# PLANNING BOARD

Tuesday, October 28, 2025 at 4:30 PM
Room 24 (Ground Level of City Hall) and Zoom

**MEMBERS**
Brandon Mazer, Chair
David Silk, Vice Chair
Austin Smith
Nicholas Messina
Joseph Zamboni
Kelsey Robertson
Michael Joseph Fox

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**PUBLIC COMMENT INFORMATION**
To submit written public comment on an agenda item, email planningboard@portlandmaine.gov. Submissions must be received by 12:00 pm the day before the Planning Board meeting to guarantee their inclusion in the agenda packet. All submissions must include the commenter's name and legal address. To help ensure your

comment is submitted for the correct item, please include the name of the agenda item (see below).

Please note that the placement of items on this agenda are subject to change – please check the Agenda Center prior to the meeting for the item start time.

## AGENDA:

### WORKSHOP - 4:30 PM

i. Major Site Plan and Traffic Movement Permit; 45 Union Street; East Brown Cow - Kowtower, LLC., Applicant. The Planning Board will hold a hybrid workshop to consider an application for the development of a 30-story, approximately 199,803 square-foot mixed-use residential and commercial building. This project includes 73 residential condominiums and an 88-room hotel, located at 45 Union Street within the Downtown Business B-3 zone. A project and plan summary are available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number PL-003157-2024.

### PUBLIC HEARING - 5:30 PM

**1. ROLL CALL AND DECLARATION OF QUORUM**

**2. COMMUNICATION AND REPORTS**

**3. REPORT OF ATTENDANCE AT THE MEETING HELD ON SEPTEMBER 23, 2025**

Workshop
45 Union Street: Fox, Mazer, Messina, Silk, and Zamboni present. Robertson absent. Smith recused.
16 Purington Way: Fox, Mazer, Messina, Silk, Smith, and Zamboni present. Robertson absent.

Public Hearing
Text Amendment to inclusionary zoning for hotel projects; Fox, Mazer, Messina, Silk, Smith, and Zamboni present. Robertson absent.

**4. REPORTS OF DECISIONS AT THE MEETING HELD ON SEPTEMBER 23, 2025**

i. Text Amendment to Inclusionary Zoning for Hotel Projects; City of Portland, Applicant. Silk motioned and Zamboni seconded a motion to recommend approval of a text amendment to Section 17.2.4 of the Land Use Code. Vote 3-3 (Fox, Mazer, and Silk opposed; Robertson absent).

**5. NEW BUSINESS**

i. Major Site Plan; 161 York Street; 161 York Street, LLC., Applicant. The Planning Board will hold a hybrid public hearing to consider an application for the development of two lots off of York Street with both lots consisting of a three-family dwelling unit, ten total parking spaces, and associated site improvements. The project is located at 161 York Street within the Residential Neighborhood RN-4 zone. A project and plan summary are available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number PL-003412-2025.

| | |
|---|---|
| **To:** | Chair Brandon Mazer & Members of the Planning Board |
| **From:** | Eric Freeman |
| **Date:** | October 22, 2025 |
| **Re:** | 45 Union Street |
| **Project ID:** | PL-003157-2024 |
| **CBL:** | 032 -I040 |
| **Meeting Date:** | October 28, 2025 |

## I. INTRODUCTION

East Brown Cow Management LLC and Woodard & Curran Engineering have submitted a Major Site Plan and Traffic Movement Permit application that would facilitate the construction of a 30-story mixed-use building with hotel, retail, restaurant, and residential units as well as new public realm improvements at 45 Union Street within the B-3 Downtown Business zone.

This application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, Section 13.6. Additionally, this application is required to meet the City of Portland's inclusionary zoning requirements outlined in Section 17.2 of the City's Land Use Code.

The Planning and Urban Development Department mailed 239 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the October 16th and October 17th, 2025 edition of the Portland Press Herald.

**Applicant:** East Brown Cow Management LLC
**Applicant Representatives:** Woodard & Curran, Safdie Architects



*Figure 1: Project Rendering.*

## II. REQUIRED REVIEWS

| *Review* | *Applicable Standards* |
|---|---|
| Site Plan | Section 13.6 |
| Inclusionary Zoning (Residential) | Section 17.2 |
| Inclusionary Zoning (Hotel) | Section 17.2.4 |
| B-3 Design Standards | City of Portland Design Manual (A) |

| *Project Data* | |
|---|---|
| Existing Zoning | B-3 Downtown Business zone |
| Property Size | 25,397 |
| Existing Use | Surface parking lot. |
| Proposed Development Program | 30-story mixed use tower with 73 residential units, 88 hotel rooms, restaurant, retail and amenity space. New public plaza and landscaping |

## III. PRIOR PLANNING BOARD REVIEW

The Planning Board held an initial workshop for this application on September 23, 2025. During this workshop, Board discussion focused primarily on:

1. Solid waste management

   The Board requested more detail regarding how solid waste would be managed on site and whether existing waste services on-site would be sufficient to handle the anticipated increase created by this development. Additionally, questions related to noise and waste management were also raised during the public process.

   **Follow-up:** The applicant has provided additional information regarding collection and removal of on-site waste. According to the applicant, waste will be conveyed from each floor via a chute to the basement level of the new building, where it will be conveyed in bins to a trash compactor located within the alley between the Fore Street Garage and the Central Maine Power substation. This trash compactor accommodates approximately 162 cubic feet of compacted waste. The compactor is currently emptied five days per week, and may be extended to seven days per week should additional capacity be required.
   The applicant has indicated that they are confident the current compactor size and collection schedule is sufficient to meet the needs of the development.
   The applicant's waste management narrative is included as attachment K Furthermore, it is important to note that noise generated by refuse and solid waste collection is exempt from the City's noise standards, as outlined in Section 6.8.6.F.2 of the Land Use Code.

2. Construction Management

   The Board discussed how construction of the tower would be managed given the size of the site and its proximity to historic buildings along Exchange Street. The Board requested additional detail regarding how construction would be managed and how possible impacts to surrounding foundations would be mitigated.

**Follow-up:** The applicant has provided a draft construction management (CM) plan. The draft CM plan highlights how construction activities will be managed. Key highlights from the draft CM plan include:

Material deliveries and laydown area: The applicant is proposing to stage construction materials in the former location of the Key Bank drive-thru immediately west of the One Canal Plaza building. Delivery routes are being determined by the general contractor.

Historic Building Protection: To ensure there are no impacts to surrounding properties during subsurface work, an engineered support of excavation (SOE) system will be installed to allow for safe excavation without the need to slope or bench the slope. The SOE will retain the unimpacted areas to ensure that existing foundations are not undermined. The working area within the SOE will be 5'-10' beyond the edge of the foundation wall and will be coordinated and reviewed with the locations of each building surrounding the site. Additionally, a pre-construction survey will be conducted to document conditions of existing foundations prior to any site activities that may cause ground vibrations.

Tower Crane Operations: This project will require the use of a weathervaning tower crane, which is designed to rotate freely with the wind when not in use to reduce structural stress and maintain safety. Because the crane's jib may swing over adjacent properties during operation or weathervaning, abutter agreements may be needed to establish secure temporary legal access to the air rights above neighboring buildings.

Ongoing Monitoring and Public Engagement: Quarterly reporting will be established to update City Staff and the public on construction progress, notice of oversized load deliveries, temporary street or sidewalk closures or other related construction impacts.

The full construction management plan is included as attachment N.

## 3. Financial Capacity

The Board requested additional detail related to the applicant's financial capacity documentation.

**Follow-up:** In response to the Board's request the applicant has provided a letter of financial capacity from Maine Community Bank, which is included as attachment G.

## 4. Valet Operations

The board requested additional detail regarding how on-site hotel valet operations, including vehicle movements and queuing,

**Follow-up:** The applicant is preparing a valet operations plan, which will be provided in advance of future Panning Board meetings.

## 5. Shadow Study

The Board requested that the applicant update their shadow study to include detailed shadow impacts for December 21st.

**Follow-up:** In response to the Board's request, the applicant has revised the shadow study to include December 21st. The updated analysis, provided as Attachment M, now includes all dates required by the City of Portland : March 21st (or September 21st), May 6th, June 21st (or August 6th), and December 21st.

In general, a significant adverse shadow impact occurs when the incremental shadow added by a proposed project falls on a sunlight sensitive resource and substantially reduces or completely eliminates direct sunlight exposure.

As part of the shadow study, Staff identified three public open spaces that may experience the most shadow impact from the proposed development:

- Tommy's Park
- Post Office Park
- Lobsterman Park

These spaces were identified based on their proximity to the site and the prevailing shadow patterns from existing buildings.

**Post-Office Park:**

Incremental shadows would reach Post-Office Park on the March 21st and December 21st analysis day. No incremental shadows from the proposed building would reach Post-Office Park on other analysis days (May 6 or June 21).

On the March 21st analysis day, the sun rises at 6:41 AM and sets at 6:54 PM. Incremental shadows from the proposed building would begin entering Post Office Park at approximately 11:00 AM and would exit by 12:45 PM. At 11:00 AM, a small incremental shadow would appear along the park's southern lot line adjacent to Exchange Street. By 12:00 PM, the shadow shifts eastward, allowing sunlight to reach most of the park, with remaining shadow limited to areas near the easterly property line by Middle Street. By 1:00 PM, the incremental shadow fully exits the park, restoring full sunlight across the space.

In conclusion, the incremental shadow from the proposed building would cover only a small portion of the park, and the majority of the space would continue to receive direct sunlight during this relatively short period. Given the limited extent and brief duration of the shadow on this analysis day, the incremental impact is not considered significant.

On the December 21st analysis day, the sun rises at 7:11 AM and sets at 4:07 PM. Incremental shadows from the proposed building would begin entering Post Office Park at approximately 10:00 AM and would exit by 12:45 PM. At 11:00 AM, an incremental shadow would appear for half of the park. By 12:00 PM, the shadow shifts eastward, allowing sunlight to reach most of the park, with remaining shadow limited to areas near the easterly property line by Middle Street. By 1:00 PM, the incremental shadow fully exits the park, restoring full sunlight across the space.

In conclusion, the incremental shadow from the proposed building would extend over a portion of the park, and the majority of the space would continue to receive direct sunlight during this relatively short period. Given the limited extent and duration of the shadow on this analysis day, and the fact that December falls outside the growing season, the incremental impact is not considered significant.

### Tommy's Park

Incremental shadows would reach Tommy's Park on the March 21st and December 21st analysis day. No incremental shadows from the proposed building would reach Tommy's Park on other analysis days (May 6 or June 21).

On the March 21st analysis day, the sun rises at 6:41 AM and sets at 6:54 PM. Incremental shadows from the proposed building would begin entering Tommy's Park at approximately 10:00 AM and would cover approximately 97% of the park. Incremental shadows would exit the park eastward by 12:00 PM

On the December 21st analysis day, the sun rises at 7:11 AM and sets at 4:07 PM. Approximately 93% of Tommy's Park is covered by existing shadows at 10AM, with the proposed development creating 100% shadow coverage at 10AM. Tommy's Park is 95-100% covered by existing shadows between 12PM and 2PM.

In conclusion, the incremental shadow from the proposed building would extend over a portion of the park, and the majority of the space would be shaded during relatively short periods of time on the March 21st and December 21st analysis dates. Given the duration of the shadow on this analysis day, and the fact that March and December fall outside the growing season, the incremental impact is not considered significant.

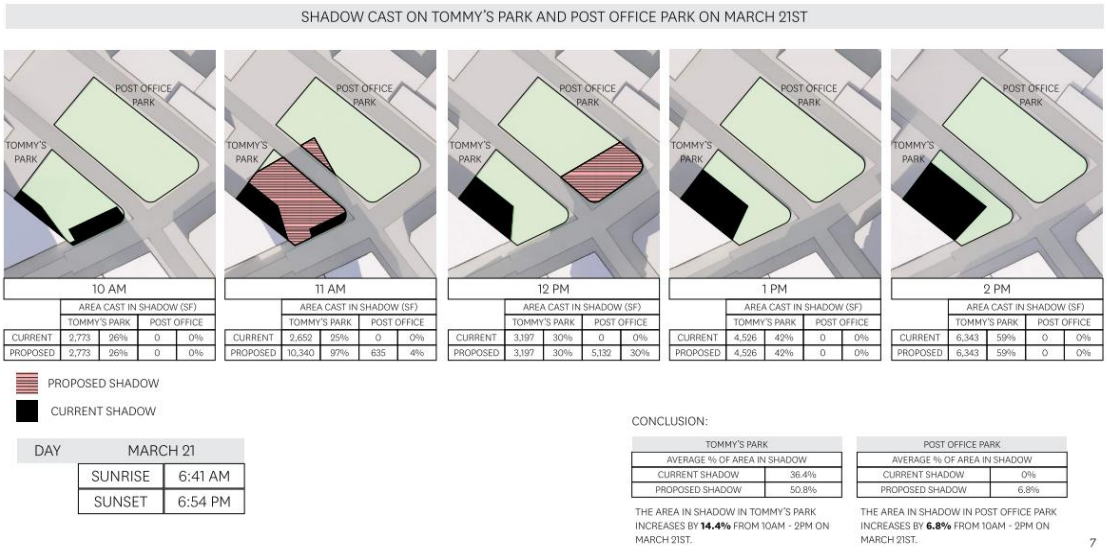



*Figure 2: Shadow Impacts on Tommy's Park and Post Office Park on March 21st.*

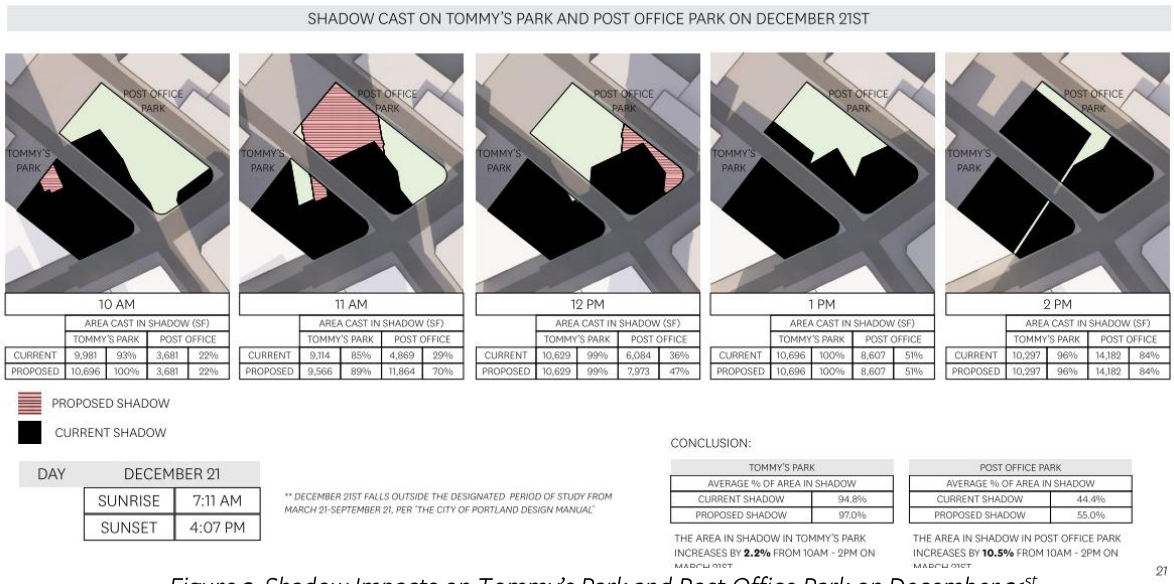



*Figure 3: Shadow Impacts on Tommy's Park and Post Office Park on December 21st.*

## Lobsterman Park

Incremental shadows would reach Lobsterman Park on the May 6 analysis day. No incremental shadows from the proposed building would reach Lobsterman Park on other analysis days.
On the May 6 analysis day, the sun rises at 5:26 AM and sets at 7:49 PM. Incremental shadows from the proposed building would begin entering the eastern portion of Lobsterman Park at approximately 9AM and would exit by 9:30 AM. On the June 21 analysis day, shadow impacts would be limited to the far edge of Lobsterman Park along Exchange Street, with shadows lasting from approximately 9AM to 9:15 AM.

In conclusion, the incremental shadow from the proposed building would extend over a portion of Lobsterman Park for limited durations on the May 6 analysis date. This incremental impact is not considered
significant.

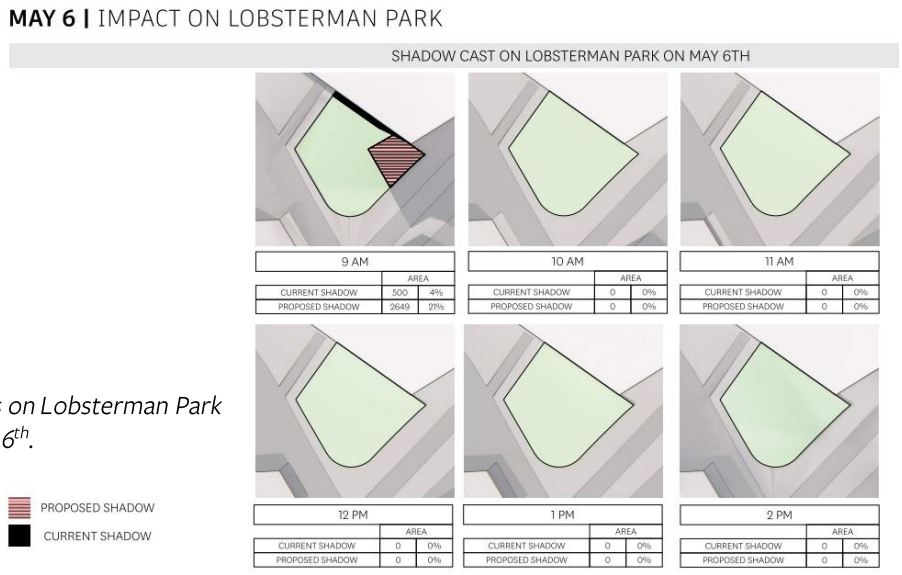



*Figure 4: Shadow Impacts on Lobsterman Park on May 6th.*

## IV. EXISTING CONDITIONS AND SURROUNDING AREA

The existing site is located in the Old Port Neighborhood, in the interior of the block bounded by Union, Middle, Exchange and Fore Streets. The site currently features a 33-space surface parking lot located between the Fore Street parking garage and a 10-story office building at 200 Middle Street that is associated with Old Port Square, formerly known as One Canal Plaza. The parking lot is accessed via a drive aisle from Union Street. The site also features concrete sidewalks, providing a mid-block pedestrian access from Exchange Street. A stairwell connects the site to the Old Port Square courtyard on Middle Street. The surrounding neighborhood is within the heart of Portland's downtown core and features a wide range of uses, including commercial office, retail, restaurants, bars, hotels, theaters & performance halls, as well as residential units. Old Port Square, is comprised of four-buildings including 190 Middle Street, a seven-story office building, 200 Middle Street, a 10-story office building, that recently underwent significant renovation intended to activated the ground-floors of the building with more active uses, 220 Middle Street, a five-story office building, and 210 Middle Street, a small free-standing 1,350-square-foot structure located within the middle of Old Port Square. To the east is the Old Port Square Garage, a four-story structure with ground-level commercial space, and the Hyatt Place Portland Downtown–Old Port. Constructed in 2012 and opened in 2014, the hotel is located on an approximately 19,000-square-foot lot that was formerly a surface parking lot, and includes 130 rooms along with ground-level restaurant space.




*Figure 5: The Existing Site.*

## V. PROPOSED DEVELOPMENT

### A. Site Plan

The proposed development involves the construction of a 30-story, 365-foot mixed-use tower with 73 residential units, 88 hotel rooms, retail, restaurant and amenity space. The proposed tower would feature approximately 200,000 square feet of gross floor area with an average floorplate of 6,600 square feet.

The site would be accessed via a 24-foot drive aisle connected to Union Street via an existing curb cut between the Central Maine Power Substation and the 200 Middle Street office building. The drive aisle would terminate in a one-way motor court, allowing for hotel valet pick-up and drop-off. The drive aisle and motor court would be paved with granite pavers. A new 13-foot sidewalk would extend along the northern edge of the drive aisle along the frontage of the 200 Middle Street office building. This sidewalk would feature 10 new tree plantings and be paved with brick.

The new tower would be surrounded by a public plaza connected to existing sidewalks on Exchange, Union and Fore Streets. This plaza would feature new tree plantings, perennial plantings and seating areas. Site grades would be modified to provide a flat pad for the building. Stairs and accessible ramps would connect upper and lower levels of the new public plaza.

The site will be served by a 6-inch domestic water service and two 8-inch fire service lines connecting to existing stubs on Union Street. Electrical service will extend to the site from Union Street via below-grade conduits.

B. Building Programing

The ground floor of the proposed building would feature separate lobbies for residential and hotel users fronting the motor court on the southern side of the building. The two lobbies would have shared access to a central elevator landing. A proposed café space would front the pedestrian courtyard on the northern side of the building. The ground floor would also house service entrances, luggage storage and a mail room.

Levels two through 10 would feature hotel rooms, with eight to 10 rooms per level.

Levels 11 and 12 would be dedicated to mechanical and service space and would not be accessible to residents or hotel guests.

Level 13 would feature a “wellness level ” with a pool, fitness center and other amenity space for the 73 residential units.

Levels 14-28 would be dedicated to residential use, with 26 two-bedroom units and 47 one-bedroom units.

The top two levels of the building would feature a restaurant, publicly-accessible observation area, hotel reception area and lounge within the building’s 40-foot architectural cap.

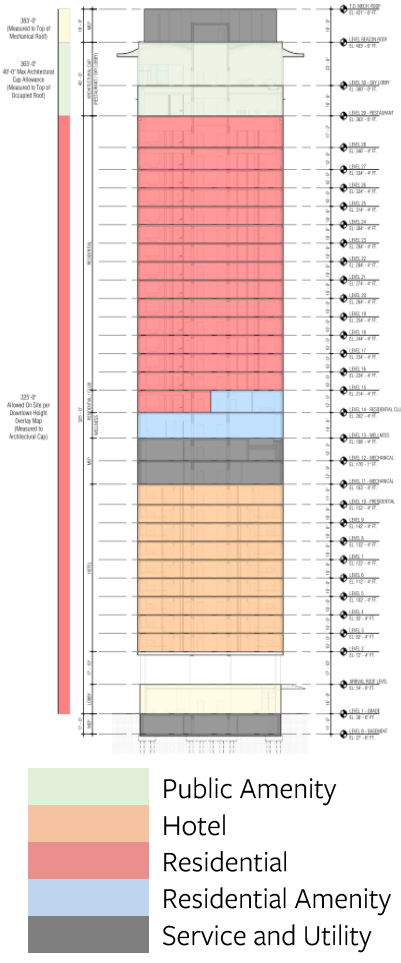



*Figure 6: Building Programing.*

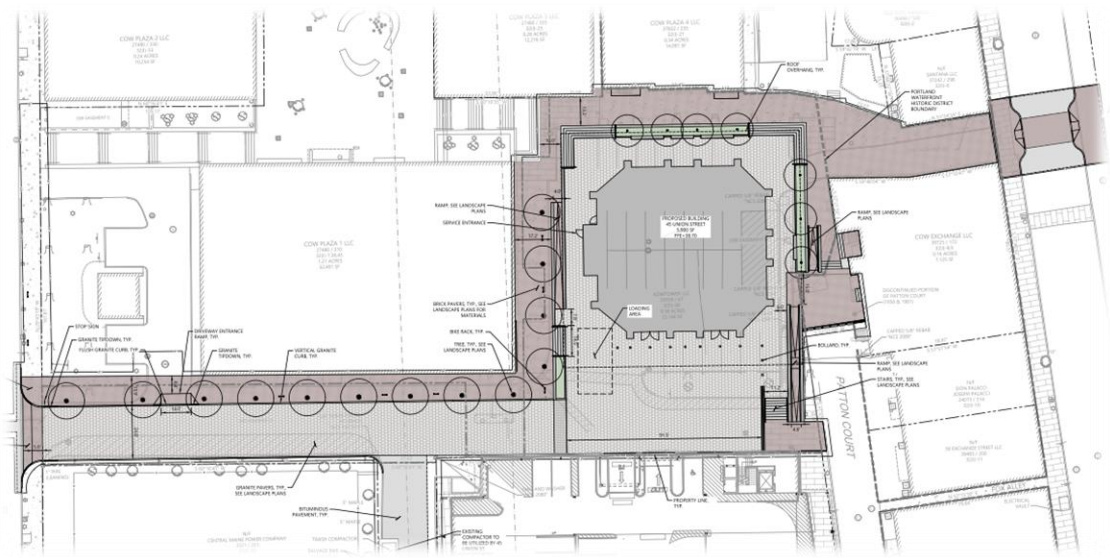



*Figure 7: Overall Site Plan.*

## VI. SITE PLAN STANDARDS (Section 13.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 13.6. Staff comments are below.

1. Transportation Standards (Section 13.6.1)

   A. Impact on surrounding street systems

   Vehicular access to the site will be provided via a 24-foot two-way driveway connecting to Union Street at the same location as an existing curb cut, which has historically served the parking garage and surface parking area. Union Street has a 45-foot-wide right-of-way with metered parking on both sides. The proposed drive aisle would be paved with granite pavers and terminate at a motor court with a one-way loop to allow for drop-off and valet operations. Valet movements would be accommodated entirely on-site, with hotel guest and resident vehicles accessing the Fore Street garage directly from the motor court. Loading and servicing for the proposed building would occur within a designated portion of the motor court and would not impact public rights-of-way. The applicant has provided vehicle turning templates detailing turning maneuvers for a variety of different vehicle types within the motor court area.

   The applicant has provided sections one through six of their Traffic Movement Permit (TMP) application. The City of Portland has delegated review authority for this traffic movement permit. A TMP scoping meeting was held on October 14, 2025, facilitated by Tom Errico, third-party traffic consultant for the City of Portland, and attended by the Department of Planning & Urban Development staff, Department of Public Works staff and the applicant team.

   As detailed in section one of the TMP application, this project is anticipated to generate 84 vehicle

trips during the AM peak hour and 181 trips during the PM peak hour on weekdays, with 235 vehicle trips anticipated during the Saturday peak hour.

During the scoping meeting, the intersections of Union Street at both Fore and Middle Streets were identified as an area of further study. Staff directed the applicant to conduct additional counts for both vehicles and pedestrians at both intersections to determine if alterations to rights-of way, curb lines, crosswalks or signals may be warranted.

A full section 7 TMP study will be finalized in coming weeks. Recommendations for off-site mitigation will be determined by Staff and Peer-reviewers following the submission of the section 7 report.

| Table 1.8<br>ITE Trip Generation Summary | | | |
|---|---|---|---|
| **Time Period** | **Total Trips Generated** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 84 | 26 | 33 |
| PM Weekday Peak Hour (Street) | 181 | 76 | 52 |
| AM Weekday Peak Hour (Generator) | 124 | 53 | 45 |
| PM Weekday Peak Hour (Generator) | 218 | 93 | 68 |
| Saturday Peak Hour | 235 | 109 | 70 |

*Figure 8: Estimated Trip Generation.*

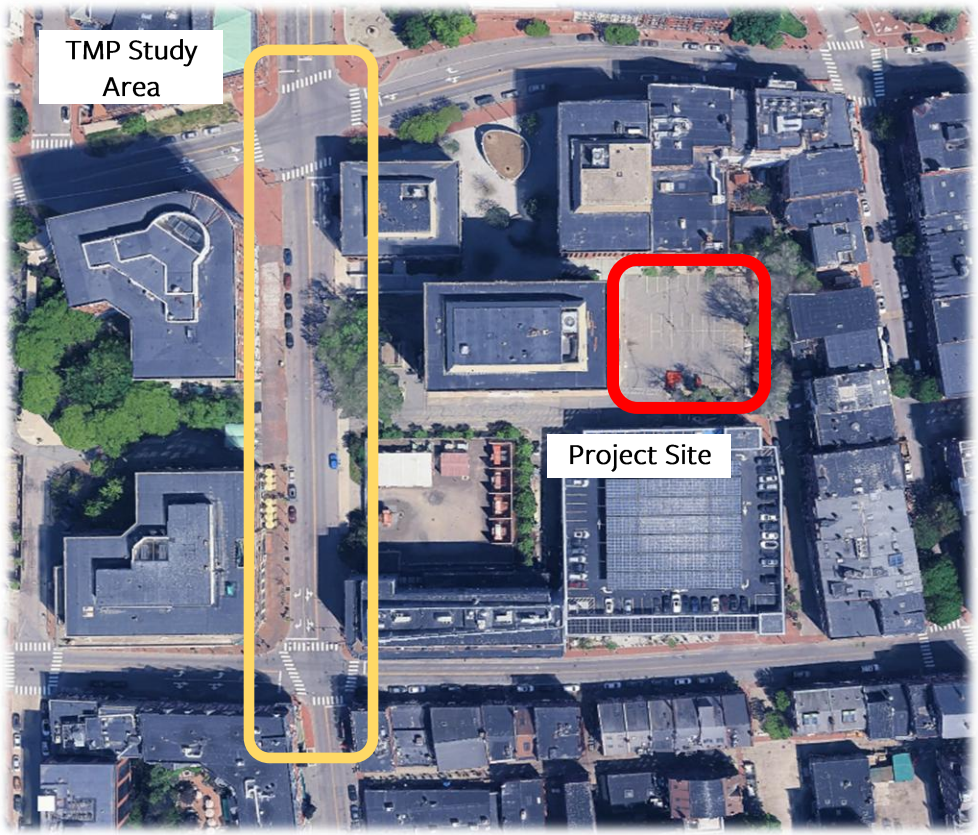



*Figure 9: TMP Scope.*

B. Access and circulation

Pedestrian access to the site is provided via a new ADA-compliant curbed sidewalk from Union Street. ADA compliant ramps would provide pedestrian access to the site from Fore Street/Patton Court. Continuous internal circulation is provided with connections to existing public sidewalks on Exchange, Fore and Union Streets. All new sidewalks and internal walkways will be paved using brick.

Additional pedestrian connectivity to Middle Street is provided with a stairway leading to the Canal Plaza courtyard. These access routes provide interconnection with a new centralized pedestrian plaza which would wrap around the ground level of the building. This courtyard will feature landscaping and publicly accessible seating. A new mid-block pedestrian crossing on Exchange Street. The new crosswalk would be paved with brick and would align with the sites pedestrian entrance. Two new curb extensions with ADA-accessible tipdowns would be installed on either side of Exchange Street

Finding of Fact: Based on the submitted application materials and the description presented above, the proposed project provides adequate access and circulation to and from the site, and this standard is determined to be met. Pedestrians and cyclists will have multiple points of access, including connections from Canal Plaza, Patton Court, the pedestrian pathways linking Fore Street and Exchange Street, and a newly constructed sidewalk extending into the site from Union Street. Additionally, the applicant will install a new crosswalk across Exchange Street to enhance the pedestrian experience, providing a safer, more direct connection and improved visibility into the site from Exchange Street. Vehicular access will be provided via the existing driveway on Union Street, which has historically served the surface parking lot and the Fore Street parking garage.




*Figure 10: Overall Site Access and Circulation.*

C. Public transit access

Developments of 20 or more residential units are required to provide a transit shelter if there are no existing transit shelters within a quarter mile of the proposed development. There are existing transit shelters within a quarter mile of the site at the intersection of Congress and Temple Streets, therefore this standard does not apply to this application.

Finding of Fact: Not applicable.

D. Parking

The proposed project is located within the B-3 Downtown Business zone and there are no minimum parking requirements associated with this application. As outlined in section one of the applicant's TMP, this development is anticipated to generate demand for approximately 290-310 parking spaces per day for all uses within the building. The applicant intends to accommodate hotel and residential parking within the adjacent 423-space Fore Street Garage, which is owned by the applicant. Residential parking within the Fore Street garage will be offered to building residents on an as-requested basis. No off-site parking is proposed as part of this application.

As outlined in Table 18-A of the Land Use Code, this application is required to provide one bicycle parking space per two dwelling units (36 spaces). An additional six bicycle parking spaces are required based on the combined floor area of the building's amenity spaces. Additionally, at least 10% of the required bicycle parking must be within 50 feet of the building's primary entrance.

This application proposes outdoor parking for up to 60 bicycles, with 12 bicycle spaces located on-site within the public plaza and 48 bicycle spaces within public rights-of-way on Patton Court, Union, Middle and Exchange Streets. Proposed locations of bicycle racks are detailed in attachment 11.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

E. Transportation demand management (TDM)

The proposed mixed-use building is over 50,000 square feet of floor area and is required to provide a Transportation Demand Management (TDM) plan. The applicant has provided a draft TDM plan which outlines trip reduction strategies including:

- Providing new residents with credit on the "DiroGo" app to use transit services.
- Detaching parking spaces from residential units. Residential parking will be provided on an as-requested basis.
- Promoting telecommuting for residents by providing a residential club area for coworking
- Incentive credits for hotel guests to complete a TDM survey.

Staff have provided comments recommending the applicant provide additional clarity and detail regarding targeted mode share, explore additional trip reduction strategies and altering monitoring practices.

The draft TDM plan is included as attachment Q.

## I. NEXT STEPS

Collect feedback from the Board and public, and proceed to schedule and hold the public hearing.

## ATTACHMENTS

### Public Comment

PC 1-6

### Report Attachments

S1. September Site Plan Worksheet
S2. September Design Review Memo
S3. Planning Staff TDM Comments

### Applicants Submittal

A. Project Summary
B. Applicant Response to Staff Comments
C. Applicant Response to Design Review
D. Permitting and Zoning
E. Site Plan Data Sheet
F. Site Plan Standards
G. Financial Capacity Memo
H. Property Deeds
I. Reciprocal Easement Agreements
J. Fire & Life Safety Strategy Narrative
K. Waste Management Operations Summary
L. Wind Impact Study
M. Shadow Study
N. Construction Management Plan
O. LID Scoring Tool
P. Bird Friendly Design Narrative
Q. TDM Plan
R. TMP (Sections 1-6)

### Plans

1. Cover sheet
2. General Notes, Legend & Abbreviations
3. Existing Conditions
4. Boundary Survey
6. Civil Site Details
5. Civil Site Plan
7. Landscape Plan
8. Landscape Site Details
9. Erosion Control Plan
10. Utility Plan
11. Bike Rack Locations
12. Turning Templates

13. Overall Elevations
14. Building Program + Calculations
15. Overall Building Sections
16. Floorplans
17. Rendered Perspective Views

Att. S1

## General Comments

### Technical Manual Section 14.2

| | | | |
|---|---|---|---|
| *Boundary Survey* | 14.2.1.29<br>*Property Corners: Location and descriptions of all property corners set or found, proposed to be set, and all granite survey monuments set. Where no property markers exist, the City of Portland requires that the property markers be installed and that a licensed surveyor set and confirm proposed building locations on site prior to the issuance of a building permit;* | • No proposed property markers shown to be set. | More Information Required |
| | 14.2.1.36<br>*Street Status. The Status of the street shall be shown; IE Accepted City Street, Continued Paper Street, Discontinued City Street, Vacated Paper Street, or new Proposed Street as per the project submission* | • The street status is not listed for the abutting streets, alleys, courts, and ways | |

## Site Plan Review Standards (Sec. 13.6)

### Transportation Standards (Sec. 13.6.1)

| ***Standard*** | ***Standard*** | ***How the standard is being met*** | ***Finding*** |
|---|---|---|---|
| *Impact on Surrounding Street Systems* | 13.6.1.A.1 The provisions for vehicular loading and unloading, parking, and vehicular and pedestrian circulation on the site and onto adjacent public streets and ways and the incremental volume of vehicular, bicycle, pedestrian, and transit traffic will not:<br>1. Create or aggravate any significant hazard to safety on the surrounding street network. | Vehicular access to the site will be provided via a 24-foot drive aisle connecting to Union Street at the same location as an existing curb cut. The drive aisle would be paved with granite pavers and terminate at a motor court with a one-way loop to allow for drop-off and valet operations. No alterations to on-street parking are proposed<br><br>What still needs to be addressed:<br><br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.1.A.2 The provisions for vehicular loading and unloading, parking, and vehicular and pedestrian circulation on the site and onto adjacent public streets and ways and the incremental volume of vehicular, bicycle, pedestrian, and transit traffic will not:<br>2. Substantially increase congestion on any street without mitigation proportionate to the level of impact. | A traffic Movement Permit (TMP) will be required for this project. The applicant is preparing a scoping document and traffic impact study.<br><br>What still needs to be addressed:<br>• The applicant shall provide turning templates for an articulated truck with a 30' trailer.<br>• Vehicle turning templates shall be provided for valet vehicles entering the Fore Street garage.<br>• The applicant shall provide a hotel valet operations plan. This plan should anticipate vehicle queuing and movement within the site and on surrounding streets. | More Information Needed |

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| *Access and Circulation* | 13.6.1.B.1.a ***In General*** All development subject to this article shall provide safe and reasonable access and internal circulation for all users of the site and shall comply with the transportation systems and street design standards of the Technical Manual. | Pedestrian access to the site is provided via a new ADA-compliant walkway from Union Street. ADA compliant ramps will provide pedestrian access to the site from Fore Street/Patton Court. An existing sidewalk to Exchange Street will be widened to provide pedestrian-only access to the site from Exchange Street. Within the site, a pedestrian courtyard will wrap around the ground level of the building. This courtyard will feature landscaping and publicly accessible seating.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard. | Met |
| | 13.6.1.B.1.b ***In General*** Shared circulation, parking, and transportation infrastructure shall be provided to the extent practicable, with utilization of joint curb cuts, walkways, service alleys, bus pull-out areas, and related infrastructure shared with abutting lots and roadways. Easements for access for abutting properties and shared internal access points at property lines shall be provided where possible to facilitate present or future sharing of access and infrastructure. | The drive aisle will be connected to Union Street via an existing curb cut. Pedestrian infrastructure will be shared with surrounding properties.<br>**What still needs to be addressed:**<br>• The applicant shall provide access easements to enable abutting properties to access shared open space and sidewalks. | More Information Needed |
| | 13.6.1.B.1.c ***In General*** Continuous internal walkways shall be provided between existing or planned public sidewalks adjacent to the site, transit stops and street crossings, and building entrances on the site. | Continuous internal circulation is provided with connections to existing public sidewalks on Exchange, Fore and Union Streets. Additional pedestrian connectivity to Middle Street is provided with a stairway leading to the Canal Plaza courtyard.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.1.B.1.d ***In General*** Where the site abuts or includes an existing or planned publicly accessible trail, a connection to or integration of such trail shall be provided to the extent practicable, including rights of public access. | Not applicable. This application does not have access to a trail.<br>**What still needs to be addressed:** | N/A |
| | 13.6.1.B.1.e ***In General*** Points of access and egress shall be located to avoid conflicts with turning movements and traffic flows. | The applicant has provided vehicle turning templates defining paths of travel for various vehicle types.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.1.B.2.a ***Curb and sidewalks*** All development shall provide curb and sidewalks along all frontages, installed to specifications as described in the | New curbed sidewalk will be installed on the northern side of the drive aisle connecting Union Street to the pedestrian plaza. | Met |

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| | transportation systems and street design standards of the Technical Manual. | What still needs to be addressed:<br>Staff are not requesting any additional information related to this standard | |
| | 13.6.1.B.2.b *Curb and sidewalks* Where sidewalks already exist but are in substandard condition, they shall be repaired or replaced in conformance with Chapter 25 of the City of Portland Code of Ordinances and the transportation systems and street design standards of the Technical Manual. | The applicant proposes to reconstruct a portion of sidewalk on Exchange Street. All other sidewalks will be privately owned and will be built to City Standards by using the same bricks are are used throughout the Old Port.<br>What still needs to be addressed:<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.1.B.2.c *Curb and sidewalks* An applicant may request a waiver from sidewalk installation requirements if they meet two or more applicable waiver criteria as listed below:<br>i. There is no reasonable expectation for pedestrian usage coming from, going to, and traversing the site.<br>ii. There is no sidewalk in existence or expected within 1000 feet and the construction of sidewalks does not contribute to the development of pedestrian-oriented infrastructure.<br>iii. A safe alternative walking route is reasonably available, for example, by way of a sidewalk on the other side of the street that is lightly traveled.<br>iv. The reconstruction of the street is specifically identified and approved in the first or second year of the current Capital Improvement Program (CIP) or has been funded through an earlier CIP or through other sources.<br>v. The street has been constructed or reconstructed without sidewalks within the last 24 months.<br>vi. Strict adherence to the sidewalk requirement would result in the loss of significant site features related to landscaping or topography that are deemed to be of a greater public value. | Not applicable. The applicant is not requesting a waiver from sidewalk installation requirements.<br>What still needs to be addressed: | N.A |
| | 13.6.1.B.2.d *Curb and sidewalks* An applicant may request a waiver from curb installation requirements if | Not applicable. The applicant is not requesting a waiver from sidewalk installation requirements | n/A |

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| | they meet two or more applicable waiver criteria as listed below:<br>i. The cost to construct the curbing, including any applicable street opening fees, is in excess of 5% of the overall project cost.<br>ii. The reconstruction of the street is specifically identified and approved in the first or second year of the current CIP or has been funded through an earlier CIP or through other sources.<br>iii. The street has been rehabilitated without curbing in the last 60 months and the proposed use and design of the site does not necessitate the installation of curbing.<br>iv. Strict adherence to the curb requirement would result in the loss of significant site features related to landscaping or topography that are deemed to be of a greater public value.<br>v. Runoff from the development site or within the street does not require curbing for stormwater management. | What still needs to be addressed: | |
| *Public Transit Access* | 13.6.1.C.1 All residential development consisting of 20 or more dwelling units and all commercial and institutional developments of at least 20,000 square feet gross floor area shall provide a transit shelter adjacent to or within the public right-of-way along its frontage, or at a nearby high-volume transit stop without a transit shelter, when the following criteria are met:<br>A. The development is proposed along an existing public transit route on a principal or minor arterial roadway, as shown in the Federal Street Classification Map.<br>B. The nearest existing transit shelter on the route is more than ¼ mile from the site, measured along rights-of-way. | There are two existing transit shelters within ¼ mile of the site. No transit shelters or transit improvements are proposed.<br>What still needs to be addressed:<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.1.C.2 Transit facilities shall be connected to the public sidewalk system. | Not applicable to this application.<br>What still needs to be addressed: | N/A |
| | 13.6.1.C.3 All or some of this standard may be waived if the review authority determines that the development is not anticipated to generate public transit usage due to particular characteristics of the development or proposed use. | Not applicable to this application.<br>What still needs to be addressed: | N/A |
| Parking | 13.6.1.D.1.a ***Vehicular parking*** Developments shall comply with the parking standards of Article 18. | No on-site parking is proposed as part of this application. Parking for residents and hotel valet will be provided in the adjacent Fore Street garage, which is owned by the applicant. The garage has controlled access directly from the proposed drive aisle.<br>What still needs to be addressed: | More Information Needed |

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| | | • The applicant shall provide additional information on the current and projected capacity of the Fore Street garage, including the number of spaces to be allocated for residents, hotel guests, and other non-building-related uses. | |
| | 13.6.1.D.1.b ***Vehicular parking*** Where provided, parking spaces and aisles shall not be located in front and corner side yards, unless the applicant can demonstrate that site constraints preclude the location of parking elsewhere on the site. | No on-site parking is proposed as part of this application.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.1.D.1.c ***Vehicular parking*** Where provided, parking spaces and aisles shall meet applicable dimensional standards as detailed in the transportation systems and street design standards of the Technical Manual. | No on-site parking is proposed as part of this application.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.1.D.2.a ***Bicycle parking*** All development shall provide secure bicycle parking in accordance with the parking requirements of Article 18 and the transportation systems and street design standards of the Technical Manual. | Based on the current programming of 73 residential units, 37 bicycle parking spaces are required. An additional 6 bicycle totals approximately 8,200 square feetfor all restaurant and retail spaced. This brings the total anticipated bicycle parking spaces required for the project to 43 spaces.<br><br>The applicant intends to provide bicycle parking for all 43 required spaces in outdoor spaces on the site and on adjacent commonly owned properties. Final locations of bicycle parking spaces are to be determined based upon further coordination with the City<br>**What still needs to be addressed:**<br>• The applicant shall detail on a site plan the locations and types of bicycle parking to be provided both on-site and within the garage. | Met |
| | 13.6.1.D.2.b ***Bicycle parking*** The review authority may reduce the required number of bicycle parking spaces if it is determined, based on evidence submitted by the applicant, that the proposed development is expected to generate reduced demand for bicycle parking due to particular site characteristics or proposed uses. | Not applicable to this application. The applicant intends to provide all required bicycle parking<br>**What still needs to be addressed:** | N/A |
| | 13.6.1.D.3.a ***Snow storage*** All developments shall include areas for snow storage or provide an acceptable snow removal plan. | Snow removal on-site will be managed using a snow melter. Accumulated snow from driveways, walkways, and other paved surfaces will be collected and transported to a designated snow melting area an adjacent commonly owned. The snow melter will rapidly convert snow to water, which will then be directed to the site drainage system | Met |

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| | | in accordance with applicable stormwater management requirements.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | |
| | 13.6.1.D.3.b ***Snow storage*** Snow storage areas may not encroach on adjacent properties, public ways, and pedestrian walkways, and shall not be located where they would adversely impact the functionality of stormwater management systems. | Snow will be collected and directed to the snow-melter system.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.1.D.3.c ***Snow storage*** Landscaping in designated snow storage areas shall be such that it can withstand the snow pile. | The applicant has detailed snow storage and collection locations on the site plan. These areas do not impact landscaping<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | |
| | 13.6.1.D.4 ***Electric vehicle (EV) charging*** All development shall meet applicable EV standards as provided in Section 1 of the Technical Manual. | N/A<br>**What still needs to be addressed:** | N/A |
| *Transportation Demand Management* | 13.6.1.E.1 The following types of development shall design and implement a Transportation Demand Management (TDM) plan:<br>A. All commercial, institutional, or mixed-use developments of 50,000 square feet or more in total floor area.<br>B. All commercial or institutional uses designed to accommodate 100 or more employees or, for educational institutions, 100 or more students. | The applicant has provided a draft Transportation Demand Management (TDM) Plan.<br>**What still needs to be addressed:**<br>See TDM comments below | More Information Required |
| | 13.6.1.E.2 The TDM Plan shall comply with the standards for transportation studies and plans as contained in the Technical Manual. | The draft TDM plan includes trip generation estimates for residential, hotel and restaurant uses. The TDM plan also outlines strategies for reducing trip demand. A TDM coordinator will oversee implementation of identified TDM strategies.<br>**What still needs to be addressed:**<br>• Peer Reviewers have reviewed the TDM Plan and offer the following comments as it relates to the trip generation estimate, which is included:<br>• LUC 222 Multi-Family Housing (High-Rise). The sample size for this land use code is small and further review is needed to determine appropriateness.<br>• LUC 931 Fine Dining. Reviewers find the use of this land use code to be acceptable.<br>• LUC 930 Fast Casual Restaurant. The applicant should provide additional | More Information Required |

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| | | information in the support of using this land use code.<br>• With that said the Saturday ITE data is limited. Reviewers find the use of PM ITE data to be acceptable | |
| Environmental Quality Standards (Sec. 13.6.2) | | | |
| *Standard* | *Standard* | *How the standard is being met* | *Finding* |
| *Preservation of Significant Natural Features* | 13.6.2.A.1 All development shall preserve and protect significant natural features by incorporating the principles of Low-Impact Development (LID) in accordance with the LID standards of the Technical Manual. | The applicant has provided a LID scorecard, receiving a score of 81 out of a possible 178 points.<br>**What still needs to be addressed:**<br>• Add a note to the landscaping planting plan that native vegetation must be used for all plantings and that only local sourced landscape materials are to be used.<br>• Please provide a written narrative to justify selections in the following point categories: Providing transportation alternatives and Innovative LID site design and/or stormwater management. Note: The points in this category are intended for cutting-edge treatment systems that may not have DEP approval but which show promise in research and development from trusted and unbiased research partners such as the UNH Stormwater Center. Based on the preliminary review we don't find that the subsurface sand-filter/R-tank detention systems meet the intent of this bonus point category | More information Required |
| | 13.6.2.A.2 Where complete preservation of significant natural features substantially compromises development of the site as otherwise permitted by zoning, the review authority may reduce the requirement in accordance with the LID standards of the Technical Manual provided that the applicant implements preservation measures to the extent practicable and demonstrates compliance with applicable state and federal regulations. | Not applicable to this application.<br>**What still needs to be addressed:** | N/A |
| | 13.6.2.A.3 The site plan shall include adequate measures to protect significant natural features to be preserved from construction impacts, in accordance with the LID standards of the Technical Manual. | There are no significant natural features on this site. The current site is 100% impervious.<br>**What still needs to be addressed:** | Met |
| *Site Plan* | 13.6.2.B.1.a ***On-site landscaping*** All development subject to this article shall provide a minimum of one | 20 new shade tree plantings are proposed within the pedestrian courtyard and lining the | Met |

