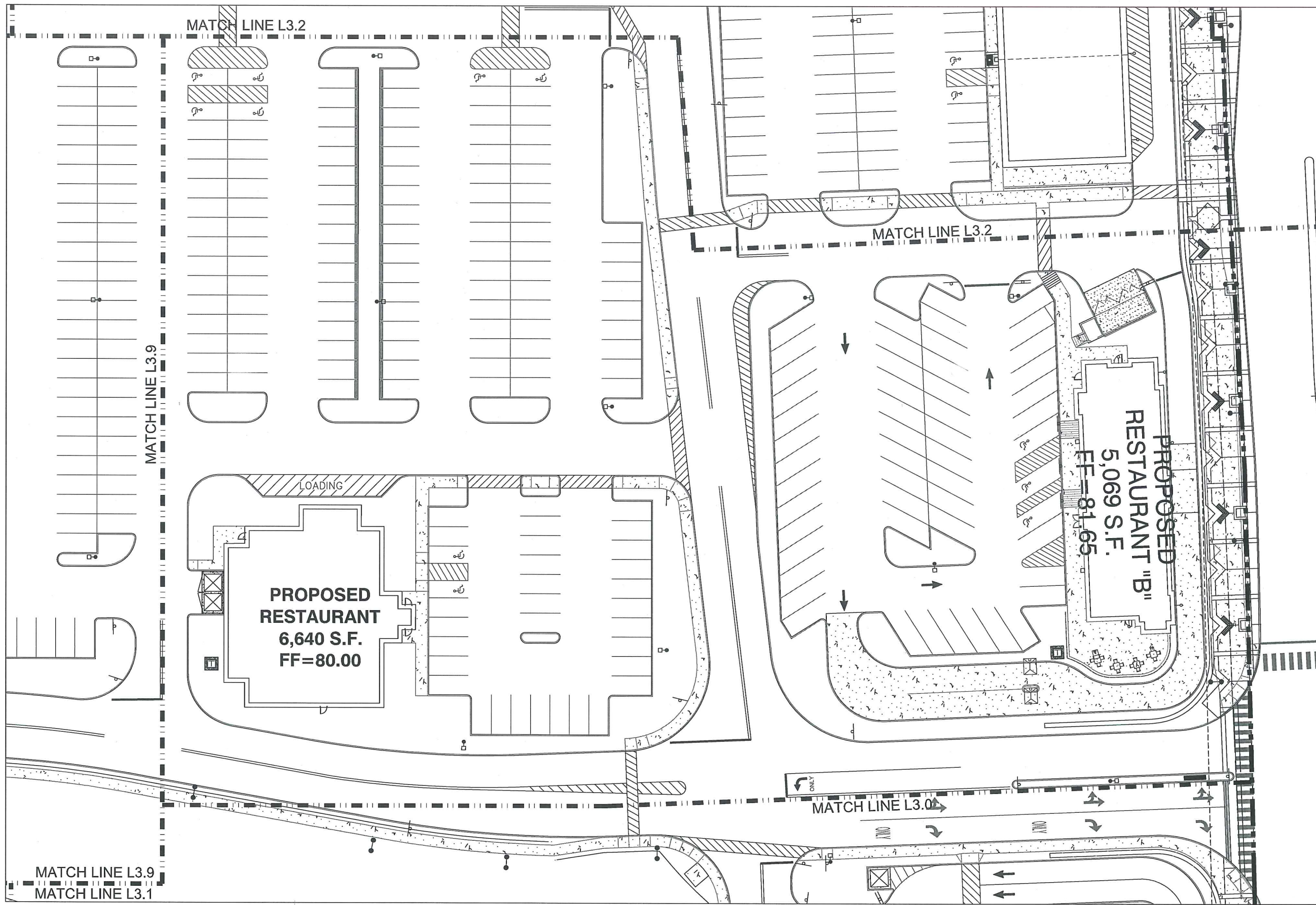
REV.	DATE	REVISION	BY
4	---	REVISED PER	---
3	---	REVISED PER	---
2	---	REVISED PER	---
1	---	REVISED PER	---
0	02/02/16	ISSUED FOR FIRST COORDINATION AND REVIEW	HAS

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name: **HARDSCAPE PLAN**
Project: **WESTBROOK PIKE
LARRABEE ROAD & MAIN STREET, WESTBROOK, ME**
Owner of Record: **J & J GOVE DEVELOPMENT, LLC
7 SWAIN DRIVE, HAMPTON FALLS, NH 03844**

DRAWING No.
L-3.0
SHEET xx OF xx
JBE PROJECT NO. 14110

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE) AND AMORY LAND DESIGN (ALD) ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE AND ALD.



APPROVED - WESTBROOK, ME
PLANNING BOARD

DATE: _____

Design: HAS Draft: 5th Coord Set Date: 02/02/2016
 Checked: HAS Scale: 1" = 20' - Project No.: 14110
 ALD Project No.: 15.016
AMORY LAND DESIGN, LLC
 68 PROSPECT STREET
 NEWBURYPORT, MA
 01950 - 2629