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| | shade tree consisting of species identified on the City of Portland Recommended Tree list or six plantings, defined as one shrub, one ornamental grass, and/or three perennials, per 5,000 square feet of lot area in accordance with the landscaping standards of the Technical Manual. | walkway to Union Street. This exceeds planting requirements for the 26,000 SF lot. Proposed plantings meet technical manual standards<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | |
| | 13.6.2.B.1.b *On-site landscaping* Existing vegetation to be preserved on the site may be counted towards this requirement as described in the landscaping and landscape preservation standards of the Technical Manual. | No existing on-site vegetation is proposed to remain.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.2.B.1.c *On-site landscaping* Where site constraints prevent the planting of required shade trees or plantings at the development site, the reviewing authority may approve an alternative as described in the landscaping standards of the Technical Manual. | Not applicable to this application.<br>**What still needs to be addressed:** | N/A |
| | 13.6.2.B.2.a *Buffers and screening* Loading and servicing areas, trash and recycling areas, storage areas, and roof- and ground-mounted utility structures, except for renewable energy systems, shall be screened from view from public sidewalks, streets and adjacent properties by dense evergreen and deciduous landscaping, fencing, architectural screening products, masonry walls, building walls, or a combination thereof. | Loading and servicing will take place within a designated portion of the motor court. This area will not be immediately visible from public rights of way.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.2.B.2.b *Buffers and screening* Where immediately visible from the right-of-way, surface parking areas shall be screened with dense evergreen and deciduous landscaping, fencing, or masonry wall in accordance with the landscaping standards of the Technical Manual. | Not applicable to this application. No on-site parking areas are proposed.<br>**What still needs to be addressed:** | N/A |
| | 13.6.2.B.2.c *Buffers and screening* For nonresidential development abutting a residential zone, an evergreen, densely landscaped buffer of not less than 10 feet in depth and six feet tall is required along the side abutting the residential zone. In cases where architectural fencing is used, the depth of the landscaped buffer may be reduced, so long as the fencing is at least six feet in height and a mix of evergreen and deciduous trees spaced no further than 20 feet apart is planted abutting the residential zone. | Not applicable to this application.<br>**What still needs to be addressed:** | N/A |
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| | 13.6.2.B.2.d ***Buffers and screening*** All residential development shall provide and/or preserve evergreen vegetated buffers where necessary to buffer the development from detrimental impacts of existing surrounding development. | What still needs to be addressed: | |
| | 13.6.2.B.3.a ***Parking and vehicle display lot landscaping*** Developments with more than five parking spaces shall include at least one tree for every 750 square feet of uncovered asphalt parking area (including drive aisles), planted in landscaped islands to screen, shade, and break up parking. Trees and shrubs in parking lots may be in informal groups, straight rows, or concentrated in clusters as described in the landscaping standards of the Technical Manual. | Not applicable to this application. No on-site surface parking is proposed.<br>What still needs to be addressed: | N/A |
| | 13.6.2.B.3.b ***Parking and vehicle display lot landscaping*** Landscaped islands shall be distributed so that uninterrupted pavement does not exceed forty parking spaces. | Not applicable to this application. No on-site parking is proposed<br>What still needs to be addressed: | Met |
| | 13.6.2.B.3.c ***Parking and vehicle display lot landscaping*** Where site constraints prevent implementation of all or a portion of required parking lot landscaping, as determined by the review authority, the reviewing authority may approve an alternative as described in the landscaping standards of the Technical Manual. | Not applicable to this application<br>What still needs to be addressed: | N/A |
| | 13.6.2.B.4 ***Non-vehicular hardscape*** All uncovered paving for non-vehicular use, including pathways and patios, must either have a minimum Solar Reflective Index (SRI) of 33 initially and 28 once aged three years or include one tree for every 750 square feet of asphalt paving. | All pedestrian areas are proposed to be paved with brick to extend the sidewalk material of the Old Port into the site. The drive aisle will be paved with granite pavers.<br>What still needs to be addressed:<br>• The applicant shall provide details regarding the solar reflectivity of proposed hardscaped surfaces. | More information needed |
| | 13.6.2.B.5.a ***Street trees*** All development shall include one street tree per 25-35 linear feet of frontage along a city right-of-way or private roadway as specified in the landscaping standards of the Technical Manual. The provision of measures to enhance tree survival (such as raised planters, irrigation, and structural soils as recommended by the City Arborist) shall be required. | The Union and Exchange Street frontages would each feature one street tree.<br>What still needs to be addressed:<br>• Staff recommends removing the proposed street tree within the Exchange Street walkway.<br>• Staff encourage the applicant to either identify another on-site location or coordinate with City staff to explore potential off-site planting opportunities along Exchange or Union Streets. | More Information Needed |
| | | Not applicable to this application | More |

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| | 13.6.2.B.5.b ***Street trees*** Where the applicant can demonstrate that site constraints prevent the planting of required street trees in the city right-of-way, the review authority may permit an alternative subject to the landscaping standards of the Technical Manual. | **What still needs to be addressed:**<br><br>See above comment exploring off-site planting opportunities along Exchange or Union Streets. | |
| | 13.6.2.B.5.c ***Street trees*** Where the proposed development includes the removal of an existing street tree determined by the City Arborist to be a heritage or feature mature tree, the applicant shall be required to contribute to the Tree Fund at the designated rate in the Technical Manual so that the total replacement cost is significantly higher than planting a new street tree/contributing for a new street tree. | Not applicable to this application. No existing street trees are proposed to be removed.<br>**What still needs to be addressed:** | N/A |
| *Water Quality, Stormwater Management and Erosion Control* | 13.6.2.C.1.a All development shall be designed to minimize total area of impervious surface on the site and both the volume and rate of runoff from the lot. Provisions for stormwater management shall demonstrate the following:<br>a) Any stormwater draining onto or across the lot in its pre-improvement state will not be impeded or redirected so as to create ponding on, or flooding of, adjacent lots. | The existing site is 100% impervious. The proposed development maintains the site's character as an urban infill lot.<br><br>The applicant has provided a stormwater management plan detailing drainage patterns and impacts to existing sewer and stormdrain infrastructure within Fore, Union and Exchange Streets.<br>**What still needs to be addressed:**<br><br>Stormwater review by a third-party is in progress. | More information Required |
| | 13.6.2.C.1.b All development shall be designed to minimize total area of impervious surface on the site and both the volume and rate of runoff from the lot. Provisions for stormwater management shall demonstrate the following:<br>b) Any increase in volume or rate of stormwater draining from the lot onto an adjacent lot or City property following the improvement can be handled on the adjacent lot or City property without creating ponding, flooding or other drainage problems and that the owner of the lot being improved has the legal right to increase the flow of stormwater onto the adjacent lot or City property. | The existing site is 100% impervious. The proposed development maintains the site's character as an urban infill lot.<br><br>The project is required to manage stormwater on the site in accordance with the applicable Maine Department of Environmental Protection (DEP) and City of Portland regulations. The project will disturb less than one acre and therefore will not require a DEP stormwater permit.<br><br>The applicant has provided a stormwater management plan detailing drainage patterns and impacts to existing sewer and stormdrain infrastructure within Fore, Union and Exchange Streets.<br>**What still needs to be addressed:**<br><br>Stormwater review by a third-party is in progress. | More Information Required |

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| | 13.6.2.C.1.c All development shall be designed to minimize total area of impervious surface on the site and both the volume and rate of runoff from the lot. Provisions for stormwater management shall demonstrate the following:<br>c) Any increase in volume or rate of stormwater draining from the lot into the City's storm sewer system can be accommodated in the system without creating downstream problems or exceeding the capacity of the storm sewer system. | Stormwater review by a third party is ongoing<br>**What still needs to be addressed:** | More Information Required |
| | 13.6.2.C.2 All development shall comply with the stormwater management standards of the Technical Manual. | The proposed project is required to comply with Section 5.2.4 of the City of Portland's Technical Manual.<br>**What still needs to be addressed:**<br>• DPW requests that both the sewer and storm drain connections for the project be brought out to Union Street, rather than tying into the internal sewer line that runs through the adjacent parking garage and ultimately connects to the Fore Street sewer. This request is being made due to the condition of the Fore Street sewer.<br>This request should be shown on an updated utility plan. | More information Required |
| | 13.6.2.C.3 Development shall not pose a risk of groundwater contamination either during or post-construction, as described in the stormwater management and water supply standards of the Technical Manual. | Stormwater review by a third party is ongoing<br>**What still needs to be addressed:**<br>Stormwater review by a third party is ongoing | More Information Required |
| | 13.6.2.C.4 Applicants shall demonstrate that subsurface and/or any adjacent slope conditions are suitable to support the development, and where determined necessary, shall prepare a geotechnical study to demonstrate that the development as designed will not adversely impact the development site or any abutting property. Soil surveys and/or geotechnical studies shall be prepared in accordance with the requirements of the Technical Manual. | The site has a slope with an average gradient of less than 1%. Planning Staff have not requested a geotechnical study as of 9/8/2025.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| Public Infrastructure and Community Safety Standards (Sec. 13.6.3) | | | |
| *Standard* | *Standard* | *How the standard is being met* | *Finding* |
| *Consistency with City Master Plans* | 13.6.3.A.1 All developments shall be designed so as to be consistent with City Council-approved master plans and facilities plans and with off-premises infrastructure. | The development is an allowed use within the B-3 zone.<br>**What still needs to be addressed:** | Met |

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| | | Staff are not requesting any additional information related to this standard | |
| | 13.6.3.A.2 The site plan shall include suitable easements, rights, and improvements to connect or continue off-premises public infrastructure as may be required by the review authority. | Reciprocal drainage easements have been identified in the provided boundary survey<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| *Public Safety and Fire Prevention* | 13.6.3.B.1.a All development shall incorporate the following public safety principles for Crime Prevention through Environmental Design (CPTED) into site design to enhance the security of public and private spaces and to reduce the potential for crime:<br>a) Natural surveillance that promotes visibility of public spaces and areas. | The shared open space will be surrounded by active uses which will promote public safety through site activation.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.3.B.1.b All development shall incorporate the following public safety principles for Crime Prevention through Environmental Design (CPTED) into site design to enhance the security of public and private spaces and to reduce the potential for crime:<br>b) Access control that promotes authorized and/or appropriate access to the site. | A large portion of the site will be open to the public. Site access will be controlled via narrow points of access from public rights of way.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.3.B.1.c All development shall incorporate the following public safety principles for Crime Prevention through Environmental Design (CPTED) into site design to enhance the security of public and private spaces and to reduce the potential for crime:<br>c) Territorial reinforcement that promotes a sense of ownership and responsibility through environmental design. | The shared open space will be surrounded by active uses which will promote public safety through site activation.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.3.B.2 All developments shall be designed to provide adequate emergency vehicle access to the site and comply with the Public Safety standards of the Technical Manual. | Emergency vehicles would access the site via the existing curb cut on Union Street. The existing alleyway between the CMP substation and the Fore Street garage will be utilized for fire truck turning movements. The applicant has provided a fire & life safety narrative.<br>**What still needs to be addressed:**<br>• The applicant shall provide an updated fire truck turning template detailing emergency vehicle movements with the assumption that a delivery vehicle is parked in the designated loading area | More information required |
| *Public Utilities* | 13.6.3.C.1 The development shall not overburden sanitary sewers and storm drains, water lines or supply, or other public infrastructure and utilities. | The proposed project is required to comply with Section 5.2.4 of the City of Portland's Technical Manual. | More information |

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| | Development shall provide adequate utility infrastructure on-site and in connection to surrounding locations and facilities. | What still needs to be addressed:<br>• The applicant shall provide a wastewater capacity application for review and approval by DPW<br>• The applicant shall provide an ability to serve letter from Central Maine Power | |
| | 13.6.3.C.2 Electrical service shall be underground unless otherwise specified for industrial uses, or if it is determined to be unfeasible due to extreme cost, the need to retrofit properties not owned by the applicant, or complexity of revising existing overhead facilities. | Electrical utilities will be extended from Union and Exchange Street via underground conduits.<br>What still needs to be addressed: | Met |
| | 13.6.3.C.3 All sanitary sewer lines, storm drains, water lines, and other utilities proposed as part of the development shall be designed to conform with the sanitary sewer and storm drain and water supply standards of the Technical Manual. | Stormwater from the plaza around the building will be managed via a trench train and catch basin inlets that discharge to the on-site subsurface stormwater treatment system and ultimately to the same 15-inch cement combined sewer main as in the existing condition.<br>What still needs to be addressed:<br>• The Department of Public Works requests that the applicant consider diverting the off-site drainage system through the on-site R-tank/storage system. As currently designed, the off-site drainage would connect to the proposed site's drainage system downstream of the treatment and storage facility.<br>• It appears that the storm drain pipe from the existing catch basin (1174) running towards DMH-2 could be run straight without the proposed bend and cleanout. DPW would suggest removing the bend from the line and running it straight between the two structures.<br>• The applicant is proposing to reroute private sewer and drainage lines serving separate parcels located north of the site around the proposed building. Based on the boundary survey, it appears that reciprocal easements have been established for this private sewer infrastructure running across the site. These easements may need to | More Information Required |

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| | | be adjusted to reflect the proposed site plan and the relocation of the private sewer and drainage lines. The applicant should provide additional information on this matter. | |
| | 13.6.3.C.4 All development within 200 feet of a public sanitary collection and treatment system shall connect sanitary sewer lines into the nearest available public sewer. If a public sanitary collection and treatment system is not available, a private wastewater system may be used according to the requirements of Chapter 24 of the City Code and the sanitary sewer and storm drain standards of the Technical Manual. | The development proposes to connect to the existing sanitary sewer in Fore Street.<br>**What still needs to be addressed:**<br>• DPW requests that both the sewer and storm drain connections for the project be brought out to Union Street, rather than tying into the internal sewer line that runs through the adjacent parking garage and ultimately connects to the Fore Street sewer. See attached schematic | More Information Required |
| | 13.6.3.C.5 All residential development of 20 units or more, commercial development, and industrial development shall provide for the temporary storage and timely removal of all trash and recyclable materials including, at a minimum, paper, corrugated cardboard, plastics, and metals. Storage containers for recyclable materials shall be separated from trash containers. All exterior storage of trash and recyclables shall be screened from view from public sidewalks, streets, and adjacent properties. | The site would utilize a private hauler for solid waste removal<br>**What still needs to be addressed:**<br>• The applicant shall detail the frequency of solid waste pickup. | More information required |
| Site Design Standards (Sec. 13.6.4) | | | |
| *Standard* | *Standard* | *How the standard is being met* | *Finding* |
| *Massing, Ventilation and Wind Impact* | 13.6.4.A.1 The bulk, location, or height of proposed buildings and structures shall not result in health or safety problems from a reduction in ventilation to abutting structures or changes to the existing wind climate that would result in unsafe wind conditions for users of the site and/or adjacent public spaces. | The applicant has indicated that a wind study is being developed and will be submitted in advance of a future meeting.<br>**What still needs to be addressed:**<br>• Staff are awiting the submission of the wind impact study. | More Information required |
| | 13.6.4.A.2 Development shall locate all HVAC venting mechanisms to direct exhaust away from public spaces and residential properties directly adjacent to the site. | HVAC equipment will be located on the roof of the building within a screened mechanical penthouse.<br>**What still needs to be addressed:** | Met |
| | 13.6.4.A.3 In proposed buildings or additions with an aggregate roof area greater than 2,000 square feet, measured horizontally, and, for residential projects, greater than nine residential units, a minimum of 75% of the roof area must meet the following "cool roof" Solar Reflective Index (SRI) standards: | The proposed building will be required to meet rooftop SRI standards.<br>**What still needs to be addressed:**<br>• The applicant shall provide details sheets demonstrating that roofing materials meet SRI standards. | More Information Required |

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| | a) Roofs with a slope less than 2:12: SRI of 82+ (initial)/64+ (3-year aged)<br>b) Roofs with a slope greater than 2:12: SRI of 25+ (initial)/25+ (3-year aged)<br>Roof areas covered by shade structures with an SRI of 39+, including photovoltaic panels that shade the roof, are considered exempt from roof area calculations for the purposes of this standard. | | |
| *Shadow* | 13.6.4.B All development over 65 feet in height shall be designed to avoid and/or mitigate the adverse impacts of shadows cast by new structures or building additions from falling on publicly accessible open space in accordance with the shadow standards of the Technical Manual. | The applicant is preparing a shadow study for review detailing the impacts the proposed building may have on public open space, with particular emphasis placed on Post Office Park and Lobsterman's Plaza.<br>**What still needs to be addressed:**<br>• A full shadow analysis shall be provided. Staff is awaiting submission | More information Required |
| *Snow and Ice Loading* | 13.6.4.C All development shall be designed to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways. | Snow and ice will be collected and moved within the site to designated snow melting areas.<br>**What still needs to be addressed:** | Met |
| *View Corridors* | 13.6.4.D The massing, location, and height of development shall not substantially obstruct public view corridors identified in the City of Portland Design Manual. | This application is not within a protected view corridor<br>**What still needs to be addressed:** | N/A |
| *Historic Resources* | 13.6.4.E.1 When a development affects a designated landmark or lies within a designated historic district or historic landscape district, such development shall be required to obtain historic preservation approval under Article 16. | The proposed building is not within a historic district.t A small portion of the pedestrian plaza is located within the Old Port Historic District.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.4.E.2.a All development shall document and protect state or local archaeological resources known to exist or discovered on the site.<br>a) Protection may include leaving archaeological resources untouched beneath a new development through adaptation of foundation design or architectural layout. | The applicant will be responsible for documenting and preserving any archaeological materials discovered during the course of construction.<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| | 13.6.4.E.2.b All development shall document and protect state or local archaeological resources known to exist or discovered on the site. | The applicant will be responsible for documenting and preserving any archaeological materials discovered during the course of construction. | Met |

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| | b) Where the applicant can demonstrate that complete protection is not feasible, the applicant shall excavate and document archeological resources. Such measures shall be conducted in consultation with the City's historic preservation program and Maine Historic Preservation Commission. For resources of state significance, excavation and documentation shall be conducted by a qualified professional, in coordination with Maine Historic Preservation Commission. Local archeological resources may or may not be recognized by the Maine Historic Preservation Commission as significant and shall include the following:<br>i. Original seawall structure located landward of Commercial Street.<br>ii. Inactive historic family cemetery plots.<br>iii. Historic railroad beds including but not limited to the Portland-Lewiston interurban railroad.<br>iv. Original structure and/or landforms associated with the Cumberland and Oxford Canal.<br>v. Buried portions of colonial and post-colonial period structures or built features located on the Portland Peninsula predating the Great Fire of 1866.<br>vi. Pre-colonial occupation sites identified by shell middens or other evidence.<br>vii. Sites listed or eligible for listing on the National Register of Historic Places. | What still needs to be addressed:<br>Staff are not requesting any additional information related to this standard | |
| | 13.6.4.E.2.c All development shall document and protect state or local archaeological resources known to exist or discovered on the site.<br>c) In order to preserve archeological resources, the review authority may waive standards listed in the City of Portland Technical Manual where necessary if it is determined that such a waiver would not jeopardize the health, safety, or welfare of the development's occupants, the public, or the natural environment. | The applicant will be responsible for documenting and preserving any archaeological materials discovered during the course of construction.<br>What still needs to be addressed:<br>Staff are not requesting any additional information related to this standard | Met |
| *Exterior Lighting* | 13.6.4.F.1.a ***Site lighting*** All exterior site lighting shall be full cutoff with no light emitted above the horizontal plane or spilled onto adjacent properties. Illumination levels shall be adequate but not excessive | A photometric plan and site lighting details have not been provided at this time.<br>What still needs to be addressed: | More Information Required |

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| | for the safety, comfort, and convenience of occupants and users of the site, and shall conform to the lighting standards of the Technical Manual. | • The applicant shall provide a photometric plan detailing the variety and location of site lighting fixtures. Site lighting shall be designed in accordance with standards outlined in the Technical Manual. | |
| | 13.6.4.F.1.a ***Site lighting*** Where light from a proposed development may adversely impact adjacent residential properties, exterior lighting shall employ building-side shielding. | A photometric plan and site lighting details have not been provided at this time.<br>**What still needs to be addressed:** | More Information Required |
| | 13.6.4.F.2.a ***Architectural and specialty lighting*** Architectural and specialty lighting of such features as architectural details, monuments, public art, or other site features shall be designed to illuminate specific details or attributes only and shall meet the lighting standards of the Technical Manual. | A photometric plan and site lighting details have not been provided at this time.<br>**What still needs to be addressed:** | More Information Required |
| | 13.6.4.F.2.b ***Architectural and specialty lighting*** Up-lighting by any method is prohibited except for public buildings and parklands; clock towers and steeples; landscape features; designated historic landmarks; flags of state, federal, or national jurisdictions; and public art. Such light fixtures, brackets, conduits, and all other components shall be designed by a lighting professional and shall be scaled and placed to minimize their visibility and installed in accordance with the lighting standards of the Technical Manual. | A photometric plan and site lighting details have not been provided a this time.<br>**What still needs to be addressed:** | More Information Required |
| | 13.6.4.F.3 ***Street lighting*** All development shall provide municipal street lighting adequate for the safety and comfort of pedestrians, bicyclists, and motorists and, where applicable, conforming to specific lighting district requirements as specified in the street lighting standards of the Technical Manual. | A photometric plan and site lighting details have not been provided at this time.<br>**What still needs to be addressed:** | More Information Required |
| *Noise and Vibration* | 13.6.4.G All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment shall meet applicable state and federal emissions requirements and shall be located to the interior of the site, away from abutting properties. | All HVAC and related equipment will be mounted on the roof the building and will be screened<br>**What still needs to be addressed:**<br>Staff are not requesting any additional information related to this standard | Met |
| *Signage and Wayfinding* | 13.6.4.H.1 On-site directional traffic signage may be provided to enable users to safely and easily navigate into, around and out of the site. | No wayfinding signage is proposed as part of this application<br>**What still needs to be addressed:** | N/A |
| | 13.6.4.H.2 Signage shall not adversely affect visibility at intersections on or off the site. | No wayfinding signate is proposed as part of this application<br>**What still needs to be addressed:** | N/A |
| *Design Standards* | 13.6.4.I.1 Development of certain types and/or proposed in certain zones, as specified in the City of Portland Design Manual, shall meet the design | The proposed mixed-use development at 45 Union is reviewed in accordance with the B-3 design standards outlined in the City of | More information |

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| | standards of the Design Manual in order to ensure that building and site design contribute to and enhance the goals and policies for specific zones within the city. The City of Portland Design Manual is incorporated by reference as part of this Land Use Code. | Portland Design Manual, Land Use Code Section 13.6.4.I Design standards.<br><br>What still needs to be addressed:<br><br>See attached design memo. | |
| | 13.6.4.I.2 If the development is located in a historic district or associated with a historic landmark, the standards of Article 16 shall supersede. | What still needs to be addressed: | N/A |

Att. S2

| | |
|---|---|
| **Subject:** | 45 Union Street – Major Site Plan Review |
| **Zone:** | B3 |
| **Date of Review:** | August 29, 2025 |
| **Reviewer(s):** | Sean King (Urban Designer), Eric Freeman (Planner), Neha Sunil Pol (Planner), Andrew Graminski (Planning & Development Review Manager), Evan Schueckler (Historic Preservation Manager), Kevin Kraft (Director) |
| **Project ID:** | PL-003157-2024 |

## I. INTRODUCTION

The proposed mixed-use development at 45 Union Street is being reviewed under the B-3 design standards, as outlined in the City of Portland Design Manual and Section 13.6.4.I of the Land Use Code.

## II. DESIGN REVIEW COMMENTS: red text denotes standards not met and require resubmission.

*§(b)(1)a.1. Relationship of pedestrian environment:*

- *§(b)(1).A. Relationship to the pedestrian environment: The exterior design of portions of buildings within the first thirty-five (35) feet of height shall enhance the character, attractiveness, comfort, security, and usability of the street level pedestrian environment.*

  *Factors to be considered include the design, placement, character and quality of the following: Storefronts and building facades, Building entrances, Blank facades; and Special features*

  Staff comment:
  The proposed site is currently a surface parking lot nestled between Exchange Street, Fore Street, and Old Port Square (formerly Canal Plaza). Exchange Street features historic buildings with active ground floors and storefronts, utilizing materials such as glass, granite, and brick. Fore Street is defined by a contemporary parking garage with ground-floor retail spaces, clad in granite with metal mesh screening, as well as the Hyatt Place Hotel, which incorporates an active restaurant space at the ground level. The hotel utilizes a contemporary design with a primarily glass ground floor, granite base, and supporting pillars. Old Port Square consists of three contemporary towers constructed in the early 1970s by Canal National Bank as part of the Maine-Way urban renewal projects near Monument Square. The complex, originally known as Canal Plaza, was built on the footprints of the former Plum Street and the Falmouth Hotel.




*Figure 1: Old Port Square Garage/retail in the foreground; Canal Plaza in the background; and the rear of Exchange Street to the north (left)*



*Figure 2: Proposed Building - Hotel/Residential Entrance (right) | Cafe space (left)*

The exterior design of the building within the first 35 feet enhances the character, attractiveness, comfort, security, and usability of the street-level pedestrian environment. Expansive glass and structural elements are incorporated on all facades, providing visibility into the proposed retail spaces and hotel lobby. A projecting modern canopy at the east elevation clearly defines the primary entrance for residents and hotel patrons. In addition, the applicant proposes a glass and aluminum sliding/folding door system along the ground-level café façade, which Staff believes will encourage greater activity and connectivity between the café and plaza while also improving airflow during favorable weather.

Staff recommends that the applicant consider adding an additional entrance at the northeast corner of the building to create a clear, distinct entry into the proposed café space, particularly for patrons approaching from Old Port Square and Exchange Street. Additionally, staff requests that the applicant label all of the proposed facade materials on the building elevations.

Staff believes the tower cantilever over the ground floor enhances activation at the street level, while the soffit design and material selection help contextualize and integrate the building into the broader eclectic downtown context. However, Staff recommends that the applicant provide an architectural narrative describing the design intent and function of the voided space between the Level 1 roof and Level 2. In addition, Staff suggests the applicant consider extending the

curtain wall system or exploring other design treatments, such as providing access to the Level 1 roof area to assist with additional activation or utilization of the space.

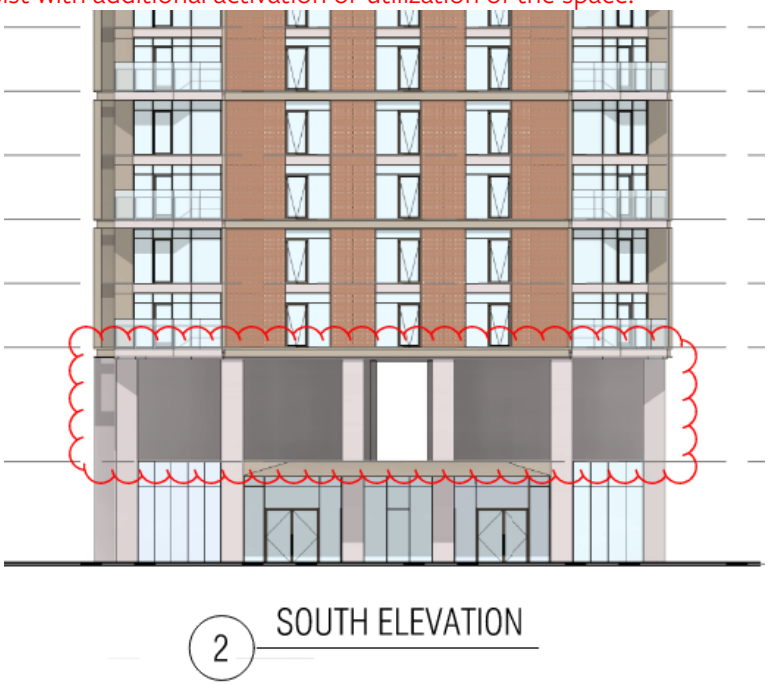



Figure 1: Clouded area denotes Staff comments on sheet A-40.01

- *§(b)(1).B. Pedestrian Activities District (PAD): In addition to subsection 1 (a through d), proposed development and substantial building alterations located within the PAD overlay zone shall be designed and constructed to accommodate pedestrian-oriented uses at the street level.*

  Staff comment: The proposed project includes a new building nestled on a lot situated between Old Port Square, the Old Port Square parking garage, and Exchange Street. It incorporates accessible walkways and plazas that connect to adjacent public rights-of-way. The project is expected to significantly improve connectivity within the Old Port by strengthening links between surrounding streets and Old Port Square, enhancing the neighborhood, and creating more opportunities for pedestrian use and activity.

- *§(b)(1).C. Sidewalk areas and open space: The design of publicly accessible sidewalk areas and open space shall complement the general pattern of the downtown pedestrian environment, conform to special City of Portland streetscape programs described in the Technical Manual, and enhance the attractiveness, comfort, security, and usability of the pedestrian environment.*

  *Factors to be considered include the design, placement, character, durability, and quality of the following: Sidewalk, crosswalk, and street paving materials; Landscaping, planters, irrigation, and tree guards and grates; Lighting; Pedestrian amenities such as benches and other seating, trash receptacles, kiosks, bus shelters, artwork, directional and informational signage, fountains, and other special features; and Sidewalk vendors and sidewalk cafes.*

  Staff comment: The proposed project significantly enhances neighborhood connectivity by providing access to public sidewalks from Union Street, Exchange Street, and Patton Court.

The continuation of the Old Port brick sidewalk pattern and the City's Old Port-style pedestrian streetlights helps unify the site and signals that these spaces are open to the public. Staff finds that this design enhances the open space, which includes pedestrian amenities such as planters with trees, landscaping, and stone benches. These features integrate the development into the surrounding neighborhood, creating a seamless transition from the historic buildings of the Old Port to the Old Port Square complex, composed of contemporary buildings constructed in the 1970s.

Staff recommends additional pedestrian amenities to enhance activation of the publicly accessible open space. These include: additional outdoor seating (granite benches) at the higher street-level grade adjacent to the rear of buildings at 188 Middle Street; street lighting matching the City's decorative Old Port fixture (Technical Manual, Section 8, Figure X-6B) throughout the open space; consideration of a staircase at the terminus of Patton Court to improve visible permeability into the property; and substituting granite pavers for brick around the building footprint to better delineate pedestrian areas and continuation of the sidewalk and publicly accessible spaces from the shared drive.

Furthermore, Staff recommends realigning the plaza stair to reflect the building's geometry, possibly through a chamfer, to create greater unity with the building design and soften the harder edges. See diagram for Staff's recommendations.

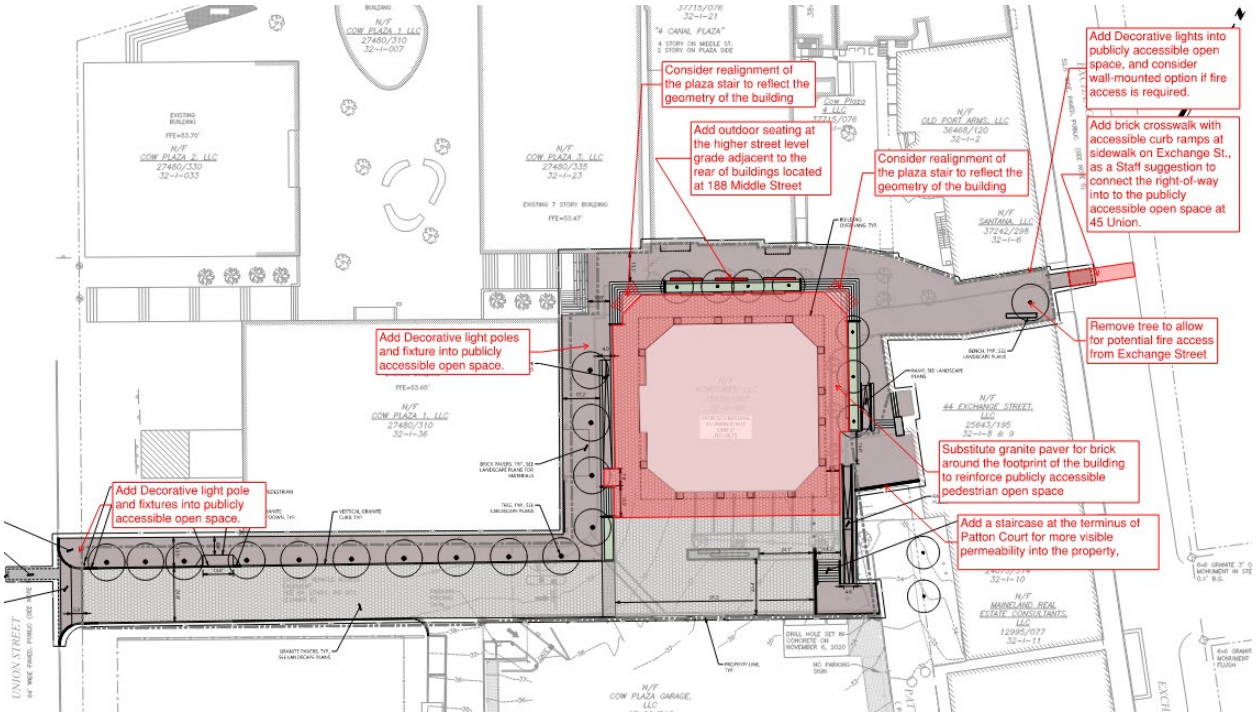


Figure 2: Staff comments on sheet C-100

- *§(b)(1).D. Relationship to existing development: General - Proposed development shall respect, enhance, and be integrated with the existing character of the general pattern of development in the downtown, surrounding building environment and streetscape, as described and illustrated in the Downtown Urban Design Guidelines (Appendix 1).*

*Factors to be considered include the relationship to the following existing patterns: Street walls and building setbacks; Open space; Building form, scale and massing; Façade proportion and composition; Pedestrian circulation and building entrances; Parking*

Staff comment: The proposed building is situated within a uniquely shaped lot, creating multiple publicly accessible entry points from adjacent streets. Staff finds that the curtain wall system—composed of glass, perforated metal screens, and framed floor divisions—provides a well-defined façade that is appropriate to the downtown context. The building's materials, including glass, granite, and other durable finishes, help the point tower relate to the smaller-scale historic buildings nearby.

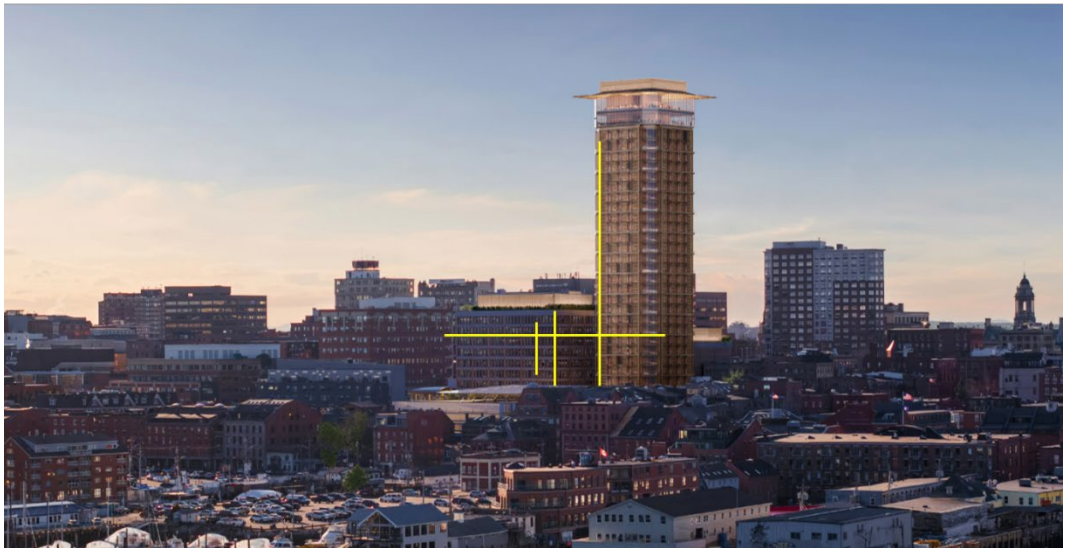


*Figure 3: Proposed Building*

The design also transitions effectively from the historic context to the more contemporary Old Port Square complex (formerly Canal Plaza), which consists of three large 1970s-era office buildings that use primarily brick, concrete, and glass as prominent materials throughout the complex. The proposed development integrates elements of these neighboring structures through clearly defined floor divisions that align with the adjacent towers and vertical elements that correspond with neighboring façades (See Figure 3 diagram). These features provide visual references to the surrounding context while establishing the building's own identity, allowing the contemporary point tower to fit harmoniously between the historic Old Port buildings on Exchange and Middle Streets and the larger-scale structures of Old Port Square, including the parking garage and Hyatt Place Hotel. In addition, Staff finds that the façade is appropriately proportioned through the expression of the building's base and top with large volumes of glass, supported by perforated metal screens, that provide contextuality that is consistent with the surrounding context in Downtown.

- *§(b)(1).D. Relationship to existing development: Standards for increasing setback beyond street build-to line - A proposed development may exceed maximum setbacks as required in Table 7-C or Table 7-D only where the applicant demonstrates to the Planning Board that the introduction of increased building setbacks at the street level:*

  *Provides substantial and viable publicly accessible open space; does not substantially detract from the prevailing street wall character; does not detract from existing publicly accessible open space; the area of setback is of high quality and character of design.*

  Staff comment: The proposed development locates the new building within the interior of the uniquely shaped property. Staff finds the proposed plaza space within the increased setback area beyond the street build-to line provides substantial and viable publicly accessible open space from adjacent streets. Staff finds that the proposed open space provides an appropriate mid-block permeability from Exchange Street that does not substantially detract from the prevailing street wall character.

- *§(b)(1).E. Rooftop appurtenances: All mechanical equipment, ventilating and air conditioning and other building systems, elevators, stairways, radio or television masts or equipment, or other rooftop elements not intended for human occupancy shall be fully enclosed in a manner consistent with the character, shape and materials of the principal building.*

  Staff comment: Staff requests that the mechanical area located above the Level Beacon Roof be fully enclosed, and suggests increasing the height of the screening element to align with the tallest rooftop appurtenance.

- *§(b)(1).F. Shadow impact on open space: The location, massing and orientation of portions of buildings in excess of 65 feet in height shall be such that substantial shadow impacts on public plazas, parks, and other publicly accessible open space are avoided.*

  Staff comment: Staff is awaiting the submission of a shadow study to better understand shadow impacts on public plazas, and parks.

- *§(b)(1).G. Wind impacts:* The location, massing, orientation and architectural design of a new building or a building addition shall be such that no significant adverse wind impacts are created.

  Staff comment: Staff is awaiting the submission of a wind study.

- *§(b)(1).H. Setbacks for existing structures: The location and design of proposed structures shall not create a detrimental impact on the structural integrity or the safety of adjacent structures or the occupants thereof.*

  Staff comment: Staff finds that the proposed building includes a separate structural wall system that will not impact the structural integrity of the adjacent buildings on the property.

- *§(b)(1).I. Building tops: Buildings or structures which exceed 150 feet in height shall be designed so as to provide a distinctive top to the building which visually conveys a sense of interest and vertical termination to the building.*

Staff comment: The proposed building exceeds 150 feet in height and is required to have a distinctive top. Staff finds that the steel-supported curtain wall system with fixed vision glazing on all sides, combined with the exposed heavy timber trellis projecting from the interior, creates visual interest and a strong vertical termination consistent with the building's overall design. The glass-clad top floors also serve as a distinct visual beacon while maintaining a cohesive architectural expression.

Att. S3

# Preliminary Transportation Demand Management (TDM) Plan

**Date:** August 15, 2025

**To:** **East Brown Cow – Kowtower LLC**
100 Commercial St, Suite 300, Portland, ME 04101
(207) 775-2252

**From:** Jacob W. Sirois, E.I.
Engineer II
Barton & Loguidice, LLC

John Q. Adams, P.E., PTOE
Senior Associate
Barton & Loguidice, LLC

**Re:** **Multi-Use Building**
45 Union St, Portland, ME

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**Traffic Demand Management (TDM) 14-14.6.1 (E)**

The following types of development shall design and implement a Transportation Demand Management (TDM) plan:

a. All major site plan triggering development in the B-3 zone.

b. All commercial, institutional, or mixed-use developments of 50,000 square feet or more total floor area.

c. All commercial or institutional uses designed to accommodate 100 or more employees or, for educational institutions, 100 or more students.

The TDM Plan shall comply with the transportation systems and street design standards of the Technical Manual.

**A Traffic Demand Management Plan is enclosed.**

## 1 Transportation Narrative

East Brown Cow – Kowtower LLC, the applicant, is proposing the development of a 30-story mixed use building on the parcel addressed 45 Union Street in the City of Portland. The multi-use building will provide 88 hotel rooms, 73 residential dwelling units, a 1,495 nsf café on the ground floor, a 5,007 nsf restaurant, and a 3,271 nsf bar and lounge on the top floor. The café, restaurant, and bar will be open to the public. The proposed building has a roughly 5,650 gsf footprint at-grade totaling approximately 200,000sf gross floor area.

The development site is 25,397sf and currently serves as a 32-space surface parking lot. With the project's development, the parking lot will be removed. Of the site's total acreage, all is developable.

Vehicle access to the site will be provided via an existing driveway entrance on Union Street, located approximately 260 feet northwest of Fore Street. Pedestrian access will be provided to the site by a sidewalk along the site driveway from Union Street, a pedestrian path between Exchange Street, Middle Street, and Union Street via the plaza, and a sidewalk connection to Fore Street along Patton Court (A.K.A. Fox Court).

No vehicle parking will be provided on-site. In lieu, a drop-off loop will be provided at the main entrances, and a valet service will be offered for residents, guests, and the public. The valet service will use the adjoining Old Port Square Garage. The garage has 423 spaces. Of these 423 spaces, some of these spaces will be available for the residents and guests. Users of the development can also park in the parking garage without using the valet system.

The project will provide storage for 43 bicycles, external to the building. All 43 spaces will be located outside on the site itself and on adjacent properties owned by a related party for utilization by all

Please provide details on where this will be, distance from site and type of bike parking. There should also be bike parking located for non-residents/customers of the commercial portions of the site outside the building.

## 2 Area / Neighborhood Existing Conditions

The City of Portland, within the vicinity of the site, is a welcoming community to alternative modes of traffic, especially pedestrian and bicycle traffic, and has made efforts to provide more complete streets with traffic calming elements to assist with slowing motorized modes of transportation. Crosswalks are provided at unsignalized intersections, and pedestrian signals are provided at signalized intersections. This area of Portland is known for its many and various restaurants, shops, and other retail establishments.

## 3 Site Access

The project site's location on Union Street provides vehicular traffic access to regional routes in and out of the greater Portland area as well as to local destinations within Portland. Access to Interstate 295 is provided by heading southbound on Commercial Street to the Veterans Memorial Bridge or by heading north on Commercial Street to Franklin Street to Exit 7. Access to these destinations is also provided through alternative connecting streets such as Fore Street, Middle Street, Spring Street, and Congress Street.

Access to other local City destinations such as the Eastern Promenade, Old Port, Downtown District, and the City's Transportation Center are also easily accessible from this neighborhood utilizing Commercial Street, Temple Street, Middle Street, Spring Street, and Congress Street.

## 4 Transit Access/Connections

This area of Portland is well served by public transit. Temple Street, Union Street, and Middle Street, within the vicinity of the site, are currently served by Routes 8, 21, 24A, and 24B. See Transit Route Map below:




**Effective June 16, 2024**

Further details of the routes are included below:

Metro Route 8: Peninsula – Route 8 provides transportation throughout the Portland Peninsula, with service to Congress Street, the Old Port, Maine Medical Center and Mercy Hospital (State Street location), Trader Joe's, Whole Foods, Art's District, Back Cove Hannaford, and the Waterfront (Casco Bay Lines and Visitor Information Center at Ocean Gateway), including the following points:

- Casco Bay Ferry Terminal
- Downtown Portland
- Maine College of Art and Design
- Maine Medical Center
- Ocean Gateway Terminal
- Old Port
- West End

For each route, please identify the location of the nearest bus stop, frequency of the service throughout the day and span of service (first and last times of service).

Metro Route 21: SMCC-Downtown Portland – Route 21 provides transportation between downtown Portland, the Millcreek Transit Hub in South Portland, and SMCC, including the following points along the route:

- Downtown Portland
- Maine College of Art and Design
- Southern Maine Community College
- Millcreek Park
- Willard Beach
- Spring Point Light
- Bug Light

Metro Route 24A: South Portland (Broadway – Redbank – Maine Mall) – Route 24A provides bus service between Downtown Portland and the Mill Creek Transit Hub, Broadway, Redbank, the Maine Mall in South Portland, and Walmart in Scarborough, including the following points along the route:

- Cash Corner
- Gannett Drive
- Target
- Downtown Portland
- Maine College of Art and Design
- Maine Mall

Metro Route 24B: South Portland (Highland Ave – Brick Hill – Maine Mall) – Route 24B provides bus service, Monday – Friday only, between Downtown Portland, the Millcreek Transit Hub, Highland Avenue, Brick Hill, and the Maine Mall, and includes the following points of interest:

- Downtown Portland
- Maine College of Art and Design
- Maine Mall

See additional detail of Transit Routes in the Metro graphic below:

Only need to provide one map.




## TDM Coordinator

Please be consistent in who will be surveyed. Some sections only list one group, other sections list other/additional groups.

An appointed TDM Coordinator will oversee implementation of all TDM measures. Responsibilities include:

- Conducting annual surveys of employees to determine travel mode share and identify barriers to alternative transportation.
- Completing the City of Portland's TDM Reporting Form annually.
- Coordinating communication of transportation options to employees and guests, including posting maps, schedules, and rideshare information in common areas.
- Tracking mode split progress toward the City-approved targets.

## 6 Resident, Guest, Customer & Employee Survey

The TDM Plan will include a transportation survey prior to implementation and on an annual basis. The survey will consist of questions to gain an understanding of resident, guest, and employee commuting means and effectiveness of the TDM strategies. The survey will include questions such as:

1. Vehicle ownership and parking location
2. Mode of transportation (car, bus, walking, taxi/rideshare, bicycle, etc.) to travel to and from the multi-use building.

3. Reason for selected transportation mode
4. Ease of use of selected transportation mode
5. Concerns with using other transportation modes
6. Barriers to vehicle trip reductions such as transit ridership and bicycle use
7. Use of personal vehicles
8. Interest in carpooling to share in transportation expenses.

This survey will be conducted annually for residents of the apartments and employees of the commercial uses and will be electronically tabulated. This information will be used to develop specific strategies and adjust the TDM plan as needed.

## 7 Parking and Trip ~~Reduction Targets~~ Generation

Only a summary of the final trip generation in table format need be provided in the TDM plan that is consistent with the final in the TMP.

### Trip Generation

As part of the Applicant's traffic study for this development, trip generation was calculated using the ITE Trip Generation Manual, 11th Edition. See the summary tables below for the expect generation. Trip generation for the proposed 88 hotel rooms, 73 residential dwelling units, 1,495sf café on the ground floor, 5,007sf restaurant, and 3,271sf bar on the sky floor was determined based on the trip generation rates provided in the 11th edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The ITE Manual provides numerous land use codes (LUC) and the volume of site generated trips produced by each category.

**Trip generation calculations for the 88 hotel rooms were prepared using LUC #310 – Hotel**, which ITE describes LUC 310 as *"a place of lodging that provides sleeping accommodations and supporting facilities such as a full-service restaurant, a cocktail lounge, meeting rooms, banquet room, and convention facilities. A hotel typically provides a swimming pool or another recreational facility such as a fitness room."*

**Trip generation calculations for the 73 apartment units were prepared using LUC #222—Multi-Family Housing (High-Rise)**, which ITE describes as "*high-rise multifamily housing includes apartments, townhouses, and condominiums. Each building has more than 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevators, and a set of hallways."*

**Trip generation calculations for the 5,007sf restaurant were prepared using LUC #931 – Fine Dining Restaurant**, described as "*a full-service eating establishment with a typical duration of stay of at least 1 hour. A fine dining restaurant generally does not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some of the study sites have lounge or bar facilities (serving alcoholic beverages), but meal service is the primary draw to the restaurant."*

**Trip generation calculations for the 1,495sf café have been prepared using LUC #930 – Fast Casual Restaurant**, described as "*a sit-down restaurant with no (or very limited) wait staff or table service. A customer typically orders off a menu board, pays for food before the food is prepared, and seats themselves. The menu generally contains higher-quality, made-to-order food items with fewer frozen or processed ingredients than a fast-food restaurant. Most patrons eat their meal within the restaurant, but a significant*

*proportion of the restaurant sales can be carry-out orders. A fast-casual restaurant typically serves lunch and dinner; some serve breakfast. A typical duration of stay for an eat-in customer is 40 minutes or less."*

**Trip generation calculations for the 3,271 sky lobby bar and lounge have been prepared using LUC #975 – Drinking Place**, which ITE describes as *"a drinking place contains a bar, where alcoholic beverages and food are sold, and possibly some type of entertainment, such as music, television screens, video games, or pool tables."*

In the *Trip Generation Manual*, ITE provides the *Average* trip generation rate and the *Fitted Curve* trip generation rate. MaineDOT guidelines state that when $R^2 \geq 0.80$, the *Fitted Curve* trip generation rate shall be used. The trip generation calculations for the apartment units, hotel units, and commercial space are provided below in Table 1.1 and Table 1.5:

**Table 1.1**
**ITE Trip Generation Calculations - Dense Multi-Use Urban**

| Land Use | Multifamily Housing (High-Rise) Not Close to Rail Transit - LUC 222 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Time Period** | **Dwelling Units (X)** | **$R^2$** | **Fitted Curve Equation/Avg. Rate** | **Trips Generated (T)** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 73 | 0.92 | T = 0.28(X) - 7.17 | 13 | 41% / 59% | 5 | 8 |
| PM Weekday Peak Hour (Street) | 73 | 0.91 | Ln(T) = 0.95 Ln(X) - 1.36 | 15 | 50% / 50% | 8 | 7 |
| AM Weekday Peak Hour (Generator) | 73 | n/a | 0.26 | 19 | 10% / 90% | 2 | 17 |
| PM Weekday Peak Hour (Generator) | 73 | n/a | 0.15 | 11 | 66% / 34% | 7 | 4 |
| Saturday Peak Hour | 73 | n/a | 0.09 | 7 | 43% / 57% | 3 | 4 |

**Table 1.2**
**ITE Trip Generation Calculations - Dense Multi-Use Urban**

| Land Use | Hotel - LUC 310 | | | | | |
|---|---|---|---|---|---|---|
| **Time Period** | **Rooms** | **Avg. Trip Gen. Rate (Trips/Room)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 88 | 0.31 | 27 | 39% / 61% | 11 | 16 |
| PM Weekday Peak Hour (Street) | 88 | 0.21 | 18 | 44% / 56% | 8 | 10 |
| AM Weekday Peak Hour (Generator) | 88 | 0.33 | 29 | 51% / 49% | 15 | 14 |
| PM Weekday Peak Hour (Generator) | 88 | 0.34 | 30 | 30% / 70% | 9 | 21 |
| Saturday Peak Hour | 88 | 0.22 | 19 | 67% / 33% | 13 | 6 |

| Table 1.3<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Fine Dining Restaurant - LUC 931** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1 ksf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | | n/a | | | | |
| PM Weekday Peak Hour (Street) | 5.007 | 7.80 | 39 | 67% / 33% | 26 | 13 |
| AM Weekday Peak Hour (Generator) | 5.007 | 4.47 | 22 | 80% / 20% | 18 | 4 |
| PM Weekday Peak Hour (Generator) | 5.007 | 8.28 | 41 | 61% / 39% | 25 | 16 |
| Saturday Peak Hour | 5.007 | 10.68 | 53 | 59% / 41% | 31 | 22 |

| Table 1.4<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Fast Casual Restaurant - LUC 930** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1k Sf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street)* | 1.495 | 12.55 | 19 | 50% / 50% | 10 | 9 |
| PM Weekday Peak Hour (Street) | 1.495 | 12.55 | 19 | 55% / 45% | 10 | 9 |
| AM Weekday Peak Hour (Generator)* | 1.495 | 18.57 | 28 | 63% / 37% | 18 | 10 |
| PM Weekday Peak Hour (Generator) | 1.495 | 18.57 | 28 | 62% / 38% | 17 | 11 |
| Saturday Peak Hour | 1.495 | 32.64 | 49 | 55% / 45% | 27 | 22 |

*We have assumed that the AM peak hours are similar to the PM peak hours because the study sites do not typically serve breakfast.

| Table 1.5<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Drinking Place - LUC 975** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1k Sf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | | Closed | | | | |
| PM Weekday Peak Hour (Street) | 3.271 | 11.36 | 37 | 66% / 34% | 24 | 13 |
| AM Weekday Peak Hour (Generator) | | Closed | | | | |
| PM Weekday Peak Hour (Generator) | 3.271 | 15.53 | 51 | 68% / 32% | 35 | 16 |
| Saturday Peak Hour* | 3.271 | 15.53 | 51 | 68% / 32% | 35 | 16 |

*Saturday peak hour data not provided by ITE; Saturday peak hour assumed similar to Weekday PM (generator),

Table 1.6, following, summarizes the trip generation calculations provided in Tables 1.1 through 1.5, and presents the total trip generation for the proposed multi-use building.

| Table 1.6<br>ITE Trip Generation Summary | | | |
|---|---|---|---|
| **Time Period** | **Total Trips Generated** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 59 | 26 | 33 |
| PM Weekday Peak Hour (Street) | 128 | 76 | 52 |
| AM Weekday Peak Hour (Generator) | 98 | 53 | 45 |
| PM Weekday Peak Hour (Generator) | 161 | 93 | 68 |
| Saturday Peak Hour | 179 | 109 | 70 |

The preceding table shows that the proposed multi-use building is expected to generate 59 trips during the AM peak hour of the adjacent street, and 128 trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the site is expected to produce 98 trips in the AM and 161 trips in the PM. During the Saturday peak hour, the development is expected to generate a maximum of 179 trips.