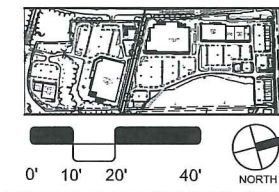
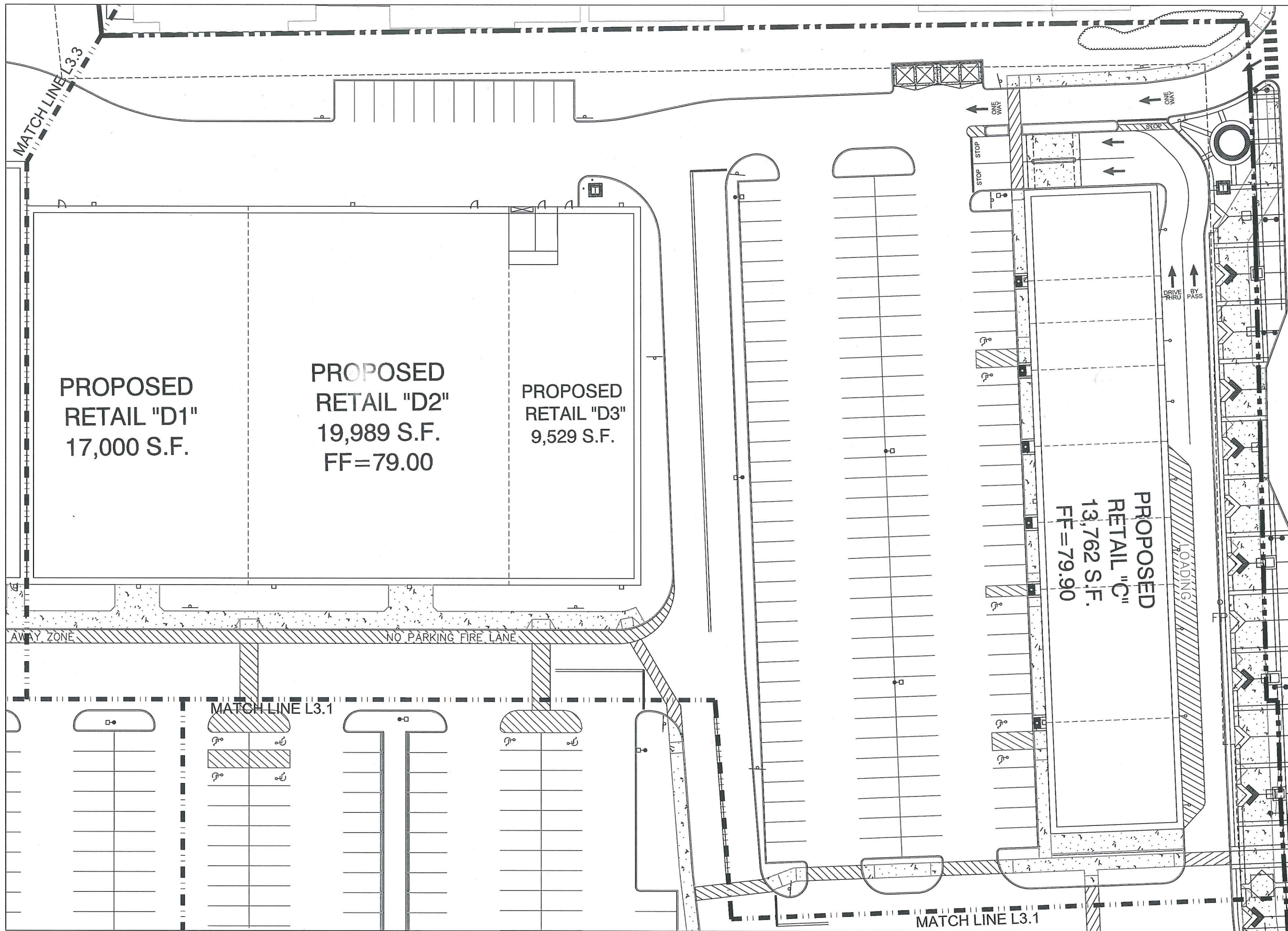
REV.	DATE	REVISION	BY
4	---	REVISED PER	---
3	---	REVISED PER	---
2	---	REVISED PER	---
1	---	REVISED PER	---
0	02/02/16	ISSUED FOR FIRST COORDINATION AND REVIEW	HAS

J/B Jones & Beach Engineers, Inc.
 Civil Engineering Services
 85 Portsmouth Ave.
 PO Box 219
 Stratham, NH 03885
 603-772-4746
 FAX: 603-772-0227
 E-Mail: JBE@JONESANDBEACH.COM

Plan Name: **HARDSCAPE PLAN**
 Project: **WESTBROOK PIKE
LARRABEE ROAD & MAIN STREET, WESTBROOK, ME**
 Owner of Record: **J & J GOVE DEVELOPMENT, LLC
7 SWAIN DRIVE, HAMPTON FALLS, NH 03844**

DRAWING No.
L-3.1
 SHEET xx OF xx
 JBE PROJECT NO. 14110

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE) AND AMORY LAND DESIGN (ALD) ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE AND ALD.



APPROVED - WESTBROOK, ME
PLANNING BOARD

DATE: _____

Design: HAS Draft: 5th Coord Set Date: 02/02/2016
Checked: HAS Scale: 1" = 20' Project No.: 14110
ALD Project No.: 15.016
AMORY LAND DESIGN, LLC
68 PROSPECT STREET
NEWBURYPORT, MA
01950 - 2629



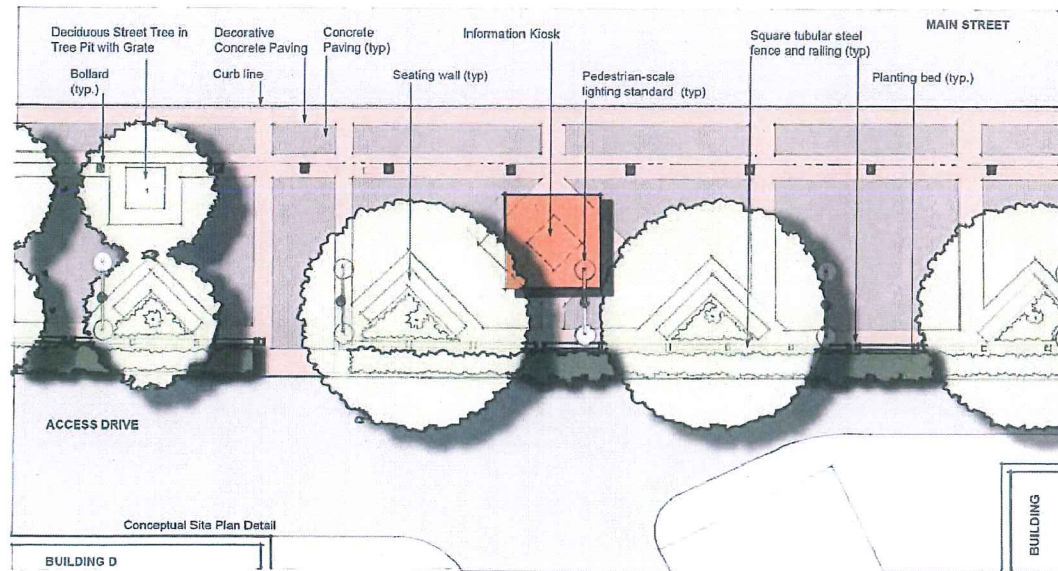
REV.	DATE	REVISION	BY
4	---	REVISED PER	---
3	---	REVISED PER	---
2	---	REVISED PER	---
1	---	REVISED PER	---
0	02/02/16	ISSUED FOR FIRST COORDINATION AND REVIEW	HAS

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

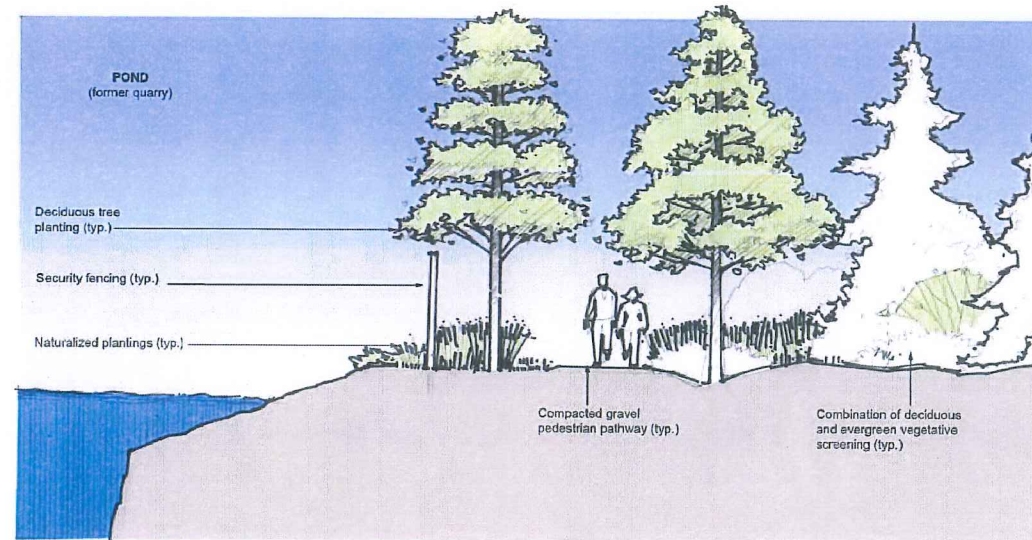
Plan Name: **HARDSCAPE PLAN**
Project: **WESTBROOK PIKE
LARRABEE ROAD & MAIN STREET, WESTBROOK, ME**
Owner of Record: **J & J GOVE DEVELOPMENT, LLC
7 SWAIN DRIVE, HAMPTON FALLS, NH 03844**

DRAWING No.
L-3.2
SHEET xx OF xx
JBE PROJECT NO. 14110

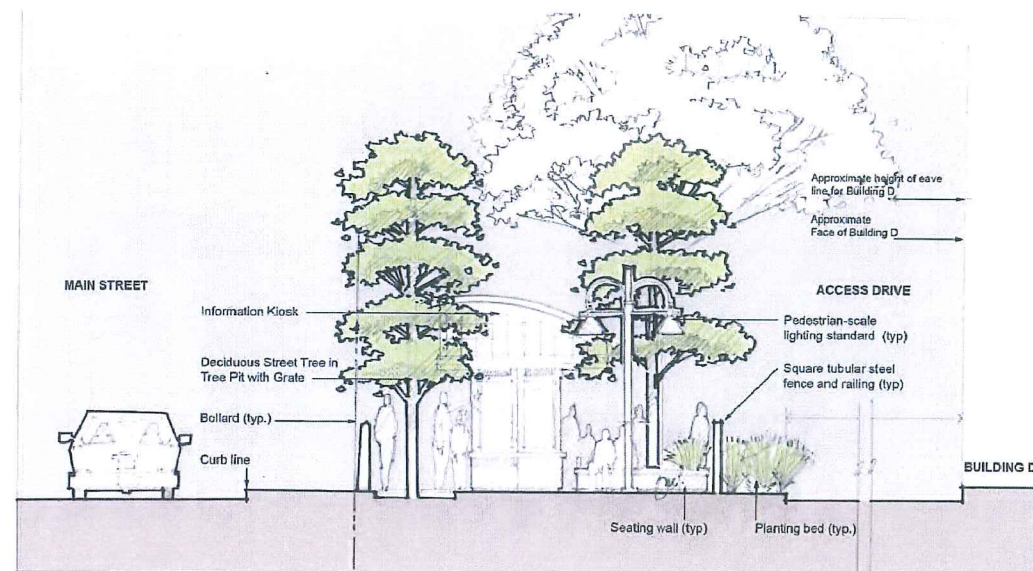
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE) AND AMORY LAND DESIGN (ALD) ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE AND ALD.