**Trip Adjustments**

It is assumed that a certain number of trips generated by the proposed residential units and hotel rooms will also visit the on-site café, restaurant, and bar. We have calculated the internally captured (shared) trips for proposed developments using the approach recommended by the ITE *Trip Generation Handbook*, which recommends using the NCHRP Report 684 methodology. The NCHRP Report 684 determines the internally captured trips between office, retail, restaurant, cinema/entertainment, residential, and hotel land uses.

The NCHRP spreadsheets, included in the *Traffic Movement Permit*, have been prepared by inputting the total trips generated by the proposed residential, hotel, and restaurant uses. The outputs of the spreadsheets are summarized below in Table 1.7:

| Table 1.7<br>NCHRP Report 684 Summary | | | | | | |
|---|---|---|---|---|---|---|
| **Time Period** | **Internal Capture Percentages** | | | **External Vehicle Trips** | | |
| | **Total** | **Enter** | **Exit** | **Total** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 11% | 12% | 10% | 52 | 22 | 30 |
| PM Weekday Peak Hour (Street) | 11% | 9% | 13% | 114 | 69 | 45 |
| Saturday Peak Hour | 10% | 8% | 13% | 161 | 100 | 61 |

Table 1.7 shows that with the internally captured trips accounted for, the site is expected to produce 52 external vehicle trips in the AM peak hour, 144 external vehicle trips in the PM peak hour, and 161 external vehicle trips in the Saturday peak hour.

## Expected Parking Generation

Similarly, only a table of the final parking generation need be provided in table format.

It should be noted that based on the City's Land Use Code, on-site parking is not required to be provided. However, as part of this TDM Plan, we are estimating parking demand based on the proposed uses of the site. The uses included 88 hotel rooms, 73 residential dwelling units, a 1
a 5,007sf restaurant, and a 3,271sf bar and lounge.

Based on the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition, we have estimated parking demand for the proposed development. The calculations are shown below in Tables 2.1 through 2.5

**Table 2.1**
**ITE Parking Generation Calculations**

| Land Use | Multifamily Housing (High-Rise) Not Close to Rail Transit - LUC 222 | | | |
|---|---|---|---|---|
| **Time Period** | **Dwelling Units (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Friday) | 73 | 0.98 | P = 1.25(X) - 39.49 | 52 |
| Saturday | 73 | n/a | 1.11 | 81 |

**Table 2.2**
**ITE Parking Generation Calculations**

| Land Use | Hotel - LUC 310 | | | |
|---|---|---|---|---|
| **Time Period** | **Rooms (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Friday) | 88 | 0.88 | Ln(P) = 0.82Ln(X) + 0.55 | 68 |
| Saturday | 88 | 0.69 | 0.65 | 57 |

**Table 2.3**
**ITE Parking Generation Calculations**

| Land Use | Fine Dining Restaurant - LUC 931 | | | |
|---|---|---|---|---|
| **Time Period** | **Sq. Footage (1k) (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Thursday) | 5.007 | 0.97 | P = 17.69(X) - 8.25 | 80 |
| Weekday (Friday) | 5.007 | 0.87 | Ln(P) = 0.81LN(X) + 3.25 | 95 |
| Saturday | 5.007 | 0.84 | P = 15.80(X) + 15.37 | 94 |

**Table 2.4**
**ITE Parking Generation Calculations**

| Land Use | Fast Casual Restaurant - LUC 930 | | | |
|---|---|---|---|---|
| **Time Period** | **Sq. Footage (1k) (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Friday) | 1.495 | 0.63 | 9.77 | 15 |
| Saturday | 1.495 | n/a | 7.97 | 12 |

| Table 2.5<br>ITE Parking Generation Calculations | | | | |
|---|---|---|---|---|
| **Land Use** | **Brewery Tap Room - LUC 971** | | | |
| **Time Period** | **Sq. Footage (1k) (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Thursday) | 3.271 | n/a | 5.66 | 19 |
| Weekday (Friday) | 3.271 | n/a | 6.21 | 20 |
| Saturday | 3.271 | n/a | 6.76 | 22 |

| Table 2.6<br>ITE Parking Generation Summary | |
|---|---|
| **Time Period** | **Total Trips Generated** |
| Weekday (Monday - Friday) | 250 |
| Saturday | 266 |

Table 2.6 shows that the parking demand for the proposed development is 266 spaces.

However, this type of development is transit-oriented and located in a part of Portland well-served by public transportation, with connections to multiple other transit routes. As a result, it is anticipated that residents, employees, and visitors will have less reliance on single-occupancy vehicles. Additionally, the area's existing pedestrian and bicycle infrastructure will support and encourage walking and biking for local and neighborhood trips.

Mode Split

## 8 ~~Parking & Trip Rate Reduction~~ Targets

Only Mode Split Targets are required now (see TDM Guidance in Technical Manual). Trip and parking generation is for context.

Studies show that implementation of an effective TDM plan can reasonably achieve vehicle trip reductions of up to 10%. Implementation will begin with a thorough initial survey to document travel mode splits and observe travel patterns to and from the different uses within the development.

Mode Split

**Customize ~~Parking and Trip Reduction~~ Strategies**

The strategy to reduce parking and trip demand will be aimed at residents, guests, [illegible] Strategies will seek to reduce employee vehicle trips to the site, especially during normal peak traffic hours. Ridesharing will be coordinated and promoted amongst staff. Information regarding the Metro, Metro Breez, South Portland and the Biddeford, Saco and Old Orchard Beach Transit Service, and a program to discount passes will be made available to residents, guests, and staff. As mentioned above, bicycle parking will also be provided outside to encourage bicycle commuting.

How will the 'discount passes' be set up and what is the discount: full fare, or other %?

For residents and guests, strategies will focus on both initially travelling to and from the building for work and pleasure trips, especially those within the greater Portland area. Information will be provided and readily available regarding desirable walking routes to transit and nearby attractions, such as restaurants and shops and other nearby destinations such as the Eastern Promenade and the Old Port.

10% is a reasonable target over the first 3-5 years of implementation - state the goal and the intended timeline to achieve that target.

Consolidate the 'strategies' from sections 8, 9 and 11 into one main section with the 3 main types as sub-headers.

## 9 Education

Transit Maps and Schedules:
Within the vicinity of the site, the METRO has bus stops at Union St at Fore St, Middle St at 188 Middle St, Temple St at Federal St, and Temple St at Free St. Information on routes, schedules, and payment methods for buses will be provided to residents and guests upon request. Information may also be provided on the services available at the Portland Transportation Center, which include the Amtrak Downeaster and Concord Coach Bus Lines for intercity and regional service.

Suggestions for the most convenient pedestrian routes to relevant local bus stops will be made available. All intersection crossings along the route have crosswalks and include pedestrian signals at signalized intersections.

Resident and employee orientation will include information related to discount programs for the Metro, Metro Breez, South Portland Bus Service, and Biddeford/Saco/Old Orchard Beach Bus service.

Ridesharing:
The TDM Coordinator will actively promote and coordinate ridesharing amongst residents and employees. This will be done through bulletin boards in employee areas, and employee email lists. Residents and employees who actively rideshare/carpool will be recognized for their efforts on newsletter announcements and/or bulletin board postings in the employee areas.

## 10 Monitoring

The TDM Plan will be monitored over time to determine its ongoing effectiveness. The TDM Coordinator will be responsible for this monitoring and making changes as necessary to better meet the TDM goals.

One year after receiving certificate of occupancy,
~~After an initial startup period~~, the Applicant, through the TDM Coordinator, will submit a status report to the City of Portland containing the following information: every May 15th

- Summary and analysis of completed TDM Surveys
- Usage data for TDM programs initiated
- Mode Split by trip type
- Comparison to previous surveys (after initial survey)
- Proposed changes to TDM Plan (Education, Infrastructure, and Incentive) after each subsequent survey
- Updated TDM usage data from year to year and noted updated programs.

The development may not be at or near full occupancy at opening, an annual report will be filed with the City, however, it will be important to note how the TDM plan is functioning and how effective it is as the project nears full capacity. Because the hotel demand is seasonal, this will be completed after the first full summer season of operation. [see above regarding start date for reporting]

Please provide a date ("Every 2 years, strategies and mode split targets will be updated based on survey responses and progress on meeting mode split targets.", e.g.).

## 11 Project Specific Standards

**Infrastructure**

The following onsite infrastructure improvements are currently proposed:

- Bicycle parking racks will be located exterior to the building on the site itself and on adjacent properties owned by a related party. Number of spaces (43 total) will meet minimum according to Article 14 of the Land Use Code.
- A bulletin board will be provided in the employee area with information as described herein. The TDM Coordinator will be responsible for keeping material current and available.
- An option for a kiosk or monitor in the lobby will be further investigated.

  The kiosk should be implemented as part of the TDM program.

**Incentives**

The following incentives will be provided to residents, guests, and employees to encourage their active participation in the TDM plan:

**A. Effective Parking "Cash Out":** With no parking provided on-site, residents will be provided with a choice as to whether to pay for a parking space off-site. Those who choose not to own their own vehicle will be able to reduce their housing costs through this decoupling of parking cost and condo ownership.

**B. Transit Incentives:** Research has shown that moving into a new home is a chance for residents to try new transportation options. In order to make sure that new residents are aware of, and have incentives to try, transit, the Applicant will provide new residents with a credit on the DiriGo app. That app can be used for trips on METRO, BSOOB Transit and/or South Portland Bus Service. This loaded amount will make trying transit very easy and ensure that residents have loaded the DiriGo app on their phones. This credit will be provided to new residents for at least five years after building occupancy. Should residents not own a phone, the Applicant will provide them with a DiriGo Pass (formerly a DiriGo TouchPass) loaded with a credit amount, to be determined.

**C. Car and Bike Sharing:** While Portland currently does not have a car-sharing vendor, should one become available, the Applicant commits to working with the City to provide a car-sharing vehicle nearby. Similarly, the Applicant is interested in working with the City and any bike-sharing systems it may have, including assisting with sponsorship of some of the system.

Please contact Tandem Mobility about the process/costs involved with bike share station sponsorship.

**D. Telecommuting:** This building will be set-up and wired with the best internet access currently available in this location, to encourage telecommuting as a trip reduction strategy.

**E. Hotel Guests:** As an incentive for participating in the annual TDM survey, hotel guests may receive a hotel credit to use on property.

## 10 Conclusions

This preliminary TDM plan has been prepared in conjunction with East Brown Cow – Kowtower LLC, and will continue to be detailed during the Site Plan Approval process. We anticipate there will be comments from City staff, and we look forward to working with the City to arrive at a TDM plan that best fits this type of development and its location within the City of Portland. To that end, this project

is supportive of the City's goals of reducing single occupancy usage, increasing transit ridership, and increasing pedestrian and bicycle activity.

Att. A

# 45 Union Street

Major Site Plan Application

45 Union Street
Portland, ME 04101

12 Mountfort Street
Portland, ME 04101
800.426.4262

woodardcurran.com

0232191.08

August 2025

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# 1. PROJECT SUMMARY

On behalf of the property owner and Applicant, East Brown Cow – Kowtower LLC, Woodard & Curran, Inc. (Woodard & Curran) acting as the agent, is submitting a revised Major Site Plan Application for the proposed development at 45 Union Street (the project). The project will include construction of a new 365'0" tall (occupiable, plus rooftop mechanicals), 199,803 GSF mixed-use building, comprising residential and hospitality as its primary uses. A letter authorizing Woodard & Curran to act as the agent on behalf of the Applicant is attached to this section. This application has been prepared in accordance with the City of Portland's Chapter 14, Land Use Code effective December 4, 2024, and the applicable sections of the City of Portland Design and Technical Manuals. The proposed work is shown on the drawings submitted with this application.

## 1.1 Project Site and Background

The project site is located at 45 Union Street (formerly addressed as 44 Exchange Street) in Portland, Maine, and is identified as Map 32, Parcel ID I040001. A view of the parcel and zoning maps from the City's online GIS viewer are provided in Figures 1-1 and 1-2 and an aerial photo of the project neighborhood is provided in Figure 1-3.




**FIGURE 1-1 PROJECT PARCEL TAX MAP (CITY OF PORTLAND PARCELS AND TAX MAP VIEWER)**

The project site is located within the B-3 Downtown Business Zone. The site's frontage on Exchange Street is located within the Pedestrian Activities District (PAD) Overlay Zone, and a portion of the site, including the pedestrian walkway on Exchange Street, is located within the Waterfront (Old Port) Historic District. The

current land use at the site is an underutilized surface parking lot with 32 parking spaces. The existing site area is approximately 25,159 square feet. Vehicular access to the site will be provided via an existing curb cut on Union Street through the parcel identified as Map 32, Parcel ID I043001. Although the parcels are deeded to different LLCs, both entities are affiliated through shared parent company ownership, and coordination. A related party authority letter is provided as part of this application to demonstrate authorization for actions involving both properties.




**FIGURE 1-2 PROJECT ZONING MAP (CITY OF PORTLAND ZONING MAP VIEWER)**

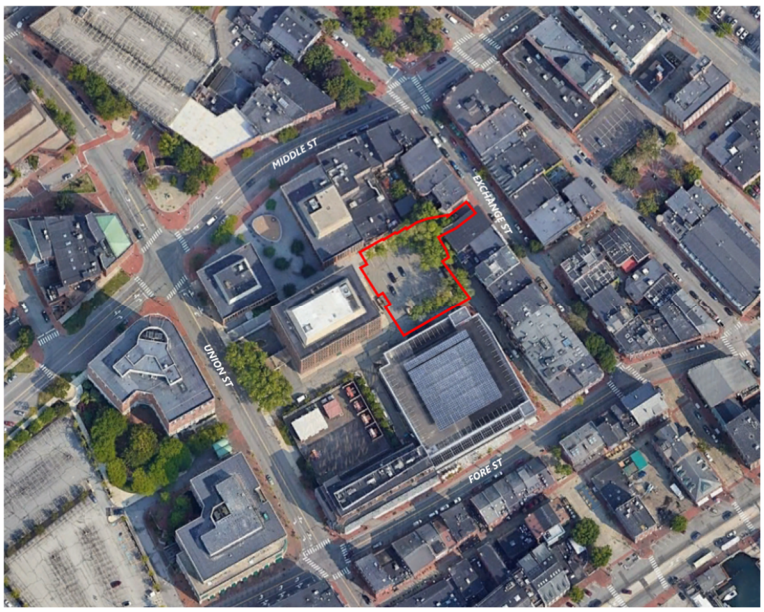



**FIGURE 1-3 PROJECT LOCATION MAP (GOOGLE AERIAL PHOTO, IMAGERY SEPTEMBER 2022)**

## 1.2 Project Description

East Brown Cow and its affiliates, including Kowtower LLC, comprise a real estate investment, development and management company that was established in the summer of 1989 by Tim Soley in Portland's Old Port neighborhood as a first-generation family business. Since that time, the portfolio has grown significantly and now comprises over 28 assets in Maine's Greater Portland urban area, including over 1.2 million square feet of mixed-use office, retail, food and beverage, hospitality space and structured parking.

East Brown Cow seeks to create meaningful connections to the surrounding urban fabric through high-quality design, carefully curated uses and tenancies, and a dedication to providing first-class management services. Actively acquiring and redeveloping several high-profile properties in Portland's fast-changing downtown, East Brown Cow is grounded in a longstanding commitment to environmental stewardship, excellence in urban design, historic preservation, activation of open space, and the exploration of new technology.

East Brown Cow acquired the surface parking lot at 45 Union Street as part of a larger portfolio deal in 2009. Originally completed between 1973 and 1979, the 190, 200, and 220 Middle Street buildings were designed to function like a suburban office park - despite being situated at the cultural and economic center of Maine's largest city. East Brown Cow set out to strengthen the connectivity of the site to Portland's urban fabric and create an activated and distinct destination featuring local and national retail, luxury hospitality and residences, award-winning food and beverage offerings, Class A offices, and outdoor experiential uses in Portland's historic Old Port. Intended to be used as a place for all, East Brown Cow hopes for the larger site to be considered a new urban heart for all of Portland.

The 45 Union Street project serves as both the geographic and strategic center of this larger vision for the city block. As such, since 2016 East Brown Cow has been studying and iterating an infill development on this site in collaboration with Safdie Architects and Michael Boucher Landscape Architecture. Throughout that period, the team has consistently envisioned an architecturally significant and slender building with an elevated profile and smaller footprint lifted off the ground, allowing for the creation of engaging public open space at the base of the building and publicly accessible program at the top of the building in the sky lobby. The mixed-use building at 45 Union Street will include 73 1- and 2-bedroom residential condos, 88 hotel rooms, and amenities for visitors and guests alike — including a sky lobby with an observatory, bar and lounge, and check-in/concierge services. Other amenity levels include a restaurant level, residential club level, a wellness level with a pool and gym, and dual arrival lobbies on grade with associated motor court and adjacent café. The observatory, a publicly accessible amenity on the top level, will offer a lens from which to view our city, Casco Bay, and the White Mountains beyond.

The project also envisions a significant investment in associated placemaking including site and landscaping improvements around and under the canopy of the new building. These are intended to enhance the pedestrian experience, tapping into the vibrant physical network of pedestrian pathways between Middle, Exchange, Fore, and Union streets, and drawing the public in to enjoy a series of new outdoor amenities including permanent and semi-permanent public seating options, native trees and vegetation, and outdoor seating for the new café. Parking will be accommodated in the adjacent, and recently renovated, Old Port Square Garage, which is also owned by East Brown Cow.

With the design of both the building and landscape intended to source local materials, evoke quintessentially Maine-based craftsmanship and design motifs, and achieve focused environmental goals,

the project aims to contribute to Portland's evolving urban landscape, both for current and future generations.

## 1.3 Attachments

- Agent authorization letter (uploaded separately to Documents folder)
- Related Party Authority Letter (uploaded separately to Documents folder)
- Project Plans (uploaded separately to Plans folder)

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Att. B

October 8, 2025

Eric Freeman, Planner
City of Portland
389 Congress Street, 4th Floor
Portland, Maine 04101

Re: Response to City Staff Comments – 45 Union Street
Project ID PL-003157-2024

Dear Eric:

Thank you for coordinating the review of the Major Site Plan Application for the 45 Union Street redevelopment. The following document provides written responses to the city review comments. Similar to the comments received, our responses are provided in tables in the following sections:

- Attachment 1. Site Plan Review Comment Responses
- Attachment 2. Zoning Review Comment Responses

The following supporting materials have been uploaded to ProjectDox:

Documents

- Revised Transportation Demand Management Plan
- Revised Financial Capacity Letter
- Revised LID Scoring Tool
- Neighborhood Meeting Certification
- Draft Reciprocal Easements
- TMP Scoping Document
- Wind Impact Study
- CMP Ability to Serve Letter
- Bird Friendly Design Narrative
- Waste Management Operations Memo
- Average Grade Calculation Figure

Drawings

- Revised Boundary Survey
- Revised Civil Drawings

- Revised Landscape Drawings
- Revised Architectural Drawings
    - A0.01 – Program + Calculations
    - A20.01 – Floor Plan – Level 1 Grade
    - A20.31 – Floor Plan – Level Beacon Roof
    - A40.03 – Overall Elevations (*formerly sheet A40.01*)
    - A50.01 – Overall Building Elevations
- Revised Vehicle Turning Movement Figures

We are in the process of reviewing and addressing the peer review comments received on September 19, 2025, and will provide responses to those comments under separate cover once complete.

Additionally, the site lighting design is currently in progress; a photometric plan and lighting details will be provided under separate cover once complete.

Lastly, we will be providing a Valet Operations Plan, revised Construction Management Plan, and a formal written response to the Design Review Memo under separate cover by the end of this week.

If you have any questions or require additional information, please do not hesitate to contact me at (207) 558-3708 or csuhr@woodardcurran.com.

Sincerely,

WOODARD & CURRAN, INC.

Caitlin Suhr, P.E.
Project Manager

cc: Jacob Soley, East Brown Cow – Kowtower LLC

## 1. ATTACHMENT 1: SITE PLAN REVIEW COMMENT RESPONSES

| General Comments | | |
|---|---|---|
| Technical Manual Section 14.2 | | |
| ***Standard*** | ***Updates Requested by City Staff*** | ***Comment Response Provided by Applicant*** |
| *Boundary Survey* | *No proposed property markers shown to be set.*<br><br>*The street status is not listed for abutting streets, alleys, courts, and ways.* | The Boundary Survey has been revised to include the information requested. |
| **Site Plan Review Standards (Sec. 13.6)** | | |
| Transportation Standards (Sec. 13.6.1) | | |
| ***Standard*** | ***Updates Requested by City Staff*** | ***Comment Response Provided by Applicant*** |
| *Impact on Surrounding Street Systems* | *The applicant shall provide turning templates for an articulated truck with a 30' trailer. Vehicle turning templates shall be provided for valet vehicles entering the Fore Street garage.*<br><br>*The applicant shall provide a hotel valet operations plan. This plan should anticipate vehicle queuing and movement within the site and on surrounding streets.* | Vehicle movement figures have been provided for a WB-40 (articulated truck with 30' trailer) backing into the site, a single unit 30-foot-long delivery truck, as well as for valet vehicles entering and exiting the Old Port Square garage. |

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| | | A Hotel Valet Operations Plan is in progress and will be submitted to the City for review at a later date. |
| *Access and Circulation* | *The applicant shall provide access easements to enable abutting properties to access shared open space and sidewalks.* | Draft reciprocal easements have been prepared for 188 Middle Street/Cow Plaza 4 LLC and 36-44 Exchange Street/Cow Exchange LLC with Kowtower LLC. All other related-party properties that are contiguous to 45 Union Street/Kowtower LLC already have the reciprocal easements in place that are being requested by staff. These existing easements can also be provided to staff upon request. |
| *Public Transit Access* | *Staff are not requesting any additional information related to this standard.* | This standard has been met. |
| Parking | *The applicant shall provide additional information on the current and projected capacity of the Fore Street garage, including the number of spaces to be allocated for residents, hotel guests, and other non-building-related uses. The applicant shall detail on a site plan the locations and types of bicycle parking to be provided both on-site and within the garage.* | In accordance with current zoning standards, no on-site vehicular parking is required or proposed as part of this application. Nonetheless, the applicant has shared their intentions to provide parking for residents, hotel guests, and the general public via both self-park and valet service in the nearby Old Port Square Garage (formerly known as the Fore Street Garage). This garage is under common ownership with the applicant but is not part of the proposed project or site.<br><br>The nearby garage comprises 423 spaces and is actively managed by East Brown Cow in partnership with Boulos Asset Management, whose experience contributes to its efficient operation. Valet parking will be coordinated through controlled access directly from the proposed |

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| | | drive aisle, optimizing use of spaces by directing vehicles and managing turnover. Valet operations further enhance flexibility, allowing dynamic allocation to accommodate varying demand throughout the day.<br><br>To support ongoing management throughout the anticipated development of this project and other growth in downtown Portland, East Brown Cow - Cow Plaza Garage LLC is separately conducting a parking study to optimize utilization and operations of the garage. The results of this study, however, will not impact or alter the current site plan application.<br><br>East Brown Cow will honor the terms of all parking agreements they have entered into with those utilizing the garage for monthly and long-term parking. The capacity of the garage is constantly maximized through complementary uses to manage overall utilization. For example, spaces allocated for monthly daytime office parkers are scheduled to minimize overlap with peak overnight hotel or residential demand. In addition, hourly or daily parkers pay higher rates, encouraging the flexible use of available spaces.<br><br>The project is located squarely in Portland's most urban downtown area with access to alternative modes of transportation. In addition to the Old Port Square Garage, there are several other parking garages or significant surface lots near the project site, including but not limited to the Portland Harbor Hotel Parking Garage (10 Union Street), approximately 0.1 miles away; the Temple Street |

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| | | Parking Garage (11 Temple Street), approximately 0.1 miles away; the Portland Square parking lot (46 Cross Street), approximately 0.2 miles away; One City Center Parking Garage, (23 Free Street), approximately 0.2 miles away; Custom House Square Garage (25 Pearl Street), approximately 0.3 miles away; the Spring Street Parking Garage (45 Spring Street), approximately 0.3 miles away; and the Public Market Garage (315 Cumberland Avenue), approximately 0.4 miles away. These facilities provide a variety of parking options within walking distance of the development.<br><br>A diagram detailing bike parking locations is included on Landscape Drawing sheet L2.0. |
| *Transportation Demand Management* | *Peer Reviewers have reviewed the TDM Plan and offer the following comments as it relates to the trip generation estimate, which is included. LUC 222 Multi-Family Housing (High-Rise). The sample size for this land use code is small and further review is needed to determine appropriateness. LUC 930 Fast Casual Restaurant. The applicant should provide additional information in support of using this land use code.* | A revised Traffic Demand Management Plan has been provided to address these comments. |

| Environmental Quality Standards (Sec. 13.6.2) | | |
|---|---|---|
| ***Standard*** | ***Updates Requested by City Staff*** | ***Comment Response Provided by Applicant*** |
| *Preservation of Significant Natural Features* | *Add a note to the landscaping planting plan that native vegetation must be used for all plantings and that only local sourced landscape materials are to be used.*<br><br>*Please provide a written narrative to justify selections in the following point categories: Providing transportation alternatives and Innovative LID site design and/or stormwater management.* | A note to this effect has been added to the landscaping planting plan.<br><br>After further evaluation of the LID checklist, it has been revised to remove the points for innovative LID site design and/or stormwater management. Additional alternative credits have been attributed to the project, after closer review of the LID standards.<br><br>The project team believes it is meeting the intent of the credits appointed for providing transportation alternatives by providing transit incentives, as outlined in the Transportation Demand Management Plan (TDM) Plan. As noted in the TDM Plan, the applicant is committed to working with the City to provide car and bike sharing, should those systems be implemented in Portland. |
| *Site Landscaping and Buffers* | *The applicant shall provide details regarding the solar reflectivity of proposed hardscaped surfaces.*<br><br>*Staff recommends removing the proposed street tree within the Exchange Street walkway. Staff encourage the applicant to either identify another on-site location or coordinate with City staff to explore potential off-site planting opportunities along Exchange or Union Streets.* | Details on the solar reflectivity of proposed hardscaped surfaces are included on Landscape Drawing sheet L5.0.<br><br>The proposed tree within the Exchange Street walkway has been removed. Based on discussions with City staff, the tree has not been relocated, as there is no street tree requirement for the site's frontage on Exchange Street. |

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| *Water Quality, Stormwater Management and Erosion Control* | *Stormwater review by a third party is in progress.*<br><br>*DPW requests that both the sewer and storm drain connections for the project be brought out to Union Street, rather than tying into the internal sewer line that runs through the adjacent parking garage and ultimately connects to the Fore Street sewer. This request is being made due to the condition of the Fore Street sewer. This request should be shown on an updated utility plan.* | Applicant is in the process of reviewing and addressing the peer review comments received on September 19 and will provide responses to those comments under separate cover.<br><br>Applicant is currently coordinating with DPW to evaluate the storm and sanitary connections and will provide an updated Utility Plan at a later date. |
| Public Infrastructure and Community Safety Standards (Sec. 13.6.3) | | |
| ***Standard*** | ***Updates Requested by City Staff*** | ***Comment Response Provided by Applicant*** |
| *Consistency with City Master Plans* | *Staff are not requesting any additional information related to this standard.* | This standard has been met. |
| *Public Safety and Fire Prevention* | *The applicant shall provide an updated fire truck turning template detailing emergency vehicle movements with the assumption that a delivery vehicle is parked in the designated loading area.* | Drawing C-2 has been revised to show the vehicle turning movement for a fire truck assuming that a delivery vehicle is parked in the designated loading area. |
| *Public Utilities* | *The applicant shall provide a wastewater capacity application for review and approval by DPW.*<br><br>*The applicant shall provide an ability to serve letter from Central Maine Power.*<br><br>*The Department of Public Works requests that the applicant consider diverting the off-site drainage system through the on-site R-tank/storage system. As currently designed, the off-site drainage would connect* | A wastewater capacity application has been submitted to DPW and is currently under review. Confirmation of ability to serve will be provided upon receipt.<br><br>An ability to serve letter from CMP has been provided.<br><br>Without a full understanding of the drain (and potentially sewer) system upstream of the on-site drainage network, |

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| | *to the proposed site's drainage system downstream of the treatment and storage facility.*<br><br>*It appears that the storm drain pipe from the existing catch basin (1174) running towards DMH-2 could be run straight without the proposed bend and cleanout. DPW would suggest removing the bend from the line and running it straight between the two structures.*<br><br>*The applicant is proposing to reroute private sewer and drainage lines serving separate parcels located north of the site around the proposed building. Based on the boundary survey, it appears that reciprocal easements have been established for this private sewer infrastructure running across the site. These easements may need to be adjusted to reflect the proposed site plan and the relocation of the private sewer and drainage lines.*<br><br>*DPW requests that both the sewer and storm drain connections for the project be brought out to Union Street, rather than tying into the internal sewer line that runs through the adjacent parking garage and ultimately connects to the Fore Street sewer.*<br><br>*The applicant shall detail the frequency of solid waste pickup.* | it would be infeasible to design and account for those flows into the R-Tank storage system.<br><br>Please see Sheet C-200, we have removed the bend from the drainage line in this area and are now running it straight between the two structures.<br><br>Draft reciprocal easements have been provided.<br><br>The applicant is in the process of evaluating the feasibility of revised storm drain connections and coordinating with DPW; an updated Utility Plan will be provided at a later date.<br><br>A Waste Management Operations Summary memorandum has been provided to further clarify the solid waste and recycling operations. |

| Site Design Standards (Sec. 13.6.4) | | |
|---|---|---|
| ***Standard*** | ***Updates Requested by City Staff*** | ***Comment Response Provided by Applicant*** |
| *Massing, Ventilation and Wind Impact* | *Staff are awaiting the submission of the wind impact study. The applicant shall provide details sheets demonstrating that roofing materials meet SRI standards.* | A Wind Impact Study has been provided.<br><br>Additional information on the roofing materials has been provided; please refer to the Floor Plan – Level Beacon Roof drawing, sheet A20.31. |
| *Shadow* | *Staff is awaiting submission of a full shadow analysis.* | A Shadow Study has been provided and was presented at the Planning Board Workshop on September 23. The Shadow Study has since been revised to incorporate comments received from the Planning Board, including providing detailed analysis of the shadows on December 21st.<br><br>A public comment was received noting that the Shadow Study did not include the public spaces Monument Park, Boothby Square, and Bell Buoy Park. The applicant has evaluated these additional public spaces and has confirmed that no shadow impacts would occur during the critical hours; therefore, these spaces were excluded from further analysis. |
| *Snow and Ice Loading* | *Staff are not requesting any additional information related to this standard.* | This standard has been met. |
| *View Corridors* | *Staff are not requesting any additional information related to this standard.* | This standard has been met. |

| | | |
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| *Historic Resources* | *Staff are not requesting any additional information related to this standard.* | This standard has been met. |
| *Exterior Lighting* | *The applicant shall provide a photometric plan detailing the variety and location of site lighting fixtures. Site lighting shall be designed in accordance with standards outlined in the Technical Manual.* | A photometric plan is currently being developed and will be provided in a subsequent submission. |
| *Noise and Vibration* | *Staff are not requesting any additional information related to this standard.* | This standard has been met. |
| *Signage and Wayfinding* | *Staff are not requesting any additional information related to this standard.* | This standard has been met. |
| *Design Standards* | *See attached design memo.* | A formal response to the Design Review Memo will be provided under separate cover. |

## 2. ATTACHMENT 2: ZONING REVIEW COMMENT RESPONSES

| Zoning Use Review (Article 6) | | |
|---|---|---|
| Zoning Performance Standards (Sec. 6.8) | | |
| ***Standard*** | ***Updates Requested by City Staff*** | ***Comment Response Provided by Applicant*** |
| *LUC Section 7.2* | *The applicant shall provide average grade calculations in accordance with standards defined in section 7.2.* | Please refer to the Average Grade drawing, Figure 1, for the average grade calculation, provided within this response to comments. |
| **Zoning Dimensional Review (Article 7)** | | |
| Dimensional Standards (Table 7-A – Table 7-H) | | |
| ***Standard*** | ***Updates Requested by City Staff*** | ***Comment Response Provided by Applicant*** |
| *Structure height* | *No updates required.* | This standard has been met. |
| Supplemental Dimensional Standards (Sec. 7.4) | | |
| ***Standard*** | ***Updates Requested by City Staff*** | ***Comment Response Provided by Applicant*** |
| *7.4.3(B)(2)(c)* | *No updates required.* | This standard has been met. |

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Att. C

Via Electronic Mail

October 16, 2025

Eric Freeman, Planner
City of Portland
389 Congress Street, 4th Floor
Portland, Maine 04101

Re: Response to City Staff Comments – Design Review Memo – 45 Union Street
Project ID PL-003157-2024

Dear Eric:

Thank you for coordinating the review of the Major Site Plan Application for the 45 Union Street redevelopment. The following document provides written responses to the Design Review memo from the City of Portland, dated August 29, 2025. Similar to the formatting of the comments received, our responses are provided in blue narrative format with figures included in-line as needed. Design review comments shown in red text, indicating standards not met and requiring resubmission, along with corresponding figures, are included for reference.

**Staff Comment:** Staff recommends that the applicant consider adding an additional entrance at the northeast corner of the building to create a clear, distinct entry into the proposed café space, particularly for patrons approaching from Old Port Square and Exchange Street. Additionally, staff requests that the applicant label all of the proposed facade materials on the building elevations.

**Applicant Response:** The Applicant accepts Staff's recommendation to add a secondary entrance to the northeast corner of the building and has also opted to add another secondary entrance at the northwest corner of the building, along with a set of operable windows at the central north fenestration. These modifications enhance pedestrian permeability, support the indoor-outdoor experience and operations, and provide architectural symmetry to the proposed café space.

The two previously proposed entrances to the north will continue to serve as the primary circulation points, given their proximity to the indoor café tables and seating, as well as considerations related to wind, snow, and ice exposure. The secondary entrances at the northeast and northwest corners will only be operated in the warmer months, to preserve the limited indoor usable area of the café (approximately 1,500 USF), and maintain its viability during colder weather. The updated design is illustrated in **Figure 1** below.

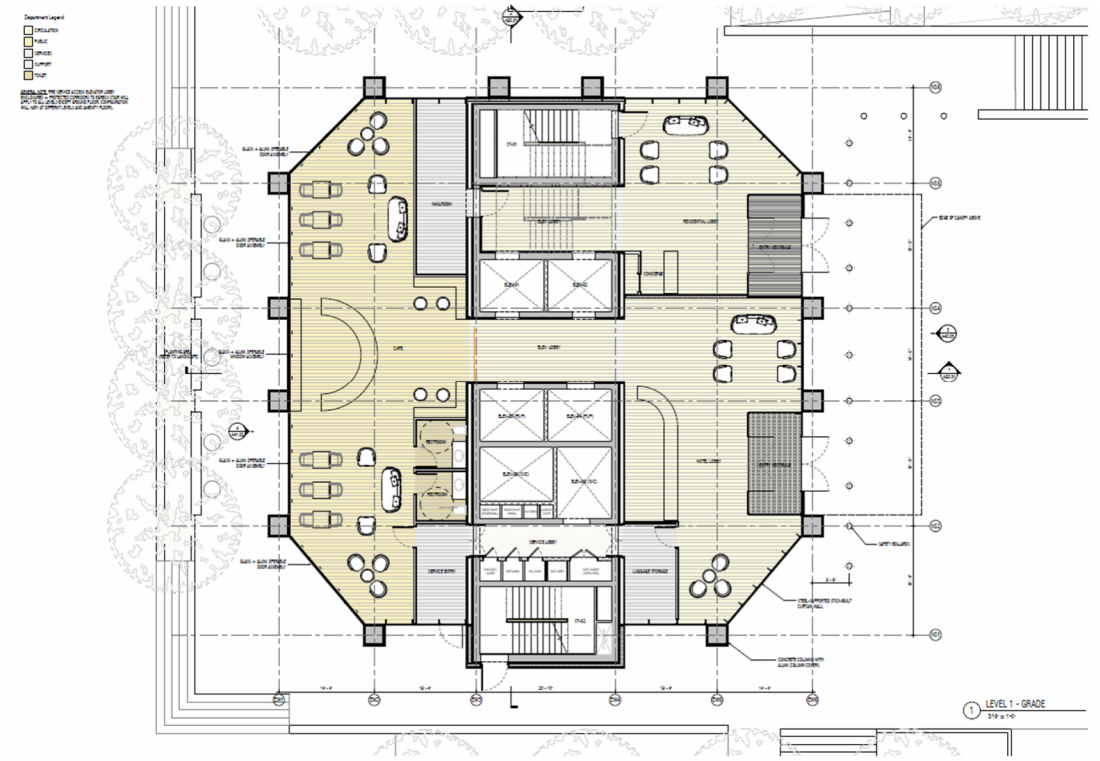



**Figure 1: Revised Floor Plan – Level 1 Grade (A20.01)**

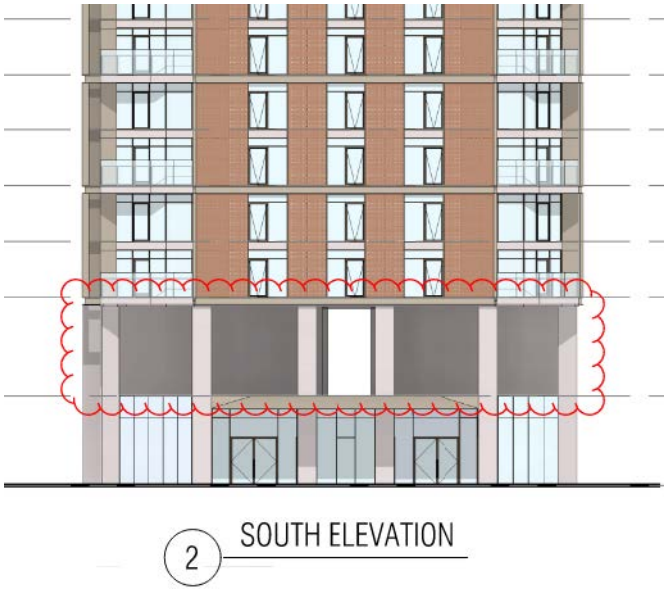
In subsequent discussions, Staff suggested including examples of wayfinding signage to illustrate the Applicant's intent to help guide pedestrians to the café and other publicly accessible areas within the 45 Union Street building and site. The Applicant intends to install pylons featuring wayfinding elements and navigational information similar to the precedent shown in **Figure 2** at key pedestrian points on the 45 Union Street site and elsewhere within the larger Old Port Square area.




**Figure 2: Duke of York Square Wayfinding Pylons, London by Rivermeade (Precedent Only)**

Applicant has provided information on the proposed façade materials on revised Architectural Drawing A40.03.

**Staff Comment:** Staff believes the tower cantilever over the ground floor enhances activation at the street level, while the soffit design and material selection help contextualize and integrate the building into the broader eclectic downtown context. However, Staff recommends that the applicant provide an architectural narrative describing the design intent and function of the voided space between the Level 1 roof and Level 2. In addition, Staff suggests the applicant consider extending the curtain wall system or exploring other design treatments, such as providing access to the Level 1 roof area to assist with additional activation or utilization of the space.




*City Design Review Memo Figure 1: Clouded area denotes Staff comments on sheet A-40.01*

**Applicant Response:** The Applicant is pleased to provide additional narrative describing the design intent and function of the voided space between the Level 1 roof and Level 2. The vertical open space and open-air void that occurs between approximately 16'0" and 33'10" above grade is intended to highlight the publicly accessible indoor and outdoor spaces at the ground plane, appropriately relating the base of the building to the immediately adjacent existing 19th century and 1970-1980s buildings, and overall create more a comfortable experience for pedestrians and the occupants of adjacent buildings. Keeping this volume open to the elements save for critical structural support and core mechanical and circulation services allows for greater natural light, wind/air circulation, and visual permeability. The vertical open space is cited in the Wind Study as an architectural example of how the current design of the building is reducing wind speeds at grade level. **Figure 3** below shows this page in the Wind Study for reference.

Furthermore, **Figure 4** uses red lines to show the relationship that the building base and the limits of the vertical open space have to the retail levels of the 190 and 200 Middle Street towers to the northwest and west. This contextual relationship of the voided space is also present with the historic buildings on Exchange Street, with the upper boundary of the space intending to align with the rooftops of the adjacent three-story historic buildings to the east like 34, 36, 44, and 50 Exchange Street. As a result, the upper levels of the adjacent historic buildings will preserve access to natural light and wind circulation as well views across the site.

Based on this narrative explanation, the Applicant does not elect to extend the curtain wall system or provide access to the level 1 roof. Both solutions would reduce the size of the vertical open space, worsening the experience at grade and in the first 2-4 stories of the adjacent buildings.

In subsequent discussions, Staff has requested the Applicant consider the illumination of the walls and ceiling of the vertical open space at night. The Applicant agrees this will serve to

further highlight the openness at the base of the building and provide a safe and visually attractive open volume at night. Lam Partners, the lighting designer, will include further information about the lighting design of this area in their subsequent submission. The design will meet all dark skies requirements.

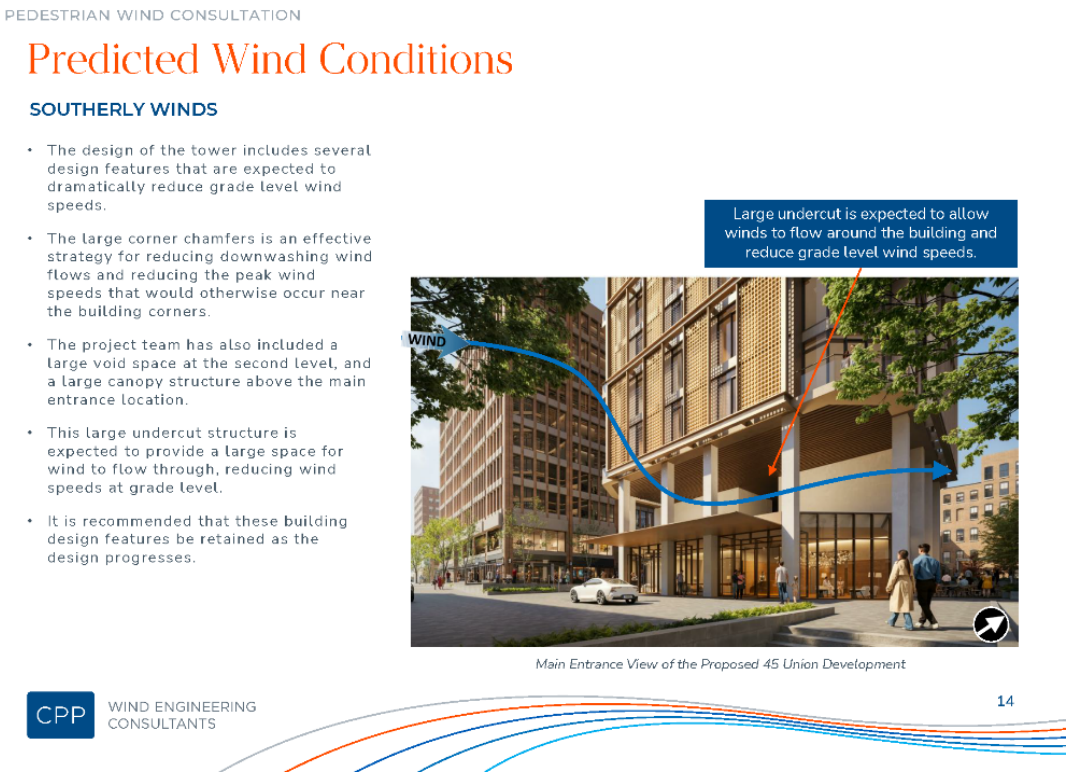


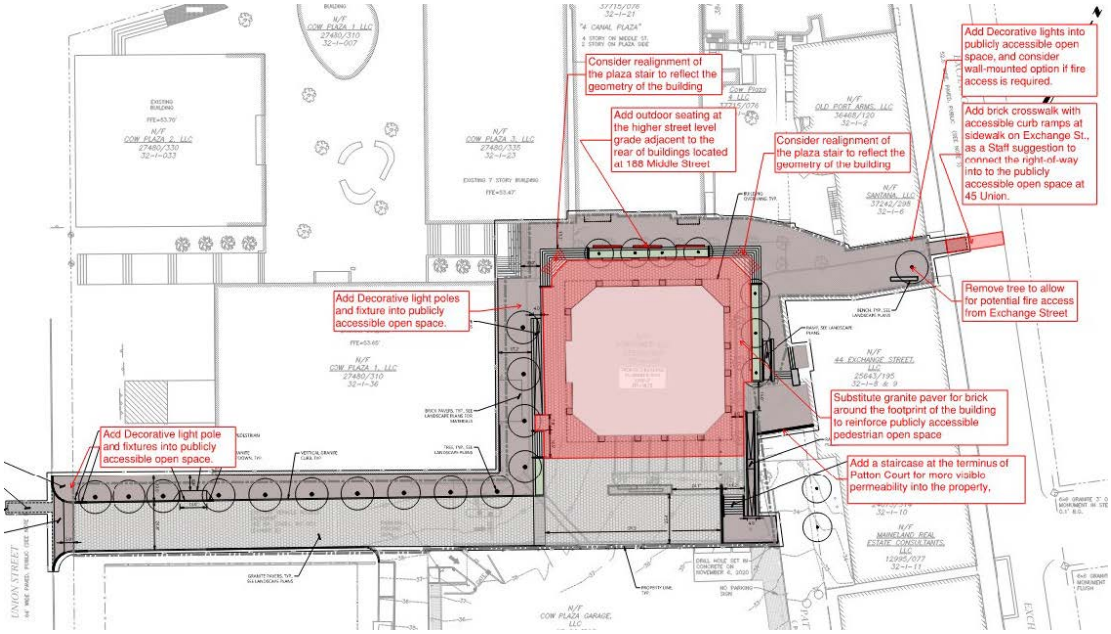

**Figure 3: Page 14 of the Pedestrian Wind Study Highlighting the Benefits of the Vertical Open Space (Referred to as an "undercut")**




**Figure 4: View of 45 Union Street Motor Court with Red Marked Existing Building Relationship Alignments**

**Staff Comment:** Staff recommends additional pedestrian amenities to enhance activation of the publicly accessible open space. These include: additional outdoor seating (granite benches) at the higher street-level grade adjacent to the rear of buildings at 188 Middle Street; street lighting matching the City's decorative Old Port fixture (Technical Manual, Section 8, Figure X-6B) throughout the open space; consideration of a staircase at the terminus of Patton Court to improve visible permeability into the property; and substituting granite pavers for brick around the building footprint to better delineate pedestrian areas and continuation of the sidewalk and publicly accessible spaces from the shared drive.

Furthermore, Staff recommends realigning the plaza stair to reflect the building's geometry, possibly through a chamfer, to create greater unity with the building design and soften the harder edges. See diagram for Staff's recommendations.




*City Design Review Memo Figure 2: Staff comments on sheet C-100*

**Applicant Response:** The Applicant agrees with Staff on the goal of maximizing activation and access to publicly accessible open space on the 45 Union Street site. As such, the Applicant intends to provide movable benches in key locations (such as the area adjacent to the south elevation of 188 Middle Street) on site for public pedestrian use rather than permanent granite benches to allow for flexibility of diverse active uses.

The lighting design to be shared subsequently will include fixture specifications, photometric plans, and fixture locations for the site. Lighting design is intended to provide warm color temperature lighting that is indirect and softly illuminates the ground plane for pedestrian comfort and to preserve dark skies. The landscape and lighting concept is meant to transition and relate to the context in the Waterfront/Old Port Historic District, rather than replicating it.

While creating a staircase at the terminus of Patton Court to offer better pedestrian circulation is certainly desirable to the Applicant and has been considered, it is currently not possible due to the grade change at this location and the need to preserve access to the retail level at 36 Exchange Street.

Granite pavers are maintained in outdoor pedestrian congregation spaces for intended uses such as food and beverage outdoor seating as well as reoccurring events on the 45 Union Street site and throughout Old Port Square. However, a pedestrian bump-out and crosswalk across Exchange Street has been added per Staff direction. Materials and detailing in this area are to match City-Standard requirements.

The Applicant has considered Staff's request regarding realignment of the stairs, and has opted to preserve the rectilinear stair format in order to fit 110 seats of outdoor café seating for the

publicly accessible café at level 1. In the winter, the space will be utilized with furniture and activities consummate with the colder weather. See Revised Landscape Site Plan included below as **Figure 5.**

In subsequent discussions, Staff suggested including the illustrative site plan that is publicly available on OldPortSquare.com in the revised application to visually demonstrate the broader landscape and hardscape intent for the Old Port Square area. This intent is very much a continuation of what is present on the 45 Street site plan, such as creating and improving pedestrian circulation pathways around and through the area, as well as reinforcing connections to the surrounding Old Port streetscape through the use of City-standard brick paving to define these pedestrian walkways. The illustrative site plan is provided as **Figure 6** below. Information outside the 45 Union Street site boundary is included for reference only.

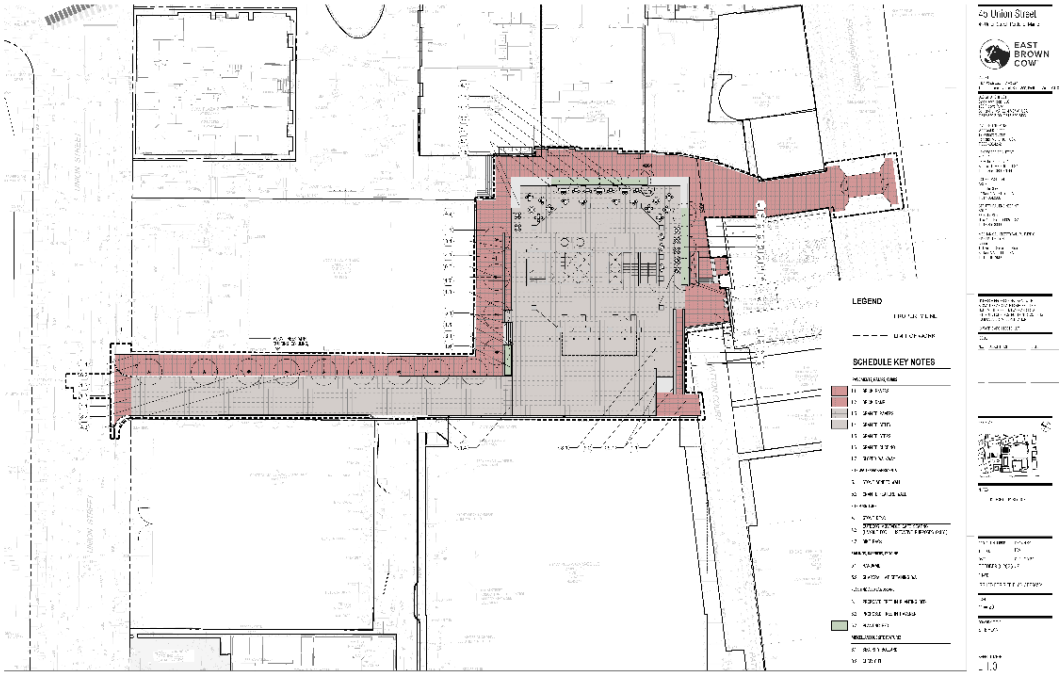



**Figure 5: Revised Landscape Site Plan (L1.0)**




**Figure 6: Illustrative 45 Union Street Site Plan within Larger Old Port Square Area. Information outside of site plan boundary included for reference purposes only.**

**Staff Comment:** Staff requests that the mechanical area located above the Level Beacon Roof be fully enclosed, and suggests increasing the height of the screening element to align with the tallest rooftop appurtenance.

*Land Use Code Reference: §(b)(1).E. Rooftop appurtenances: All mechanical equipment, ventilating and air conditioning and other building systems, elevators, stairways, radio or television masts or equipment, or other rooftop elements not intended for human occupancy shall be fully enclosed in a manner consistent with the character, shape and materials of the principal building.*

**Applicant Response:** The Applicant accepts the Staff's request and has revised Architectural Drawings A0.01, A20.31, A40.03, and A50.01 to reflect this enclosure and screening. These revised drawings have been uploaded to ProjectDox for City review.

**Staff Comment:** Staff is awaiting the submission of a shadow study to better understand shadow impacts on public plazas, and parks.

*Land Use Code Reference: §(b)(1).F. Shadow impact on open space: The location, massing and orientation of portions of buildings in excess of 65 feet in height shall be such that substantial shadow impacts on public plazas, parks, and other publicly accessible open space are avoided.*

**Applicant Response:** The Applicant submitted a revised Shadow Study to Staff on October 8, 2025. The Shadow Study demonstrates that substantial shadow impacts on public plazas, parks, and other publicly accessible open space are avoided.

**Staff Comment:** Staff is awaiting the submission of a wind study.

*Land Use Code Reference: §(b)(1).G. Wind impacts: The location, massing, orientation and architectural design of a new building or a building addition shall be such that no significant adverse wind impacts are created.*

**Applicant Response:** The Applicant submitted a Wind Impact Study to Staff on October 8, 2025. The wind study demonstrates that no significant adverse wind impacts are created by the project.

Sincerely,

Woodard & Curran, Inc.



Caitlin Suhr, P.E.
Project Manager

cc: Jacob Soley, East Brown Cow – Kowtower LLC

# 2. PERMITTING AND ZONING

This application for a Major Site Plan for the proposed work will meet the Site Plan and Zoning requirements for an application as outlined in the City of Portland Land Use Code.

## 2.1 Site Plan

The proposed project work will require a Major Site Plan Approval due to new construction of greater than 10,000 square feet. The project has been designed to meet the applicable site plan review standards, as outlined in Section 3 of this report. The Major Site Plan Checklist has been provided as a separate attachment with this application.

## 2.2 Zoning

The project site is located within the B-3 Downtown Business Zone. Based on the timing of the filing of the initial application, the project has been designed to comply with the City of Portland Land Use Code (ReCode), effective December 4, 2024.

The site's frontage on Exchange Street is located within the Pedestrian Activities District (PAD) Overlay Zone, and a portion of the site, including the pedestrian walkway on Exchange Street, is located within the Waterfront (Old Port) Historic District. The current land use at the site is a surface parking lot.

The Site Plan Data Sheet demonstrates the project's compliance with dimensional requirements and is provided as a separate attachment with this application. The site is not located within a flood zone and will not be subject to the City's Shoreland and Flood Plain Management regulations.

### 2.2.1 B-3 Downtown Business Zone

The property is in the B-3 Downtown Business Zone and meets all applicable standards for this section. Per Table 6-C of the Land Use Code, the proposed uses of hotel, residential, and restaurant are all permitted uses within the B-3 zone.

### 2.2.2 Pedestrian Activities District (PAD) Overlay Zone

The requirements of the PAD Overlay Zone are outlined in section 8.5 of the City of Portland Land Use Code. The intent of the PAD Overlay Zone is to ensure that key areas within the City are maintained as active, walkable, and pedestrian-oriented activity centers. The site's frontage along Exchange Street is located within the PAD Overlay Zone (see Figure 2-1 below).

The current site frontage along Exchange Street is utilized as a pedestrian walkway to provide access from Exchange Street to the site, which the project is proposing to maintain and enhance via landscape, hardscape, and signage/wayfinding.

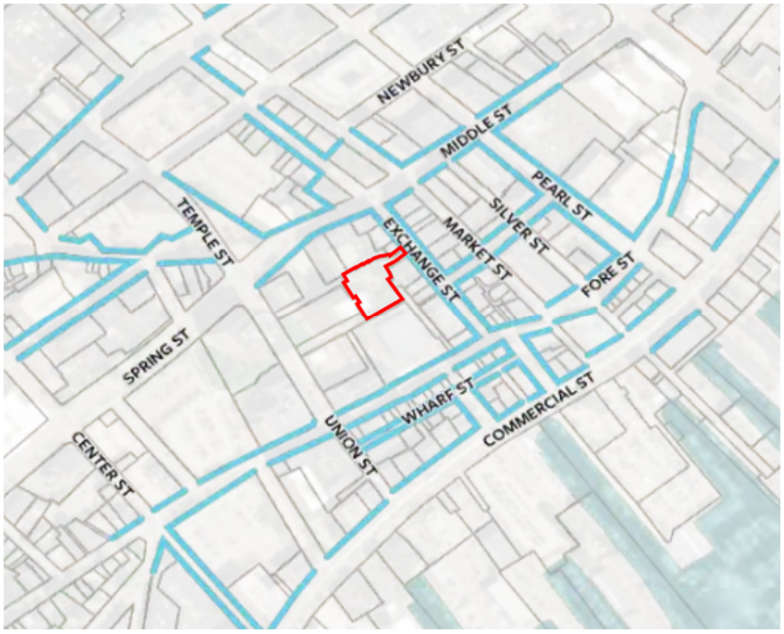



**FIGURE 2-1 PEDESTRIAN ACTIVITIES DISTRICT (PAD) OVERLAY MAP**

### 2.2.3 Waterfront (Old Port) Historic District

A portion of the site, the pedestrian walkway into the site from Exchange Street, is located within the Waterfront (Old Port) Historic District (see Figure 2-2). The proposed building footprint will not be located within the boundaries of the Historic District.

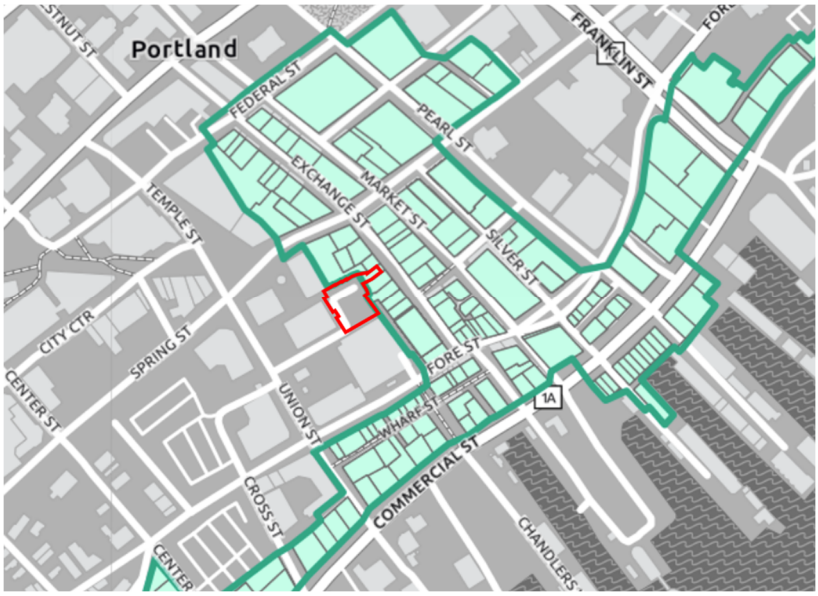



**FIGURE 2-2 WATERFRONT (OLD PORT) HISTORIC DISTRICT MAP**

### 2.2.3.1 Dimensional Requirements

The site meets the dimensional requirements of the B-3 Business Zone as described below.

*Setbacks*

There are no setback requirements for the project. Section 7.5.3 of the Land Use Code requires all portions of buildings above 125 feet in height provide a minimum of 35 feet of setback from side and rear lot lines when abutting another tower. The tallest adjacent building to the proposed 45 Union Street is 200 Middle Street, which has a building height of 123'-0", measured to the roof beams of the top occupied level. Therefore, the setback criteria are not applicable.

*Build-to zone*

The required build-to zone in zoning district B-3 is 0-5 feet. Due to the irregularly shaped lot and the location of the proposed building in an urban infill lot, the building is not located directly on any street frontage. Per the Land Use Code Section 7.6.5.B.3, the Planning Board may approve a different build-to zone for irregularly shaped lots provided the build-to zone is met to the maximum extent practicable. The building has been placed in a location that is as close to Exchange Street as possible, while meeting all other applicable dimensional and fire separation code requirements.

*Build-to percentage*

The required build-to percentage in B-3 is 100%. Due to the irregularly shaped lot and the location of the proposed building in an urban infill lot, the building is not located directly on any street frontage. As noted above, the Planning Board can approve a different built-to zone for this irregularly shaped parcel. The building façade will be approximately parallel to Exchange Street, so 100% of the façade will be within the built-to zone approved by the Planning Board.

*Building length as a percentage of street frontage*

In the B-3 zone, lots up to 50 feet in frontage require building length to be 80% of the street frontage; lots greater than 50 feet in length require building length to be 60% of the street frontage. Due to the irregularly shaped lot and the location of the proposed building in an urban infill lot, the building is not located directly on any street frontage. Therefore, this requirement does not apply.

*Blank wall area*

In the B-3 zone, the maximum blank wall area is 20 feet. In accordance with the Land Use Code, no section of the contiguous building façade without fenestration, doors, change in wall plane, or other architectural or material embellishment will be greater than 20 feet in the horizontal linear dimension.

*Building Height and Architectural Cap*

The B-3 Zone Height Map included in the Land Use Code allows a maximum building height of 325 feet (measured to top of occupiable floor) on the site, plus the potential for an additional height of up to 40 feet for the purpose of providing a distinctive architectural cap (Section 7.5.3.E.1). Furthermore, creating habitable area within the architectural cap should only be allowed if a minimum of 50% of the area is devoted exclusively to one or more uses open to the public such as a restaurant, atrium, or viewing area

(Section 7.5.3.E.2.A). The proposed building design includes a distinctive architectural cap at level 29 and 30 that will both add visual interest to the Portland skyline and is integral to the overall building design and program. Consistent with Section 7.5.3.E.2.A of the Land Use Code, the architectural cap includes publicly accessible spaces such as a restaurant level and sky lobby that comprises a bar and lounge and observatory. These uses make up significantly greater than 50% of the habitable floor area of the architectural cap – 86.90% to be precise. See the table below for full public area calculations. As permitted by Section 7.6.1.E of the Land Use Code, rooftop appurtenances will be located above the occupied architectural cap and will be adequately screened in accordance with City requirements.

| Level | Total Area (NSF) | Percent Dedicated to Public Use |
|---|---|---|
| 29 | 5,037 | 100% (5,037 NSF) |
| 30 | 4,952 | 73.57% (3,643 NSF) |
| Architectural Cap Total Area Dedicated to Public Use: | | 86.90% (8,680 NSF) |

**FIGURE 2-3 ARCHITECTURAL CAP PUBLIC AREA TABLE**

#### 2.2.3.2 Parking

No new parking is proposed as part of this project; parking will be provided in the adjacent Old Port Square Garage for guests and residents.

#### 2.2.3.3 Loading

Loading activities will be accommodated at the front of the building, with trucks entering the site from Union Street via the existing driveway. During loading and unloading, vehicles will stage in front of the building, and materials will be brought inside through the side door, as shown on the submitted site plans. Per Section 18.2, Off-Street Loading, of the Land Use Code, hotels with a gross floor area over 100,000 square feet must provide at least one loading bay or berth. The proposed hotel includes 37,501 net square feet of hotel space; therefore, no loading bay or berth is required.

#### 2.2.3.4 Signage

Signage will comply with the requirements of the Land Use Code. Refer to section 13.6.4 (H) of this narrative for additional information.

### 2.3 Waiver Requests

There are no waivers being requested at this time. A copy of the waiver table is provided as a separate attachment for record.

## 2.4 Evidence of State and/or Federal Permits

Due to the Site's proximity to the Portland Jetport, submittal of Notice of Proposed Construction or Alteration (Form 7460-1) filings to the Federal Aviation Administration (FAA) will be required prior to construction. No other state or federal permits are expected to be required.

## 2.5 Evidence of Financial Capability

Attached is a memo from East Brown Cow - Kowtower LLC providing confirmation of the financial capacity for the completion of this project.

## 2.6 Evidence of Right, Title, and Interest

A copy of the property's deed documentation is attached.

## 2.7 Evidence of Technical Capability

The project is being developed by a team with experience in site and building development in the City of Portland, and throughout the State of Maine. Resumes of key project team members are available upon request.

**Woodard & Curran** has extensive experience with design for site development projects and specifically on the peninsula within the City of Portland. Woodard & Curran, a 1,300-person Portland-based firm, has provided engineering services to the public and private sector for over 40 years, including permitting, civil/site engineering, stormwater, and construction management services.

**Safdie Architects** is an architectural design studio driven by a spirit of innovation, and guided by the principles that architecture should uplift humanity, celebrate nature, and aspire to timelessness. Recently completed projects by Safdie Architects include the iconic Marina Bay Sands Integrated Resort in Singapore and the Crystal Bridges Museum of American Art in Bentonville, heralded for its intertwining of art, architecture, and nature. Safdie Architects' current projects in New England include a new village resort at Killington, Vermont. Safdie Architects is based in Boston, with branch offices in Singapore, Jerusalem, Shanghai, and Toronto.

**Michael Boucher Landscape Architecture**, based in Freeport Maine, has over 30 years' experience providing Landscape Architecture services including permitting, grading, landscape design and construction administration services throughout the US and internationally.

**Consigli Construction** has also been selected as the construction manager for the project. Consigli Construction is an 1,800-employee firm with broad experience in Portland and beyond. Their project portfolio includes the ground-up construction of Hyatt Place Portland Old Port and the renovation of the Fore Street Garage.

## 2.8 Attachments

- Major Site Plan Checklist (uploaded separately to Documents folder)
- Site Plan Data Sheet (uploaded separately to Documents folder)
- Waiver Table (uploaded separately to Documents folder)
- Financial Capacity Memo (uploaded separately to Documents folder)

- Property Deeds (uploaded separately to Documents folder)
- Boundary Survey (uploaded separately to Plans folder)

# City of Portland Site Plan Form

| Part 1. Project Description & Site Information | | | |
|---|---|---|---|
| Application type: | Major Site Plan | Submission type: | Initial Submission |
| | Address: | CBL number: | Lot area (square feet): |
| Main property: | 45 Union Street | 032 I040001 | 25,397 |
| Additional properties (if applicable): | | | |
| Project description: | | | |

| Type(s) of work: (Select which type(s) of work apply from the dropdown list. If not applicable, select N/A.) | |
|---|---|
| New residential construction or additions | |
| New non-residential construction or additions | |
| Creation of disturbed area | 1,000 square feet - 3 acres |
| Creation of impervious surface | 1,000 square feet - 1 acre |
| Construction or paving of parking | N/A |
| Change of use | N/A |
| Does this project include State or Federal funding, permits, review, or sponsorship? | ☐ Yes ☐ No |
| If yes, list applicable entities: | |

| Associated applications: (Check all that apply) | | | | | | |
|---|---|---|---|---|---|---|
| | Army Corps of Engineers General Permit | | Maine DEP- GC Permit | | Subdivision | |
| | Floodplain Development Permit | | Maine DEP - NRPA | ✔ | Traffic Movement Permit | |
| | Harbor Commission Construction Permit | ✔ | Site Location of Development | | Zoning Amendment | |
| | | | Stormwater Quality | | Other: | |

| Part 2. Use Information | | | | Total Existing | Total Proposed | Net New |
|---|---|---|---|---|---|---|
| Residential | General | Residential floor area (square feet) | | 0 | 63,992 | 63,992 |
| | | For Group Living uses with no dwelling units, list the number of rooming units | | | | |
| | | Dwelling units | | 0 | 73 | 73 |
| | | Ownership units | | 0 | 73 | 73 |
| | | Rental units | | 0 | 0 | |
| | Bedrooms | Studio units | | 0 | 0 | |
| | | 1-bedroom units | | 0 | 45 | 45 |
| | | 2-bedroom units | | 0 | 28 | 28 |
| | | 3-bedroom units | | 0 | 0 | |
| | | 4+ bedroom units | | 0 | 0 | |
| | Affordability | Market-rate units | | 0 | 73 | 73 |
| | | | % AMI | | | |
| | | | % AMI | | | |
| | | | % AMI | | | |
| Non-Residential | | Commercial/Service floor area (square feet) | | 0 | 90,146 | 90,146 |
| | | Industrial floor area (square feet) | | 0 | 0 | |
| | | Institutional floor area (square feet) | | 0 | 0 | |
| | | Other floor area (square feet) | | 0 | 0 | |

| Part 3. Inclusionary Zoning | | | | Total Existing | Total Proposed | Net New |
|---|---|---|---|---|---|---|
| Inclusionary Zoning (IZ) dwelling units | | | | 0 | 0 | |
| Ownership IZ units | | | % AMI | | | |
| Rental IZ units | | | % AMI | | | |
| Bedrooms | Studio IZ units | | | | | |
| | 1-bedroom IZ units | | | | | |
| | 2-bedroom IZ units | | | | | |
| | 3-bedroom IZ units | | | | | |
| | 4-bedroom IZ units | | | | | |
| IZ fee-in-lieu | $ 182,830.00 | for 73 | of the required 73 | IZ dwelling units | | |

# City of Portland Site Plan Form

| Part 4. Building & Site Metrics | Total Existing | Total Proposed | Net New |
|---|---|---|---|
| Number of buildings | 0 | 1 | 1 |
| Building floor area (square feet) | 0 | | |
| Building footprint (square feet) | 0 | 5,900 | 5,900 |
| Street trees | | | |
| Automobile parking spaces | 26 | 0 | -26 |
| ADA-accessible parking spaces | 0 | 0 | |
| Compact parking spaces | 0 | 0 | |
| Level 2 Electric Vehicle (EV) charging spaces | 0 | 0 | |
| Level 3 Electric Vehicle (EV) charging spaces | 0 | 0 | |
| Bicycle parking spaces | 0 | 42 | 42 |
| Number of water service connections | 0 | 3 | 3 |
| Number of sewer service connections | 0 | 1 | 1 |
| Impervious area (square feet) | 36,910 | 37,313 | 403 |
| New developed area (square feet) | | 37313 | |
| Non-roof redeveloped impervious area (square feet) | | 14505 | |
| Limits of disturbance (square feet) | | 38154 | |
| Alteration to wetlands or watercourses (square feet) | | 0 | |

| Part 5. Zoning (You can use this link to view the zoning for your property) | | | | | |
|---|---|---|---|---|---|
| Base Zone | B-3 | | Base Zone #2 (if applicable) | | |
| Local Historic District? | Portland Waterfront | Overlay Zone #1 (if applicable) | Select from List | Overlay Zone #2 (if applicable) | |

| Zoning Standards – Project Site | B-3 Requirements | Proposed | Requirements | Proposed |
|---|---|---|---|---|
| Lot area (square feet) | none | 25,397 | | |
| Street frontage, Minimum (feet) | none | N/A | | |
| Lot coverage, Maximum (%) | none | N/A | | |
| Landscaped open space ratio, Minimum (%) | none | N/A | | |
| Build-to Zone (feet) | 0-5 | N/A | | |
| Build-to percentage, Minimum (%) | 100.0 | §7.6.5.B.3 Exception | | |
| Blank wall area, Maximum (feet) | 20.0 | §7.6.5.B.3 Exception | | |
| Additional standard: | | | | |

| Zoning Standards by Building (Use Extra Sheets if >2 Buildings) | Building #1 Zone Requirements | Proposed | Building #2 Zone Requirements | Proposed |
|---|---|---|---|---|
| Front setback, Minimum/Maximum (feet) | none | N/A | | |
| Rear setback, Minimum (feet) | none | N/A | | |
| Side setback, Minimum (feet) | none | N/A | | |
| Structure height, Maximum (feet) | 325 | 325 | | |
| Additional standard: | | | | |

| Affordable Housing Density Bonuses (if applicable) | Maximum Allowable with Bonus | Proposed |
|---|---|---|
| Density, Maximum (x base) | | |
| Height, Maximum (feet) | | |

**If Needed, Explanatory Text Can Be Provided Below**

The proposed building is not located within a Historic District, however a portion of the site (the pedestrian walkway on Exchange Street) is located within the Waterfront (Old Port) Historic District. Additionally, the project intends to pay the 2025 Inclusionary Zoning Fee in-lieu of $4,831 per guest room.

Att. F

# 3. CONSISTENCY WITH CITY OF PORTLAND SITE PLAN REVIEW STANDARDS

The project design has considered the Site Plan Review Standards as outlined in Section 13.6 of the City of Portland Land Use Code. This section describes the applicable standards and how the project proposes to meet them.

## 13.6.1 Transportation Standards

It is anticipated that a Traffic Movement Permit (TMP) will be required for the project. A Scoping Document is currently being prepared by traffic consultant, Barton & Loguidice, which will be submitted to the City for review. Through coordination with the City, the Scoping Document will be refined and the area of study determined. Following that coordination, a Traffic Impact Study will be completed and submitted to the City for review. Additional information on how the project meets the Transportation Standards of the Land Use Code is provided in the following sections.

## 13.6.1 (A) Impact on Surrounding Street Systems

The proposed facility is not anticipated to have an impact on the surrounding street systems. No new curb cuts are proposed as part of the project. Vehicular access to 45 Union Street will be through the use of the existing curb cut into the site from Union Street.

## 13.6.1 (B) Access and Circulation

The primary vehicular access to and from the building will be from an existing curb cut on Union Street. The existing alleyway between the CMP substation and Old Port Square Garage will be utilized for emergency vehicle turning movements. Vehicle turning movements for a passenger vehicle, fire truck, ambulance, and SU-3 are shown on drawings C-1 through C-4, included as attachments to this section.

Pedestrian access will be provided via a walkway from Union Street, which will be ADA compliant. In addition, two ADA compliant ramps will provide pedestrian access to the building from Fore Street/Patton Court, Exchange Street, and the Old Port Square Garage. Public elevator access during normal business hours inside 190 and 200 Middle Street will provide convenient ADA access to the site and Middle Street beyond.

## 13.6.1 (C) Public Transit Access

The proposed project is located near numerous Greater Portland METRO Transit routes, including Greater Portland METRO Local Services 8 and 9A on Union Street, South Portland Bus Route 24A on Union Street, and is within walking distance from Congress Street, where Greater Portland METRO Local Service Route 1, 2, 5, 7, 9B, and METRO BREEZ Express Service are all available.

## 13.6.1 (D) Parking / Bicycles / Snow Management

No off-street parking spaces are required as part of the project, and no new parking is proposed, consistent with the requirements of the Land Use Code. Parking for the project will be provided in the existing Old Port Square Garage adjacent to the site and with vehicular access via the north side of the building and on Fore Street.

The Land Use Code requires 1 bicycle parking space to be provided for every 2 dwelling units. Based on the current programming of 73 residential units, 37 bicycle parking spaces are required. An additional 6 bicycle parking spaces are required based on the combined floor area of the restaurant, sky bar, and café, which totals approximately 8,200 square feet combined. For restaurant spaces greater than 5,000 square feet, one bicycle space per 1,500 square feet is required. Therefore, the total anticipated bicycle parking spaces required for the project is 43 spaces. The applicant intends to provide bicycle parking for all 43 required spaces in outdoor spaces on the site and on adjacent commonly owned properties. Final locations of bicycle parking spaces are to be determined based upon further coordination with the City.

Snow removal on-site will be managed using a snow melter. Accumulated snow from driveways, walkways, and other paved surfaces will be collected and transported to a designated snow melting area an adjacent commonly owned. The snow melter will rapidly convert snow to water, which will then be directed to the site drainage system in accordance with applicable stormwater management requirements. Use of the snow melter reduces the need for off-site snow storage or hauling and minimizes the potential for large stockpiles that could impact visibility, parking, or pedestrian access.

### 13.6.1 (E) Transportation Demand Management (TDM)

Transportation Demand Management (TDM) Plans are required for all commercial, institutional, or mixed-use developments of 50,000 square feet or more in total floor area. A TDM Plan has been prepared for the project and is included as an attachment to this section.

### 13.6.2 Environmental Quality Standards

### 13.6.2 (A) Preservation of Significant Natural Features

The proposed project will replace an existing paved parking lot. There are no existing significant natural features within the project area.

A Low Impact Design Analysis was completed for the project using the City's scoring tool. The project achieves 81 total points awarded, exceeding the minimum of 80 points required for approval of LID strategies and techniques. There are no natural resources present on the site, and the site has been previously developed. Additionally, no new parking is proposed as part of the project. Refer to the attached LID Scoring Tool, and Stormwater Management Report, for more information on the project's site design and stormwater improvements.

### 13.6.2 (B) Site Landscaping & Buffers

A site landscaping plan is included as part of the submitted project plans.

Per the City's Site Plan standard, a minimum of one shade tree or six plantings is required per 30 linear feet of property frontages as measured along the property line. The site's frontage along Exchange Street is approximately 24 linear feet, requiring 1 tree or groups of plantings. As shown on the landscape plans, this quantity will be exceeded with the trees and plantings proposed for the interior of the site.

### 13.6.2 (C) Water Quality, Stormwater Management, and Erosion Control

Stormwater quality treatment and management will be provided, as described in the attached Stormwater Management Report. Erosion and sediment controls will be implemented as shown on the drawings and as described in the Stormwater Management Report and Construction Management Plan.

## 13.6.3 Public Infrastructure and Community Safety Standards

### 13.6.3 (A) Consistency with City Master Plans

The project will not result in inconsistencies with City master plans. Consistent with the City's Plan 2030, the project will contribute to the City's vibrant and growing economy by providing a unique lodging and living experience that is in walking distance of the Arts District and located within the Old Port. The project will support the creation of new jobs, transforming an existing surface parking lot into a vibrant residential building and hotel, with a publicly accessible observatory, sky lobby, bar/lounge, restaurant, café, wellness center and meeting space and will provide pedestrian connectivity between Union Street, Fore Street/Patton Court, and Exchange Street through a revitalized courtyard and walkways. One of the City's core goals in its Plan 2030 is the creation of housing for all income levels and household sizes city-wide. Consistent with that goal, the project will include 73 new 1- and 2-bedroom residential units. Further, in Portland's Plan 2030, and as demonstrated in the recently adopted ReCode, the City has encouraged increased density, as high-density areas can be more environmentally friendly, promote transit use, and can benefit the health of a community by providing customers for local businesses and opportunities for social interaction. Consistent with the City's Plan 2030, the project will bolster Portland's downtown as a predominant locus of activity and achieve the City's urban design goals of providing excellence in architecture through thoughtful and high-quality design.

### 13.6.3 (B) Public Safety and Fire Protection

Emergency vehicles will access the site through the existing curb cut on Union Street and will use the existing alleyway between the CMP substation and Fore Street parking garage as a turnaround area. The applicant held meetings with Portland Fire Department in 2019 to review and discuss this approach and anticipate revisiting with Portland Fire Department as part of this Site Plan application review. A Fire & Life Safety Strategy Narrative has been prepared for the project by Arup and is included as an attachment to this section.

### 13.6.3 (C) Public Utilities

Utilities servicing the new building will include natural gas, domestic water and fire protection, sanitary sewer, electric, communications, and stormwater. As part of this project, coordination and communication with various agencies is being conducted to confirm prior assumptions. Ability to serve letters will be provided when they are received. Existing and proposed utilities are identified on the Utility Master Plan included in the attached drawings.

<u>Water</u>

A 6-inch domestic water service and two 8-inch fire protection services are proposed for this project. Per District records, existing water mains are present on Union Street, Exchange Street, and Patton Court. Due

to the age of the water mains on Union Street and Exchange Street, the proposed primary domestic water service and fire protection service connections will come from Union Street, including a new fire hydrant at the Union Street project driveway entrance consistent with an earlier request of Portland Fire Department. The redundant fire protection service will come from Exchange Street.

Sanitary Sewer

A 6-inch sewer service and 4-inch sewer service and external grease trap are proposed. A City-owned combined sanitary sewer/stormwater drainage is present on-site and discharges via gravity through a 15" cement pipe from 200 Middle Street beneath the Old Port Square Garage to Fore Street. A 24" vitrified clay sewer main in Exchange Street, and 18" asbestos cement sewer main in Union Street and 8" PVC sewer service in Patton Court is also located in the projected vicinity. The proposed sewer services will connect to the existing 15" cement pipe from 200 Middle Street. The existing sewer service from 188 Middle Street to Exchange will be impacted by the proposed building foundation and will be relocated for construction of the building.

Natural Gas

Natural gas mains are present in Union Street and Patton Court. There is a relatively new 2" service on Patton Court that previously serviced the Old Port Square Garage, which Unitil indicated is in good condition with good pressure and currently does not serve any users. Natural gas service for the existing garage was relocated in 2021, along a service alley west of the garage through the driveway to Union Street. Unitil advised that this new 4" gas main is in good condition with 56-pound operating pressure and is the optimal service to connect to for the project. A gas meter will need to be installed on the building with clearance from building features per Unitil requirements. The service connection location, size, and gas meter location on the building will be coordinated with Until.

Communications

Spectrum, First Light, and Consolidated Communications are internet service and telecommunications providers in the project vicinity. Spectrum has below-grade service in the middle of Union Street and on the west side of Exchange Street. First Light has below-grade service in the middle of Union Street but no infrastructure in Exchange Street. Consolidated Communications has below-grade service on the west side of Exchange Street.

Spectrum and First Light each allow connection below grade from building-to-building for telecommunication service, similar to how 200 and 220 Middle Street are fed. It is anticipated that the preferred option for both utilities is to provide service connection from the adjacent 200 Middle Street to the new building. Consolidated Communications does not allow connection building-to-building.

Electric

Existing secondary electrical service exists on the project site for site lighting. It is anticipated that existing site lighting will be maintained until building construction. The existing electrical service will not be sufficient to service the project. The applicant has been coordinating with CMP to establish how electrical service would be provided. CMP indicated that the site is likely able to be served from existing electrical services in the alley by the Hyatt Place Portland Downtown - Old Port Square hotel. Further coordination will be necessary for electrical conduit and transformer position and sizing as the design progresses.

Stormwater

Refer to the attached stormwater memo.

### 13.6.4 Site Design Standards

### 13.6.4 (A) Massing, Ventilation, Wind, and Heat impact

The proposed building height and massing are consistent with the requirements of the City's Land Use Code and are not anticipated to result in health or safety concerns related to reduced ventilation for abutting structures or changes to the existing wind climate that could create unsafe conditions for users of the site or adjacent public areas.

### 13.6.4 (B) Shadow

A shadow study is currently being developed and will be provided to the City for review as part of the Major Site Plan process.

### 13.6.4 (C) Snow and Ice Loading

The building design incorporates measures intended to mitigate snow and ice accumulation, thereby supporting the safety and comfort of pedestrians and neighboring uses throughout the year.

### 13.6.4 (D) View Corridors

The project is sited on an existing surface parking lot and is not located directly on any street frontages included on the City's View Corridor Protection Plan. However, based on feedback provided by the City during the pre-application meeting, renderings have been developed to show views of the building from the following public spaces: Post Office Park, Lobsterman Park, and Portland Harbor. A package of the renderings has been prepared for the project by Safdie Architects and is included as an attachment to this section.

### 13.6.4 (E) Historic Resources

A portion of the project site, specifically the pedestrian walkway connecting to Exchange Street, is located within the Waterfront (Old Port) Historic District. The proposed building itself will be located outside of the district boundary. Based on discussions during the pre-application meeting with the City, we understand that only the elements of the project located within the Historic District—namely, the pedestrian walkway—will be subject to Historic Preservation review. All proposed materials and finishes within the Historic District will be selected and detailed in accordance with the City's Historic Preservation standards to maintain compatibility with the surrounding historic context.




**FIGURE 3-1 PORTION OF PROJECT SITE IN WATERFRONT (OLD PORT) HISTORIC DISTRICT**

### 13.6.4 (F) Exterior Lighting

Exterior lighting, including site and architectural lighting, will be designed in accordance with the requirements of the City's Land Use Code, and Section 8, Lighting Standards, of the Technical Manual. A photometric plan and lighting details for the site are currently under development and will be submitted to the City for review as part of the Site Plan process.

### 13.6.4 (G) Noise and Vibration

All heating, ventilation, and air condition equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment will meet applicable state and federal emissions requirements. HVAC and other similar equipment will be located on mechanical floors interior to the building and on the roof. Rooftop equipment will be set back and screened as required. A Heating, Ventilation, and Air Conditioning Basis of Design Narrative has been prepared for the project by Cosentini and is included as an attachment to this section.

### 13.6.4 (H) Signage and Wayfinding

Sign permit applications will be submitted under separate cover. The size, scale, proportions, design, materials, placement, quantity, and source and intensity of illumination shall be designed to complement and enhance the architectural attributes of the proposed building and site. The primary vehicular entrance to the site is from Union Street. Pedestrian wayfinding to the site will be provided both from Union Street and Exchange Street, as well as via an existing stairway from the plaza area to the northwest of the site on Middle Street.

### 13.6.4 (I) Design Standards

The project is being designed in accordance with the City of Portland Design Manual to ensure that building and site design contribute to and enhance the goals and policies for the B-3 Downtown Business Zone.

## 3.1 Construction Management Plan

Consigli Construction will be the Construction Manager for the project. A Construction Management Plan is attached.

## 3.2 Attachments

- Transportation Demand Management (TDM) Plan (uploaded separately to Documents folder)
- Vehicle Turning Movement Figures (uploaded separately to Drawings folder)
- Low-Impact Design (LID) Scoring (uploaded separately to Documents folder)
- Stormwater Management Report (uploaded separately to Documents folder)
- Fire & Life Safety Strategy Narrative (uploaded separately to Documents folder)
- Architectural Renderings (uploaded separately to Drawings folder)
- Heating, Ventilation, & Air Conditioning Basis of Design Narrative (uploaded separately to Documents folder)
- Construction Management Plan (uploaded separately to Documents folder)

For Press Inquiries, Please Contact:
Jessica James
Longfellow Communications

Email:
jessica@longfellowcomms.com

woodardcurran.com

MAINE COMMUNITY BANK

October 1, 2025

Nathaniel Lamy CPA, Director of Finance
East Brown Cow – Kowtower LLC
100 Commercial Street, Suite 300
Portland, ME 04101

East Brown Cow – Kowtower LLC Financial Capacity Letter
45 Union Street, Portland, ME

To Whom It May Concern,

This letter is intended as support for Kowtower LLC's submission for approvals regarding the intended development project located at 45 Union Street in Portland, ME. Maine Community Bank and the Lender have worked with the Sponsor, J. Tim Soley, on various development projects over the last 15+ years, and we have found that the projects the Bank and the Lender have financed have been completed on time, on budget, and with all financial obligations being met, complied with, and in an excellent manner.

East Brown Cow – Kowtower LLC and Sponsor J. Tim Soley currently have sufficient financial capacity to undertake the proposed project.

Should you need additional information, please do not hesitate to contact me directly.

Sincerely,

Jennifer Sirois

Jennifer Sirois
Senior Vice President, Commercial Banking Market Manager
(207) 571-5614
jsirois@maine.bank

Book 35559, Page 67
4/4/2019 10:27 a.m.

Att. H

**SHORT FORM QUITCLAIM DEED WITHOUT COVENANT**

DLN: 1001940053979

**COW PLAZA 1 LLC**, a Maine limited liability company with a place of business at Portland, Maine ("Grantor"), FOR CONSIDERATION PAID, grants to **KOWTOWER LLC**, a Maine limited liability company with a mailing address of 100 Commercial Street, Portland, Maine 04101 ("Grantee"), certain real property, together with any improvements thereon, located in the City of Portland, Cumberland County, Maine and more particularly described on Exhibit A attached hereto and made a part hereof.

Being a portion of the premises conveyed to the Grantor by deed from GRE Congress Canal LLC dated December 22, 2009 and recorded in the Cumberland County Registry of Deeds in Book 27480, Page 310.

IN WITNESS WHEREOF, Cow Plaza 1 LLC has caused this instrument to be executed by J. Tim Soley, Manager of East Brown Cow Holdings II LLC, the Sole Member of Cow Plaza 1 LLC thereunto duly authorized, as of this 3rd day of April, 2019.

WITNESS:

Name:

COW PLAZA 1 LLC

By: East Brown Cow Holdings II LLC
Its Sole Member

By: _____
J. Tim Soley
Its Manager

State of Maine
County of Cumberland, ss.

April 2nd, 2019

Personally appeared before me the above named J. Tim Soley, Manager of East Brown Cow Holdings II LLC, the Sole Member of Cow Plaza 1 LLC, as aforesaid, and acknowledged the above instrument to be his free act and deed in his said capacity and the free act and deed of said Cow Plaza 1 LLC.

MARINA WAISMAN
NOTARY PUBLIC
CUMBERLAND COUNTY
MAINE
MY COMMISSION EXPIRES JUNE 9, 2023

Before me,

Name: Marina Waisman
Notary Public / Attorney at Law

1

**EXHIBIT A**

A certain lot or parcel of land, with the buildings and other improvements thereon, located on the southwesterly side of Exchange Street, in the City of Portland, County of Cumberland, State of Maine, being bound and described as follows:

BEGINNING on the southwesterly side of Exchange Street at the easterly corner of land now or formerly (N/F) of Fitzgibbons Family Trust, as described in Book 26232, Page 250, recorded in the Cumberland County Registry of Deeds;

THENCE: S 37°49'46" E, along said Exchange Street, 23.55', to the northerly corner of land N/F of 44 Exchange Street, LLC, as described in Book 25643, Page 195;

THENCE: S 51°16'00" W, along said 44 Exchange Street, LLC, 43.00', to a point;

THENCE: S 60°12'30" W, along said 44 Exchange Street, LLC, 37.84', to the westerly corner of said 44 Exchange Street, LLC;

THENCE: S 37°23'00" E, along said 44 Exchange Street, LLC, 26.57', to a point;

THENCE: S 13°55'30" E, along said 44 Exchange Street, LLC, 19.71', to a point;

THENCE: S 59°00'30" W, along said 44 Exchange Street, LLC, 12.59', to a point;

THENCE: S 37°00'30" E, along said 44 Exchange Street, LLC, 26.00', to the northwesterly end of Patton Court;

THENCE: continuing S 37°00'30" E, along said Patton Court, 57.94', to the northerly corner of land of Cow Plaza Garage LLC, as described in Book 27480, Page 325;

THENCE: S 59°56'30" W, along said Cow Plaza Garage LLC, 139.44', to a point;

THENCE: N 29°47'06" W, through land of the Grantor, 64.50', to a point;

THENCE: N 60°12'54" E, through land of said Grantor, 10.00', to a point;

THENCE: N 29°47'06" W, through land of said Grantor, 24.00', to a point;

THENCE: S 60°12'54" W, through land of said Grantor, 10.00', to a point;

THENCE: N 29°47'06" W, through land of said Grantor, 52.00', to a point;

THENCE: N 60°12'54" E, through land of said Grantor, 12.82', to a point;

THENCE: N 29°47'06" W, through land of said Grantor, 28.00', to a point on the southeasterly line of land of Cow Plaza 3 LLC, as described in Book 27480, Page 335;

THENCE: N 60°12'54" E, along said Cow Plaza 3 LLC, 25.00', to a point;

THENCE: N 30°34'30" W, along said Cow Plaza 3 LLC, 3.62', to the southerly corner of land N/F of Middle Street Holdings, LLC, as described in Book 31724, Page 277;

THENCE: N 59°03'34" E, along said Middle Street Holdings, LLC, 21.89', to a point;

THENCE: S 30°56'26" E, along said Middle Street Holdings, LLC, 1.00', to a point;

THENCE: N 59°18'12" E, along said Middle Street Holdings, LLC, 27.42', to a point;

THENCE: S 30°41'48" E, along said Middle Street Holdings, LLC, 1.77', to a point;

THENCE: N 59°42'35" E, along said Middle Street Holdings, LLC, 17.31', to a point;

THENCE: S 29°57'00" E, along said Middle Street Holdings, LLC, 1.13', to a point;

THENCE: N 59°27'00" E, along said Middle Street Holdings, LLC, 20.88', to a point;

THENCE: N 69°43'00" E, along said Middle Street Holdings, LLC, 21.60', to a point;

THENCE: N 79°11'00" E, along said Middle Street Holdings, LLC, 27.13', to the southerly corner of said Fitzgibbons Family Trust;

THENCE: continuing N 79°11'00" E, along said Fitzgibbons Family Trust, 5.61', to a point;

THENCE: S 37°49'00" E, along said Fitzgibbons Family Trust, 2.45', to a point;

THENCE: N 51°21'00" E, along said Fitzgibbons Family Trust, 42.96', to the POINT of BEGINNING.

The above described parcel contains 25,159 square feet.

Bearings for the above described parcel are based on the Maine State Coordinate System, West Zone 1813, Grid North.

The above described parcel is shown on plan entitled "Mortgage Release/Retention Plan, Canal Plaza, Portland, Maine, prepared by Northeast Civil Solutions, Inc., dated December 7, 2018, NCS Project No. 29696.14.

This conveyance is made together with the benefit of and subject to the rights of Grantor and others which are expressly reserved hereby, and the terms and conditions of, that certain Reciprocal Easement Agreement among Grantor, Cow Plaza 2 LLC, Cow Plaza 3 LLC and Cow Plaza Garage LLC dated December 22, 2009 and recorded in the Cumberland County Registry of Deeds in Book 27481, Page 1, as affected by Partial Releases recorded in said Registry of Deeds in Book 30060, Page 93, Book 30060, Page 95, Book 30361, Page 232, and Book 30361, Page 234.

DRAFT – FOR CITY REVIEW

# EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT ("Agreement") is made as of this ___ day of _____, 2025, by and among Kowtower LLC, a Maine limited liability company ("Kowtower"), Cow Plaza 4 LLC, a Maine limited liability company ("Cow Four"), and Cow Exchange LLC, a Maine limited liability company ("Cow Exchange"), all of which have a place of business at 100 Commercial Street, Suite 300, Portland, Maine 04101 (Kowtower, Cow Four, and Cow Exchange are each hereinafter referred to as an "Owner" and collectively as the "Owners").

WITNESSETH:

WHEREAS, Kowtower is the Owner of all of the parcel known as 44 Exchange Street a/k/a 45 Union Street containing a surface parking lot with associated sidewalks, driveways, and landscaping, comprising approximately .58 acres of land, located in Portland, Cumberland County, Maine, as more fully described in that certain deed to Kowtower dated April 3, 2019 and recorded in the Cumberland County Registry of Deeds in Book 35559, Page 67 (the "Kowtower Parcel"); and

WHEREAS, Cow Four is the Owner of all of the improved parcel known as Four Canal Plaza a/k/a 188 Middle Street containing a four/five-story office building on approximately 0.34 acres of land, located in Portland, Cumberland County, Maine, as more fully described in that certain deed to Cow Four dated January 13, 2021 and recorded in said Registry of Deeds in Book 37715, Page 76 as affected by that certain Corrective Deed recorded in said Registry of Deeds in Book 37832, Page 235 (the "Four Parcel"); and

WHEREAS, Cow Exchange is the Owner of all of the improved parcel known as 36-44 Exchange Street containing a three-story office/retail building on approximately 0.16 acres of land, located in Portland, Cumberland County, Maine, as more fully described in that certain deed to Cow Exchange dated September 19, 2022 and recorded in said Registry of Deeds in Book 39752, Page 172 (the "Cow Exchange Parcel"; the Kowtower Parcel, the Four Parcel and the Cow Exchange Parcel are sometime hereinafter referred to collectively as the "Parcels" or individually as a "Parcel"); and

WHEREAS, Kowtower wishes to grant to each of the other Owners certain easements to facilitate the continued operation of the Parcels as they have been operated historically and to accommodate the future development of the Kowtower Parcel.

NOW, THEREFORE, for and in consideration of the mutual entry into this Agreement by the Owners and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged by each Owner, the Owners agree as follows:

1. Grant of Easements.

1.1 Kowtower hereby grants and conveys:

1.1.1 Unto Cow Four an irrevocable, perpetual and non-exclusive easement, subject to the right of relocation reserved in Section 2.2 below, over, across and through the driveways, parking lots, sidewalks, plaza, stairs and all other open spaces, as currently existing and as may be constructed in the future, on the Kowtower Parcel to allow Cow Four, its successors and assigns, and its and their tenants, contractors, agents, invitees, licensees, employees and any other person having business upon the Four Parcel, free and unimpeded, except as herein provided, pedestrian ingress to and egress from the Four Parcel across the Kowtower Parcel to all public streets which are contiguous to the Kowtower Parcel and to all access points of appurtenant access easements to public streets. With respect to driveways and parking lots, the foregoing easement is subject to the priority right of vehicles to use and occupy such areas.

1.1.2 Unto Cow Exchange an irrevocable, perpetual and non-exclusive easement, subject to the right of relocation reserved in Section 2.2 below, over, across and through the driveways, parking lots, sidewalks, plazas, stairs and all other open spaces, as currently existing and as may be constructed in the future, on the Kowtower Parcel to allow Cow Exchange, its successors and assigns, and its and their tenants, contractors, agents, invitees, licensees, employees and any other person having business upon the Cow Exchange Parcel, free and unimpeded, except as herein provided, pedestrian ingress to and egress from the Cow Exchange Parcel across the Kowtower Parcel to all public streets which are contiguous to the Kowtower Parcel and to all access points of appurtenant access easements to public streets. With respect to driveways and parking lots, the foregoing easement is subject to the priority right of vehicles to use and occupy such areas.

1.1.3. Unto Cow Four an irrevocable, perpetual and non-exclusive easement, over, across, under and through the Kowtower Parcel, subject to the right of relocation reserved in Section 2.2 below, to allow Cow Four to use, maintain, repair, replace and remove the stormwater sewer pipe that currently exists on the Kowtower Parcel serving the Four Parcel, the location of such stormwater sewer pipe being depicted and labeled on **Exhibit A** attached hereto. As part of the foregoing easement, a temporary easement is hereby granted by Kowtower unto Cow Four, over, across and through so much of the remainder of the Kowtower Parcel as is reasonably necessary for access by and for machinery, equipment, materials, and workers during any maintenance, repair, replacement or removal of said stormwater sewer pipe on the Kowtower Parcel; provided, however, that prior to entry onto any portion of the Kowtower Parcel for any such maintenance, repair, replacement or removal, the Owner of the Four Parcel shall, except in the event of an emergency, notify the Owner of the Kowtower Parcel and obtain the prior approval of the Owner of the Kowtower Parcel, which approval shall not be unreasonably withheld, delayed or conditioned.