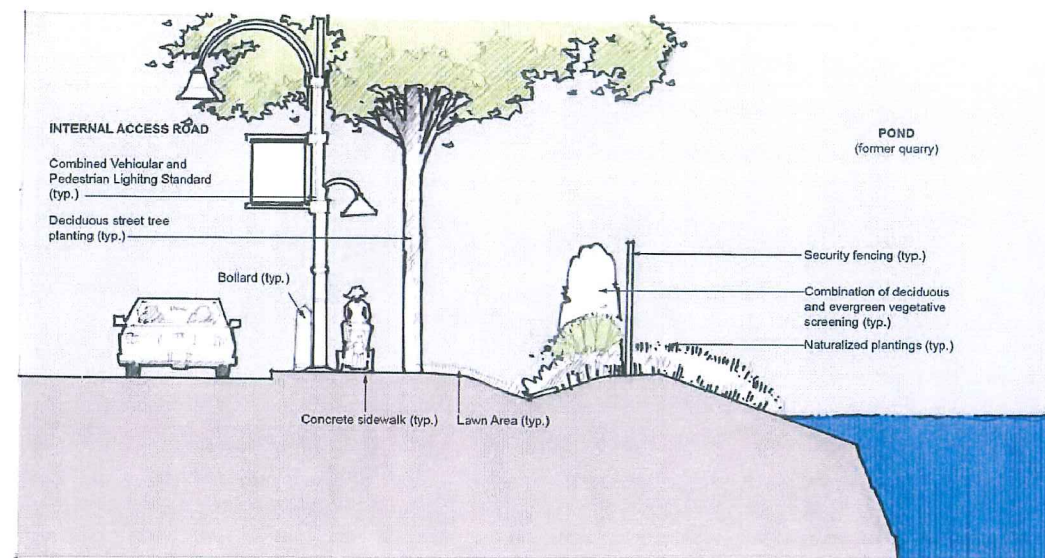
1 EAST MAIN STREET: STREETSCAPE CONCEPT - PLAN
SCALE: NTS



3 POND: SIDEWALK ALONG EAST SIDE - SECTION
SCALE: NTS



2 EAST MAIN STREET: STREETSCAPE CONCEPT - SECTION
SCALE: NTS



4 POND: SIDEWALK ALONG WEST SIDE - SECTION
SCALE: NTS

Design: HAS Draft: 5th Coord Set Date: 02/02/2016
Checked: HAS Scale: AS-NOTED Project No.: 14110
ALD Project No.: 15.016
AMORY LAND DESIGN, LLC
68 PROSPECT STREET
NEWBURYPORT, MA
01950 - 2629



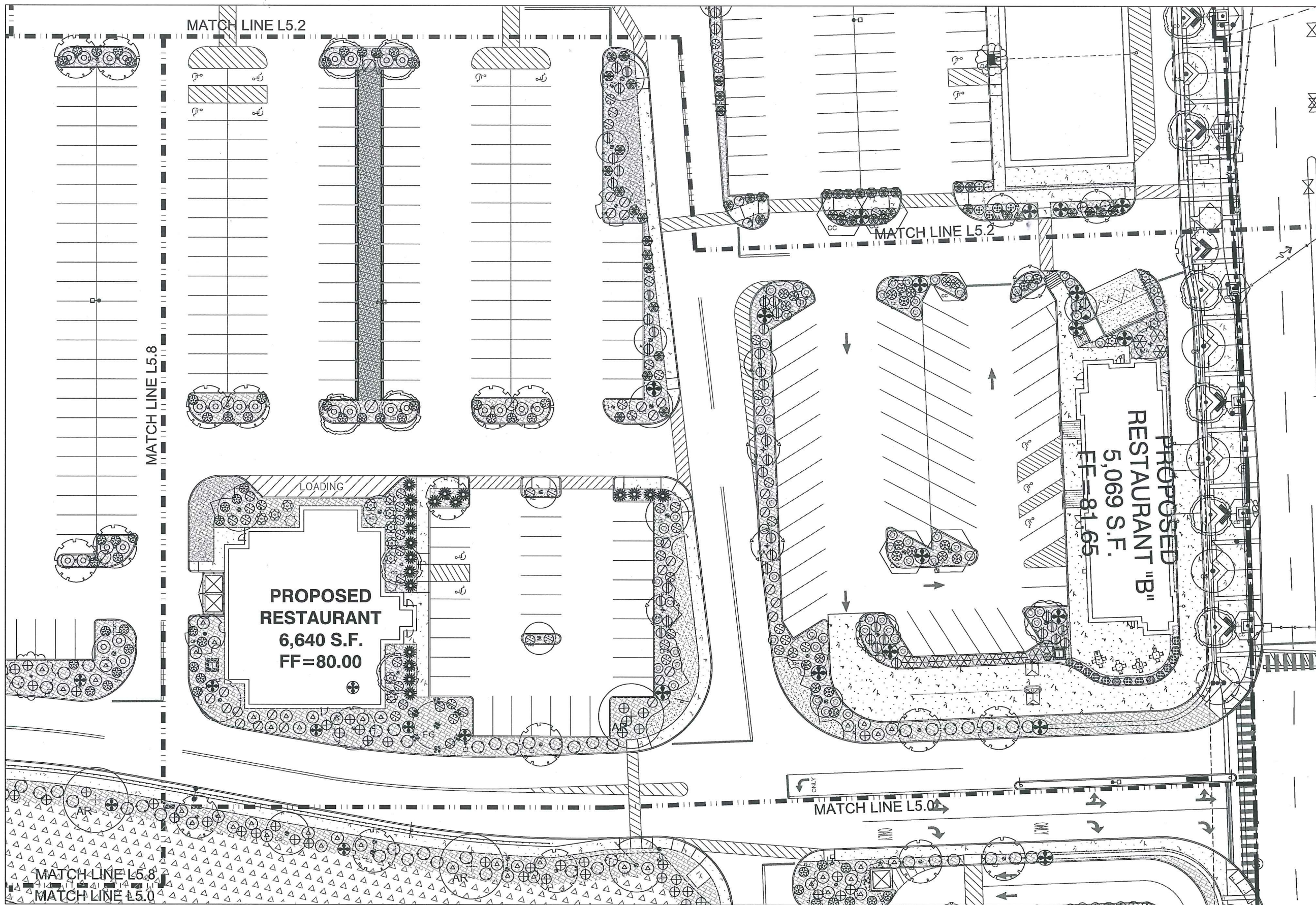
REV.	DATE	REVISION	BY
4	---	REVISED PER	---
3	---	REVISED PER	---
2	---	REVISED PER	---
1	---	REVISED PER	---
0	02/02/16	ISSUED FOR FIRST COORDINATION AND REVIEW	HAS