1.2 The burden of the easements granted herein shall run with and bind upon the title to the Kowtower Parcel and upon each person from time to time hereafter holding such title of record.

1.3 The benefit of the easements granted herein shall run with the title to the benefited Parcels and each person from time to time hereafter holding such title of record.

2. Exercise of Easements.

2.1 Indemnification. Each Owner benefited by easements herein agrees to indemnify, defend and hold harmless the Owner of the Kowtower Parcel from:

2.1.1 Any and all claims, actions, damages, liability or expense, including without limitation reasonable attorneys' fees, expert witness and consultants' fees, and court costs, which the Owner of the Kowtower Parcel, or its owners, members, managers, tenants, agents, contractors, employees and licensees, may incur in connection with any and all injuries to or deaths of persons or damage to real or personal property or business arising out of the exercise or use of the rights granted hereunder by the indemnifying Owner.

2.1.2 Any and all mechanic's liens, materialmen's or other liens or claims arising out of any action taken by such indemnifying Owner or its owners, members, manager, tenants, agents, contractors, licensee, or employees pursuant to the provisions of this Agreement, including without limitation reasonable attorneys' fees, expert witness and consultants' fees, and court costs incurred by the Owner of the Kowtower Parcel in connection with such claims.

2.2 Relocation. The easements granted herein to provide pedestrian ingress and egress and utility service across, through or under the driveways, parking lots, sidewalks, plazas, and stairs currently existing or constructed in the future on the Kowtower Parcel are not intended to prevent the placement of any future improvements on the Kowtower Parcel or prevent the relocation of or construction of new buildings, parking, landscaped areas, sidewalks, driveways and related fixtures and improvements, including without limitation the right of Kowtower to construct buildings and other improvements on the Kowtower Parcel. Accordingly, Kowtower shall have the right at any time and from time to time, to relocate the pedestrian access easements and utility easements granted herein provided that the same shall be done only: (a) at the sole cost and expense of Kowtower; (b) in compliance with all applicable laws, ordinances, rules and regulations of each governmental or quasi-governmental entity having jurisdiction over the same; (c) in such manner as will minimize to the greatest extent reasonably possible any inconvenience to the Owner(s) of the benefited Parcel, and their tenants, licensees or occupants; and (d) the Owner of the benefited Parcel will have upon completion of relocation all rights under the relocated easement as existed prior to relocated except to the extent relocated.

2.3 Construction and Maintenance Procedures. During the course of any, maintenance, repair, replacement or removal of the stormwater sewer pipe reference in Section 1.3 above, the Owner of Four Parcel shall: (a) provide prior notice thereof to the Owner of the Kowtower Parcel which shall specify, if applicable, the extent of and times during which access or use of the easement described in Section 1.3 above shall be impaired; (b) the location of any such work; (c) cause such work area and any land adjoining it to be kept reasonably clean

and free of trash and building debris, taking into account the work being performed; (d) with reasonable promptness upon completion of such work cause all such trash and debris to be removed therefrom and the disturbed area to be restored as much as reasonably practical to do so to the condition existing prior to disturbance, taking into account the new improvements constructed; (e) cause its agents, employees, contractors, subcontractors and other invitees to use reasonable care not to damage or deposit dirt, construction debris or other materials on any of the portions thereof; and (f) repair or cure, and indemnify and hold harmless the Owner of the Kowtower Parcel against and from any liability and expense on account of any such damage or deposit, including without limitation reasonable attorneys' fees, expert witness and consultants' fees, and court costs.

2.4 Breach of Obligations. In the event that any Owner shall breach its obligations hereunder, and shall fail to cure the same within ten (10) business days after receipt of written notice from another Owner (or such longer period as reasonably may be necessary in the event same cannot be cured within the ten (10) business day period), except in the event of an emergency situation in which event, twelve (12) hours prior notice, either telephonic or in writing, shall be sufficient, the non-breaching Owner shall have the right to take such legal or equitable action as may be allowed under the circumstances including, but not by way of limitation, a request for injunctive relief or the non-breaching Owner may perform the work necessary to cure the breach and shall be entitled to promptly reimbursement from the breaching Owner of the actual and verifiable cost incurred by the non-breaching Owner to cure or a credit against payments owed by the non-breaching Owner to the breaching Owner. In any such action, the prevailing party also shall be entitled to a reimbursement of all of its reasonable costs and expenses, including reasonable attorney's fees, expert witness or consultants' fees, and court costs in conjunction with such action.

3. Notices. Any notice, demand, consent, approval, request or other communication or document to be provided hereunder to an Owner shall be: (a) in writing; and (b) deemed to have been provided: (1) forty-eight (48) hours after being sent as certified or registered mail in the United States mail, postage prepaid, return receipt requested, or (2) the next business day after having been deposited (in time for delivery by such service on such business day) with Federal Express or another national courier service, in each case to the address of such Owner set forth hereinabove or to such other address as such Owner may designate from time to time by notice to each other Owner; provided, however, that in emergency situations, telephonic notice or such notice, if any, as is reasonable under the circumstances, shall be satisfactory.

4. General.

4.1 Effectiveness. This Agreement shall become effective on and only on its execution and delivery by all of the Owners.

4.2 Complete understanding. This Agreement represents the complete understanding between the Owners as to the subject matter hereof, and supersedes all prior negotiations, representations, guaranties, warranties, promises, statements or agreements, either written or oral, between the Owners as to the same.

4.3 Amendment. This Agreement may be amended by and only by an instrument executed and delivered by the Owners.

4.4 Applicable law. This Agreement shall be given effect and construed by application of the law of the State of Maine (without regard to the principles thereof governing conflicts or choice of laws), and any action or proceeding arising hereunder shall be brought in the courts of the State of Maine, except that if any such action or proceeding arises under the Constitution, laws or treaties of the United States of America, or if there is a diversity of citizenship between the parties thereto, so that it is to be brought in a United States District Court, it shall be brought in the United States District Court for the District of Maine or any successor federal court having original jurisdiction.

4.5 Headings. The headings of the sections and subsections hereof are provided for and only for convenience of reference, and shall not be considered in interpreting their contents.

4.6 Construction. As used herein, (a) the term "person" means a natural person, a trustee, a corporation, a partnership, a limited liability company, and any other form of legal entity; (b) all references made (i) in the neuter, masculine or feminine gender shall be deemed to have been made in all such genders, and (ii) in the singular or plural number shall be deemed to have been made, respectively, in the plural or singular number as well; and (c) the terms Kowtower, Cow Four, and Cow Exchange shall mean the persons hereinabove named or described as such and their respective heirs, personal representatives, successors and assigns. The use of terms such as herein, hereto, hereof and the like shall mean this entire Agreement and not the provision, section or paragraph in which such terms appear, unless a contrary meaning is clearly manifest.

4.7 Exhibits. Each writing or plan referred to herein as being attached hereto as an exhibit or otherwise designated herein as an exhibit hereto is incorporated herein and made a part hereof.

4.8 Assignment. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors and assigns.

4.9 Effect of Agreement. Nothing in this Agreement shall be deemed in any way to grant any easement in, over, under or through any property or any other land or improvements whatsoever, unless within the areas expressly described herein.

4.10 Liability. Except as provided in Section 2.1 above, neither the Owners nor their respective heirs, personal representatives, successors and assigns shall have any liability hereunder for any expense or obligation whatsoever, unless such expense or obligation accrues while such person is the owner of record of the Parcel with respect to which such expense or obligation accrued. Each Owner liable under Section 2.1 shall be liable only for any such expense or obligation which accrues while such Owner is the owner of record of the Parcel,

and such personal liability shall survive such Owner's subsequent conveyance of the Parcel.

4.11 Rights to be Private. Neither this Agreement and grant of any easement, nor the use and enjoyment pursuant to the provisions of this Agreement, shall be deemed in any way to create or confer in or on any member of the public any right to use or enjoy the same, or any estate therein, or operate as a dedication by the Owners or any of them.

4.12 Termination of Agreement. Anything contained in the provisions of this Agreement to the contrary notwithstanding, this Agreement shall terminate upon the recordation at the Cumberland County Registry of Deeds of a document executed on behalf of each Owner and each mortgagee of any or all of the benefited Parcel(s), consenting to such termination.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the Owners have caused this Agreement to be executed under seal by their respective duly authorized representatives, on the day and year first above written.

WITNESS:

Kowtower LLC

_____

By: _____
J. Tim Soley
Its duly authorized Manager

Cow Exchange LLC
By: East Brown Cow Holdings LLC
Its Sole Member

_____

By: _____
J. Tim Soley
Its duly authorized Manager

Cow Plaza Four LLC
By: East Brown Cow Holdings II LLC
Its Sole Member

_____

By: _____
J. Tim Soley
Its duly authorized Manager

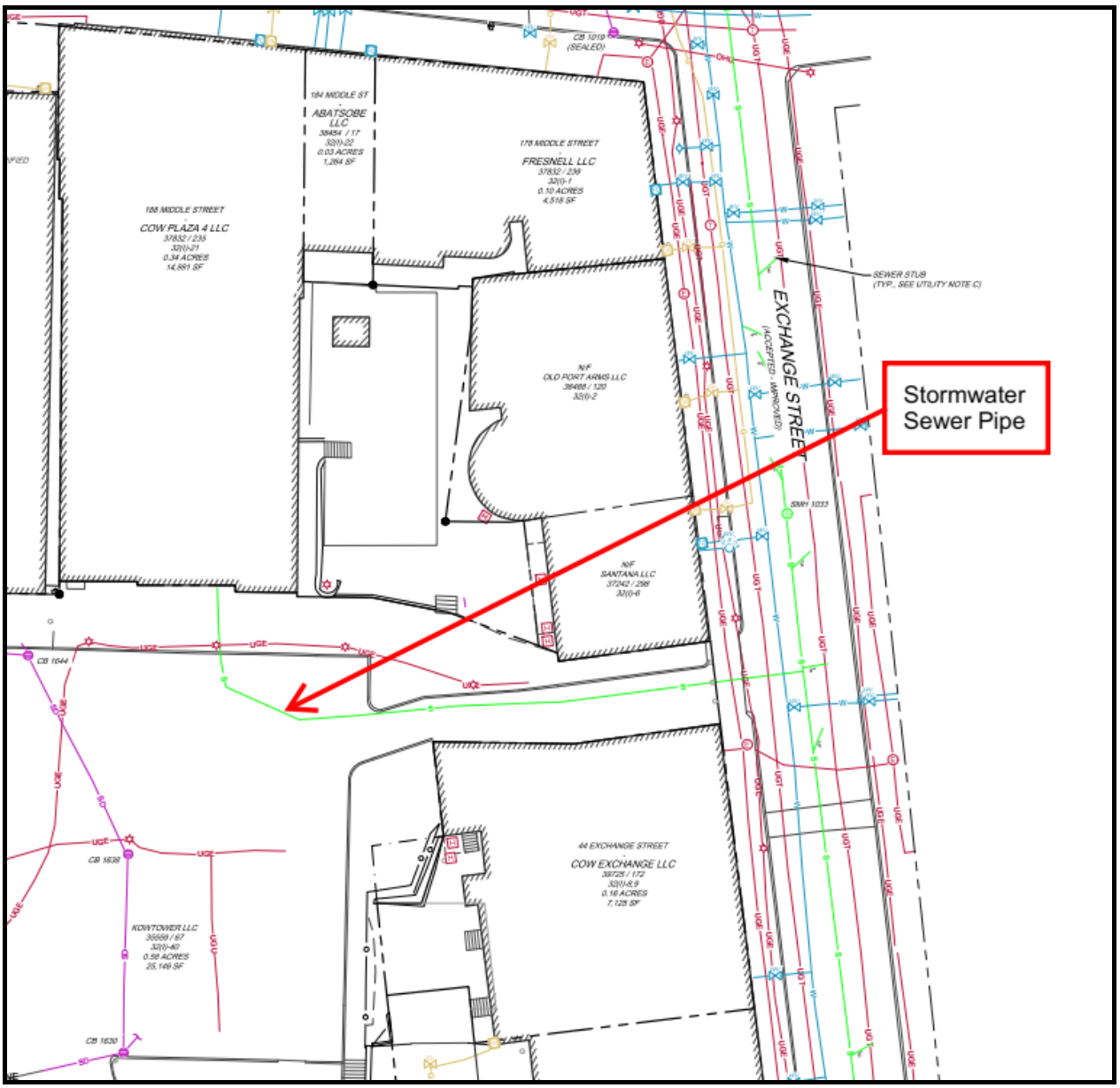
State of Maine
County of Cumberland, ss.

_____, 2025

Personally appeared before me the above-named J. Tim Soley, Manager of Kowtower LLC and Manager of East Brown Cow Holdings LLC, Sole Member of Cow Exchange LLC, and Manager of East Brown Cow Holdings II LLC, Sole Member of Cow Plaza 4 LLC, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacities and the free act and deed of said limited liability companies.

_____
Name:
Notary Public/Attorney at Law
My commission expires:

# EXHIBIT A


Stormwater Sewer Pipe
EXCHANGE STREET
SEWER STUB (TYP., SEE UTILITY NOTE C)
CB 1019 (SEALED)
194 MIDDLE ST
ABATSCOBE LLC
178 MIDDLE STREET
FRESNELL LLC
188 MIDDLE STREET
COW PLAZA 4 LLC
N/F OLD PORT ARMS LLC
N/F SANTANA LLC
SMH 1033
CB 1644
CB 1638
CB 1630
44 EXCHANGE STREET
COW EXCHANGE LLC
KOWTOWER LLC

Safdie Architects

# 45 Union Street

## Fire & Life Safety Strategy Narrative
## Major Site Plan

Issue | August 12, 2025

© Safdie Architects

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 307069

**Arup US, Inc.**
60 State Street
Boston, MA 02109
USA
arup.com

ARUP

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## 1. Introduction

This report outlines the building and fire code compliance options and key issues of the 45 Union Street, designed by Safdie Architects for East Brown Cow. The project will be located in downtown Portland, Maine. This report has been developed to inform the Basis of Design for the project from a fire and building code perspective and will be further developed in subsequent stages of the design process.

## 2. Project Description

45 Union Street is a proposed mixed-use high-rise tower rising approximately 380 ft above grade and approximately 420 ft above sea level. The tower will feature nine stories of hotel floors and thirteen stories of residential floors, starting at approximately 40 ft and 170 ft above grade, respectively. The top two amenity stories will include a restaurant level, and the Sky Lobby which will serve as the hotel check-in floor. Additionally, there will be a one-story wellness floor, two stories of mechanical and back-of-house floors, rooftop mechanical penthouses, and a ground level lobby with a cafe. Six elevators will provide floor access.

The footprint of the tower is approximately 86ft x 88ft, nestled in between existing buildings fronting Exchange, Fore, Union, and Middle Streets.

Primary fire department vehicle access will be from Union Street. An access lane is also provided from Exchange Street on the opposite side, which will normally be prohibited from vehicular traffic and is unlikely suitable for a large fire apparatus but may serve as access for smaller rescue and emergency response vehicles.

## 3. Applicable codes

The State of Maine adopts the statewide Maine Uniform Building and Energy Code (MUBEC). At the time of building permitting, it is expected that the applicable MUBEC will be based on the 2021 International Building Code (IBC) with Maine Amendments since full adoption of those codes are anticipated for April, 2025. Other applicable codes, including the Portland City Codes are as follows.

Maine Uniform Building and Energy Code (MUBEC), based on:

- 2021 International Building Code (IBC)
- 2021 International Existing Building Code (IEBC)
- 2021 International Energy and Conservation Code (IECC)
- 2021 International Mechanical Code (IMC)
- 2021 International Swimming Pool and Spa Code (ISPSC)
- 2021 Uniform Plumbing Code (UPC)
- ASHRAE 62.1 – 2016 Edition
- ASHRAE 62.2 – 2016 Edition
- ASHRAE 90.1 – 2016 Edition

- City of Portland Municipal Code Chapter 6 Buildings & Building Regulations.
- City of Portland Municipal Code Chapter 10 Fire Prevention and Protection
- NFPA 1 Fire Code – 2018 Edition
- NFPA 101 Life Safety Code – 2018 Edition
- 32 M.R.S. §1153-A, NFPA 70 – National Electrical Code – 2020 Edition
- 32 M.R.S. §3403-B, Uniform Plumbing Code – 2021 Edition
- Elevator Standards pursuant to 32 M.R.S. §15206, ASME A17.1, 2019 Ed.
- 2010 ADA Standards for Accessible Design
- Maine Human Rights Act adopted pursuant to 5 M.R.S Chapter 4 Fair Housing and Chapter 5 Public Accommodations.
- 62.1 – 2016, Ventilation for Acceptable Indoor Air Quality
- 90.1 – 2016, Energy Standard for Buildings except Low-Rise Residential
- Fire Safety Codes pursuant to 25 M.R.S 2452 and 2465.
- Applicable National Fire Protection Association Standards for specific systems will include the following. This list may expand as the project develops.
  - NFPA #10, Standard for Portable Fire Extinguishers, 2021 edition

- NFPA #13 Standard for the Installation of Sprinkler Systems, 2019 edition
- NFPA #14 Standard for the Installation of Standpipe, Private Hydrants and Hose Systems, 2019 edition
- NFPA #20 Standard for the Installation of Stationary Fire Pumps for Fire Protection, 2019 edition
- NFPA #25 Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems, 2014 edition
- NFPA #72, National Fire Alarm Code, 2019 edition

The MUBEC Administrative procedures, Chapter 1, Section 14 outlines the procedures for identifying and resolving conflicts between the MUBEC and the Fire Safety Codes and Standards. The process requires submission of such conflicts to the Board for consideration.

# 4. Key Issues

## 4.1 High-rise fire protection requirements

As a high-rise building, special provisions of MUBEC Chapter 403 and Chapter 11.8 of the Life Safety code will be applied. As a trade-off, the fire-resistance ratings of the building elements (primary structure except columns supporting floors, and floor and ceiling assemblies) may follow those for Type IB construction.

## 4.2 Post-fire salvage smoke removal system

A post-fire salvage smoke removal system is required for this building to facilitate smoke removal in post-fire salvage and overhaul operations. This is a manually operated system and not meant for life safety. The system will be designed in compliance with MUBEC 403.4.7.

## 4.3 Stair pressurization

The two primary stairs will be pressurized in accordance with MUBEC Chapter 909.20.5. The pressurization system will be designed to achieve a minimum pressure differential between the stair and adjacent spaces of at least 0.1” w.c. (25Pa) under maximum stack effect.

## 4.4 Structural integrity of interior exit stairways and elevator hoistway enclosures

It is anticipated that the building will be a Risk Category II. Refer to Section 5.2 of this report. Risk Category II assumes the buildings primary occupancy is not Public Assembly. Since the vast majority of the building is residential, the primary occupancy is R-1/R-2. If Public Assembly spaces over 300 each total, in the aggregate, 2,500 assembly occupants, the Risk Category would climb to Category III which has structural design and cost implications.

High-rise buildings of Risk Category III or IV will comply with the wall assembly and materials requirements of MUBEC Chapter 403.2.2. These are more rigorous provisions for integrity of the essential shafts in the building, requiring compliance with Soft Body and Hard Body Impact Classifications tested in accordance with ASTM C1629/C1629M

## 4.5 Proximity to Neighboring Structures

45 Union Street will be positioned such that it is surrounded by existing buildings. Exterior wall protection and allowable percentage of wall openings will be determined based on the fire separation distance measured between the exterior walls of 45 Union Street and the adjacent property lines, assumed property lines where two buildings are on the same lot, or the centerline of street or public way.

Where assumed property lines are positioned in the case where two buildings are built upon a common lot, where no real property line exits, the assumed property line is placed such that any existing building remains in compliance related to exterior wall fire resistance ratings and allowable opening protection. The new building, 45 Union Street, will then be protected in accordance with the MUBEC based on the fire separation distance to that assumed property line placement.

The intent is to provide a fire separation around 45 Union Street Tower such that maximum flexibility to the envelope is provided: non-rated and unlimited unprotected openings.

### 4.6 Rooftop penthouses

The roof of the Sky Lobby (top floor) will serve as MEP plant space. The area of the roof is approximately 7,800ft$^2$ (counting only the roof above the building footprint). The aggregate area of all enclosed areas and penthouses will not exceed 1/3$^{rd}$ of the roof area, or 2,580 ft$^2$, and will therefore be considered rooftop structures in accordance with Chapter 1511 of the MUBEC. Exceeding the 1/3$^{rd}$ area rule would result in the roof being classified as a story which would impact the desire to use heavy timber in the roof construction, as heavy timber would not be allowed in the floor construction of a story.

### 4.7 Fire Service Access Elevators

Buildings 120ft or more in height require two fire service access elevators to (each) serve all levels to assist in fire department response to fire events. These elevators will comply with MUBEC Chapter 3007 and Section 5.15.1 of this report.

Fire service access elevators are not required to serve the basement level in the 2021 Edition of the IBC. This permits the elevator pits to be located in the basement rather than below the basement.

Fire service access elevators are not be required to serve the top floor of a building where that floor is utilized only for equipment for building systems.

### 4.8 Fire Service Access Elevator Lobbies

Fire service access elevators are required to open to an enclosed fire service access elevator lobby for all levels except street level and are required to have direct access to the enclosure for an interior exit stairway. These lobbies will comply with MUBEC Chapter 3007 and Section 5.15.1 of this report.

It is proposed that the Sky Lobby (top floor) does not include a protected lobby for the fire service access elevators as it presents a difficulty to include. The 2021 IBC Code Commentary suggests that fire service elevators are used to stage below the fire floor and the lobby introduces additional protection from secondary smoke or heat conditions. As the top floor, a protected

lobby would not add value for a fire on this floor, as the fire department is expected to respond to a fire by going to the floor below.

The elevators will still service the floor but not in a protected lobby for other emergency situations.

This approach would be required to be supported by a variance or Alternate Means or Method of compliance and will require input and support by the Portland Department of Fire Prevention.

## 4.9 Tower Stairs and Number of Means of Egress

The stair capacity is designed in compliance with NFPA 101 – Life Safety Code, as amended by the State of Maine. The two 5'-0" stairs would have a capacity of 400 occupants in aggregate. This maximum occupant load will need to be enforced on the upper amenity levels. In addition, the exit doors will have a required width of at least 40'' to achieve the same capacity as the stairs.

Increasing stair width will allow increased capacity. However, once the occupant load reaches 500, a third exit stair will be required. To satisfy the maximum 500 occupants, two stairs sized at minimum 50" width would be required under the MUBEC and not require a center handrail. Under NFPA 101, the stair widths would be increased to 67" to serve 500 occupants and this would also avoid the center handrail. .

All floors will require at least two independent and sufficiently separated means of egress. Tower interior exit stairs will be separated by at least 30ft, or ¼ the maximum diagonal measurement of the building. The basement level is permitted to have a single means of egress, provided the single stair can be reached within 100ft of travel from the most remote location on the floor.

## 4.10 Hotel "Flag"

Depending on the eventual 'flag' that occupies and runs this hotel, there may be additional requirements. For example, if a 'flag' is insured by FM Global, some of the design becomes more onerous in terms of fire and life safety. This carries a premium.

Marriott is a particular hotel chain that carries additional design requirements. In Marriott's case, they enforce the Module 14 provisions. Module 14 requires smoke management and control for assembly spaces, hotel lobbies, and hotel corridors. The system is typically designed as a purge system, requiring exhaust and make-up air which will require additional risers and smoke control equipment. This level of protection exceeds the minimum level of protection required by MUBEC. It would benefit the project design to understand the flag by the Design Development phase.

12 Mountfort Street
Portland, Maine 04101
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Att. K

# MEMORANDUM

**TO:** Eric Freeman, Planner, City of Portland

**CC:** Jacob Soley, East Brown Cow – Kowtower LLC

**FROM:** Caitlin Suhr, PE, Woodard & Curran

**DATE:** October 8, 2025

**RE:** 45 Union Street – Waste Management Operations Summary

---

**Purpose**

The purpose of this memorandum is to summarize the waste management operations for the 45 Union Street project.

**Waste Collection Operations**

The 45 Union Street building will utilize two chutes that are accessible at each level of the building, one for trash and one for recycling. Staff and building users will collect waste materials from the applicable residential units, hotel rooms, and amenity spaces and deposit them to the chute entrance within the service lobby at each building level.

All materials deposited through the chutes will be conveyed to bins located in the centralized service lobby at Level B1. On a daily basis (or more frequently as needed), staff will transport these bins approximately 150 feet from the building to the existing trash compactor and recycling container.

**Equipment and Facilities**

The project intends to use the existing Wastequip Pak-Man self-contained trash compactor (model PM6FS) located on the adjacent Hyatt Place Portland Downtown - Old Port Square property at 431-443 Fore Street, (owned by related-party Cow Plaza Hotel LLC).

The compactor provides a 6:1 compaction ratio and accommodates up to 162 cubic feet of compacted waste. It currently serves a portion of the tenants and users at all 10 related-party properties within the larger Old Port Square area.

East Brown Cow prefers the centralized compactor system to multiple dumpsters, as it:

- Consolidates waste in one location,
- Reduces visual and special impacts associated with 3-6 separate dumpsters,
- Ensures prompt waste removal, minimizing odors and pest concerns.

Solid waste is presently collected five days per week, and the compactor is not operating at full capacity.

**Capacity and Contingencies**

Should the additional waste volume generated by 45 Union Street exceed the current compactor's capacity, East Brown Cow will implement the following measures, in order of priority:

1. Increase solid waste collection frequency to six or seven days per week.

2. Replace the existing Pak-Man unit with a larger Wastequip compactor installed in the same location.

**Recycling Operations**

Recycling will be managed via a covered container adjacent to the compactor. The container currently serves all ten related-party properties and is collected five days per week. The existing capacity is anticipated to accommodate the additional recycling generated by 45 Union Street. If post-occupancy operations indicate additional capacity is needed, the frequency of pickup could be increased as necessary, or secondarily, the covered container size could be increased.

Environmental sustainability, including effective waste management and diversion, is a core priority for East Brown Cow, and the goal is always to divert as much trash to recycling as possible. Maximizing recycling reduces solid waste volume and demand on waste storage and processing. Operational practices will continue to support high diversion rates and alignment with East Brown Cow's sustainability objectives.

CPP WIND ENGINEERING CONSULTANTS

# 45 Union Street Development

Portland, ME
CPP #21227

## Pedestrian Wind Consultation

*23 September 2025*

***Prepared For***
East Brown Cow – Kowtower LLC
100 Commercial Street – Suite 300
Portland, ME
04101

Jacob Taylor Soley
Director of Development
jacobsoley@eastbrowncow.com

***Prepared By***
Albert Brooks, M.A.Sc., P.Eng.
Associate Principal
abrooks@cppwind.com

Chris Oreskovic, M.E.Sc., P.Eng.
Project Engineer
coreskovic@cppwind.com

# Document Control

| REVISION HISTORY | | | |
|---|---|---|---|
| DATE | REVISION | PREPARED | CHECKED / APPROVED |
| 10 September 2025 | Interim Report<br>R00D00 | Albert Brooks, M.A.Sc., P.Eng.<br>Associate Principal<br>abrooks@cppwind.com | Chris Oreskovic, M.E.Sc., P.Eng.<br>Project Engineer<br>coreskovic@cppwind.com |
| 23 September 2025 | Final Report<br>R01D01 | Albert Brooks, M.A.Sc., P.Eng.<br>Associate Principal<br>abrooks@cppwind.com | Chris Oreskovic, M.E.Sc., P.Eng.<br>Project Engineer<br>coreskovic@cppwind.com |

# Executive Summary

CPP was retained to assess wind conditions around the proposed 45 Union Street development in Portland, ME.

Principal findings of this assessment include:

- Wind conditions at the main entrance to the building are expected to be appropriate, as the current design includes several features that are expected to provide shelter to this space.
- The current design of the development includes several features that are expected to reduce wind speeds at grade. These include the use of large corner chamfers, the Level 2 undercut / void space, and the large canopy structure above the main entrance. We recommend these features be retained as the design matures.
- Wind conditions throughout the current, existing site are generally expected to be comfortable for the intended use. However, existing, strong winds are anticipated along the walkways between the existing 200 Middle Street and both 220 and 190 Middle Street, where northwesterly winds are redirected and channeled.
- When winds are from the south, higher wind speeds are also expected to occur near the southeast and southwest corners of the existing 200 Middle Street building due to downwashing winds.
- The introduction of the proposed 45 Union Street development is not expected to have a significant impact on off-site sidewalk wind conditions.
- Prevailing northwesterly and southerly winds are expected to channel between the proposed 45 Union Street development and the existing 200 Middle Street and 190 Middle Street buildings, potentially leading to an increase in local wind speed near the west, and north side of the proposed building. These wind conditions are expected to be suitable for transient pedestrian use.
- The project team has incorporated trees and landscaping elements at grade, that will generally be of benefit from a wind comfort perspective. As the design of the proposed development and site landscaping continues to mature, the project team may wish to investigate and potentially incorporate additional design features to further enhance wind comfort within this plaza space.

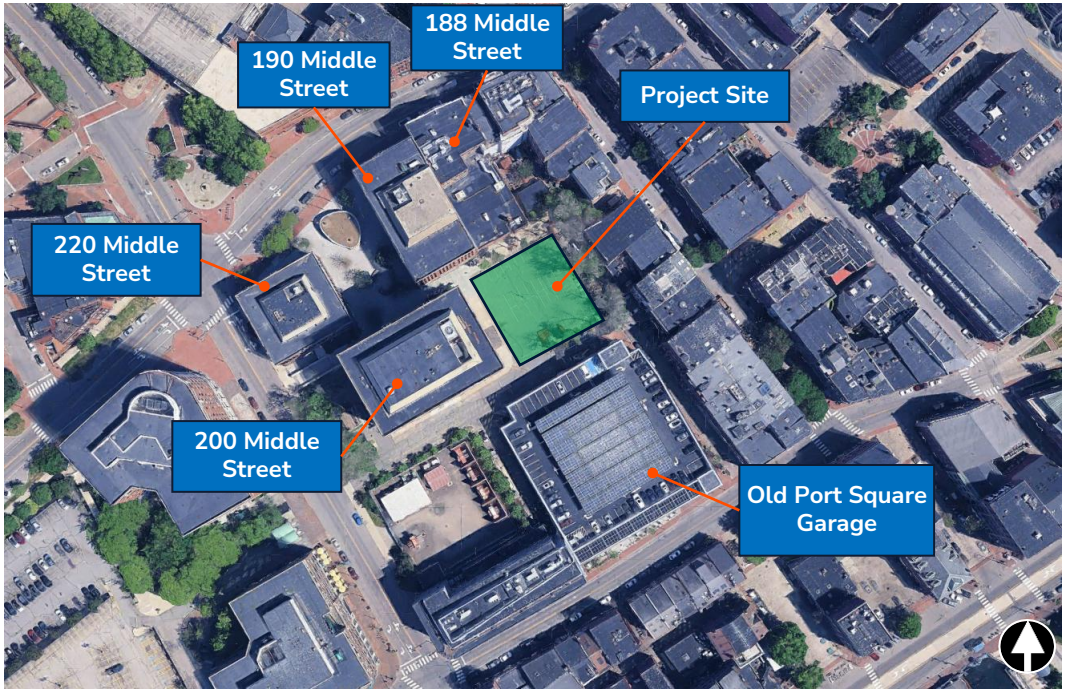
# Introduction

Cermak Peterka Petersen (CPP) was retained to assess wind conditions for the proposed 45 Union development in Portland, ME.

An assessment of the acceptability of the wind environment around a development can inform designers about the suitability of outdoor areas for their intended uses and to inform good design. This assessment of pedestrian wind conditions has been conducted in support of the City of Portland Land Use Code Site Design standards for the project.

The intention of this assessment is to:

- Identify the wind flow mechanisms that may result in more frequent strong winds than desired for passive pedestrian use spaces, such as near building entrances, patio / dining and amenity spaces; and,
- Evaluate the proposed design of the development and suggest further concepts that could be used to enhance the wind environment at pedestrian areas around the site, if necessary.




*Aerial View of Project Site (Google Earth ™)*

# Site and Building Information

The proposed 45 Union Street building is 365’ in height to top of occupiable level and features a Sky Lobby at the top of the building at level 30. The main entrance to the building is located along the south façade of the building, under a large canopy structure.

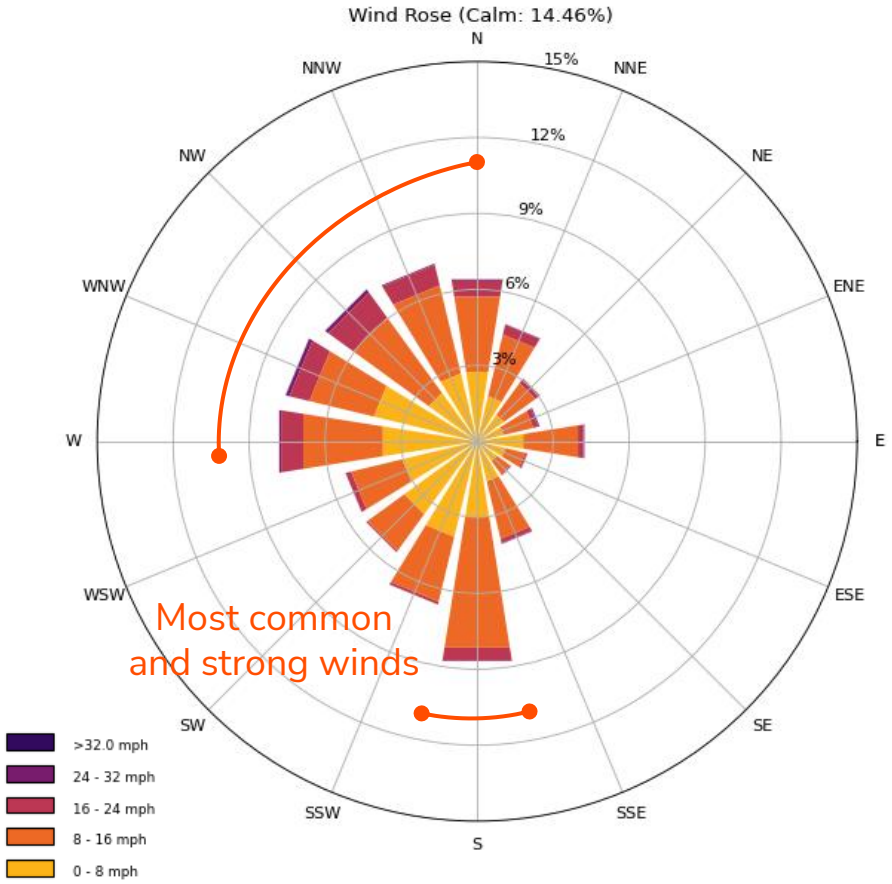
Areas of primary interest from a pedestrian wind comfort perspective include sidewalks and plaza spaces surrounding the proposed development, and the main entrances to the building.



*3D View of the Proposed Development (Received 27 August 2025)*

# Meteorological Data

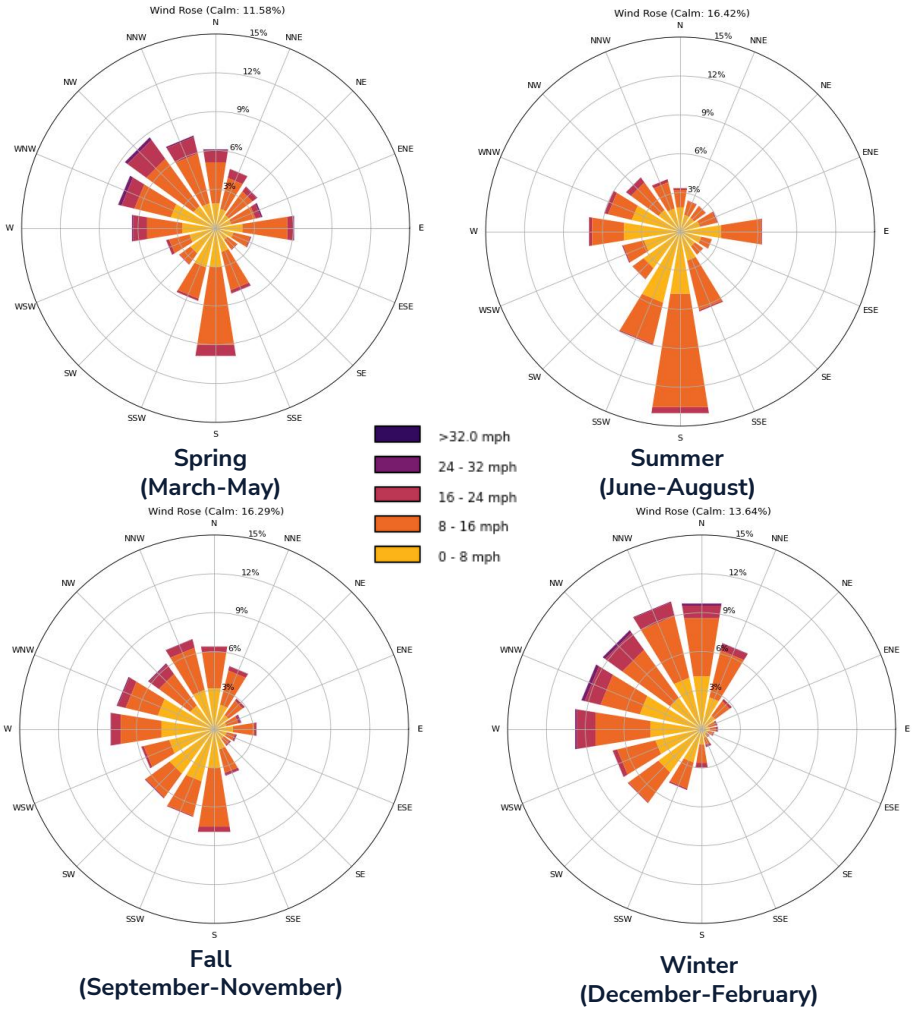
- Meteorological data recorded at Portland International Jetport from 1995 – 2022 was used for this assessment. This wind data is depicted in the adjacent wind rose shown.
- The Portland International Jetport is located approximately 2 miles west of the project site and provides the best source of historical wind data for the project.
- The arms of the wind roses point in the direction from where the wind is blowing, the width and color of the arms represent the wind speed, and the length of the arms indicate the percent of the time that the wind blows for that combination of speed and direction.
- As can be seen, predominant winds occur from the south, and west through north directions. Stronger winds (depicted by the yellow bands) are also associated with winds from the west through north.
- CPP's analysis of the predicted wind conditions will focus on these aforementioned directions as these winds have the greatest likelihood to result in the most adverse wind conditions at the project site.




*Probability of Occurrence of Wind Speed by Direction*
*Portland International Jetport (All Seasons, All Hours, 1995-2022)*

# Seasonal Winds

- The meteorological data was further analyzed to investigate the frequency of winds that occur throughout the various seasons, as the use of various amenity spaces will vary with season and ambient air temperature.
- Most significantly, there is a distinct directional shift in the winds between the winter, and summer seasons.
- Most winds occur from the west through north in the winter, with strong winds occurring from these directions.
- During the summer winds are most frequently from the south.




*Probability of Occurrence of Wind Speed by Direction by Season*
*Portland International Jetport (All Hours, 1995-2022)*

# Methodology

## WIND ASSESSMENT CRITERIA

- CPP uses the widely-accepted pedestrian-level wind criteria developed by Lawson (1990). Lawson's criteria are divided into separate categories of comfort and distress (safety).
- The comfort criteria allow planners to assess the usability, with respect to the wind environment, of different locations for various purposes, such as for long-duration activities (e.g., sitting at an outdoor café) or casual walking on sidewalks.
- The perception of wind speeds within these comfort categories can vary by individual, so opinions regarding the local wind environment should be always be taken into account.
- The distress (safety) criteria help to identify locations where wind speeds may be hazardous to pedestrians and based on wind speeds that occur approximately twice per year or once per season.
- The wind safety criterion is associated with excessive gust wind speeds that affect a pedestrian's balance and footing and are considered severe.

| Comfort Rating | Wind Speed | Description |
|---|---|---|
| Sitting | ≤ 9 mph | Calm or light breezes suitable for long duration seating areas, and other amenities. |
| Standing | ≤ 13 mph | Gentle breezes suitable for sitting for shorter periods, main entrances and bus stops where pedestrians may linger. |
| Casual Walking | ≤ 18 mph | Moderate winds appropriate for window shopping and strolling along a downtown street, or park. |
| Business Walking | ≤ 22 mph | Relatively high speeds that can be tolerated if one's objective is to walk, run, or cycle. |
| Uncomfortable | > 22 mph | Strong winds unacceptable for all pedestrian activities; wind mitigation is typically required. |

| Safety Rating | Wind Speed | Description |
|---|---|---|
| Pass | < 34 mph | Meets wind safety criterion |
| Exceeds | ≥ 34 mph | Excessive wind speeds that can adversely affect a pedestrian's balance and footing. |

# Predicted Wind Conditions

## SIDEWALKS (EXISTING SITE)

- The existing site is exposed to the prevailing northwesterly, and southerly winds, resulting in moderate wind speeds suitable for active pedestrian use on and around the site.
- Higher winds speeds, rated as suitable for Walking are expected along the stairs between 190 and 200 Middle Street, where winds from the northwest quadrant channel, and accelerate through this area. Similar, higher winds speeds are expected near the northwest, and southeast corners of the existing 200 Middle Street building.
- These are likely existing areas of higher wind speeds that are the result of the broad façade of the 200 Middle Street, and the proximity of the other surrounding buildings.
- Although higher wind speeds are expected in these areas in the existing, current site – the wind safety criteria is not likely exceeded on an annual basis.




*Predicted Wind Comfort Conditions – Existing Site and Surrounding Area*

# Predicted Wind Conditions

## SIDEWALKS (PROJECT SITE)

- With the addition of the proposed development, wind conditions on the nearby sidewalks are expected to remain the same throughout the year compared to the existing site.
- No areas around the proposed site are expected to exceed the wind safety criteria on an annual basis.

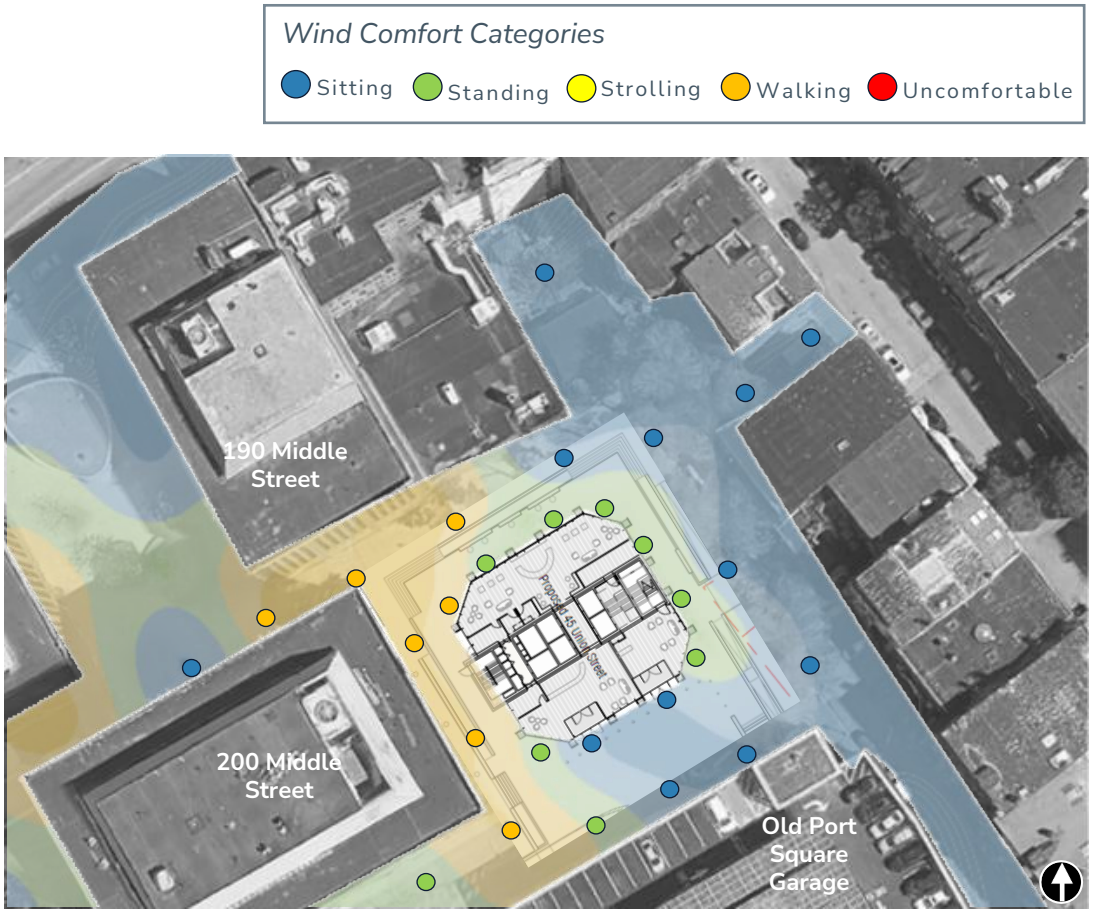



*Predicted Wind Comfort Conditions – Project Site and Surrounding Area*

# Predicted Wind Conditions

## PROPOSED SITE CONDITIONS

- With the addition of the proposed development, local wind conditions on the site are expected to increase throughout the year compared to the existing site.
- The sidewalk along the west side of the proposed 45 Union development and the existing 200 Middle Street are expected to increase from being comfortable for Standing, to a Walking rating on an annual basis.
- These wind conditions may be perceived as Uncomfortable from time to time during the winter.
- No areas around the proposed site are expected to exceed the wind safety criteria on an annual basis.

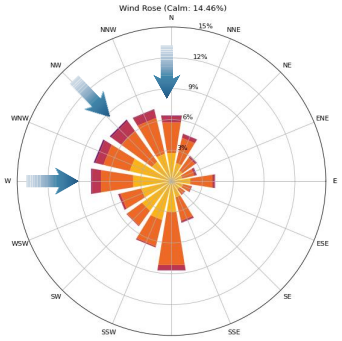



*Predicted Wind Comfort Conditions – Project Site and Surrounding Area*

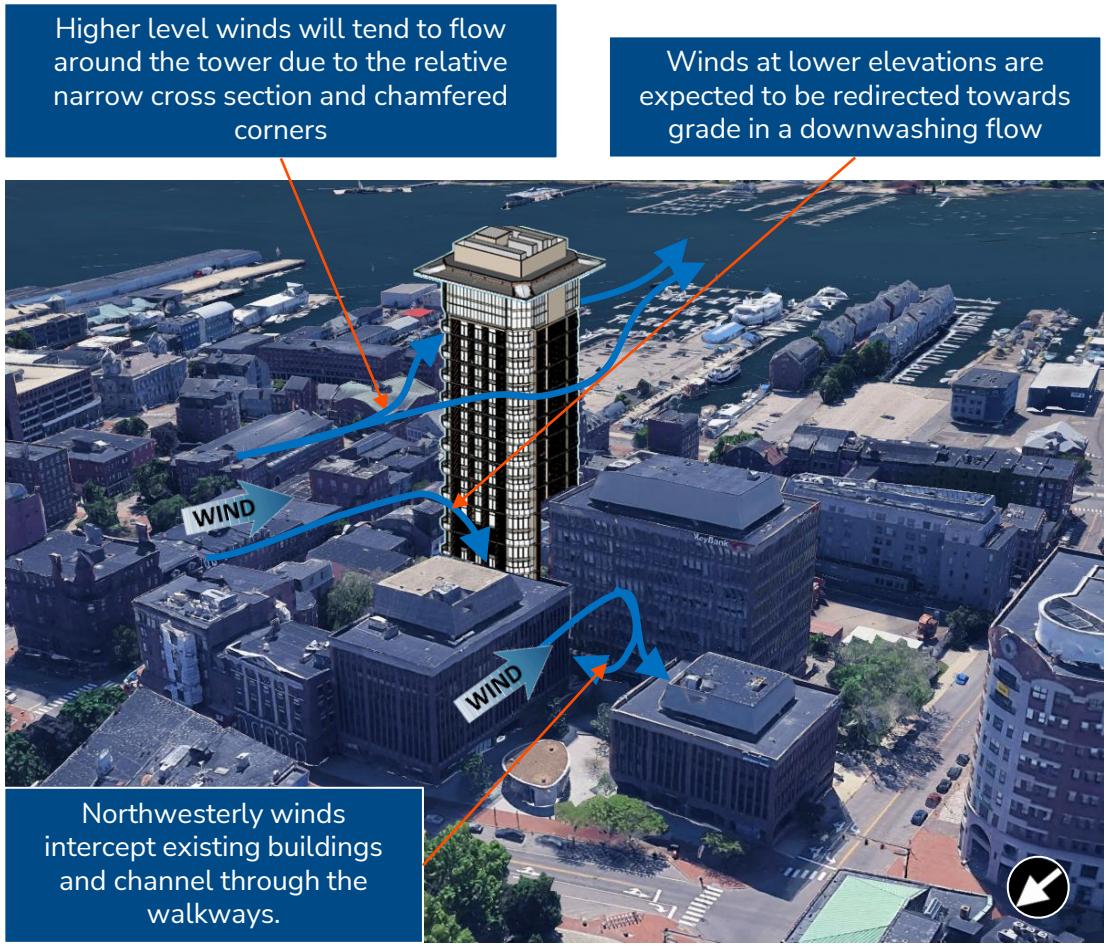
# Predicted Wind Conditions

## WESTERLY WINDS

- The project site is generally exposed to winds from the northwesterly quadrant.
- These prevailing winds will tend to be redirected by the façade of the tower and flow around the building, due to the large chamfered corners and relatively narrow cross section of the tower.
- However, some lower winds are expected to be redirected towards grade in a down-washing flow.
- These downashing winds are expected to increase wind speeds at grade between 200 Middle Street and the proposed building.




***Annual Winds – All Hours***

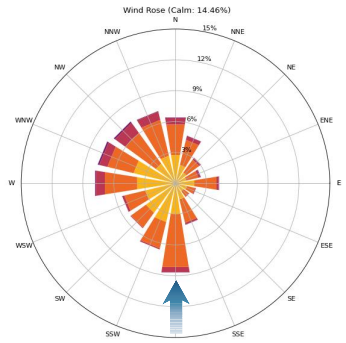



*View from the East with Approximate Placement of the Proposed 45 Union Street Building*

# Predicted Wind Conditions

## SOUTHERLY WINDS

- The south façade of the tower is also relatively exposed to southerly winds, which occur more commonly in the summer.
- These prevailing winds will tend to be redirected by the façade of the building and be re-directed towards grade in a down-washing flow.
- The existing 200 Middle Street building, however, is expected to redirect more wind towards the grade level due to the larger area of the south facing façade. These winds are expected to channel between the 45 Union building.




***Annual Winds – All Hours***

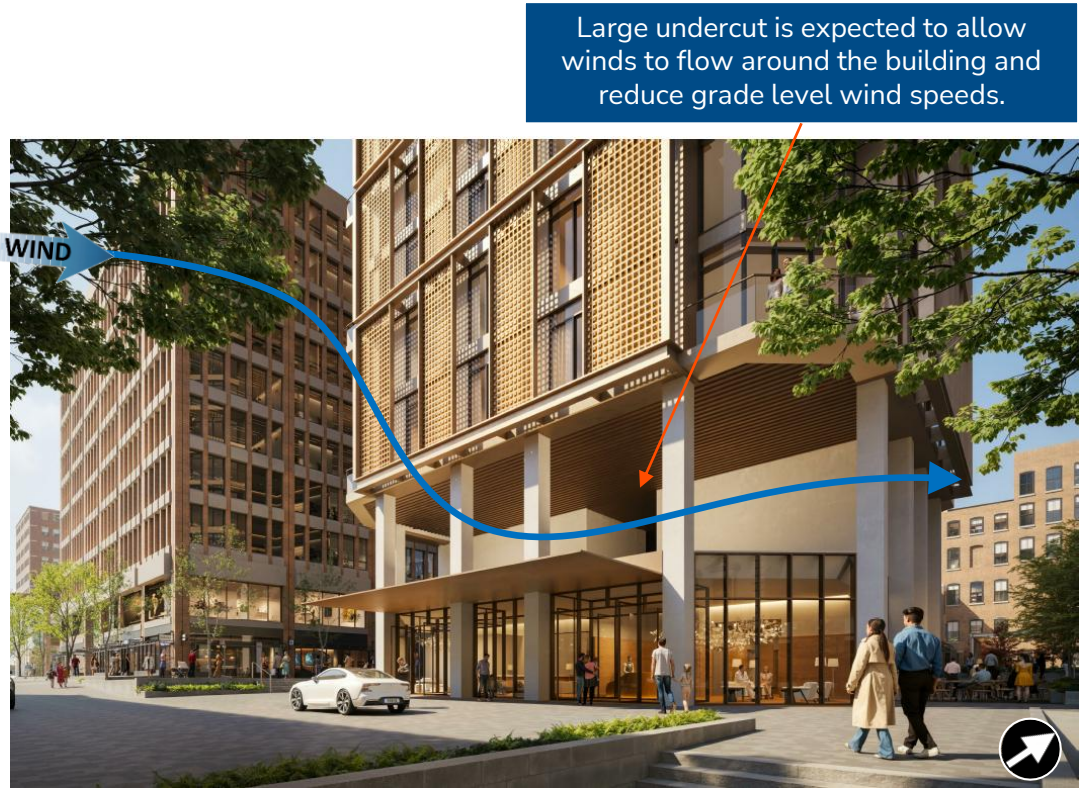



*View from the East with Approximate Placement of the Proposed 45 Union Street Building*

# Predicted Wind Conditions

## SOUTHERLY WINDS

- The design of the tower includes several design features that are expected to dramatically reduce grade level wind speeds.
- The large corner chamfers is an effective strategy for reducing downwashing wind flows and reducing the peak wind speeds that would otherwise occur near the building corners.
- The project team has also included a large void space at the second level, and a large canopy structure above the main entrance location.
- This large undercut structure is expected to provide a large space for wind to flow through, reducing wind speeds at grade level.
- It is recommended that these building design features be retained as the design progresses.

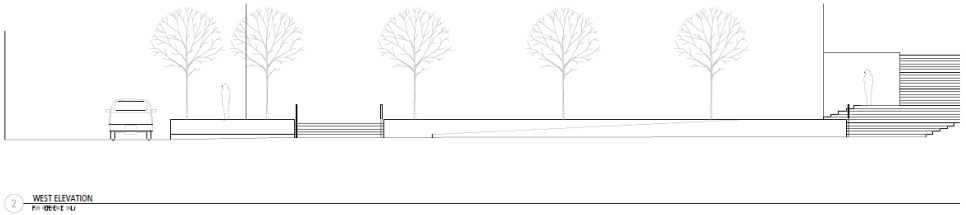


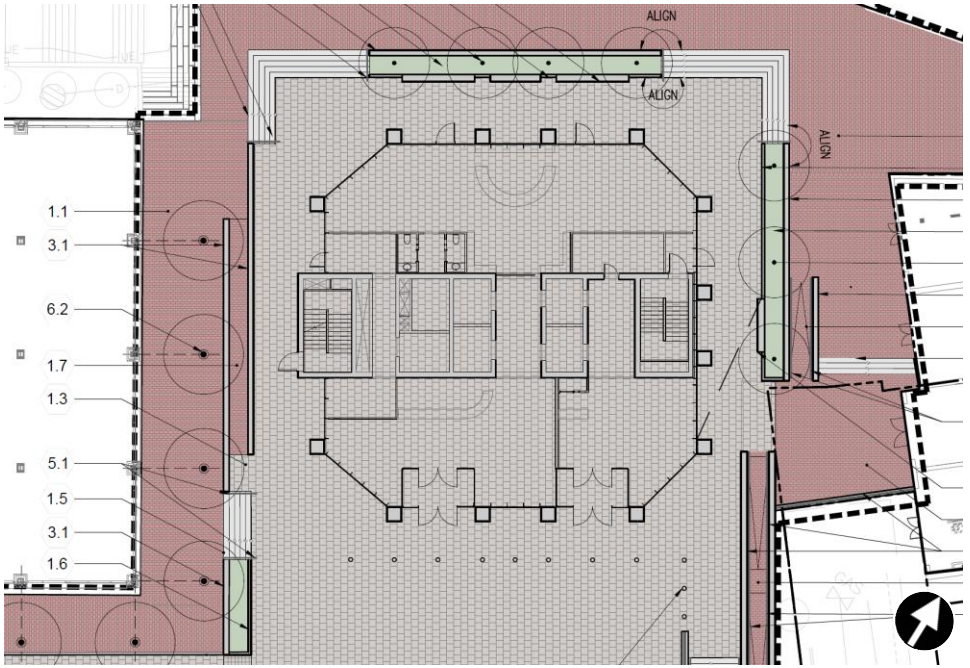

*Main Entrance View of the Proposed 45 Union Development*

# Predicted Wind Conditions

## SITE LANDSCAPING

- The project team has incorporated raised planters and trees into the project site along the west, north and east walkways surrounding the building.
- Landscaping can be used to enhance pedestrian comfort by potentially reducing wind speeds, while providing shade during the warmer months.
- As the design of the proposed development and site landscaping continues to mature, the project team may wish to investigate and potentially incorporate, if necessary, additional design features to further enhance wind comfort within this plaza space.




*Level 1 Site Plan – Received 27 August 2025*

# Applicability

CPP was retained to assess wind conditions around the proposed 45 Union Street development, located in Portland, ME.

The evaluation of the wind conditions around the development are based on a qualitative assessment leveraging CPP's extensive knowledge of wind flows within the built environment, the local wind climate and wind studies for other developments conducted throughout the region.

The assessment of the development is based on the 3D design information received on 27 August 2025. In the event of any significant changes to the design, use, or operation of the building or surrounds, it is the responsibility of others to contact CPP to initiate a review process.

# 45 UNION STREET

## SHADOW STUDY

SafdieArchitects

6 October 2025

# **OVERVIEW |** SITE + SCOPE OF STUDY




*AN EVALUATION OF ADDITIONAL PUBLIC SPACES CONFIRMED THE FOLLOWING:*

*- MONUMENT SQUARE: THERE IS NO SHADOW IMPACT DURING THE CRITICAL HOURS OF USE (10AM-3PM).*

*- CITY HALL PLAZA: THERE IS NO SHADOW IMPACT DURING THE CRITICAL HOURS OF USE (10AM-2PM) FROM MARCH 21-SEPTEMBER 21. THERE IS A MINIMAL SHADOW IMPACT IN DECEMBER.*

*- LINCOLN PARK: THERE IS NO SHADOW IMPACT DURING THE CRITICAL HOURS OF USE (10AM-2PM) FROM MARCH 21-SEPTEMBER 21. THERE IS A MINIMAL SHADOW IMPACT IN DECEMBER.*

*- BOOTHBY SQUARE : THERE IS NO SHADOW IMPACT BEFORE 4PM.*

*- BELL BUOY PARK: THERE IS NO SHADOW IMPACT BEFORE 4PM.*

*PER 'THE CITY OF PORTLAND DESIGN MANUAL', THE SHADOW CAST ON THESE PUBLIC SPACES IS DEEMED INSUBSTANTIAL, REQUIRING NO FURTHER ANALYSIS.*

*SCOPE OF STUDY*

*PUBLIC OPEN SPACES*

*45 UNION STREET PROJECT*

*1. LOBSTERMAN PARK*

*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*

N

1"= 350'

100 500'

0 200

# **MARCH 21 |** SHADOWS CAST AT 9 AM




| | | |
|---|---|---|
| DAY | MARCH 21 | |
| | SUNRISE | 6:41 AM |
| | SUNSET | 6:54 PM |
| TIME | 9 AM | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

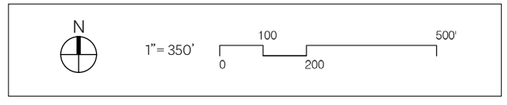
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



# **MARCH 21 |** SHADOWS CAST AT NOON




| DAY | MARCH 21 | |
|---|---|---|
| | SUNRISE | 6:41 AM |
| | SUNSET | 6:54 PM |
| TIME | NOON | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

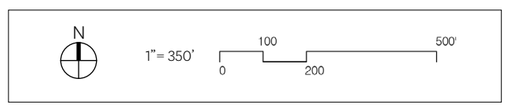
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



# **MARCH 21 |** SHADOWS CAST AT 3 PM




| DAY | MARCH 21 | |
|---|---|---|
| | SUNRISE | 6:41 AM |
| | SUNSET | 6:54 PM |
| TIME | 3 PM | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

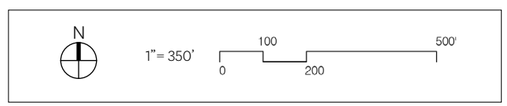
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

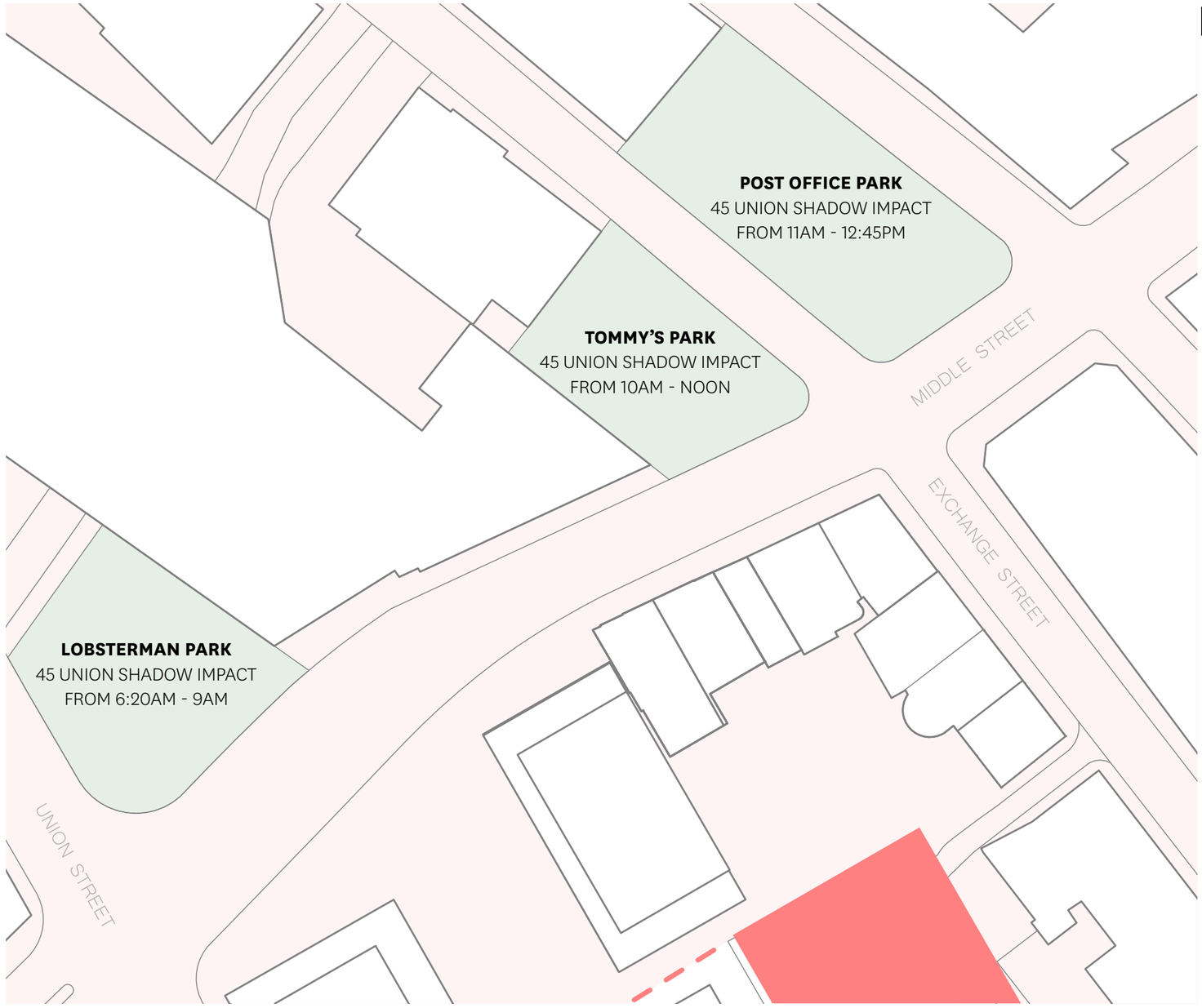
*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*

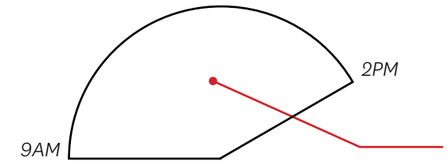


# **MARCH 21 |** IMPACT ON PUBLIC SPACES




| DAY | MARCH 21 |
|---|---|
| SUNRISE | 6:41 AM |
| SUNSET | 6:54 PM |

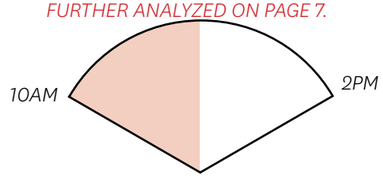
## HOURS OF SHADOW IMPACT DURING CRITICAL HOURS*




*NO IMPACT DURING CRITICAL HOURS. NO FURTHER STUDY NECESSARY.*

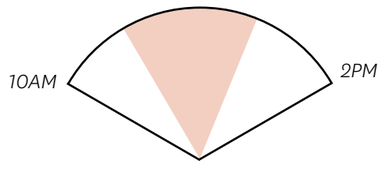
*LOBSTERMAN PARK*
*9AM - 2 PM*

*SHADOW IMPACT FROM 10AM-NOON FURTHER ANALYZED ON PAGE 7.*



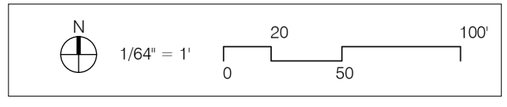

*TOMMY'S PARK*
*10AM - 2 PM*

*SHADOW IMPACT FROM 11AM-12:45PM FURTHER ANALYZED ON PAGE 7.*



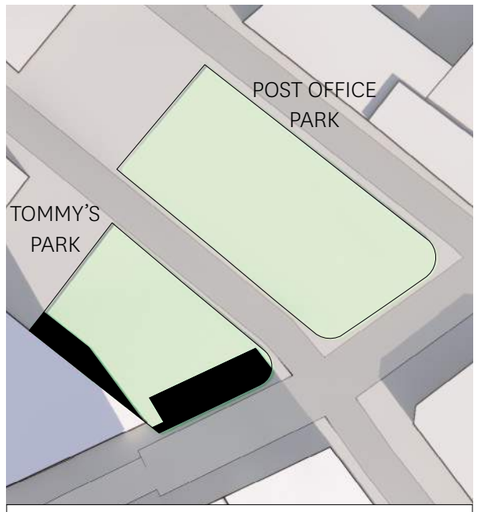

*POST OFFICE PARK*
*10AM - 2 PM*

** CRITICAL HOURS DEFINED BY 'THE CITY OF PORTLAND DESIGN MANUAL'*



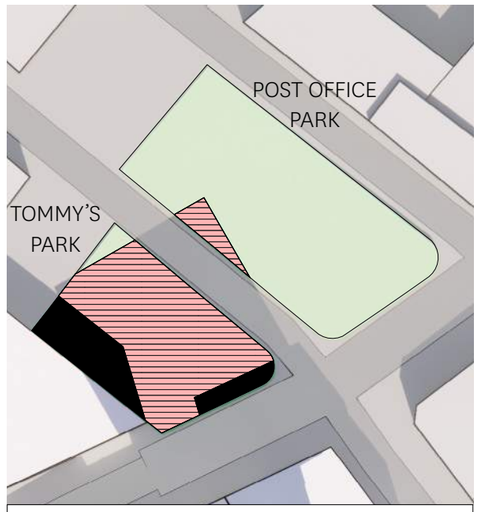
# **MARCH 21 |** IMPACT ON TOMMY'S PARK AND POST OFFICE PARK

## SHADOW CAST ON TOMMY'S PARK AND POST OFFICE PARK ON MARCH 21ST



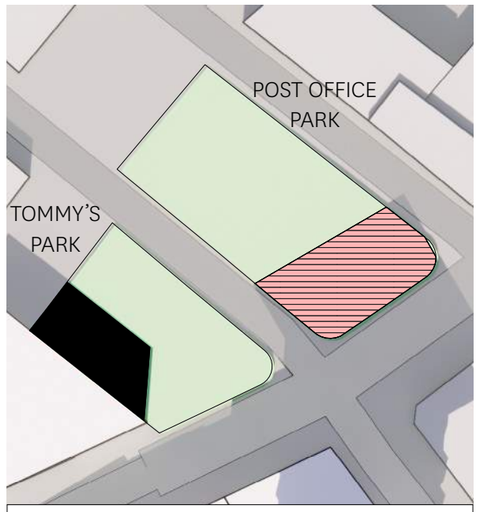

10 AM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 2,773 | 26% | 0 | 0% |
| PROPOSED | 2,773 | 26% | 0 | 0% |



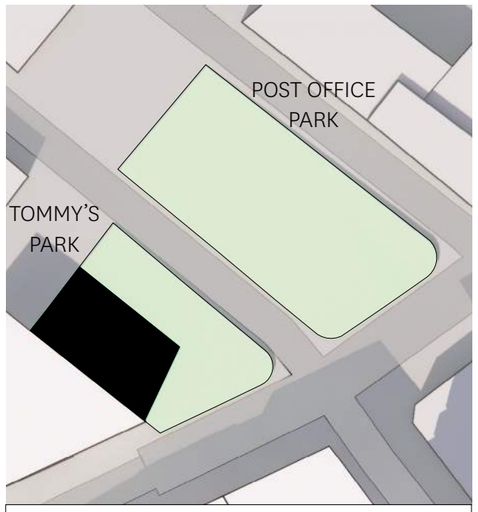

11 AM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 2,652 | 25% | 0 | 0% |
| PROPOSED | 10,340 | 97% | 635 | 4% |



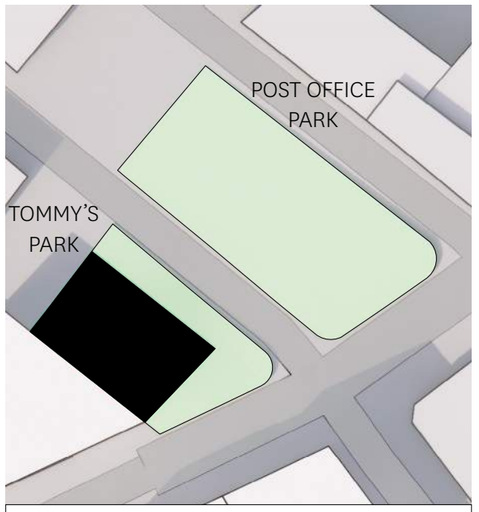

12 PM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 3,197 | 30% | 0 | 0% |
| PROPOSED | 3,197 | 30% | 5,132 | 30% |




1 PM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 4,526 | 42% | 0 | 0% |
| PROPOSED | 4,526 | 42% | 0 | 0% |




2 PM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 6,343 | 59% | 0 | 0% |
| PROPOSED | 6,343 | 59% | 0 | 0% |

PROPOSED SHADOW

CURRENT SHADOW

| DAY | MARCH 21 |
|---|---|
| SUNRISE | 6:41 AM |
| SUNSET | 6:54 PM |

CONCLUSION:

| TOMMY'S PARK | |
|---|---|
| AVERAGE % OF AREA IN SHADOW | |
| CURRENT SHADOW | 36.4% |
| PROPOSED SHADOW | 50.8% |

THE AREA IN SHADOW IN TOMMY'S PARK INCREASES BY **14.4%** FROM 10AM - 2PM ON MARCH 21ST.

| POST OFFICE PARK | |
|---|---|
| AVERAGE % OF AREA IN SHADOW | |
| CURRENT SHADOW | 0% |
| PROPOSED SHADOW | 6.8% |

THE AREA IN SHADOW IN POST OFFICE PARK INCREASES BY **6.8%** FROM 10AM - 2PM ON MARCH 21ST.

# **MAY 6 |** SHADOWS CAST AT 9 AM




| DAY | MAY 6 | |
|---|---|---|
| | SUNRISE | 5:26 AM |
| | SUNSET | 7:49 PM |
| TIME | 9 AM | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

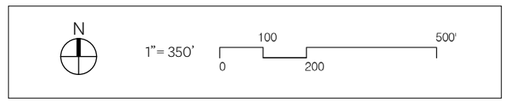
*PUBLIC OPEN SPACES*

*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

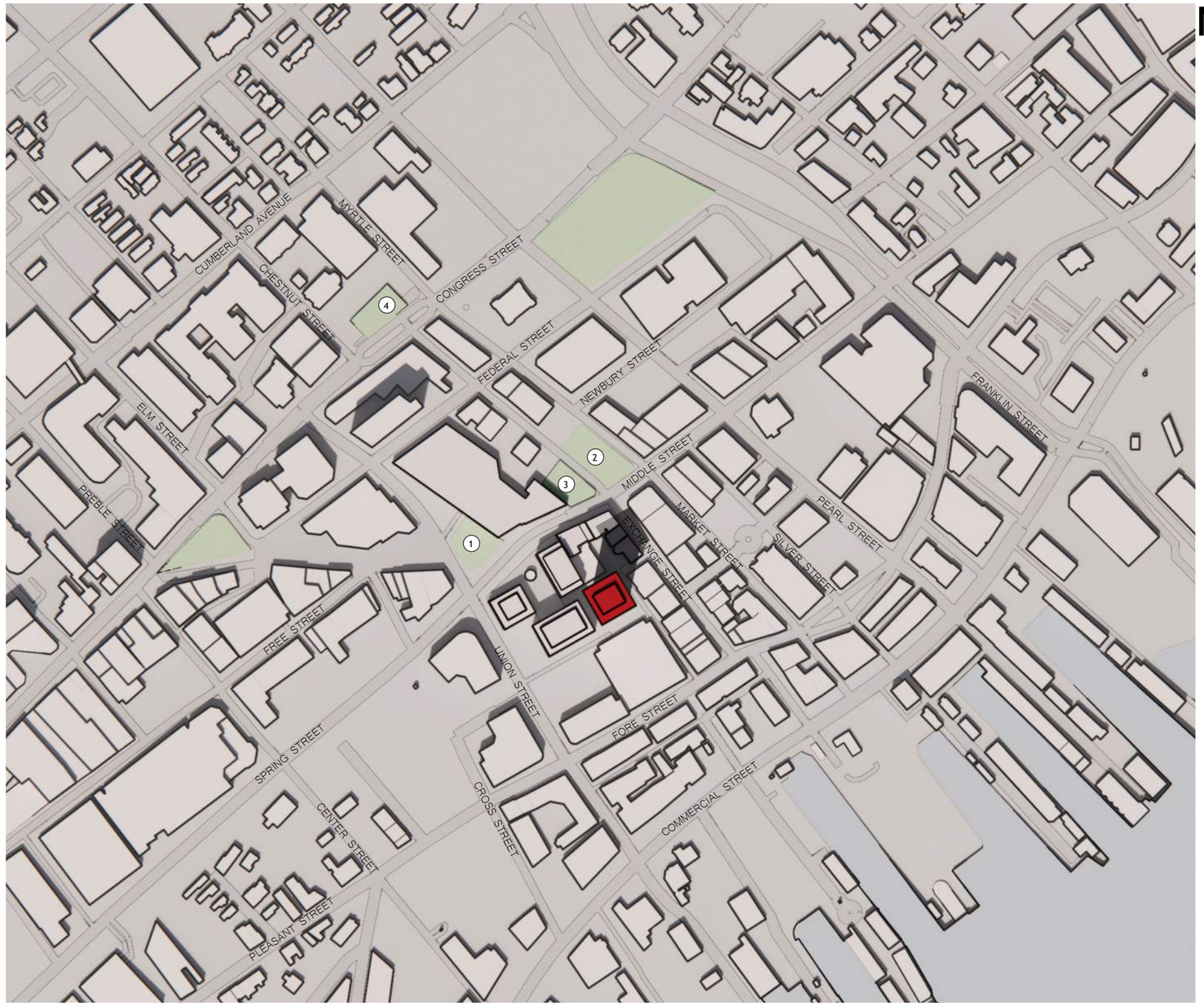
*1. LOBSTERMAN PARK*

*2. POST OFFICE PARK*

*3. TOMMY'S PARK*



# **MAY 6 |** SHADOWS CAST AT NOON




| | | |
|---|---|---|
| DAY | MAY 6 | |
| | SUNRISE | 5:26 AM |
| | SUNSET | 7:49 PM |
| TIME | NOON | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

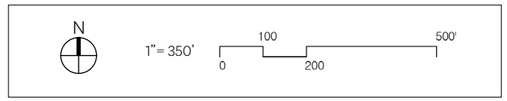
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



# **MAY 6 |** SHADOWS CAST AT 3 PM




| | | |
|---|---|---|
| DAY | MAY 6 | |
| | SUNRISE | 5:26 AM |
| | SUNSET | 7:49 PM |
| TIME | 3 PM | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

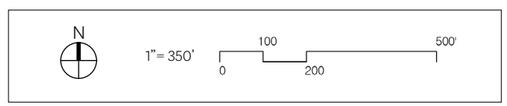
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

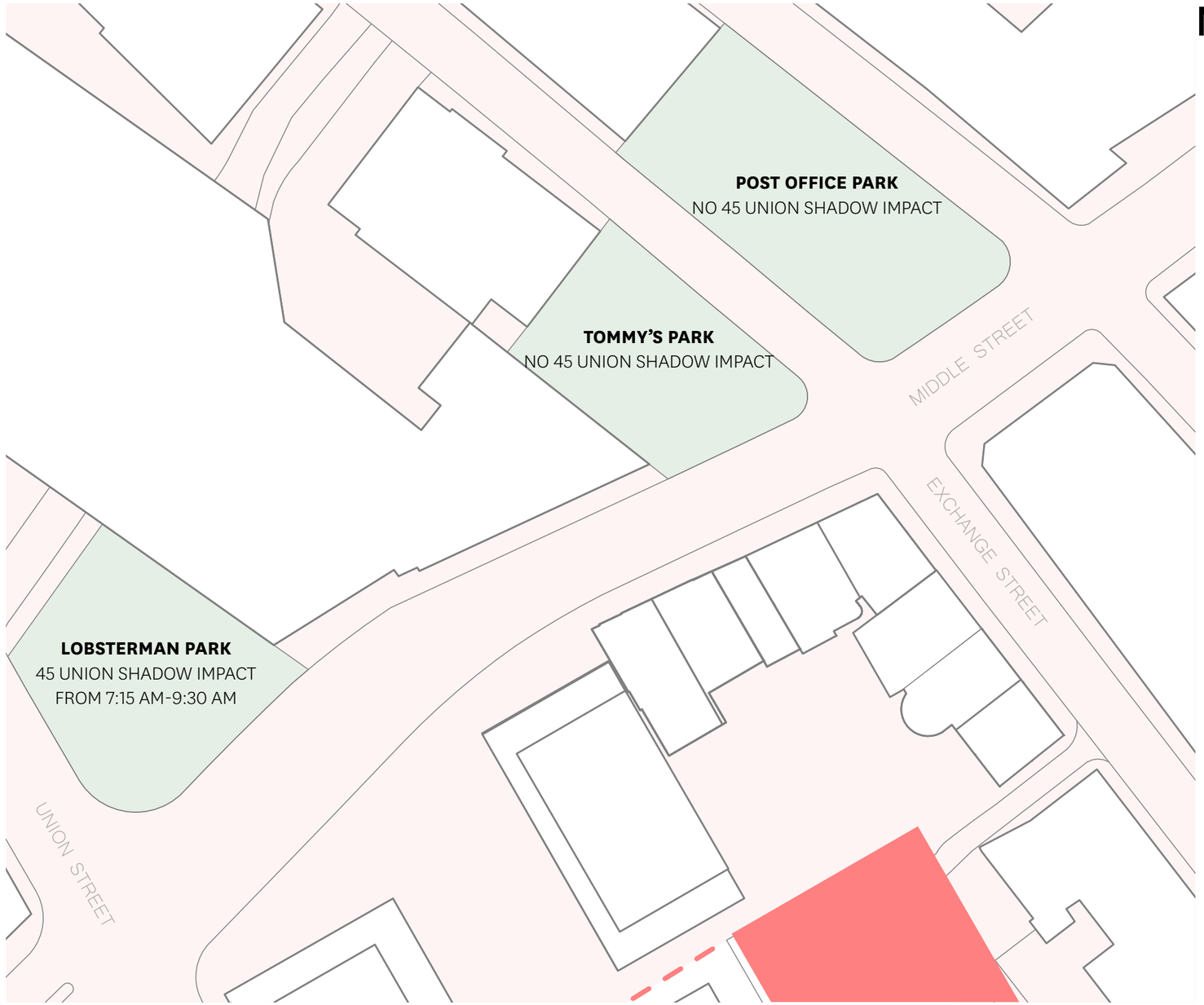
*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



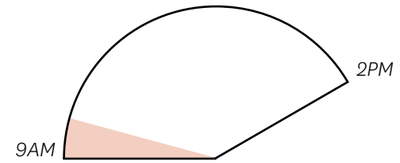
# **MAY 6 |** IMPACT ON PUBLIC SPACES




| DAY | MAY 6 |
|---|---|
| SUNRISE | 5:26 AM |
| SUNSET | 7:49 PM |

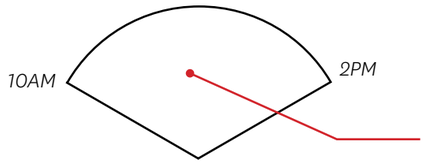
** CRITICAL HOURS DEFINED BY 'THE CITY OF PORTLAND DESIGN MANUAL'*

## HOURS OF SHADOW IMPACT DURING CRITICAL HOURS*



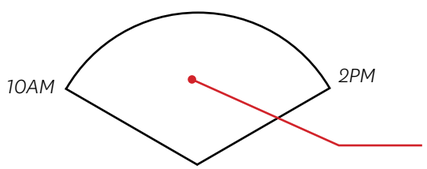

*LOBSTERMAN PARK*
*9AM - 2 PM*

*SHADOW IMPACT FROM 9AM-9:30AM FURTHER ANALYZED ON PAGE 12.*



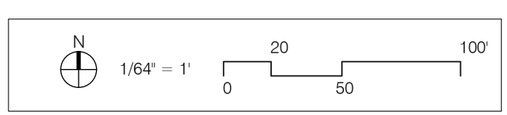

*NO IMPACT DURING CRITICAL HOURS. NO FURTHER STUDY NECESSARY.*

*TOMMY'S PARK*
*10AM - 2 PM*



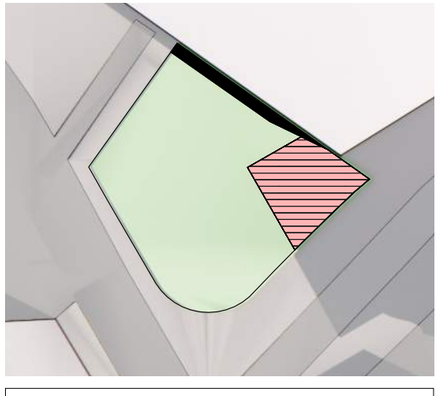

*NO IMPACT DURING CRITICAL HOURS. NO FURTHER STUDY NECESSARY.*

*POST OFFICE PARK*
*10AM - 2 PM*

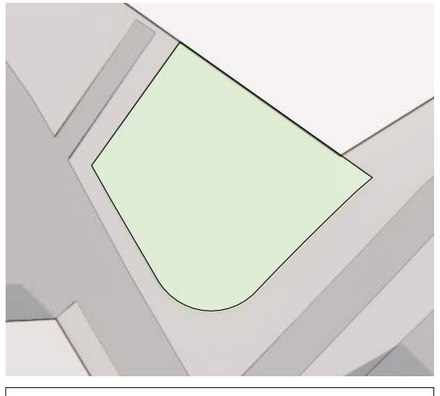


# **MAY 6 |** IMPACT ON LOBSTERMAN PARK

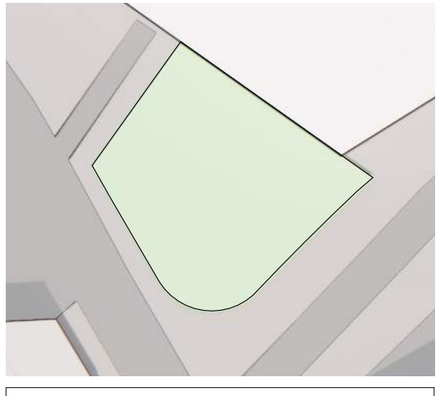
## SHADOW CAST ON LOBSTERMAN PARK ON MAY 6TH



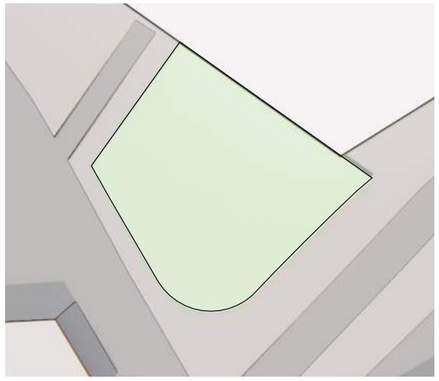
| 9 AM | | |
|---|---|---|
| | AREA | |
| CURRENT SHADOW | 500 | 4% |
| PROPOSED SHADOW | 2649 | 21% |



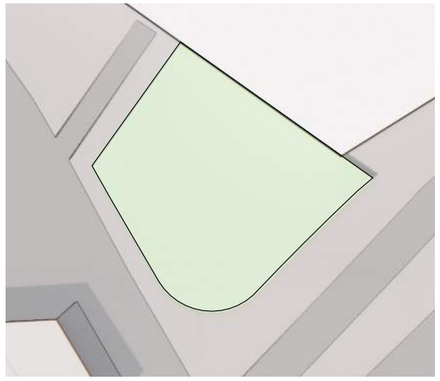
| 10 AM | | |
|---|---|---|
| | AREA | |
| CURRENT SHADOW | 0 | 0% |
| PROPOSED SHADOW | 0 | 0% |



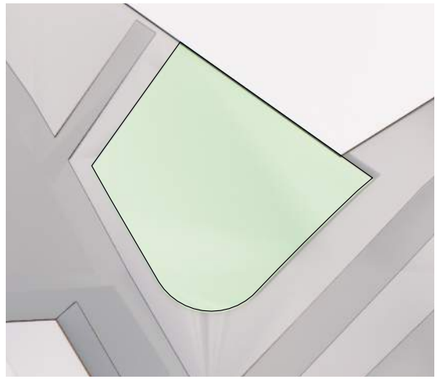
| 11 AM | | |
|---|---|---|
| | AREA | |
| CURRENT SHADOW | 0 | 0% |
| PROPOSED SHADOW | 0 | 0% |



| 12 PM | | |
|---|---|---|
| | AREA | |
| CURRENT SHADOW | 0 | 0% |
| PROPOSED SHADOW | 0 | 0% |



| 1 PM | | |
|---|---|---|
| | AREA | |
| CURRENT SHADOW | 0 | 0% |
| PROPOSED SHADOW | 0 | 0% |



| 2 PM | | |
|---|---|---|
| | AREA | |
| CURRENT SHADOW | 0 | 0% |
| PROPOSED SHADOW | 0 | 0% |

PROPOSED SHADOW

CURRENT SHADOW

| DAY | MAY 6 |
|---|---|
| SUNRISE | 5:26 AM |
| SUNSET | 7:49 PM |

CONCLUSION:

| AVERAGE % OF AREA IN SHADOW | |
|---|---|
| CURRENT SHADOW | 0.7% |
| PROPOSED SHADOW | 3.5% |

THE AREA IN SHADOW INCREASES BY **2.8%** FROM 9AM - 2PM ON MAY 6TH.

# **JUNE 21 |** SHADOWS CAST AT 9 AM




| DAY | JUNE 21 | |
|---|---|---|
| | SUNRISE | 4:59 AM |
| | SUNSET | 8:26 PM |
| TIME | 9 AM | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

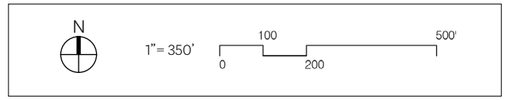
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

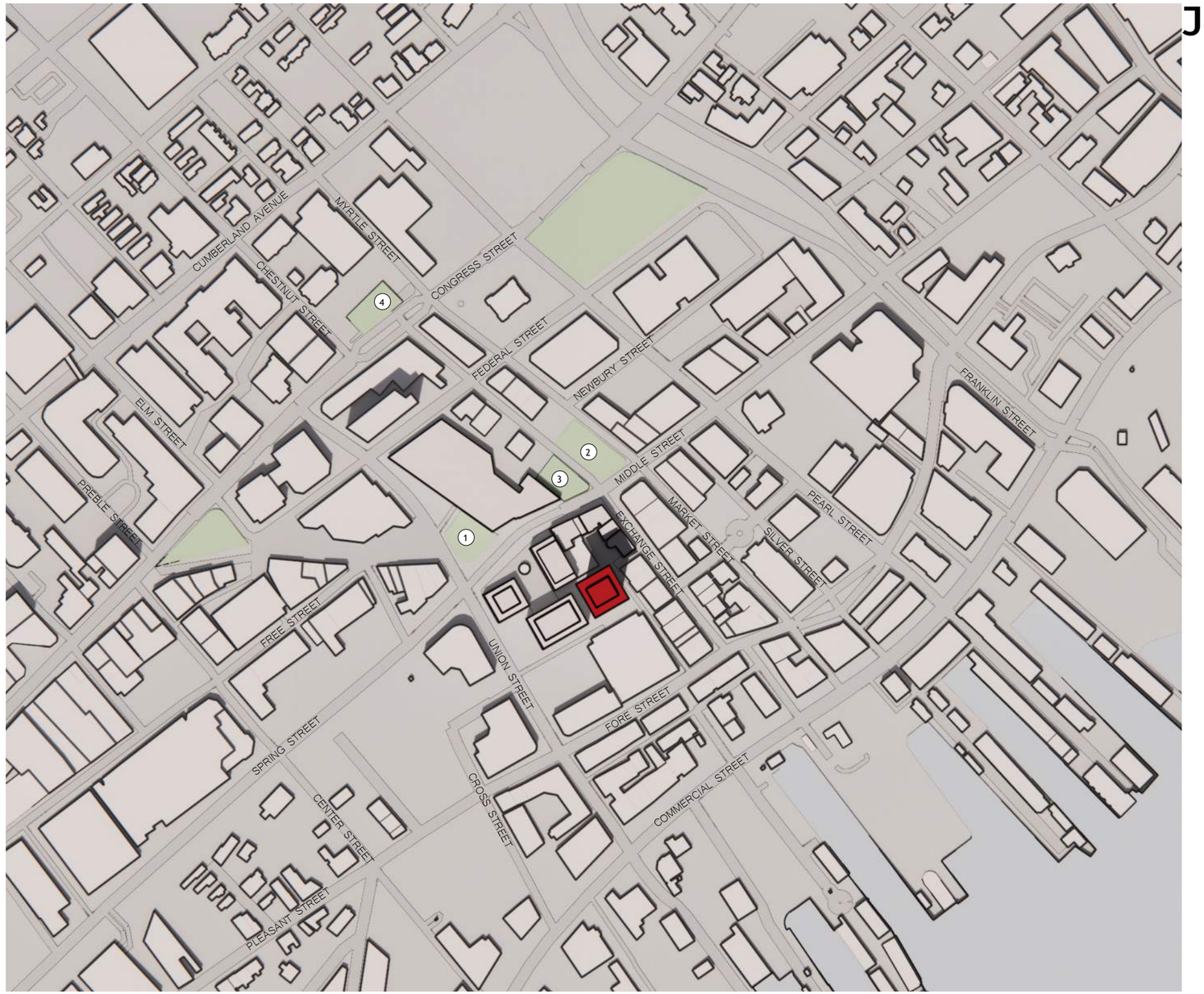
*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



# **JUNE 21 |** SHADOWS CAST AT NOON




| DAY | JUNE 21 | |
|---|---|---|
| | SUNRISE | 4:59 AM |
| | SUNSET | 8:26 PM |
| TIME | NOON | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

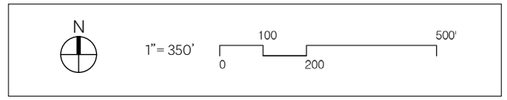
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



# **JUNE 21 |** SHADOWS CAST AT 3 PM




| DAY | JUNE 21 | |
|---|---|---|
| | SUNRISE | 4:59 AM |
| | SUNSET | 8:26 PM |
| TIME | 3 PM | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

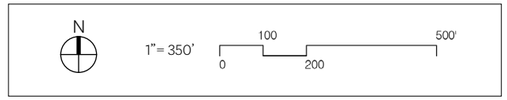
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

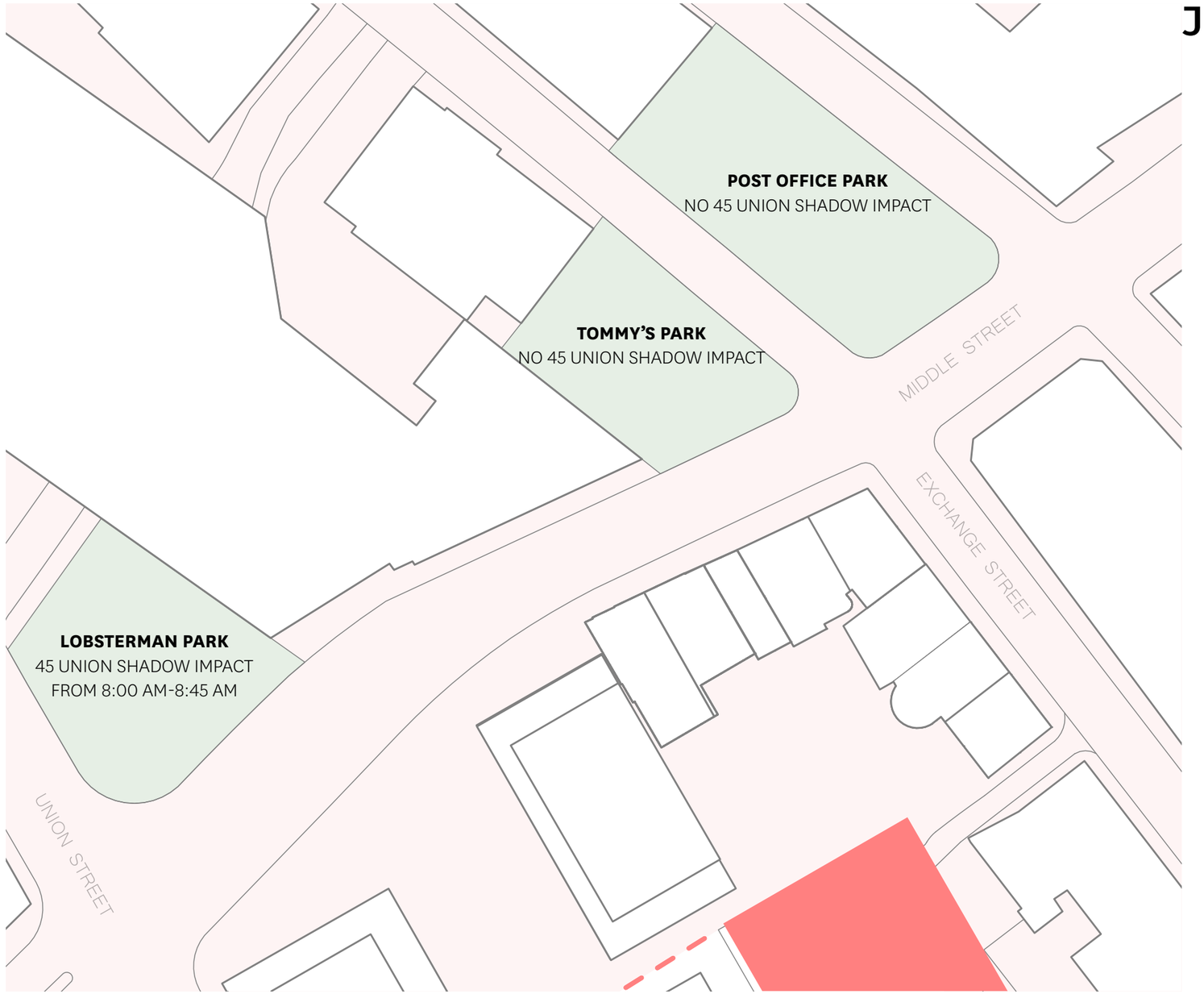
*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



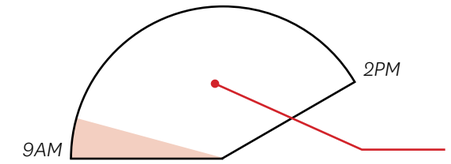
# **JUNE 21 |** IMPACT ON PUBLIC SPACES




| DAY | JUNE 21 |
|---|---|
| SUNRISE | 4:59 AM |
| SUNSET | 8:26 PM |

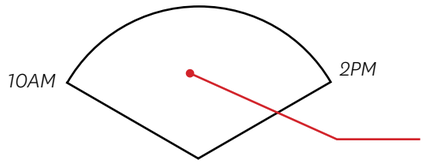
** CRITICAL HOURS DEFINED BY 'THE CITY OF PORTLAND DESIGN MANUAL'*

## HOURS OF SHADOW IMPACT DURING CRITICAL HOURS*



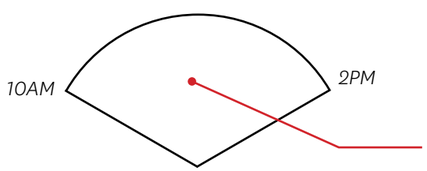

*NO IMPACT DURING CRITICAL HOURS. NO FURTHER STUDY NECESSARY.*

*LOBSTERMAN PARK*
*9AM - 2 PM*



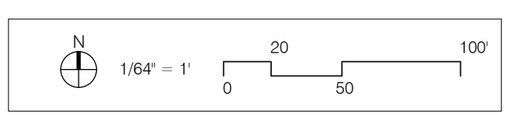

*NO IMPACT DURING CRITICAL HOURS. NO FURTHER STUDY NECESSARY.*

*TOMMY'S PARK*
*10AM - 2 PM*




*NO IMPACT DURING CRITICAL HOURS. NO FURTHER STUDY NECESSARY.*

*POST OFFICE PARK*
*10AM - 2 PM*



# **DEC 21 |** SHADOWS CAST AT 9 AM




| DAY | DECEMBER 21 | |
|---|---|---|
| | SUNRISE | 7:11 AM |
| | SUNSET | 4:07 PM |
| TIME | 9 AM | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

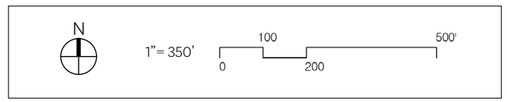
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