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

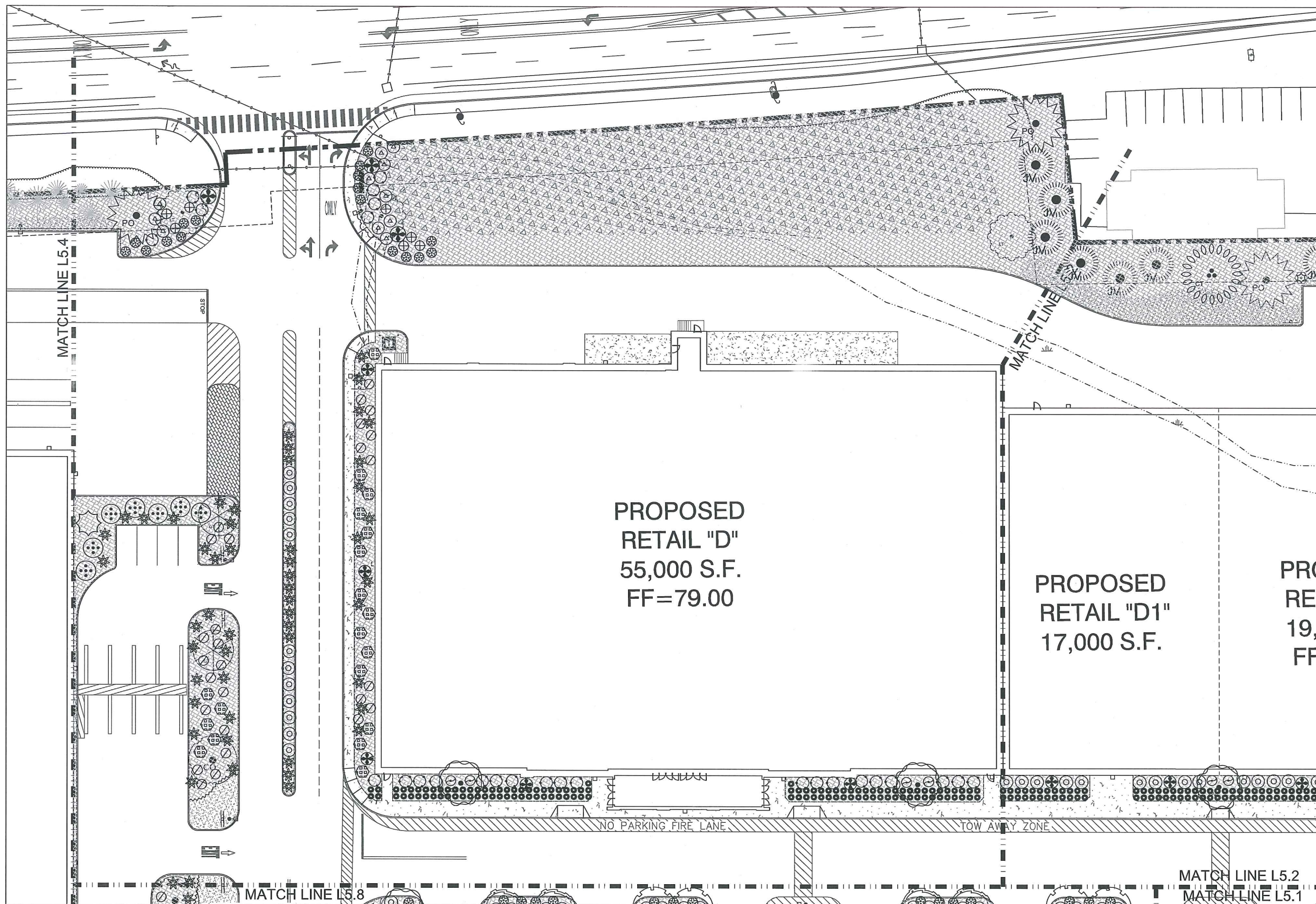
Plan Name: **HARDSCAPE DETAILS**
Project: **WESTBROOK, PIKE
LARRABEE ROAD & MAIN STREET, WESTBROOK, ME**
Owner of Record: **J & J GOVE DEVELOPMENT, LLC
7 SWAIN DRIVE, HAMPTON FALLS, NH 03844**

DRAWING No.
L-4.0
SHEET xx OF xx
JBE PROJECT NO. 14110

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE) AND AMORY LAND DESIGN (ALD) ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE AND ALD.