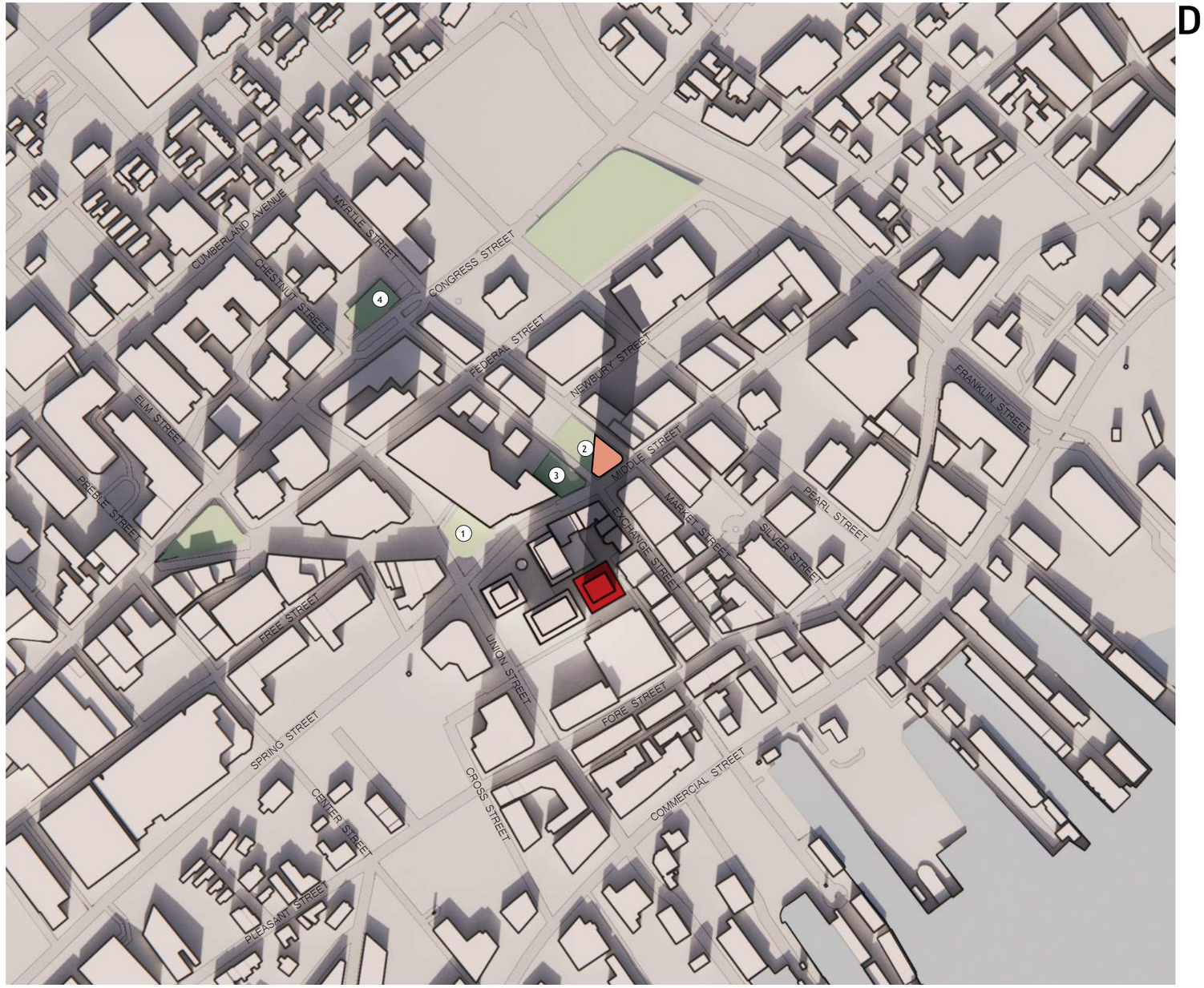
*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



# **DEC 21 |** SHADOWS CAST AT NOON




| DAY | DECEMBER 21 | |
|---|---|---|
| | SUNRISE | 7:11 AM |
| | SUNSET | 4:07 PM |
| TIME | NOON | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

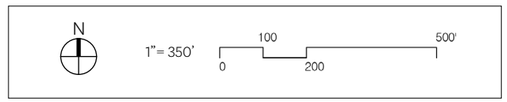
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



# **DEC 21 |** SHADOWS CAST AT 3 PM




| DAY | DECEMBER 21 | |
|---|---|---|
| | SUNRISE | 7:11 AM |
| | SUNSET | 4:07 PM |
| TIME | 3 PM | |

*45 UNION STREET PROJECT*

*EXISTING SHADOWS*

*45 UNION SHADOW*

*PUBLIC OPEN SPACES*

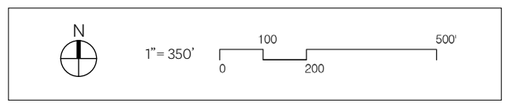
*45 UNION SHADOW IMPACT ON PUBLIC OPEN SPACES*

*1. LOBSTERMAN PARK*

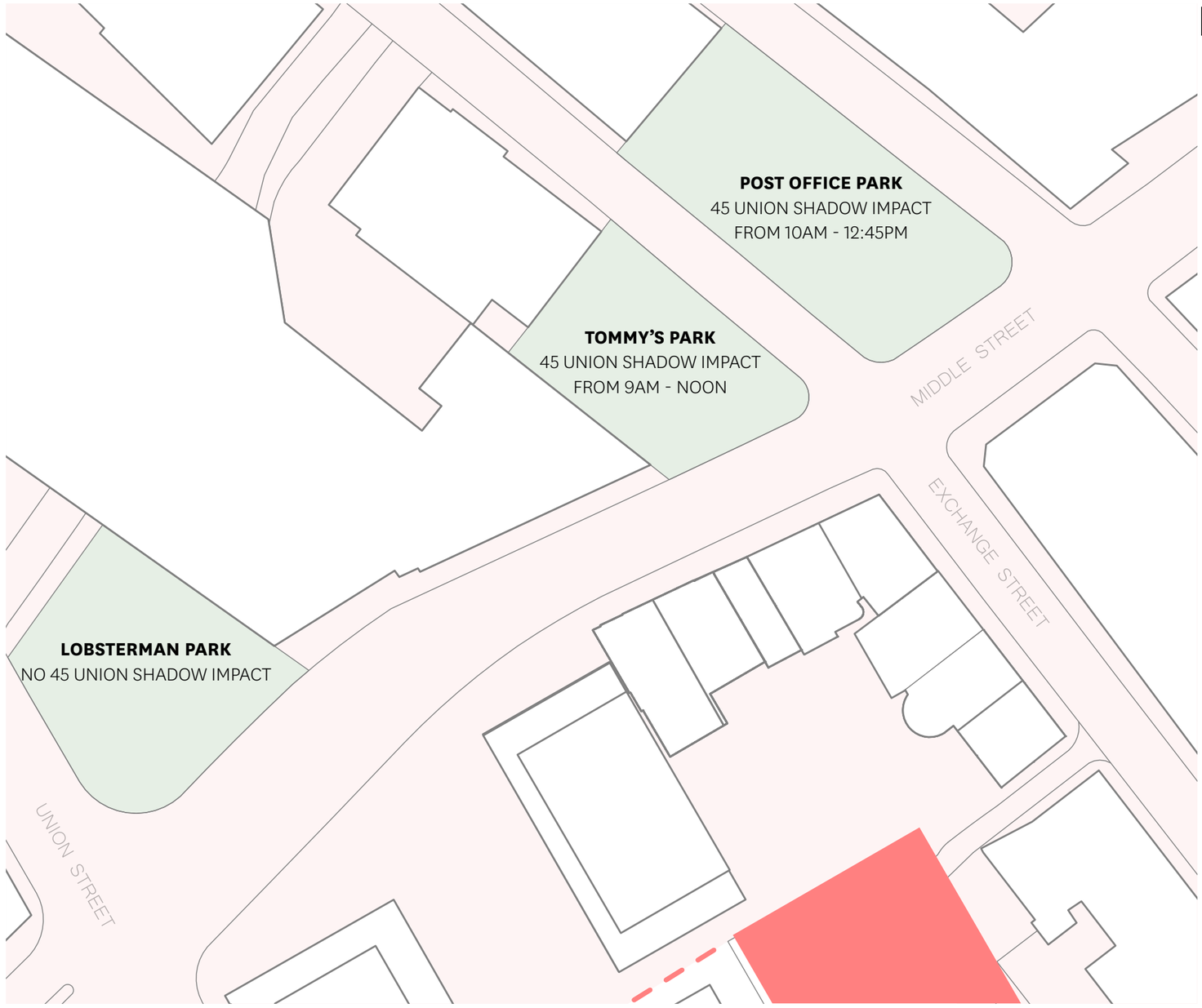
*2. POST OFFICE PARK*

*3. TOMMY'S PARK*

*4. CITY HALL PLAZA*



# **DEC 21 |** IMPACT ON PUBLIC SPACES**

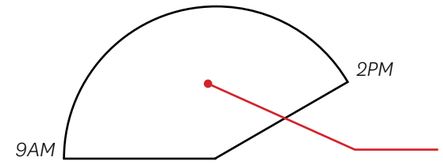



| DAY | DECEMBER 21 |
|---|---|
| SUNRISE | 7:11 AM |
| SUNSET | 4:07 PM |

** CRITICAL HOURS DEFINED BY 'THE CITY OF PORTLAND DESIGN MANUAL'*

*** DECEMBER 21ST FALLS OUTSIDE THE DESIGNATED PERIOD OF STUDY FROM MARCH 21-SEPTEMBER 21, PER 'THE CITY OF PORTLAND DESIGN MANUAL'*

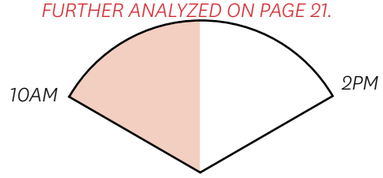
## HOURS OF SHADOW IMPACT DURING CRITICAL HOURS*




*NO IMPACT DURING CRITICAL HOURS. NO FURTHER STUDY NECESSARY.*

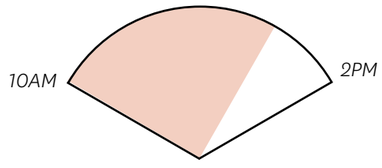
*LOBSTERMAN PARK*
*9AM - 2 PM*

*SHADOW IMPACT FROM 10AM-NOON FURTHER ANALYZED ON PAGE 21.*

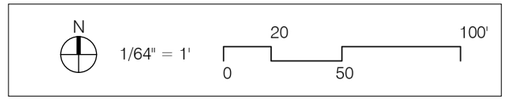



*TOMMY'S PARK*
*10AM - 2 PM*

*SHADOW IMPACT FROM 10AM-12:45PM FURTHER ANALYZED ON PAGE 21.*

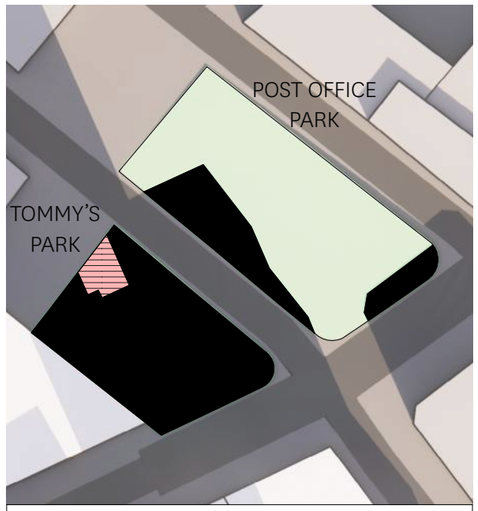



*POST OFFICE PARK*
*10AM - 2 PM*



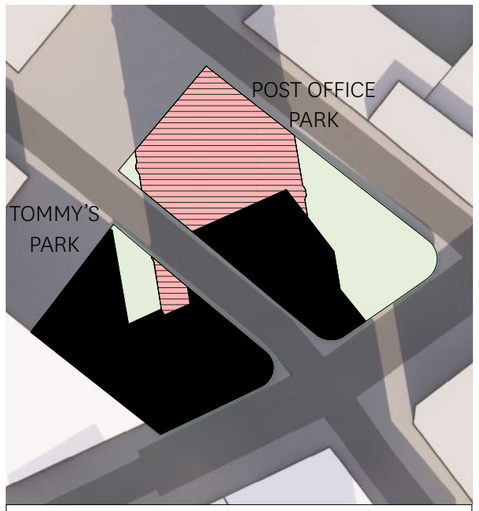
# **DECEMBER 21 |** IMPACT ON TOMMY'S PARK AND POST OFFICE PARK**

SHADOW CAST ON TOMMY'S PARK AND POST OFFICE PARK ON DECEMBER 21ST



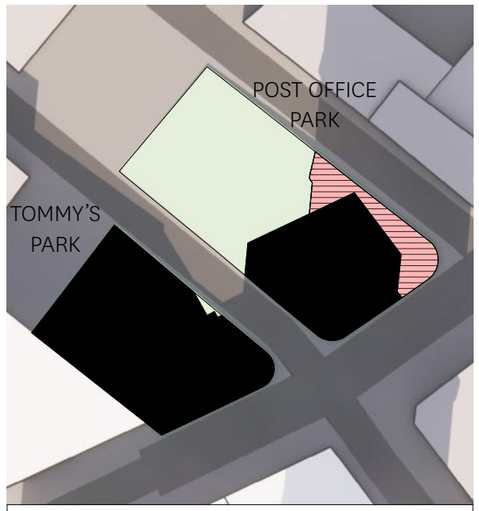

10 AM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 9,981 | 93% | 3,681 | 22% |
| PROPOSED | 10,696 | 100% | 3,681 | 22% |



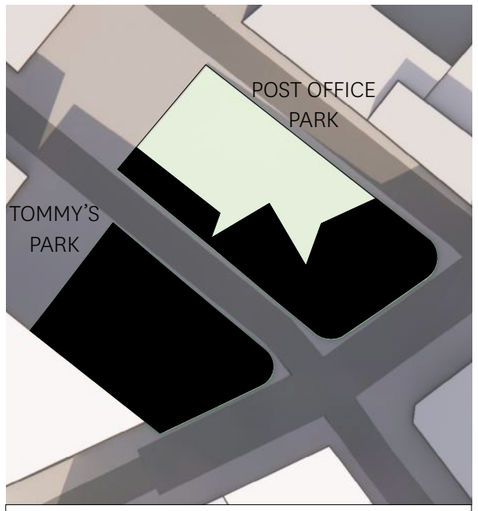

11 AM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 9,114 | 85% | 4,869 | 29% |
| PROPOSED | 9,566 | 89% | 11,864 | 70% |



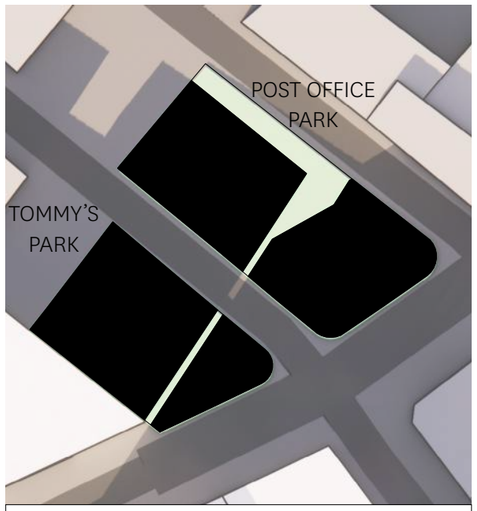

12 PM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 10,629 | 99% | 6,084 | 36% |
| PROPOSED | 10,629 | 99% | 7,973 | 47% |




1 PM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 10,696 | 100% | 8,607 | 51% |
| PROPOSED | 10,696 | 100% | 8,607 | 51% |




2 PM

| | AREA CAST IN SHADOW (SF) | | | |
|---|---|---|---|---|
| | TOMMY'S PARK | | POST OFFICE | |
| CURRENT | 10,297 | 96% | 14,182 | 84% |
| PROPOSED | 10,297 | 96% | 14,182 | 84% |

PROPOSED SHADOW

CURRENT SHADOW

| DAY | DECEMBER 21 |
|---|---|
| SUNRISE | 7:11 AM |
| SUNSET | 4:07 PM |

*** DECEMBER 21ST FALLS OUTSIDE THE DESIGNATED PERIOD OF STUDY FROM MARCH 21-SEPTEMBER 21, PER 'THE CITY OF PORTLAND DESIGN MANUAL'*

CONCLUSION:

| TOMMY'S PARK | |
|---|---|
| AVERAGE % OF AREA IN SHADOW | |
| CURRENT SHADOW | 94.8% |
| PROPOSED SHADOW | 97.0% |

THE AREA IN SHADOW IN TOMMY'S PARK INCREASES BY **2.2%** FROM 10AM - 2PM ON MARCH 21ST.

| POST OFFICE PARK | |
|---|---|
| AVERAGE % OF AREA IN SHADOW | |
| CURRENT SHADOW | 44.4% |
| PROPOSED SHADOW | 55.0% |

THE AREA IN SHADOW IN POST OFFICE PARK INCREASES BY **10.5%** FROM 10AM - 2PM ON MARCH 21ST.

SafdieArchitects

Att. N

October 15, 2025

# 45 Union Street
# Construction Management Plan

**Prepared For: 45 Union Street – Major Site Plan Application**

**Project Applicant: East Brown Cow – Kowtower LLC**

**Construction Manager: Consigli Construction**

# Table of Contents


1. Construction Principles 2
2. Construction Administration and Communication 3
3. Construction Schedule and Logistics 4
4. Fire Protection and Construction Activities 7
5. Public Safety 9
6. Logistics Plans 12

# Construction Principles

The purpose of this Construction Management plan is to identify, mitigate and plan for all potential impacts throughout the duration of building 45 Union Street. East Brown Cow – Kowtower LLC and Consigli Construction Co., Inc. will strive for a seamless, incident-free project by means of typical practices used to ensure that public safety and community are at the forefront of priorities.

Throughout this CM plan we will refer to specific examples of potential construction practices, traffic control scenarios, neighboring building considerations and public safety; as well as measures in which these items will be managed throughout the project to accommodate the community as much as possible. While we will take the necessary precautions to meet City and State requirements for traffic, noise, dust, vibration, etc., this project will be disruptive to adjacent properties compared to the current condition. Along with our subcontractor team members, it is imperative that we have complete participation from all parties affiliated with the project to maintain our strict safety requirements and ensure a quality building.

Consigli Construction has been commissioned to construct a new mixed-use development located at the existing surface lot off Union St between Fore St and Middle St. The building's footprint is approximately 6,373 GSF at a total height 365'0" to roof of top occupiable level above grade. The structure will be primarily comprised of cast- in-place concrete with a curtainwall façade.

Consigli has begun to plan the project's schedule, site logistics and safety protocols that will be generally covered in this report with graphics and narratives. This CM plan will continually be updated to meet the needs of the project, community and the city as the project progresses. We aim to deliver a safe and quality project to East Brown Cow – Kowtower LLC, their guests and the City of Portland by means of communication, teamwork and stewardship.

# Construction Administration and Communication

Consigli Construction will be the Construction Manager on site throughout the duration of the project. As such, there will be a dedicated team of individuals tasked with managing quality, schedule, site logistics and safety. These personnel will manage and enforce the proposed CMP with all associated subcontractors and material vendors.

Dave Thomas – Regional Director
207-650-8665, dthomas@consigli.com

Travis Kirby – Project Executive
207-272-6980, tkirby@consigli.com

## Site Communication

With the proximity to occupied buildings, community outreach and communication will be imperative throughout construction to keep the public informed of the expected turbulences caused by the project. Site signage will be prominently displayed to show pedestrian access around the site and any updates to the proposed CMP.

Quarterly reporting and updating of the CMP will be required to update the City and community of the following activities:

1) Construction schedule updates.
2) Material deliveries, including notice of any oversized loads that may impact public traffic.
3) Requests for upcoming off-hours work including weekends and holidays.
4) Notice of any upcoming activities that may produce strong noise, vibration or dust that could adversely affect the neighboring communities.
5) Requests for any street openings or public sidewalk work to be completed as part of the construction contract.

In addition, East Brown Cow has elected to develop a Tenant & Neighbor Construction Communications Plan that is further described on page 11.

# Construction Schedule & Logistics

## Project Work Hours

Construction work hours will be in accordance with section 17-18.

The project site is located within zoning group B3 – Downtown Business but is within 500 feet of buildings used for residential purposes. As such, work hours will be limited to Monday – Friday 7:00am – 6:00pm. Should work extend into Saturdays, the use of heavy equipment will be kept within the time constraints of 8:00am – 4:00pm.

## Project Schedule/Logistics

A full construction schedule shall be provided following completion of the project design documents and prior to the preconstruction meeting.

Regarding scheduled work to take place within public streets and sidewalks, this work will comply with Section 25-129 – Noise, dust and debris. Work associated with connections to public utilities, traffic lane reconfigurations, and sidewalk construction will require work to be executed within Union St, Exchange St and Fore St. This work will be scheduled and planned with the City of Portland prior to the execution. All logistical concerns will be addressed with the City prior to starting the work. Temporary barricades, ramps and signage will be required during the installation to control pedestrian/vehicle movements around the work.

## Material Storage and Laydown Area

The construction of the building will require careful planning and management of the daily occurrences within the site limits. The logistical plan that is currently outlined is intended to keep all construction staging, laydown and temporary storage within the project limits and secured by temporary fencing. With designated areas delegated to subcontractors the site will remain accessible by incoming trucks without causing a queueing affect outside of the fence. A material staging area will be set up in the existing 55 Union Street site, to the west of 200 Middle Street, area to mitigate truck traffic on Union and allow materials to enter the site safely. Offsite storage will also be utilized by the general contractor and subcontractors until the project is ready to receive such materials. Consigli will manage LEAN practices to assist with site organization and just-in- time deliveries.

## Material Deliveries

The construction of the building will require coordination of material deliveries throughout the duration of the project. Logistics plans will show the planned lay-down areas, truck routes and

safety protocols that will be in place prior to the start of construction and reviewed at the preconstruction meeting. See page 11 for the initial site plan.

## Contractor/Public Parking

The current constraints of the project site do not allow for parking of subcontractors within the project limits. As such, contractor parking will be delegated to offsite areas via parking garages, parking lots or on-street parking meters.

## Existing & Historic Building Protection

45 Union St will be constructed adjacent to several existing, occupied buildings including a number of 19th century structures in the adjacent Portland Waterfont/Old Port Historic District. As a precaution during the subsurface work, an engineered support of excavation (SOE) system will be installed to allow for safe excavation without the need to slope or bench the slope. The SOE will retain the unimpacted areas to ensure that existing foundations are not undermined. The working area within the SOE will be 5'-10' beyond the edge of the foundation wall and will be coordinated and reviewed with the locations of each building surrounding the site.

## Site Dewatering

Managing site dewatering during a construction project is critical to maintaining safe, efficient, and compliant operations. A well-planned dewatering program ensures that groundwater and surface water are properly controlled to provide dry, stable conditions for excavation, foundation work, and utility installation. This involves evaluating soil and groundwater conditions, selecting the appropriate method—such as wellpoints, sump pumps, or deep wells—and continuously monitoring discharge for environmental compliance. Effective dewatering minimizes the risk of soil instability, equipment delays, and water-related damage while protecting adjacent structures and natural resources. By integrating dewatering into the overall project logistics and safety plan, contractors can maintain productivity and uphold regulatory standards throughout construction.

## Tower Crane Management

This project will require the use of a weathervaning tower crane, which is designed to rotate freely with the wind when not in use to reduce structural stress and maintain safety. Because the crane's jib may swing over adjacent properties during operation or weathervaning, abutter agreements may be needed to establish secure temporary legal access to the air rights above neighboring buildings. These agreements help protect both the contractor and the property owner by clearly defining responsibilities, safety protocols, and liability coverage for the duration of crane operations. Consigli and East Brown Cow – Kowtower LLC will communicate directly on this item with adjacent property owners.

# Fire Protection for Construction Activities

The 2013 Standard for Safeguarding Construction, Alteration and Demolition Operations will be enforced on this project by utilizing best management practices to mitigate the fire risks associated with the construction of the high-rise building. Consigli and its subcontractors will execute the following measures to provide a safe and secure workplace:

1) PFD Fire Command Center: This centralized location will hold all current project information and will act as the first responders meeting point to obtain the most up to date information of construction. The following documents will be found at this location:
    a. Hot Work Permits: To be filled out daily by any person performing work that will generate a spark or create a potential fire risk on the job site. The permits are to be completed and approved by Consigli prior to work starting.
    b. Updated Construction Schedule
    c. Updated Construction Logistics Plan
    d. Pre-Incident Fire Plan

2) On Site Fuel Storage: Different flammable liquids will be required throughout construction. A free standing, 30-minute fire-rated enclosure will be built to safely and securely store all flammable liquids and gases. Fueling trucks will be used as needed but under no circumstances be allowed to be parked or stored on site for any extended period.

3) Means of Egress: The building will be permanently equipped with (2) 2-way stair assemblies for means of egress. During construction it is the intent to provide temporary stairs until the permanent stairs are installed and conform to code. These stairs will be identified with temporary signage throughout construction indicating the floor level and exit path direction

4) Good Housekeeping: Consigli Construction will provide necessary dumpsters for the removal of debris from the site. All subcontractors are responsible for the daily clean-up of their work areas to ensure that no materials or tools are left out over night that could pose a hazard to the building. Daily safety walks by the Construction Superintendent will be utilized to ensure that all working floors are equipped with an inspected fire extinguisher and clear means of egress in the event of an emergency. Trash chutes and material hoists may be utilized to safely and efficiently remove all debris from the project.

5) On-site Security: The project site will be secured everyday by means of a temporary, post driven construction fence and scrim. Lockable gates will be located at (2) locations for site access.

6) Rapid Communication: Evacuation notification will be provided by means of 2-way radios/cellular devices as well as strategically positioned air horns. Upon evacuation of the building all project personnel will report to the muster point location where the Construction Manager and all subcontractor foremen will perform accountability checks. The General Contractor field staff will then be dispatched to all project entry points and the PFD Command Center. Upon arrival of the first responders to the PFD Command Center the General Contractor will provide an accountability and incident briefing.

# Public Safety

The construction of the new 45 Union Street will be near pedestrian right of way and will interact with public traffic throughout the duration of the project. Material deliveries, the use of cranes, lifts and other heavy machinery all have the potential to impact typical public activity. As a member of the Portland community, Consigli will strive to limit, mitigate and avoid these potential impacts as much as possible by means of controlling noise, on site dust, vibrations and traffic. By educating and informing the neighborhoods to the construction activities taking place we will aim to build to a project that produces the minimal of impacts to the Old Port Square and Old Port communities.

## Noise

Construction activities throughout the project will create noise that leaves the project site. It is the intent of the project team to limit the exposure to the noise by following section 17-18 of the City of Portland Code of Ordinances. This project site is located within 500 feet of buildings classified as residential. As such, the project hours will be limited the 7:00am – 6:00pm, Monday – Friday. Should any weekend or holiday work be required the use of heavy machinery will not commence before 8:00am. When this work is required, no less than 2 weeks' advanced notice will be provided to East Brown Cow – Kowtower LLC and the neighboring users, tenants and property owners.

## Dust Control/Air Quality

Maintaining an environmentally conscious project site will be a major priority for the project team to ensure safety not only for the neighboring communities but also for the construction workers on site day after day. All soils and debris will be kept within the project limits following the State of Maine Department of Environmental Protection erosion control Best Management Practices:

1) Erosion controlled construction entrances
2) Tarped dump trucks leaving the site with soil/debris
3) On-going sidewalk and street cleaning activities
4) The installation of temporary, compacted roads within the job site
5) Using wetting agents to control dust
6) Covering stock piles when material is to be piled for long periods of time
7) Smoking will not be allowed on the job site

## Vibration Monitoring

Some of the construction practices required for this project will result in ground vibration waves that may transmit to nearby buildings. Prior to any potential vibration causing activities taking place a pre-construction survey will be conducted to review and

document existing conditions. The survey will encompass all properties immediately abutting the proposed project site to include the following addresses:

- 30 Exchange Street – 30 Exchange Street LLC
- 34 Exchange Street – Joseph & Sion Palacci
- 36 Exchange Street – Cow Exchange LLC
- 44 Exchange Street – Cow Exchange LLC
- 50 Exchange Street – Fifty Exchange LLC
- 56 Exchange Street – Old Port Arms LLC
- 188 Middle Street – Cow Plaza 4 LLC
- 190 Middle Street – Cow Plaza 3 LLC
- 200 Middle Street – Cow Plaza 1 LLC
- 427 Fore St – Old Port Square Garage – Cow Plaza Garage LLC

Pavement removal, vibratory compaction and temporary shoring will be employed on this project and will be monitored by a third-party monitoring company. A pre-construction meeting will be planned with abutting property owners to discuss geological conditions, construction specifications and methods of installation that create vibration.

## Traffic Control

Throughout the construction process Union St will experience increased traffic due to construction activities. Material deliveries, contractor access and public utility integration will be encountered and mitigated through coordinated logistics plans (starting on page 11), on site safety personnel, way-finding signage and well-organized traffic control devices. East Brown Cow – Kowtower LLC & Consigli will strive to inform and direct the neighborhood to the activities taking place in public areas as they progress through completion. All traffic management and phasing plans affecting vehicles will be submitted to the City for approval prior to commencement of the work.

The main entrance point to the construction project will be through the Union St entrance, west of the project site. To navigate deliveries to the project site a flagger will be stationed at Union St, as needed, to usher the trucks into the right of way. Trucks and trailers will exit the project site through the same right of way to Union St. Due to the large turn radius of some of these trucks, it will be necessary to temporarily close parking spaces on Union St.

## Proximity to Neighboring Businesses

During the process of construction great attention will be required to ensure that homes and places of business are not overly impacted by construction activities or traffic. While the logistics of the CMP does not require work associated with or access through the adjacent properties, certain measures will be taken to minimize the potential for a disturbance. Erosion control, physical barriers, temporary shoring and staged material deliveries will be coordinated during construction.

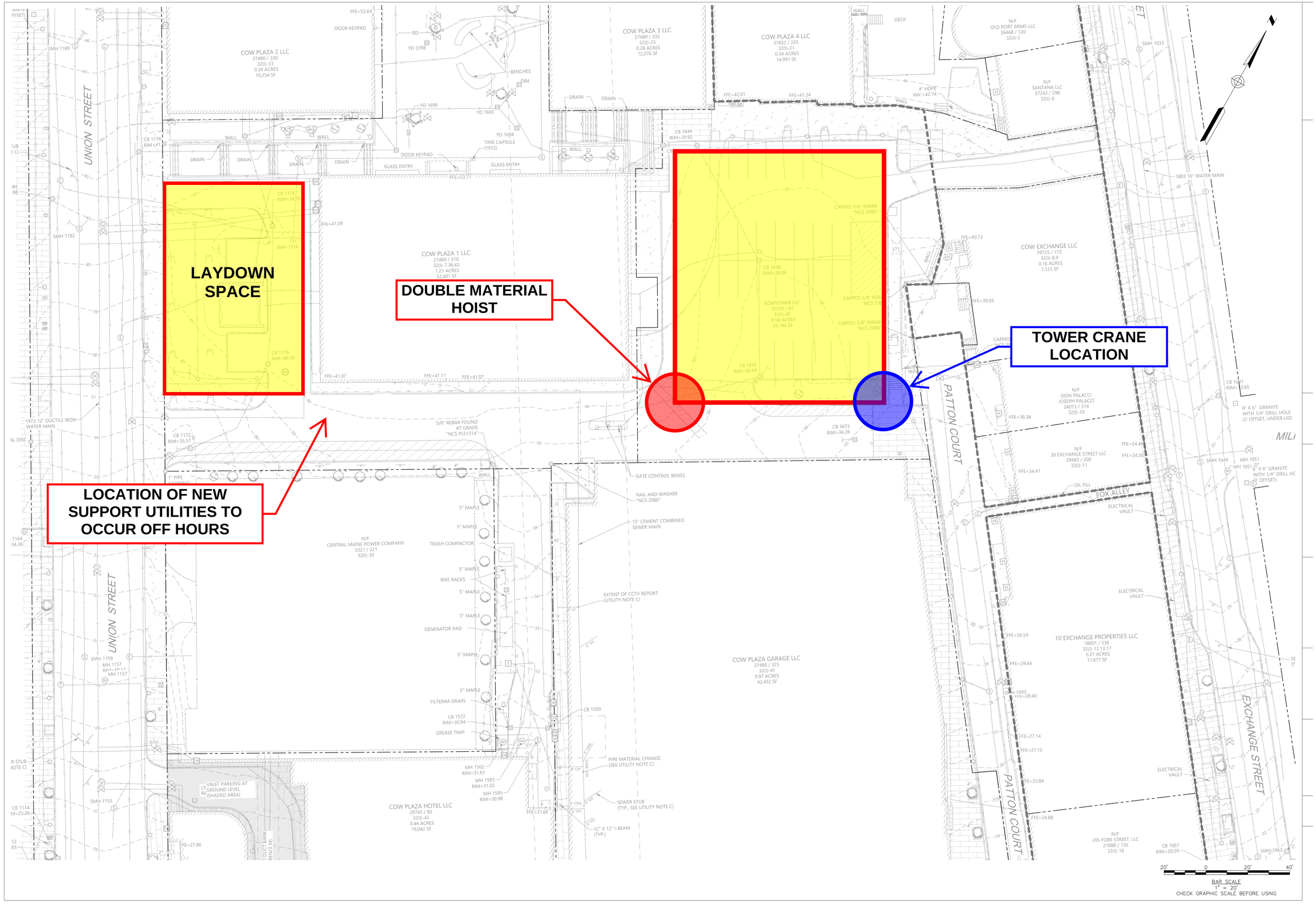
Consigli and East Brown Cow – Kowtower LLC are committed to working through logistical challenges with the neighbors and providing adequate and reasonable measures to accommodate their requests.

## Tenant & Neighbor Construction Communications Plan

Clear and consistent communication is an important part of managing a high-rise construction project. Because these projects often span multiple years and can create impacts such as noise, traffic disruptions, and changes to pedestrian access, maintaining transparency with the surrounding users, tenants, and property owners helps build trust and reduce concerns.

Consigli and East Brown Cow – Kowtower LLC will develop a Tenant & Neighbor Construction Communications Plan that will provide regular updates through potentially some or all of the following avenues: letters, a project website, and/or community meetings. This will keep everyone informed about upcoming activities, milestones, and potential disruptions.

Establishing a dedicated point of contact for questions or issues also ensures timely responses and demonstrates accountability. By prioritizing proactive communication, the project team fosters positive relationships with users, tenants, and property owners and supports smoother project execution within the urban environment.




# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®


CLIENT
East Brown Cow - Kowtower LLC
100 Commercial Street, Suite 300, Portland, Maine, 04101

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CIVIL ENGINEERING
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MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION
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ISSUE

| NO. | DESCRIPTION | DATE |
|---|---|---|

KEY PLAN

NOTES

NOT FOR CONSTRUCTION

| PROJECT NUMBER | DRAWN BY |
|---|---|
| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

PHASE

ISSUED FOR SITE PLAN APPROVAL

SCALE

1"=20'

DRAWING TITLE

EXISTING CONDITIONS

SHEET NUMBER

C-001

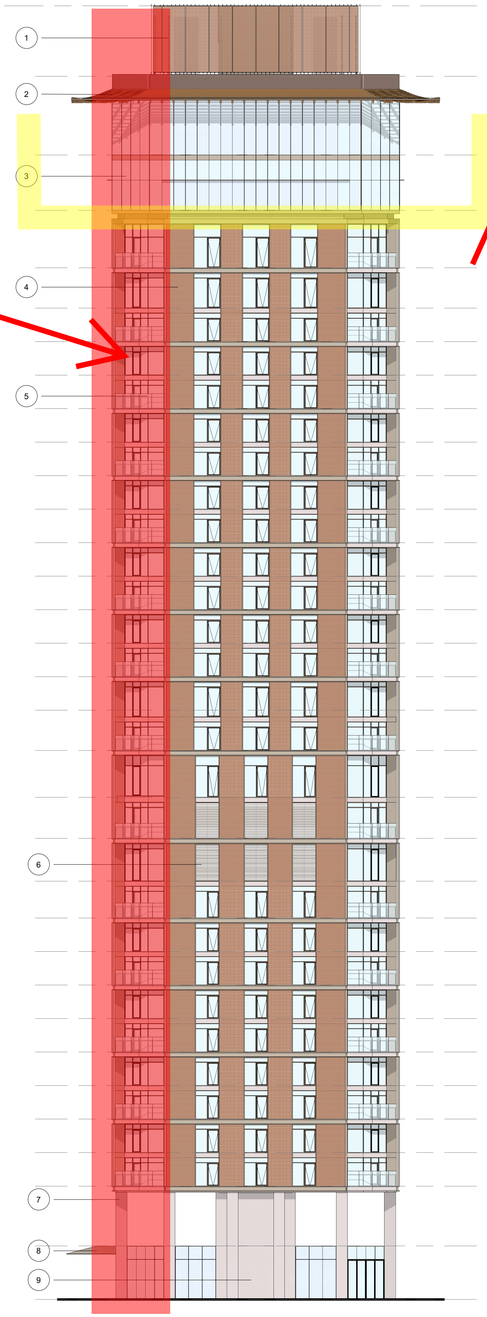
3/19/2025 9:54:17 AM

**Material Legend**

| Key Value | Keynote Text | | | | |
|---|---|---|---|---|---|
| 1 | Metallic Equipment Screen | 5 | Glass Railing | 9 | Exterior Wall Panels |
| 2 | Mass Timber Roof Trellis | 6 | Metallic Mechanical Louvers | | |
| 3 | Low Reflectivity Glass with High Performance Coatings | 7 | Concrete Column | | |
| 4 | Metallic Screen | 8 | Canopy with Metallic Finish | | |

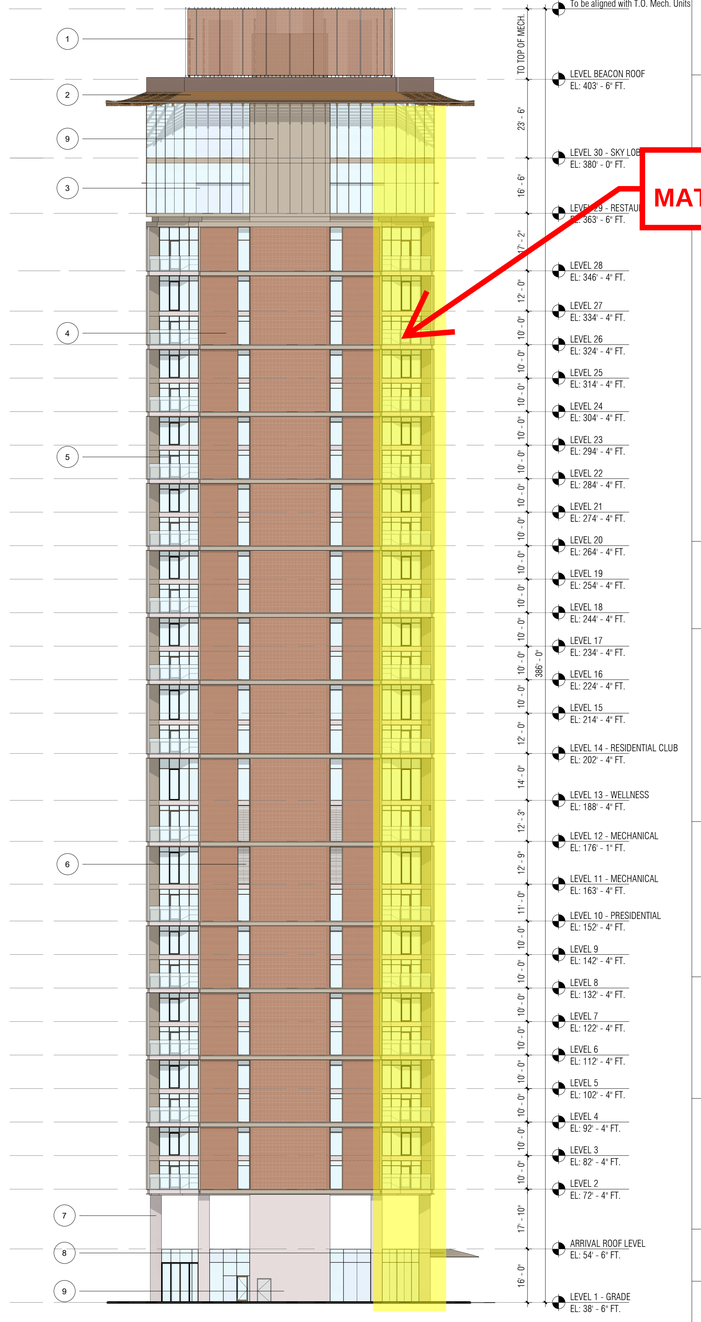
**TOWER CRANE ATTACHED TO BUILDING STRUCTURE**

**CANTELEVERED STAGING FOR ROOF INSTALLATION**




2 EAST-ELEVATION
3/64" = 1'-0"

**DOUBLE MATERIAL HOIST**




4 WEST-ELEVATION
3/64" = 1'-0"

# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®


CLIENT
**East Brown Cow - Kowtower LLC**
100 Commercial Street, Suite 300, Portland, Maine, 04101

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ISSUE

| NO. | DESCRIPTION | DATE |
|---|---|---|
| | | |

KEY PLAN

NOTES

NOT FOR CONSTRUCTION

| PROJECT NUMBER | DRAWN BY |
|---|---|
| 1083.00 | |
| DATE | CHECKED BY |
| 10/03/25 | |

PHASE
SCHEMATIC DESIGN

SCALE
As indicated

DRAWING TITLE
OVERALL ELEVATIONS

SHEET NUMBER
A40.03

10/6/2025 2:47:35 PM

## City of Portland ME: Low-Impact Design Requirements

| | | | | |
|---|---|---|---|---|
| Owner / applicant name: | East Brown Cow | | | |
| Representative name: | Woodard & Curran | | | |
| Project address: | 45 Union Street | | | |
| Project CBL: | 032 I040001 | | | |
| Application ID (if known): | PL-003157-2024 | | | |
| | **Maximum Points** | **How to Apply** | **Points Awarded** | **LID Standard / Approach** |
| **CORE METHODS: Wetlands, Streams, & Drainage** | | | | |
| Protect natural drainage paths | Required | | | |
| Shoreland Zoning | Required | | | |
| Meeting DEP and ACOE standards for stream crossings | Required | | | |
| Protect wetlands | **12** | Select one option | **12** | Select a site that does not have wetlands or vernal pools = 12pts |
| | | | | Project maintains a 50' set-back / no-disturb buffer to all wetlands = 10pts |
| | | | | Project maintains a 25' set-back / no-disturb buffer to all wetlands = 7pts |
| | | | | Project does not place structures in wetlands and avoids wetlands impacts from construction and stormwater discharges = 5pts |
| | | | | Project replicates impacted wetlands elsewhere on site or within watershed = 3pt |
| | | | | Project pays wetlands impact fee = 0pts |
| Permanently protect stream (intermittent and perennial) and riparian buffers *(exclusive of approved stream crossings; must include a no-disturb zone with markers installed and deed restriction recorded at registry of deeds)* | **12** | Select one option | **12** | Select a site with no streams = 12pts |
| | | | | Permanently protect all 100ft shoreline buffers = 10pts |
| | | | | Permanently protect all 75ft shoreline buffers = 7pts |
| | | | | Permanently protect all 50ft shoreline buffers (intermittent streams) = 6pts |
| | | | | Permanently protect all 50ft shoreline buffers (required minimum for perennial streams) = 5pts |
| | | | | Permanently protect all 25ft shoreline buffers (required minimum for intermittent streams) = 5pts |
| Stream crossings | **12** | Select one option | **12** | Select a site with no streams = 12pts |
| | | | | Avoid any stream crossings = 10pts |
| | | | | All stream crossings use a bridge or open bottom culvert structure sized at 1.2 times the bank full width of the stream = 10pts |
| | | | | All stream crossings use Maine Stream Smart Principles to preserve natural pre-development drainage pathways = 6pts |
| **CORE METHODS: Natural Areas & Habitat** | | | | |
| Preserve threatened or endangered species habitat | Required (Beginning with Habitat Maps at a minimum) | | | |
| Protect 30% of trees over 10" DBH | Required (Tree survey required) | | | |
| Protect intact, contiguous forests and native trees over 10" DBH | **8** | Select one option | **8** | All development and land disturbance outside of existing wooded/forested areas (no site clearing in prior 10 years) = 8pts |
| | | | | Protect 50% of trees over 10" DBH = 6pts |
| | | | | Protect 40% of trees over 10" DBH = 4pt |

| | | | | |
|---|---|---|---|---|
| **CORE METHODS: Soils & Slopes** | | | | |
| USDA Web Soil Survey | Required (provide details how soil limitations will be mitigated) | | | |
| Avoid steep slope disturbance | 5 | Select one option | 5 | Selecting a site without slopes 15% or greater = 5pts |
| | | | | Maintain >20' undisturbed vegetated buffer to all slopes 15% or greater = 3pts |
| | | | | Maintain 10-20' undisturbed vegetated buffer to all slopes 15% or greater = 2pts |
| | | | | Maintain 1-10' undisturbed vegetated buffer to all slopes 15% or greater = 1pt |
| | | | | Disturbance of any slope 15% or greater = 0pts |
| Protect soils | 5 | Select one option | 5 | Redevelopment sites = 5pts |
| | | | | Detailed, site-specific soil survey; preparation of a Soil Management and Protection Plan; protect highly permeable soils = 5pts |
| Limit site disturbance and earthwork | 8 | Select one option | 8 | Redevelopment limits disturbance to existing footprint = 8pts |
| | | | | New development disturbs less than 50% of existing undeveloped site area = 8pts |
| | | | | New development disturbs less than 75% of existing undeveloped site area = 6pts |
| | | | | New development disturbs greater than 75% of existing undeveloped site area = 0pts |
| Soil preparation & minimizing compaction | 6 | Select all options that apply | 3 | Till soils to a depth of at least 10" prior to revegetation = 3pts |
| | | | 3 | Organic matter amendments as needed based on soil tests = 3pts |
| **CORE METHODS: Landscaping** | | | | |
| Low-Impact Landscaping | 6 | Select all options that apply | | Redevelopment sites reduce lawn area by 50%, provided no increase in impervious area (lawn becomes landscaping) = 2pt |
| | | | 2 | New development results in >50% non-impervious developed area is landscaping = 2pt |
| | | | 2 | Use only native vegetation for landscaped areas = 2pts |
| | | | 2 | Using only locally-sourced landscape materials = 2pt |
| **CORE METHODS: Impervious Area & SW Management** | | | | |
| Meeting City's stormwater management standards | Required | | | |
| Reduce impervious and increase permeable surfaces | 10 | Select all options that apply, up to a maximum of 10 points | | 50% or more of proposed hard surfaces are permeable (porous pavers, permeable concrete, porous asphalt) = 6pts |
| | | | 4 | Minimize parking impervious area by using only the minimum required number of parking spaces, the minimum required parking lot dimensions, maximizing compact spaces and utilizing low-turnover standard parking space width reductions = 4pt |
| | | | | 25% or more of proposed hard surfaces are permeable (porous pavers, permeable concrete, porous asphalt) = 3pts |
| | | | 2 | Minimize roadway impervious area by developing roadways and driveways at the minimum width and using minimum number of curb cuts = 2pt |
| | | | 2 | Reducing the number of driveways by using a shared driveway design = 2pt |
| | | | 2 | Providing transportation alternatives (such as bike share, car share, or similar) = 2pt |
| Use GI / natural stormwater treatment systems | 12 | Select all options that apply | | Treatment requirements and conveyance achieved through vegetated systems = 6pts |
| | | | 3 | No more than 1-acre of drainage per treatment system = 3pts |
| | | | | Increase time of concentration on site (1" 25 year storm event) = 3pts |
| Limit / eliminate salt use | 4 | Select one option | | Detailed winter maintenance agreement, with annual reporting requirement, limiting chloride use (required in UIS watersheds) = 4pts |

| Bonus Points | | | | |
|---|---|---|---|---|
| Bonus points are offered for strategies that may go above and beyond typical approaches; may offer particularly innovative site design or engineering ; or may help achieve the larger goal of low-impact development on a regional scale. | 10 | | 10 | Utilizing structured parking = 10pts |
| | 10 | | | Utilizing a green roof for at least 50% of a newly developed or redeveloped building roof = 10pts |
| | 10 | | | Restoration of previously disturbed natural resources (minimum 500 square feet of restoration) = 10pts |
| | 10 | | | BMPs designed for known water quality impairment within watershed = 10pts |
| | 10 | | | Connecting to City sewer from a site >200 ft from existing City infrastructure = 10pts |
| | 6 | | | Detention of 1.5 times the required volume = 6pts |
| | 6 | | | Treatment for 1.5 times the required water quality volume = 6pts |
| | 6 | | | Innovative LID site design and/or stormwater improvement - 6pts |
| | 10 | | | Establishing a Traffic Demand Management plan for projects under 50,000ft = 10pts |
| | **Total Possible Points** **178** | | **Total Points Awarded** **97** | **Minimum points required for approval of LID strategies and techniques** **80** |

SafdieArchitects

via electronic mail

October 01, 2025

Eric Freeman, Planner
Planning & Urban Development Department
389 Congress Street
Portland, ME 04101
efreeman@portlandmaine.gov

Re: Major Site Plan Application – 45 Union Street, Bird Friendly Design

Dear Eric:

In support of the Site Plan Application for the above referenced project, please find below our summary of the applicable requirements and proposed design approach.

Reference Code:

City of Portland, Buildings and Building Regulations
Code of Ordinances
Chapter 6, Sec. 6-176
Rev. 06-17-2024

Summary of applicable Requirements:

- Applicable to new construction or additions greater than 10,000 SF in floor area.
- Facades up to 75 feet above grade shall be constructed with bird friendly materials (maximum threat factor of 30).
- Non bird-friendly materials may be used if they total no more than 10 square feet within any 10-by-10 foot area (i.e. 10% in any 100 sf area).
- Any exterior feature with a clear line of sight (e.g. awnings, glass railings, windbreaks, or glass fins more than 10 inches from the façade) must be made of bird-friendly materials, regardless of height.
- See-through glass near corners or in parallel panels must be bird-friendly up to 75'.
- Adjacent to a green roof on the same building shall be constructed with bird friendly materials up to 12 feet above the horizontal surface of the green roof.

Exemptions:

- Residential buildings (requirements do apply to hotel projects).
- Operable sash windows including: casement, awning, sliders, and tilt turns.
- Glazing on ground floor for retail storefronts or F&B including bars and restaurants.

Proposed Bird-Friendly Design approaches

- Ground level glazing will be designed to have maximum threat factor of 30, except as exempted for retail and food & beverage establishments such as the café located on the northern half of the ground level.
- Above ground level up to 75 feet above grade, facades employ multiple measures:
    - Metallic screens with translucent glazing located behind, or solid walls account for approximately 60% of the façade.
    - Transparent glazing is recessed back approximately 12 inches from the metallic screens.
    - Transparent glazing will be designed to have maximum threat factor of 30, except as exempted for operable windows.
    - Transom windows may also use non–bird-friendly glass, provided the area does not exceed 10 square feet within any 10-by-10-foot section of wall. (This is in addition to operable windows, which are already permitted.)
- Transparent glass railings will be designed to have maximum threat factor of 30.
- See-through glass near corners is avoided, except at levels 29 and 30 which are from 325 to 365 feet above grade, significantly above the 75 ft. requirements.
- Green roof areas are not included in the design.
- Glass specifications have not been finalized; however, “Bird Friendly” glass included in the design is anticipated to be a product, such as Guardian’s Birdfirst UV.