PLANT LEGEND				
SYMBOL	SIZE	NOTES	QTY	
SHADE TREES				
	12" - 18" Cal.	Zone 4	XX	
	18" - 24" Cal.	Zone 4	XX	
	24" - 30" Cal.	Zone 4	XX	
	30" - 36" Cal.	Zone 4	XX	
	36" - 42" Cal.	Zone 4	XX	
	42" - 48" Cal.	Zone 4	XX	
	48" - 54" Cal.	Zone 4	XX	
	54" - 60" Cal.	Zone 4	XX	
	60" - 66" Cal.	Zone 4	XX	
	66" - 72" Cal.	Zone 4	XX	
	72" - 78" Cal.	Zone 4	XX	
	78" - 84" Cal.	Zone 4	XX	
	84" - 90" Cal.	Zone 4	XX	
	90" - 96" Cal.	Zone 4	XX	
	96" - 102" Cal.	Zone 4	XX	
	102" - 108" Cal.	Zone 4	XX	
	108" - 114" Cal.	Zone 4	XX	
	114" - 120" Cal.	Zone 4	XX	
	120" - 126" Cal.	Zone 4	XX	
	126" - 132" Cal.	Zone 4	XX	
	132" - 138" Cal.	Zone 4	XX	
	138" - 144" Cal.	Zone 4	XX	
	144" - 150" Cal.	Zone 4	XX	
	150" - 156" Cal.	Zone 4	XX	
	156" - 162" Cal.	Zone 4	XX	
	162" - 168" Cal.	Zone 4	XX	
	168" - 174" Cal.	Zone 4	XX	
	174" - 180" Cal.	Zone 4	XX	
	180" - 186" Cal.	Zone 4	XX	
	186" - 192" Cal.	Zone 4	XX	
	192" - 198" Cal.	Zone 4	XX	
	198" - 204" Cal.	Zone 4	XX	
	204" - 210" Cal.	Zone 4	XX	
	210" - 216" Cal.	Zone 4	XX	
	216" - 222" Cal.	Zone 4	XX	
	222" - 228" Cal.	Zone 4	XX	
	228" - 234" Cal.	Zone 4	XX	
	234" - 240" Cal.	Zone 4	XX	
	240" - 246" Cal.	Zone 4	XX	
	246" - 252" Cal.	Zone 4	XX	
	252" - 258" Cal.	Zone 4	XX	
	258" - 264" Cal.	Zone 4	XX	
	264" - 270" Cal.	Zone 4	XX	
	270" - 276" Cal.	Zone 4	XX	
	276" - 282" Cal.	Zone 4	XX	
	282" - 288" Cal.	Zone 4	XX	
	288" - 294" Cal.	Zone 4	XX	
	294" - 300" Cal.	Zone 4	XX	
	300" - 306" Cal.	Zone 4	XX	
	306" - 312" Cal.	Zone 4	XX	
	312" - 318" Cal.	Zone 4	XX	
	318" - 324" Cal.	Zone 4	XX	
	324" - 330" Cal.	Zone 4	XX	
	330" - 336" Cal.	Zone 4	XX	
	336" - 342" Cal.	Zone 4	XX	
	342" - 348" Cal.	Zone 4	XX	
	348" - 354" Cal.	Zone 4	XX	
	354" - 360" Cal.	Zone 4	XX	
	360" - 366" Cal.	Zone 4	XX	
	366" - 372" Cal.	Zone 4	XX	
	372" - 378" Cal.	Zone 4	XX	
	378" - 384" Cal.	Zone 4	XX	
	384" - 390" Cal.	Zone 4	XX	
	390" - 396" Cal.	Zone 4	XX	
	396" - 402" Cal.	Zone 4	XX	
	402" - 408" Cal.	Zone 4	XX	
	408" - 414" Cal.	Zone 4	XX	
	414" - 420" Cal.	Zone 4	XX	
	420" - 426" Cal.	Zone 4	XX	
	426" - 432" Cal.	Zone 4	XX	
	432" - 438" Cal.	Zone 4	XX	
	438" - 444" Cal.	Zone 4	XX	
	444" - 450" Cal.	Zone 4	XX	
	450" - 456" Cal.	Zone 4	XX	
	456" - 462" Cal.	Zone 4	XX	
	462" - 468" Cal.	Zone 4	XX	
	468" - 474" Cal.	Zone 4	XX	
	474" - 480" Cal.	Zone 4	XX	
	480" - 486" Cal.	Zone 4	XX	
	486" - 492" Cal.	Zone 4	XX	
	492" - 498" Cal.	Zone 4	XX	
	498" - 504" Cal.	Zone 4	XX	
	504" - 510" Cal.	Zone 4	XX	
	510" - 516" Cal.	Zone 4	XX	
	516" - 522" Cal.	Zone 4	XX	
	522" - 528" Cal.	Zone 4	XX	
	528" - 534" Cal.	Zone 4	XX	
	534" - 540" Cal.	Zone 4	XX	
	540" - 546" Cal.	Zone 4	XX	
	546" - 552" Cal.	Zone 4	XX	
	552" - 558" Cal.	Zone 4	XX	
	558" - 564" Cal.	Zone 4	XX	
	564" - 570" Cal.	Zone 4	XX	
	570" - 576" Cal.	Zone 4	XX	
	576" - 582" Cal.	Zone 4	XX	
	582" - 588" Cal.	Zone 4	XX	
	588" - 594" Cal.	Zone 4	XX	
	594" - 600" Cal.	Zone 4	XX	
	600" - 606" Cal.	Zone 4	XX	
	606" - 612" Cal.	Zone 4	XX	
	612" - 618" Cal.	Zone 4	XX	
	618" - 624" Cal.	Zone 4	XX	
	624" - 630" Cal.	Zone 4	XX	
	630" - 636" Cal.	Zone 4	XX	
	636" - 642" Cal.	Zone 4	XX	
	642" - 648" Cal.	Zone 4	XX	
	648" - 654" Cal.	Zone 4	XX	
	654" - 660" Cal.	Zone 4	XX	
	660" - 666" Cal.	Zone 4	XX	
	666" - 672" Cal.	Zone 4	XX	
	672" - 678" Cal.	Zone 4	XX	
	678" - 684" Cal.	Zone 4	XX	
	684" - 690" Cal.	Zone 4	XX	
	690" - 696" Cal.	Zone 4	XX	
	696" - 702" Cal.	Zone 4	XX	
	702" - 708" Cal.	Zone 4	XX	
	708" - 714" Cal.	Zone 4	XX	
	714" - 720" Cal.	Zone 4	XX	
	720" - 726" Cal.	Zone 4	XX	
	726" - 732" Cal.	Zone 4	XX	
	732" - 738" Cal.	Zone 4	XX	
	738" - 744" Cal.	Zone 4	XX	
	744" - 750" Cal.	Zone 4	XX	
	750" - 756" Cal.	Zone 4	XX	
	756" - 762" Cal.	Zone 4	XX	
	762" - 768" Cal.	Zone 4	XX	
	768" - 774" Cal.	Zone 4	XX	
	774" - 780" Cal.	Zone 4	XX	
	780" - 786" Cal.	Zone 4	XX	
	786" - 792" Cal.	Zone 4	XX	
	792" - 798" Cal.	Zone 4	XX	
	798" - 804" Cal.	Zone 4	XX	
	804" - 810" Cal.	Zone 4	XX	
	810" - 816" Cal.	Zone 4	XX	
	816" - 822" Cal.	Zone 4	XX	
	822" - 828" Cal.	Zone 4	XX	
	828" - 834" Cal.	Zone 4	XX	
	834" - 840" Cal.	Zone 4	XX	
	840" - 846" Cal.	Zone 4	XX	
	846" - 852" Cal.	Zone 4	XX	
	852" - 858" Cal.	Zone 4	XX	
	858" - 864" Cal.	Zone 4	XX	
	864" - 870" Cal.	Zone 4	XX	
	870" - 876" Cal.	Zone 4	XX	
	876" - 882" Cal.	Zone 4	XX	
	882" - 888" Cal.	Zone 4	XX	
	888" - 894" Cal.	Zone 4	XX	
	894" - 900" Cal.	Zone 4	XX	
	900" - 906" Cal.	Zone 4	XX	
	906" - 912" Cal.	Zone 4	XX	
	912" - 918" Cal.	Zone 4	XX	
	918" - 924" Cal.	Zone 4	XX	
	924" - 930" Cal.	Zone 4	XX	
	930" - 936" Cal.	Zone 4	XX	
	936" - 942" Cal.	Zone 4	XX	
	942" - 948" Cal.	Zone 4	XX	
	948" - 954" Cal.	Zone 4	XX	
	954" - 960" Cal.	Zone 4	XX	
	960" - 966" Cal.	Zone 4	XX	
	966" - 972" Cal.	Zone 4	XX	
	972" - 978" Cal.	Zone 4	XX	
	978" - 984" Cal.	Zone 4	XX	
	984" - 990" Cal.	Zone 4	XX	
	990" - 996" Cal.	Zone 4	XX	
	996" - 1002" Cal.	Zone 4	XX	
	1002" - 1008" Cal.	Zone 4	XX	
	1008" - 1014" Cal.	Zone 4	XX	
	1014" - 1020" Cal.	Zone 4	XX	
	1020" - 1026" Cal.	Zone 4	XX	
	1026" - 1032" Cal.	Zone 4	XX	
	1032" - 1038" Cal.	Zone 4	XX	
	1038" - 1044" Cal.	Zone 4	XX	
	1044" - 1050" Cal.	Zone 4	XX	
	1050" - 1056" Cal.	Zone 4	XX	
	1056" - 1062" Cal.	Zone 4	XX	
	1062" - 1068" Cal.	Zone 4	XX	
	1068" - 1074" Cal.	Zone 4	XX	
	1074" - 1080" Cal.	Zone 4	XX	
	1080" - 1086" Cal.	Zone 4	XX	
	1086" - 1092" Cal.	Zone 4	XX	
	1092" - 1098" Cal.	Zone 4	XX	
	1098" - 1104" Cal.	Zone 4	XX	
	1104" - 1110" Cal.	Zone 4	XX	
	1110" - 1116" Cal.	Zone 4	XX	
	1116" - 1122" Cal.	Zone 4	XX	
	1122" - 1128" Cal.	Zone 4	XX	
	1128" - 1134" Cal.	Zone 4	XX	
	1134" - 1140" Cal.	Zone 4	XX	
	1140" - 1146" Cal.	Zone 4	XX	
	1146" - 1152" Cal.	Zone 4	XX	
	1152" - 1158" Cal.	Zone 4	XX	
	1158" - 1164" Cal.	Zone 4	XX	
	1164" - 1170" Cal.	Zone 4	XX	
	1170" - 1176" Cal.	Zone 4	XX	
	1176" - 1182" Cal.	Zone 4	XX	
	1182" - 1188" Cal.	Zone 4	XX	
	1188" - 1194" Cal.	Zone 4	XX	
	1194" - 1200" Cal.	Zone 4	XX	
	1200" - 1206" Cal.	Zone 4	XX	
	1206" - 1212" Cal.	Zone 4	XX	
	1212" - 1218" Cal.	Zone 4	XX	
	1218" - 1224" Cal.	Zone 4	XX	
	1224" - 1230" Cal.	Zone 4	XX	
	1230" - 1236" Cal.	Zone 4	XX	
	1236" - 1242" Cal.	Zone 4	XX	
	1242" - 1248" Cal.	Zone 4	XX	
	1248" - 1254" Cal.	Zone 4	XX	
	1254" - 1260" Cal.	Zone 4	XX	
	1260" - 1266" Cal.	Zone 4	XX	
	1266" - 1272" Cal.	Zone 4	XX	
	1272" - 1278" Cal.	Zone 4	XX	
	1278" - 1284" Cal.	Zone 4	XX	
	1284" - 1290" Cal.	Zone 4	XX	
	1290" - 1296" Cal.	Zone 4	XX	
	1296" - 1302" Cal.	Zone 4	XX	
	1302" - 1308" Cal.	Zone 4		



PLANT LEGEND					
SHADE TREES					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	2.0" - 3.0" Cal.	Shade Tree	XX	
	Black Gum	2.0" - 3.0" Cal.	Shade Tree	XX	
	Cashew Tree	2.0" - 3.0" Cal.	Shade Tree	XX	
	Chinese Elm	2.0" - 3.0" Cal.	Shade Tree	XX	
	Florida Redwood	2.0" - 3.0" Cal.	Shade Tree	XX	
	Fraxino	2.0" - 3.0" Cal.	Shade Tree	XX	
	Japanese Maple	2.0" - 3.0" Cal.	Shade Tree	XX	
	Live Oak	2.0" - 3.0" Cal.	Shade Tree	XX	
	Live Oak	2.0" - 3.0" Cal.	Shade Tree	XX	
	Live Oak	2.0" - 3.0" Cal.	Shade Tree	XX	
CONIFER TREES					
	PLANT NAME	SIZE	NOTES	QTY	
	Juniper	10" - 12"	Shade Tree	XX	
	Juniper	10" - 12"	Shade Tree	XX	
	Juniper	10" - 12"	Shade Tree	XX	
	Juniper	10" - 12"	Shade Tree	XX	
MEDIUM TREES					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	1.0" - 2.0" Cal.	Shade Tree	XX	
	Black Gum	1.0" - 2.0" Cal.	Shade Tree	XX	
	Cashew Tree	1.0" - 2.0" Cal.	Shade Tree	XX	
	Chinese Elm	1.0" - 2.0" Cal.	Shade Tree	XX	
ORNAMENTAL TREES					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	1.0" - 2.0" Cal.	Shade Tree	XX	
	Black Gum	1.0" - 2.0" Cal.	Shade Tree	XX	
	Cashew Tree	1.0" - 2.0" Cal.	Shade Tree	XX	
	Chinese Elm	1.0" - 2.0" Cal.	Shade Tree	XX	
	Florida Redwood	1.0" - 2.0" Cal.	Shade Tree	XX	
	Fraxino	1.0" - 2.0" Cal.	Shade Tree	XX	
	Japanese Maple	1.0" - 2.0" Cal.	Shade Tree	XX	
	Live Oak	1.0" - 2.0" Cal.	Shade Tree	XX	
	Live Oak	1.0" - 2.0" Cal.	Shade Tree	XX	
	Live Oak	1.0" - 2.0" Cal.	Shade Tree	XX	
DICUCULOUS SHRUBS					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	3' Cal.	Shade Tree	XX	
	Black Gum	3' Cal.	Shade Tree	XX	
	Cashew Tree	3' Cal.	Shade Tree	XX	
	Chinese Elm	3' Cal.	Shade Tree	XX	
	Florida Redwood	3' Cal.	Shade Tree	XX	
	Fraxino	3' Cal.	Shade Tree	XX	
	Japanese Maple	3' Cal.	Shade Tree	XX	
	Live Oak	3' Cal.	Shade Tree	XX	
	Live Oak	3' Cal.	Shade Tree	XX	
	Live Oak	3' Cal.	Shade Tree	XX	
EVERGREEN SHRUBS					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	3' Cal.	Shade Tree	XX	
	Black Gum	3' Cal.	Shade Tree	XX	
	Cashew Tree	3' Cal.	Shade Tree	XX	
	Chinese Elm	3' Cal.	Shade Tree	XX	
	Florida Redwood	3' Cal.	Shade Tree	XX	
	Fraxino	3' Cal.	Shade Tree	XX	
	Japanese Maple	3' Cal.	Shade Tree	XX	
	Live Oak	3' Cal.	Shade Tree	XX	
	Live Oak	3' Cal.	Shade Tree	XX	
	Live Oak	3' Cal.	Shade Tree	XX	
GRASSES					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	2' Cal.	Shade Tree	XX	
	Black Gum	2' Cal.	Shade Tree	XX	
	Cashew Tree	2' Cal.	Shade Tree	XX	
	Chinese Elm	2' Cal.	Shade Tree	XX	
	Florida Redwood	2' Cal.	Shade Tree	XX	
	Fraxino	2' Cal.	Shade Tree	XX	
	Japanese Maple	2' Cal.	Shade Tree	XX	
	Live Oak	2' Cal.	Shade Tree	XX	
	Live Oak	2' Cal.	Shade Tree	XX	
	Live Oak	2' Cal.	Shade Tree	XX	
GROUNDCOVERS					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	1' Cal.	Shade Tree	XX	
	Black Gum	1' Cal.	Shade Tree	XX	
	Cashew Tree	1' Cal.	Shade Tree	XX	
	Chinese Elm	1' Cal.	Shade Tree	XX	
	Florida Redwood	1' Cal.	Shade Tree	XX	
	Fraxino	1' Cal.	Shade Tree	XX	
	Japanese Maple	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
VINES					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	1' Cal.	Shade Tree	XX	
	Black Gum	1' Cal.	Shade Tree	XX	
	Cashew Tree	1' Cal.	Shade Tree	XX	
	Chinese Elm	1' Cal.	Shade Tree	XX	
	Florida Redwood	1' Cal.	Shade Tree	XX	
	Fraxino	1' Cal.	Shade Tree	XX	
	Japanese Maple	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
TURF AND SEED MIX					
	PLANT NAME	SIZE	NOTES	QTY	
	Amelanchier	1' Cal.	Shade Tree	XX	
	Black Gum	1' Cal.	Shade Tree	XX	
	Cashew Tree	1' Cal.	Shade Tree	XX	
	Chinese Elm	1' Cal.	Shade Tree	XX	
	Florida Redwood	1' Cal.	Shade Tree	XX	
	Fraxino	1' Cal.	Shade Tree	XX	
	Japanese Maple	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
	Live Oak	1' Cal.	Shade Tree	XX	
NOTES:					
1. Installation of an irrigation system to be determined prior to City of Washburn approval.					
2. Planting schedule shall be reviewed in a healthy condition.					
3. Within two years from the date of installation any plant that is not thriving or is dead or dying shall be replaced in a timely manner. Refer Sheet 1.0 for additional					



APPROVED - WESTBROOK, ME
PLANNING BOARD

DATE: _____

Design: HAS	Draft: 5th Coord Set	Date: 02/02/2016
Checked: HAS	Scale: 1" = 20'	Project No.: 14110
ALD Project No.: 15.016		
AMORY LAND DESIGN, LLC 68 PROSPECT STREET NEWBURYPORT, MA 01950 - 2629		



4	---	REVISED PER	---
3	---	REVISED PER	---
2	---	REVISED PER	---
1	---	REVISED PER	---
0	02/02/16	ISSUED FOR FIRST COORDINATION AND REVIEW	HAS
REV.	DATE	REVISION	BY

J/R

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Designed and Produced in NH

J/B Jones & Beach Engineers, Inc.

Civil Engineering Services

603-772-4746

FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

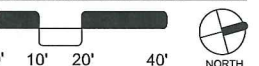
Plan Name:	PLANTING PLAN - NORTH CAMPUS
Project:	WESTBROOK, PIKE LARRABEE ROAD & MAIN STREET, WESTBROOK, M
Owner of Record:	J & J GOVE DEVELOPMENT, LLC 7 SWAIN DRIVE, HAMPTON FALLS, NH 03844

DRAWING No.

L-5.3

SHEET xx OF xx
JBE PROJECT NO. 14

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE) AND AMORY LAND DESIGN (ALD) ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE AND ALD.



APPROVED - WESTBROOK, ME
PLANNING BOARD

DATE: _____

Not For Construction

Designed and Produced in NH

J/B Jones & Beach Engineers, Inc.

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03865

Civil Engineering Services

603-772-4746
FAX: 603-772-0227
E-Mail: JBE@JONESANDBEACH.COM

Plan Name:	PLANTING PLAN - NORTH CAMPUS
Project:	WESTBROOK PIKE LARRABEE ROAD & MAIN STREET, WESTBROOK, ME
Owner of Record:	J & J GOVE DEVELOPMENT, LLC 7 SWAIN DRIVE, HAMPTON FALLS, NH 03844

DRAWING No.
L-5.5
SHEET xx OF xx
PROJECT NO. 14110

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE) AND AMORY LAND DESIGN (ALD) ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE AND ALD.