Additional measures:

Although not required by City Code, the project incorporates the following additional measures, consistent with industry standard bird-friendly design guidelines.

- Building facades are articulated with horizontal bands of solid material to break down the zones of vision glass
- Glass included in the design is anticipated to be a product with a high-performance, low reflectivity coating to limit reflection of the sky and external vegetation.
- Lighting will be designed to minimize light pollution, trespass, and glare.

Sincerely,



David Orens, AIA
Principal
Safdie Architects

# Preliminary Transportation Demand Management Plan (TDM)

**Date:** October 3, 2025

**To:** **East Brown Cow – Kowtower LLC**
100 Commercial St, Suite 300, Portland, ME 04101
(207) 775-2252

**From:** Jacob W. Sirois, E.I.
Engineer II
Barton & Loguidice, LLC

John Q. Adams, P.E., PTOE
Senior Associate
Barton & Loguidice, LLC

**Re:** **Multi-Use Building**
45 Union St, Portland, ME

**Traffic Demand Management (TDM) 14-14.6.1 (E)**

The following types of development shall design and implement a Transportation Demand Management (TDM) plan:

a. All major site plan triggering development in the B-3 zone.

b. All commercial, institutional, or mixed-use developments of 50,000 square feet or more total floor area.

c. All commercial or institutional uses designed to accommodate 100 or more employees or, for educational institutions, 100 or more students.

The TDM Plan shall comply with the transportation systems and street design standards of the Technical Manual.

**A Traffic Demand Management Plan is enclosed.**

## 1 Transportation Narrative

East Brown Cow – Kowtower LLC, the applicant, is proposing the development of a 30-story mixed use building on the parcel addressed 45 Union Street in the City of Portland. The multi-use building will provide 88 hotel rooms, 73 residential dwelling units, a 1,495 nsf café on the ground floor, a 5,007 nsf restaurant, a 3,271 nsf bar and lounge, a 1,100 nsf viewing area on the top floor, and a 6,373 gsf wellness level with a pool and a gym. The café, restaurant, bar, viewing area, and wellness level will be open to the public. The proposed building has a roughly 5,650 gsf footprint at-grade totaling approximately 200,000sf gross floor area.

The development site is 25,397sf and currently serves as a 32-space surface parking lot. With the project's development, the parking lot will be removed. Of the site's total acreage, all is developable.

Vehicle access to the site will be provided via an existing driveway entrance on Union Street, located approximately 260 feet northwest of Fore Street. Pedestrian access will be provided to the site by a sidewalk along the site driveway from Union Street, a pedestrian path between Exchange Street, Middle Street, and Union Street via the plaza, and a sidewalk connection to Fore Street along Patton Court (A.K.A. Fox Court).

No vehicle parking will be provided on-site. In lieu, a drop-off loop will be provided at the main entrances, and a valet service will be offered for guests, and the public. The valet service will use the adjoining Old Port Square Garage. The garage has 423 spaces. Of these 423 spaces, some of these spaces will be available for the residents and guests. Users of the development can also park in the parking garage without using the valet system.

The project will provide storage for 43 bicycles, external to the building. All 43 spaces will be located outside on the site itself and on adjacent properties owned by a related party for utilization by all users.

## 2 Area / Neighborhood Existing Conditions

The City of Portland, within the vicinity of the site, is a welcoming community to alternative modes of traffic, especially pedestrian and bicycle traffic, and has made efforts to provide more complete streets with traffic calming elements to assist with slowing motorized modes of transportation. Crosswalks are provided at unsignalized intersections, and pedestrian signals are provided at signalized intersections. This area of Portland is known for its many and various restaurants, shops, and other retail establishments.

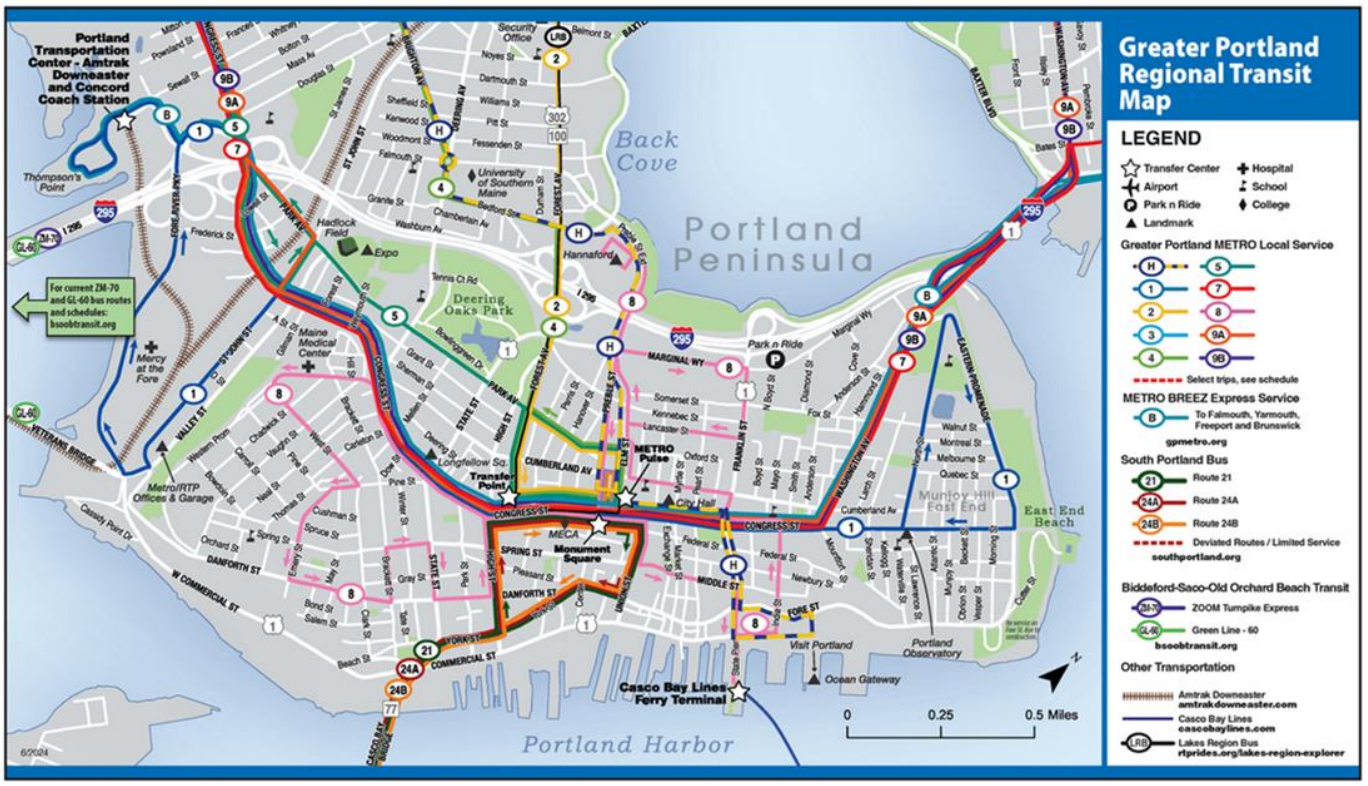
## 3 Site Access

The project site's location on Union Street provides vehicular traffic access to regional routes in and out of the greater Portland area as well as to local destinations within Portland. Access to Interstate 295 is provided by heading southbound on Commercial Street to the Veterans Memorial Bridge or by heading north on Commercial Street to Franklin Street to Exit 7. Access to these destinations is also provided through alternative connecting streets such as Fore Street, Middle Street, Spring Street, and Congress Street.

Access to other local City destinations such as the Eastern Promenade, Old Port, Downtown District, and the City's Transportation Center are also easily accessible from this neighborhood utilizing Commercial Street, Temple Street, Middle Street, Spring Street, and Congress Street.

## 4 Transit Access/Connections

This area of Portland is well served by public transit. Temple Street, Union Street, and Middle Street, within the vicinity of the site, are currently served by Routes 8, 21, 24A, and 24B. See Transit Route Map below:




**Effective June 16, 2024**

Further details of the routes are included below:

Metro Route 8: Peninsula – Route 8 provides transportation throughout the Portland Peninsula, with service to Congress Street, the Old Port, Maine Medical Center and Mercy Hospital (State Street location), Trader Joe's, Whole Foods, Art's District, Back Cove Hannaford, and the Waterfront (Casco Bay Lines and Visitor Information Center at Ocean Gateway), including the following points:

- Casco Bay Ferry Terminal
- Downtown Portland
- Maine College of Art and Design
- Maine Medical Center
- Ocean Gateway Terminal
- Old Port
- West End

Metro Route 21: SMCC-Downtown Portland – Route 21 provides transportation between downtown Portland, the Millcreek Transit Hub in South Portland, and SMCC, including the following points along the route:

- Downtown Portland
- Maine College of Art and Design
- Southern Maine Community College
- Millcreek Park
- Willard Beach
- Spring Point Light
- Bug Light

Metro Route 24A: South Portland (Broadway – Redbank – Maine Mall) – Route 24A provides bus service between Downtown Portland and the Mill Creek Transit Hub, Broadway, Redbank, the Maine Mall in South Portland, and Walmart in Scarborough, including the following points along the route:

- Cash Corner
- Gannett Drive
- Target
- Downtown Portland
- Maine College of Art and Design
- Maine Mall

Metro Route 24B: South Portland (Highland Ave – Brick Hill – Maine Mall) – Route 24B provides bus service, Monday – Friday only, between Downtown Portland, the Millcreek Transit Hub, Highland Avenue, Brick Hill, and the Maine Mall, and includes the following points of interest:

- Downtown Portland
- Maine College of Art and Design
- Maine Mall

See additional detail of Transit Routes in the Metro graphic below:




## TDM Coordinator

An appointed TDM Coordinator will oversee the implementation of all TDM measures. Responsibilities include:

- Conducting annual surveys of employees to determine travel mode share and identify barriers to alternative transportation.
- Completing the City of Portland's TDM Reporting Form annually by May 15.
- Coordinating communication of transportation options to employees and guests, including posting maps, schedules, and rideshare information in common areas.
- Tracking mode split progress toward the City-approved targets.

## 6 Resident, Guest, Customer & Employee Survey

The TDM Plan will include a transportation survey prior to implementation and on an annual basis. The survey will consist of questions to gain an understanding of resident, guest, and employee commuting means and effectiveness of the TDM strategies. The survey will include questions such as:

1. Vehicle ownership and parking location
2. Mode of transportation (car, bus, walking, taxi/rideshare, bicycle, etc.) to travel to and from the multi-use building.

3. Reason for selected transportation mode
4. Ease of use of selected transportation mode
5. Concerns with using other transportation modes
6. Barriers to vehicle trip reductions such as transit ridership and bicycle use
7. Use of personal vehicles
8. Interest in carpooling to share in transportation expenses.

This survey will be conducted annually for residents of the apartments and employees of the commercial uses and will be electronically tabulated. This information will be used to develop specific strategies and adjust the TDM plan as needed.

## 7 Parking and Trip Reduction Targets

**Trip Generation**

As part of the Applicant's traffic study for this development, trip generation was calculated using the ITE Trip Generation Manual, 11th Edition. See the summary tables below for the expected trip generation. Trip generation for the proposed 88 hotel rooms, 73 residential units, 1,495sf café, 5,007sf restaurant, 3,271sf bar and lounge, 1,100sf viewing area, and the 6,373 gsf wellness level was determined based on the trip generation rates provided in the 11th edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The ITE Manual provides numerous land use codes (LUC) and the volume of site generated trips produced by each category.

Trip generation calculations for the **73 residential dwelling units** have been prepared using **LUC #222 – Multifamily Housing (High-Rise) (Dense Multi-Use Urban)**. ITE describes LUC #222 as "*high-rise multifamily housing includes apartments, townhouses, and condominiums. Each building has more than 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevators, and a set of hallways."* During the Saturday peak hour, ITE warns of a small sample size. In this hour, ITE utilizes 2 studies, compared to the 5 studies used in the AM and PM peak hours of the adjacent street. While there are only 2 studies, the 2 different trip generation rates derived from these studies are similar (0.07 and 0.11 trips per dwelling unit). Since there rates from the studies are similar, it is B&L's opinion that the use of the Saturday rate is acceptable.

The trip generation calculations for the **88 hotel rooms** have been prepared using **LUC #310 – Hotel (Dense Multi-Use Urban)**. ITE describes LUC 310 as *"a place of lodging that provides sleeping accommodations and supporting facilities such as a full-service restaurant, a cocktail lounge, meeting rooms, banquet room, and convention facilities. A hotel typically provides a swimming pool or another recreational facility such as a fitness room."*

To estimate the trips generated by the **5,007sf restaurant**, we have utilized **LUC #931 – Fine Dining Restaurant (General Urban/Suburban)**, described as "*a full-service eating establishment with a typical duration of stay of at least 1 hour. A fine dining restaurant generally does not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some of the study*

*sites have lounge or bar facilities (serving alcoholic beverages), but meal service is the primary draw to the restaurant."*

The trip generation estimates for the **1,495sf café** have been prepared using **LUC #930 – Fast Casual Restaurant (General Urban/Suburban)**. ITE describes LUC #930 as "*a sit-down restaurant with no (or very limited) wait staff or table service. A customer typically orders off a menu board, pays for food before the food is prepared, and seats themselves. The menu generally contains higher-quality, made-to-order food items with fewer frozen or processed ingredients than a fast-food restaurant. Most patrons eat their meal within the restaurant, but a significant proportion of the restaurant sales can be carry-out orders. A fast-casual restaurant typically serves lunch and dinner; some serve breakfast. A typical duration of stay for an eat-in customer is 40 minutes or less."* ITE has a land use code for a coffee/donut shop without a drive-through window (LUC #936) in a dense multi-use urban setting. However, this LUC only provides trip generation rates for person trip ends and does not provide rates for vehicle trip ends. To be conservative in our analysis, we have utilized LUC #930 to determine the trip generation for the proposed café, based on the similarities between the two uses. Because cafés are typically busiest in the AM, and LUC #930 is busiest in the PM, in our analysis, we have assumed that the AM peak hour trip generation rate is similar to the PM peak hour trip generation rate.

For the **3,271sf bar and lounge**, trip generation calculations have been prepared using **LUC #975 – Drinking Place (General Urban/Suburban)**, which ITE describes as *"a drinking place contains a bar, where alcoholic beverages and food are sold, and possibly some type of entertainment, such as music, television screens, video games, or pool tables."*

ITE does not provide a LUC specifically for the **1,100sf viewing area** with a **capacity of 110** standing persons. For this application, we have assumed that it is similar to **LUC #931 – Fine Dining (General Urban/Suburban)**, which typically has a duration of stay of at least 1 hour. For the trip generation calculations, we will use the independent variable of "seats," using the 110 person capacity, for a total of 110 "Seats." This land use code was utilized to determine trip generation based on the similarities between the uses. Both have limited seating, the viewing area is ticketed essentially requiring a "reservation", similar to LUC #931, and both have an expected duration of at least 1 hour.

Trip generation estimates for the proposed **6,373sf wellness level**, with a gym and pool, have been determined using **LUC #492 – Health/Fitness Club (General Urban/Suburban**), defined by ITE as "*a privately-owned facility that primarily focuses on individual fitness or training. It typically provides exercise classes, fitness equipment, a weight room, spa, lockers rooms, and a small restaurant or snack bar. This land use may also include ancillary facilities, such as a swimming pool, whirlpool, sauna, limited retail, and tennis, pickle ball, racquetball, or handball courts. These facilities are membership clubs that may allow access to the general public for a fee."*

In the *Trip Generation Manual*, ITE provides the *Average* trip generation rate, and the *Fitted Curve* trip generation rate. MaineDOT guidelines state that when $R^2 \geq 0.80$, the *Fitted Curve* trip generation rate shall be used. The trip generation calculations for the proposed uses are provided below in Table 1.1 through Table 1.7:

| Table 1.1<br>ITE Trip Generation Calculations - Dense Multi-Use Urban | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Land Use** | **Multifamily Housing (High-Rise) Not Close to Rail Transit - LUC 222** | | | | | | |
| **Time Period** | **Dwelling Units (X)** | **$R^2$** | **Fitted Curve Equation/Avg. Rate** | **Trips Generated (T)** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 73 | 0.92 | T = 0.28(X) - 7.17 | 13 | 41% / 59% | 5 | 8 |
| PM Weekday Peak Hour (Street) | 73 | 0.91 | Ln(T) = 0.95 Ln(X) - 1.36 | 15 | 50% / 50% | 8 | 7 |
| AM Weekday Peak Hour (Generator) | 73 | n/a | 0.26 | 19 | 10% / 90% | 2 | 17 |
| PM Weekday Peak Hour (Generator) | 73 | n/a | 0.15 | 11 | 66% / 34% | 7 | 4 |
| Saturday Peak Hour | 73 | n/a | 0.09 | 7 | 43% / 57% | 3 | 4 |

| Table 1.2<br>ITE Trip Generation Calculations - Dense Multi-Use Urban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Hotel - LUC 310** | | | | | |
| **Time Period** | **Rooms** | **Avg. Trip Gen. Rate (Trips/Room)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 88 | 0.31 | 27 | 39% / 61% | 11 | 16 |
| PM Weekday Peak Hour (Street) | 88 | 0.21 | 18 | 44% / 56% | 8 | 10 |
| AM Weekday Peak Hour (Generator) | 88 | 0.33 | 29 | 51% / 49% | 15 | 14 |
| PM Weekday Peak Hour (Generator) | 88 | 0.34 | 30 | 30% / 70% | 9 | 21 |
| Saturday Peak Hour | 88 | 0.22 | 19 | 67% / 33% | 13 | 6 |

| Table 1.3<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Fine Dining Restaurant - LUC 931** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1 ksf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | | n/a | | | | |
| PM Weekday Peak Hour (Street) | 5.007 | 7.80 | 39 | 67% / 33% | 26 | 13 |
| AM Weekday Peak Hour (Generator) | 5.007 | 4.47 | 22 | 80% / 20% | 18 | 4 |
| PM Weekday Peak Hour (Generator) | 5.007 | 8.28 | 41 | 61% / 39% | 25 | 16 |
| Saturday Peak Hour | 5.007 | 10.68 | 53 | 59% / 41% | 31 | 22 |

| Table 1.4<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Fast Casual Restaurant - LUC 930** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1k Sf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street)* | 1.495 | 12.55 | 19 | 50% / 50% | 10 | 9 |
| PM Weekday Peak Hour (Street) | 1.495 | 12.55 | 19 | 55% / 45% | 10 | 9 |
| AM Weekday Peak Hour (Generator)* | 1.495 | 18.57 | 28 | 63% / 37% | 18 | 10 |
| PM Weekday Peak Hour (Generator) | 1.495 | 18.57 | 28 | 62% / 38% | 17 | 11 |
| Saturday Peak Hour | 1.495 | 32.64 | 49 | 55% / 45% | 27 | 22 |

*We have assumed that the AM peak hours are similar to the PM peak hours because the study sites do not typically serve breakfast.

| Table 1.5<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Drinking Place - LUC 975** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1k Sf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | | Closed | | | | |
| PM Weekday Peak Hour (Street) | 3.271 | 11.36 | 37 | 66% / 34% | 24 | 13 |
| AM Weekday Peak Hour (Generator) | | Closed | | | | |
| PM Weekday Peak Hour (Generator) | 3.271 | 15.53 | 51 | 68% / 32% | 35 | 16 |
| Saturday Peak Hour* | 3.271 | 15.53 | 51 | 68% / 32% | 35 | 16 |

*Saturday peak hour data not provided by ITE; Saturday peak hour assumed similar to Weekday PM (generator),

| Table 1.6<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Fine Dining Restaurant - LUC 931** | | | | | |
| **Time Period** | **Seats** | **Avg. Trip Generation Rate (Trips Per Seat)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street)* | 110 | 0.15 | 17 | 69% / 31% | 12 | 5 |
| PM Weekday Peak Hour (Street) | 110 | 0.28 | 31 | 67% / 33% | 21 | 10 |
| AM Weekday Peak Hour (Generator) | 110 | 0.15 | 17 | 69% / 31% | 12 | 5 |
| PM Weekday Peak Hour (Generator) | 110 | 0.29 | 32 | 59% / 41% | 19 | 13 |
| Saturday Peak Hour | 110 | 0.33 | 36 | 59% / 41% | 22 | 14 |

*ITE does not provide trip generation data for AM peak hour (street). Assumed similar to AM peak hour (generator).

| Table 1.7<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Health/Fitness Club - LUC 492** | | | | | |
| **Time Period** | **Sq. Footage (1k Sf)** | **Avg. Trip Generation Rate (Trips Per 1k Sf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 6.373 | 1.31 | 8 | 51% / 49% | 4 | 4 |
| PM Weekday Peak Hour (Street) | 6.373 | 3.45 | 22 | 57% / 43% | 13 | 9 |
| AM Weekday Peak Hour (Generator) | 6.373 | 1.40 | 9 | 46% / 54% | 4 | 5 |
| PM Weekday Peak Hour (Generator) | 6.373 | 3.92 | 25 | 52% / 48% | 13 | 12 |
| Saturday Peak Hour | 6.373 | 3.19 | 20 | 49% / 51% | 10 | 10 |

Table 1.8, following, summarizes the trip generation calculations provided in Tables 1.1 through 1.7, and presents the total trip generation for the proposed multi-use building.

| Table 1.8<br>ITE Trip Generation Summary | | | |
|---|---|---|---|
| **Time Period** | **Total Trips Generated** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 84 | 26 | 33 |
| PM Weekday Peak Hour (Street) | 181 | 76 | 52 |
| AM Weekday Peak Hour (Generator) | 124 | 53 | 45 |
| PM Weekday Peak Hour (Generator) | 218 | 93 | 68 |
| Saturday Peak Hour | 235 | 109 | 70 |

The preceding table shows that the proposed multi-use building is expected to generate 84 trips during the AM peak hour of the adjacent street and 181 trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the site is expected to produce 124 trips in the AM and 218 trips in the PM. The development is expected to generate 235 trips during the Saturday peak hour.

**Trip Adjustments**

It is assumed that a certain number of trips generated by the proposed residential units and hotel rooms will also visit the on-site café, restaurant, and bar. We have calculated the internally captured (shared) trips for proposed developments using the approach recommended by the ITE *Trip Generation Handbook*, which recommends using the NCHRP Report 684 methodology. The NCHRP Report 684 determines the internally captured trips between office, retail, restaurant, cinema/entertainment, residential, and hotel land uses.

The NCHRP spreadsheets, included in the *Traffic Movement Permit*, have been prepared by inputting the total trips generated by the proposed residential, hotel, and restaurant uses. The outputs of the spreadsheets are summarized below in Table 1.9:

| Table 1.7<br>NCHRP Report 684 Summary | | | | | | |
|---|---|---|---|---|---|---|
| **Time Period** | **Internal Capture Percentages** | | | **External Vehicle Trips** | | |
| | **Total** | **Enter** | **Exit** | **Total** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 12% | 12% | 12% | 74 | 37 | 37 |
| PM Weekday Peak Hour (Street) | 13% | 11% | 17% | 157 | 98 | 59 |
| Saturday Peak Hour | 14% | 12% | 18% | 201 | 124 | 77 |

Table 1.9 shows that with the internally captured trips accounted for, the site is expected to produce 74 external vehicle trips in the AM peak hour, 157 external vehicle trips in the PM peak hour, and 201 external vehicle trips in the Saturday peak hour.

## Expected Parking Generation

It should be noted that based on the City's Land Use Code, on-site parking is not required to be provided. However, as part of this TDM Plan, we are estimating parking demand based on the proposed uses of the site. The uses included 88 hotel rooms, 73 residential dwelling units, a 1,495sf café, a 5,007sf restaurant, a 3,271sf bar and lounge, a 6,373sf wellness level, and a 1,100sf viewing area.

Based on the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition, we have estimated parking demand for the proposed development. Further information on the applied land use codes is provided in the prior Trip Generation section. The calculations are shown below in Tables 2.1 through 2.7:

| Table 2.1<br>ITE Parking Generation Calculations | | | | |
|---|---|---|---|---|
| **Land Use** | **Multifamily Housing (High-Rise) Not Close to Rail Transit - LUC 222** | | | |
| **Time Period** | **Dwelling Units (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Friday) | 73 | 0.98 | P = 1.25(X) - 39.49 | 52 |
| Saturday | 73 | n/a | 1.11 | 81 |

| Table 2.2<br>ITE Parking Generation Calculations | | | | |
|---|---|---|---|---|
| **Land Use** | **Hotel - LUC 310** | | | |
| **Time Period** | **Rooms (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Friday) | 88 | 0.88 | Ln(P) = 0.82Ln(X) + 0.55 | 68 |
| Saturday | 88 | 0.69 | 0.65 | 57 |

| Table 2.3<br>ITE Parking Generation Calculations | | | | |
|---|---|---|---|---|
| **Land Use** | **Fine Dining Restaurant - LUC 931** | | | |
| **Time Period** | **Sq. Footage (1k) (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Thursday) | 5.007 | 0.97 | P = 17.69(X) - 8.25 | 80 |
| Weekday (Friday) | 5.007 | 0.87 | Ln(P) = 0.81LN(X) + 3.25 | 95 |
| Saturday | 5.007 | 0.84 | P = 15.80(X) + 15.37 | 94 |

| Table 2.4<br>ITE Parking Generation Calculations | | | | |
|---|---|---|---|---|
| **Land Use** | **Fast Casual Restaurant - LUC 930** | | | |
| **Time Period** | **Sq. Footage (1k) (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Friday) | 1.495 | 0.63 | 9.77 | 15 |
| Saturday | 1.495 | n/a | 7.97 | 12 |

| Table 2.5<br>ITE Parking Generation Calculations | | | | |
|---|---|---|---|---|
| **Land Use** | **Brewery Tap Room - LUC 971** | | | |
| **Time Period** | **Sq. Footage (1k) (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Thursday) | 3.271 | n/a | 5.66 | 19 |
| Weekday (Friday) | 3.271 | n/a | 6.21 | 20 |
| Saturday | 3.271 | n/a | 6.76 | 22 |

| Table 2.6<br>ITE Parking Generation Calculations | | | | |
|---|---|---|---|---|
| **Land Use** | **Fast Casual Restaurant - LUC 930 (Viewing Area)** | | | |
| **Time Period** | **Sq. Footage (1k) (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Friday) | 1.1 | 0.63 | 9.77 | 11 |
| Saturday | 1.1 | n/a | 7.97 | 9 |

| Table 2.7<br>ITE Parking Generation Calculations | | | | |
|---|---|---|---|---|
| **Land Use** | **Health/Fitness Club - LUC 492** | | | |
| **Time Period** | **Sq. Footage (1k) (X)** | **$R^2$** | **Fitted Curve Equation/Avg Rate** | **Parking Demand (P)** |
| Weekday (Monday - Friday) | 6.373 | 0.69 | 5.20 | 33 |
| Saturday | 6.373 | 0.84 | Ln(P) = 0.80LN(X) + 1.92 | 30 |

| Table 2.8<br>ITE Parking Generation Summary | |
|---|---|
| **Time Period** | **Total Trips Generated** |
| Weekday (Monday - Friday) | 294 |
| Saturday | 305 |

Table 2.8 shows that the parking demand for the proposed development is 305 spaces.

However, this type of development is transit-oriented and located in a part of Portland well-served by public transportation, with connections to multiple other transit routes. As a result, it is anticipated that residents, employees, and visitors will have less reliance on single-occupancy vehicles. Additionally, the area's existing pedestrian and bicycle infrastructure will support and encourage walking and biking for local and neighborhood trips.

## 8 Parking & Trip Rate Reduction Targets

Studies show that implementation of an effective TDM plan can reasonably achieve vehicle trip reductions of up to 10%. Implementation will begin with a thorough initial survey to document travel mode splits and observe travel patterns to and from the different uses within the development.

**Customize Parking and Trip Reduction Strategies**

The strategy to reduce parking and trip demand will be aimed at residents, guests, and staff. Strategies will seek to reduce employee vehicle trips to the site, especially during normal peak traffic hours. Ridesharing will be coordinated and promoted amongst staff. Information regarding the Metro, Metro Breez, South Portland and the Biddeford, Saco and Old Orchard Beach Transit Service, and a program to discount passes will be made available to residents, guests, and staff. As mentioned above, bicycle parking will also be provided outside to encourage bicycle commuting.

For residents and guests, strategies will focus on both initially travelling to and from the building for work and pleasure trips, especially those within the greater Portland area. Information will be provided and readily available regarding desirable walking routes to transit and nearby attractions, such as restaurants and shops and other nearby destinations such as the Eastern Promenade and the Old Port.

## 9 Education

Transit Maps and Schedules:

Within the vicinity of the site, the METRO has bus stops at Union St at Fore St, Middle St at 188 Middle St, Temple St at Federal St, and Temple St at Free St. Information on routes, schedules, and payment methods for buses will be provided to residents and guests upon request. Information may also be provided on the services available at the Portland Transportation Center, which include the Amtrak Downeaster and Concord Coach Bus Lines for intercity and regional service.

Suggestions for the most convenient pedestrian routes to relevant local bus stops will be made available. All intersection crossings along the route have crosswalks and include pedestrian signals at signalized intersections.

Resident and employee orientation will include information related to discount programs for the Metro, Metro Breez, South Portland Bus Service, and Biddeford/Saco/Old Orchard Beach Bus service.

Ridesharing:
The TDM Coordinator will actively promote and coordinate ridesharing amongst residents and employees. This will be done through bulletin boards in employee areas, and employee email lists. Residents and employees who actively rideshare/carpool will be recognized for their efforts on newsletter announcements and/or bulletin board postings in the employee areas.

## 10 Monitoring

The TDM Plan will be monitored over time to determine its ongoing effectiveness. The TDM Coordinator will be responsible for this monitoring and making changes as necessary to better meet the TDM goals.

After an initial startup period, the Applicant, through the TDM Coordinator, will submit a status report to the City of Portland containing the following information:

- Summary and analysis of completed TDM Surveys
- Usage data for TDM programs initiated
- Mode Split by trip type
-
- Comparison to previous surveys (after initial survey)
- Proposed changes to TDM Plan (Education, Infrastructure, and Incentive) after each subsequent survey
- Updated TDM usage data from year to year and noted updated programs.

The development may not be at or near full occupancy at opening, an annual report will be filed with the City, however, it will be important to note how the TDM plan is functioning and how effective it is as the project nears full capacity. Because the hotel demand is seasonal, this will be completed after the first full summer season of operation.

## 11 Project Specific Standards

**Infrastructure**
The following onsite infrastructure improvements are currently proposed:

- Bicycle parking racks will be located exterior to the building on the site itself and on adjacent properties owned by a related party. Number of spaces (42 total) will meet minimum according to Article 14 of the Land Use Code.
- A bulletin board will be provided in the employee area with information as described herein. The TDM Coordinator will be responsible for keeping material current and available.
- An option for a kiosk or monitor in the lobby will be further investigated.

**Incentives**

The following incentives will be provided to residents, guests, and employees to encourage their active participation in the TDM plan:

**A. Effective Parking "Cash Out":** With no parking provided on-site or included in the rent, tenants will be provided with a choice as to whether to pay for a parking space off-site. Those who choose not to own their own vehicle will be able to reduce their housing costs through this decoupling of parking cost and condo ownership.

**B. Transit Incentives:** Research has shown that moving into a new home is a chance for residents to try new transportation options. In order to make sure that new residents are aware of, and have incentives to try, transit, the Applicant will provide new residents with a credit on the DiriGo app. That app can be used for trips on METRO, BSOOB Transit and/or South Portland Bus Service. This loaded amount will make trying transit very easy and ensure that residents have loaded the DiriGo app on their phones. This credit will be provided to new residents for at least five years after building occupancy. Should residents not own a phone, the Applicant will provide them with a DiriGo Pass (formerly a DiriGo TouchPass) loaded with a credit amount, to be determined.

**C. Car and Bike Sharing:** While Portland currently does not have a car-sharing vendor, should one become available, the Applicant commits to working with the City to provide a car-sharing vehicle nearby. Similarly, the Applicant is interested in working with the City and any bike-sharing systems it may have, including assisting with sponsorship of some of the system.

**D. Telecommuting:** This building will be set-up and wired with the best internet access currently available in this location, to encourage telecommuting as a trip reduction strategy.

**E. Hotel Credit:** As an incentive for participating in the annual TDM survey, hotel guests may receive a hotel credit to use on property.

## 10 Conclusions

This preliminary TDM plan has been prepared in conjunction with East Brown Cow – Kowtower LLC, and will continue to be detailed during the Site Plan Approval process. We anticipate there will be comments from City staff, and we look forward to working with the City to arrive at a TDM plan that best fits this type of development and its location within the City of Portland. To that end, this project is supportive of the City's goals of reducing single occupancy usage, increasing transit ridership, and increasing pedestrian and bicycle activity.

Barton & Loguidice

Att. R

# TRAFFIC MOVEMENT PERMIT

FOR PROPOSED

# Multi-Use Building

## 45 Union Street, Portland, Maine

Prepared For: **East Brown Cow – Kowtower LLC**
Prepared By: Barton & Loguidice

**September 23, 2025**

4494.007.001

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45 Union Street, Portland, Maine

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Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-624-3600

FOR MDOT USE
ID #

Total Fees:
Date: Received

**********

PERMIT APPLICATION - TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. § 704 - A

Please type or print:

This application is for:

| | |
|---|---|
| Traffic 100-200 PCE's | |
| Traffic 100-200 PCE's (Expedited) | |
| Traffic 200+ PCE's | **X** |

Name of Applicant: **East Brown Cow – Kowtower LLC**

Address: **100 Commercial St, Suite 300, Portland, ME 04101** Telephone: **(207) 775-2252**

Name of local contact or agent: **John Q. Adams, P.E., PTOE, Barton & Loguidice, LLC**

Address: **383 US Route 1, Suite 2E, Box 4, Scarborough, ME 04074** Telephone: **(207) 331-6694**

Name and type of development: **45 Union Street – Multi-Use Hotel, Residential, & Commercial Building**

Location of development including road, street, or nearest route number: **45 Union St, Portland, ME 04101**

City/Town/Plantation: **Portland** County: **Cumberland**, Tax Map # **32** Lot # **I040001**

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? Yes ____ No **X**

Was this development started prior to obtaining a traffic permit? **No**

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30 - A, chapter 187)? Yes **X** No __

Is this project located within a compact area of an urban compact municipality? Yes **X** No_____

Is this development or any portion of the site currently subject to state or municipal enforcement action? **No**

Existing DEP or MDOT permit number (if applicable): **N/A**

Name(s) of DOT staff person(s) contacted concerning this application: **N/A**

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applications: **N/A**

1/2000

## CERTIFICATION

The traffic engineer responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the application for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: _____ Re/Cert/Lic No.: 11083

Name (print): John Q. Adams, PE, PTOE

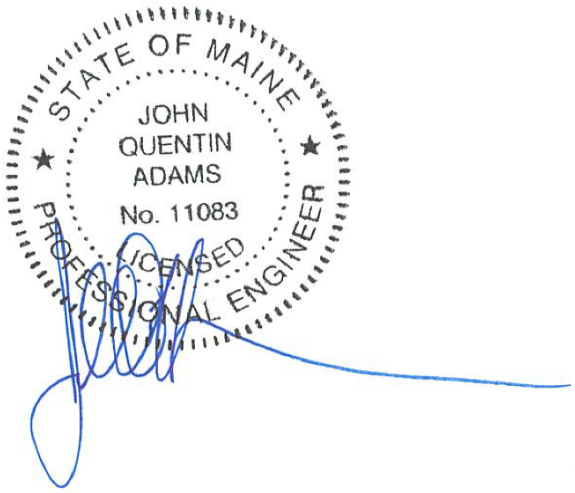
Date: 9/23/2025

If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

_____ 9/21/2025

Signature of applicant Date



**NOTICE OF INTENT TO FILE**
**Traffic Movement Permit**

Please take notice that

**East Brown Cow – Kowtower LLC**
**100 Commercial St, Suite 300, Portland, ME**
**(207) 775-2252**

Are intending to file a Maine Department of Transportation Traffic Movement Permit with the City of Portland under their delegated review authority pursuant to the provisions of 23 M.R.S.A. § 704 - A on or about

**September 23, 2025**

The application is for the development of a 30-floor mixed-use building comprised of 88 hotel rooms, 73 residential dwelling units, a 1,495 nsf café on the ground floor, a 5,007 nsf restaurant, a 3,271 nsf bar and lounge, a 1,100 nsf viewing area on the top floor, and a 6,373 gsf wellness level with a pool and a gym. The café, restaurant, bar and lounge, viewing area, and wellness level will be open to the public. The project is anticipated to generate the following peak hour trips:

**AM Peak Hour (Generator) = 124**
**PM Peak Hour (Generator) = 218**
**Saturday Peak Hour = 235**

At the following location:

**45 Union Street**
**Portland, ME 04101**

Any interested party may request in writing to participate in the scoping meeting for the subject project no later than 20 days after the application is found by the City to be complete and is accepted for processing. Public comments on the application pertaining to either congestion or safety will be accepted throughout the processing of the application.

The application will be filed for public inspection at the City of Portland's Planning and Urban Development office during normal working hours.

Written public comments concerning congestion or safety only, may be sent to the Department of Transportation, State Traffic Engineer, 16 State House Station, Augusta, Maine 04333

| PARCEL NUMBER | COMPANY | FIRST NAME | LAST NAME | ADDRESS | CITY | STATE | ZIP |
|---|---|---|---|---|---|---|---|
| 029 S001000 | 1 MARKET STREEET CONDO | | | 1173 PITTSFORD VICTOR RD # 250 | PITTSFORD | NY | 14534 |
| 032 I012307 | 10 EXCHANGE ME LLC | | | 3225 MCLEOD DR STE 777 | LAS VEGAS | NV | 89121 |
| 032 I012100, 032 I012101, 032 | 10 EXCHANGE PROPERTIES LLC | | | PO BOX 4894 | PORTLAND | ME | 04112 |
| 032 I012000 | 10 EXCHANGE STREET CONDO | | | 10 EXCHANGE ST | PORTLAND | ME | 04101 |
| 029 A0010BA, 029 A001P09, 029 | 100 SILVER STREET LLC | | | PO BOX 15149 | PORTLAND | ME | 04112 |
| 032 H005002 | 11 TEMPLE MHR LLC | | | PO BOX 7488 | PORTLAND | ME | 04112 |
| 029 A00104H | 150 MIDDLE LLC | | | PO BOX 8211 | LEWISTON | ME | 04240 |
| 029 A001P16 | 150 MIDDLE STREET 3K LLC | | | 72 SUMNER ST | MILFORD | MA | 01757 |
| 029 A00103K | 150 MIDDLE STREET 3K LLC | | | 410 UNIVERSITY AVE | WESTWOOD | MA | 02090 |
| 029 O001502 | 154 ART VENTURES LLC | | | 235 LITTLE JOHN RD | YARMOUTH | ME | 04096 |
| 032 S004001, 032 U003001 | 161 COMMERCIAL STREET LLC | | | PO BOX 66749 | FALMOUTH | ME | 04105 |
| 032 I011001 | 30 EXCHANGE STREET LLC | | | 340 FORE ST | PORTLAND | ME | 04101 |
| 032 F003001, 032 F002001 | 30 MARKET ASSOCIATES LLC | | | 42 MARKET ST | PORTLAND | ME | 04101 |
| 032 J001001, 032 I018001 | 386 FORE STREET LLC | | | PO BOX 7225 | PORTLAND | ME | 04112 |
| 032 J004000 | 398 FORE STREET CONDO | | | 396 FORE ST | PORTLAND | ME | 04101 |
| 029 B002001 | 4 MILK MHR LLC | | | 4 MILK ST | PORTLAND | ME | 04101 |
| 032 N010001 | 416 FORE STREET HOLDINGS LLC | | | PO BOX 815 | WELLS | ME | 04090 |
| 032 R001001 | 428 FORE STREET LLC | | | 42 CHAMBERLAIN AVE | PORTLAND | ME | 04101 |
| 032 I006000 | 50 EXCHANGE CONDO | | | 50 EXCHANGE ST | PORTLAND | ME | 04101 |
| 032 S003001 | 7-9 MOULTON LLC | | | 336 DANFORTH ST | PORTLAND | ME | 04102 |
| 032 H008001 | 80 EXCHANGE LLC | | | 80 EXCHANGE ST STE 400 | PORTLAND | ME | 04101 |
| 028 K001001 | 85 MARKET STREET LLC | | | PO BOX 7225 | PORTLAND | ME | 04112 |
| 029 O001000 | 99 SILVER STREET CONDO | | | 99 SILVER ST | PORTLAND | ME | 04101 |
| 032 I022001 | ABATSOBE LLC | | | 100 COMMERCIAL ST STE 300 | PORTLAND | ME | 04101 |
| 032 T004001 | ADRIENNE-JANE INCORPORATED | | | 723 RIVERSIDE ST OFFICE | PORTLAND | ME | 04103 |
| 029 O001031 | | RAUL AND KATTIA | AH CHU | PO BOX 1893 | COPPELL | TX | 75019 |
| 029 A00103D, 029 A00103C, 029 | AHP CAMDEN LLC | | | 1 DANA ST | PORTLAND | ME | 04101 |
| 029 B004007 | | SUAD | ALAGIC | 341 FORE ST # 7 | PORTLAND | ME | 04101 |
| 029 O001023 | ANYA ROSE LLC | | | PO BOX 2412 | SOUTH PORTLAND | ME | 04116 |
| 032 I012402 | | MICHAEL | ARDAIOLO | UNIT 4170 BOX 8 | DPO | AE | 09862 |
| 032 I012402 | | KARISA | WERNER | UNIT 4170 BOX 8 | DPO | AE | 09862 |
| 032 E009001 | B & C LIMITED | | | 37 A ST | SOUTH PORTLAND | ME | 04106 |
| 029 O001042 | | JOHN | BASTEIN | 16 CARPENTER RD | DUDLEY | MA | 01571 |
| 029 O001042 | | JASON | LUCIANO | 16 CARPENTER RD | DUDLEY | MA | 01571 |
| 032 J004002, 032 J004003, 032 J004001, 032 I00400B, 032 J002001 | BEER GUYS LLC | | | 396 FORE ST | PORTLAND | ME | 04101 |
| 029 O001034 | | HENRY | BERG | 99 SILVER ST # 34 | PORTLAND | ME | 04101 |
| 029 A00104A, 029 A001P15 | | DOUGLAS AND KATHLEEN | BIXBY | 150 MIDDLE ST # 4A | PORTLAND | ME | 04102 |
| 029 B004000 | BOOTHBY SQUARE CONDO | | | 341 FORE ST | PORTLAND | ME | 04101 |
| 029 B004010 | BRICK & COBBLESTONE LLC | | | PO BOX 4781 | PORTLAND | ME | 04112 |
| 038 I003001, 038 A001002, 038 | BROWN J B & SONS | | | PO BOX 207 | PORTLAND | ME | 04112 |
| 032 I012404 | | | BURNS THOMAS | 137 HUTCHIN HILL RD | BEARSVILLE | NY | 12409 |
| 029 A001P17, 029 A00104C | | PETER | CAMP | 150 MIDDLE ST # 4C | PORTLAND | ME | 04101 |
| 032 V008001 | CARR BLOCK LLC | | | PO BOX 7626 | PORTLAND | ME | 04112 |
| 038 F019001 | CASCO VIEW HOLDINGS II LLC | | | PO BOX 1137 | PORTLAND | ME | 04104 |
| 038 F006001 | CASCO VIEW HOLDINGS LLC | | | PO BOX 11409 | PORTLAND | ME | 04104 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 032 I039001 | CENTRAL MAINE POWER CO | | | ONE CITY CENTER 5TH FLOOR | PORTLAND | ME | 04101 |
| 029 O002001 | CF 164 LLC | | | 42 MARKET ST | PORTLAND | ME | 04101 |
| 029 S001003029 S001002 | CF EVIE LLC | | | 16 MIDDLE ST # 501 | PORTLAND | ME | 04101 |
| 032 S001001 | CF MARINERS LLC | | | 42 MARKET ST | PORTLAND | ME | 04101 |
| 029 O001B01 | | BENJAMIN | CHANDLER | 99 SILVER ST # B01 | PORTLAND | ME | 04101 |
| 032 V005001 | CHASE BLOCK LLC | | | PO BOX 7626 | PORTLAND | ME | 04112 |
| 029 B004004 | | DONNA | CHILDS | 3042 SW 28TH AVE | CAPE CORAL | FL | 33914 |
| 029 S002001, 032 H009001, 032 H005001, 032 D005001, 032 | CITY OF PORTLAND | | | 389 CONGRESS ST | PORTLAND | ME | 04101 |
| 029 O001049 | COOMBSTONE LLC | | | 277 MAIN ST | DAMARISCOTTA | ME | 04543 |
| 029 O001029 | | DAVID | COUSINS | 99 SILVER ST # 2-9 | PORTLAND | ME | 04101 |
| 032 E005001, 032 I008001, 032 I036001, 032 I043001, 032 I007001, | COW BELLA LLC | | | 100 COMMERCIAL ST STE 300 | PORTLAND | ME | 04101 |
| 032 I012303 | | ANDREW AND JENNIFER | CULPOVICH | 11 JENNY LN | RAYMOND | ME | 04071 |
| 032 I012302 | | JENNIFER | CURRAN | 22 GREENWOOD AVE | NEEDHAM | MA | 02492 |
| 029 B004008 | | JENNIFER | DALTON | 111 BEACON AVE | WARWICK | RI | 02889 |
| 032 V014001, 032 V015001 | DEERING AVE ASSOCIATES INC & WHARF PROPERTY LLC | | | ONE CITY CENTER 4TH FLOOR | PORTLAND | ME | 04101 |
| 029 A00102D | | | DEFREN-MOSS SHARON & JEFFREY | 150 MIDDLE ST # 2D | PORTLAND | ME | 04101 |
| 032 I012414 | | | DEPALMA CHRISTOPHER R & JOSHUA A GOMES JTS | 10 EXCHANGE ST # 414 | PORTLAND | ME | 04101 |
| 038 F008001, 038 F009002 | DICTAR ASSOCIATES II | | | 470 FORE ST STE 400 | PORTLAND | ME | 04101 |
| 032 I012405 | | KEVIN AND PAMELA | DOYLE | 168 CARDING MACHINE RD | BOWDOINHAM | ME | 04008 |
| 032 I012305 | | ROBERT AND JENNIFER | DRISCOLL | 33 THURSTON RD | MELROSE | MA | 02176 |
| 029 A001P21, 029 A00105B, 029 | | ALLAN AND MARY | DUNKERLY | 150 MIDDLE ST # 5B | PORTLAND | ME | 04101 |
| 032 I012306 | | THORA | EASTON | 10 EXCHANGE ST # 306 | PORTLAND | ME | 04101 |
| 032 I012310 | ECHM REALTY LLC | | | 15 CHERRY RD | NORTH HAMPTON | NH | 03862 |
| 032 I012312 | EESI LLC | | | 16 AVENUE FIVE | SCARBOROUGH | ME | 04074 |
| 029 E001001 | ELC LIMITED LIABILITY COMPANY | | | 42 MARKET ST | PORTLAND | ME | 04101 |
| 032 F012001, 032 F014001, 032 F010001, 032 F013001, 032 F005001, 032 F007001, 032 | ELEVEN EXCHANGE LLC | | | 16 CASCO ST FL 2 | PORTLAND | ME | 04101 |
| 029 A001P14, 029 A00102E | | PAUL AND CARMELIA | ERNEST | 11 GRANT RD | LYNNFIELD | MA | 01940 |
| 032 I012308 | | SHERI | EVANS | 10 EXCHANGE ST # 308 | PORTLAND | ME | 04101 |
| 032 I012311 | | JANIS | FECTEAU | 15 CHERRY RD | NORTH HAMPTON | NH | 03862 |
| 032 I006006, 032 I006003, 032 I006002, 032 I006004, 032 I006005 | FIFTY EXCHANGE LLC | | | 50 EXCHANGE ST | PORTLAND | ME | 04101 |
| 029 O001410 | | STEVEN | FILMER | 333 E ONTARIO ST # 3204 | CHICAGO | IL | 60611 |
| 032 E001001 | FINIAL LLC | | | 100 COMMERCIAL ST STE 300 | PORTLAND | ME | 04101 |
| 029 S001001 | FLEMING PORTLAND LLC | | | 1173 PITTSFORD VICTOR RD # 250 | PITTSFORD | NY | 14534 |
| 029 B004003 | FORE STREET COMMONS LLC | | | 31 FARM VIEW DR | WINDHAM | ME | 04062 |
| 032 R009001, 032 R007001 | FORE STREET PARTNERS LLC | | | ONE CITY CENTER 4TH FLOOR | PORTLAND | ME | 04101 |
| 032 J005001, 032 J005002, 032 | FORE STREET PARTNERSHIP LIMITED PARTNERSHIP | | | 410 FORE ST | PORTLAND | ME | 04101 |
| 029 A001P11, 029 A00102A, 029 | | PATRICK | FRANK | 150 MIDDLE ST # 02A | PORTLAND | ME | 04101 |
| 032 I001001 | FRESNEL LLC | | | 100 COMMERCIAL ST STE 300 | PORTLAND | ME | 04101 |
| 029 O001033, 032 I012301 | | STACY | FUEGAN | 157 BROOK RD | FALMOUTH | ME | 04105 |
| 029 O001033, 032 I012301 | | ERNESTO | RAMIREZ | 157 BROOK RD | FALMOUTH | ME | 04105 |
| 032 V012001 | FURBISH BLOCK LLC | | | PO BOX 7626 | PORTLAND | ME | 04112 |
| 029 A00104I | | JASON AND MELISSA | GARCIA | 150 MIDDLE ST # 4I | PORTLAND | ME | 04101 |

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|---|---|---|---|---|---|---|---|
| 029 A001P08, 029 A00104G | | CYNTHIA | GIARRAPUTO | 49 HAMILTON AVE | SOUTH HAMILTON | MA | 01982 |
| 029 A001P08, 029 A00104G | | JOHN | FARRELL | 49 HAMILTON AVE | SOUTH HAMILTON | MA | 01982 |
| 029 O001211 | | DAVID | GINTER | 15 BRIGHAMPTON LN | PHIPPSBURG | ME | 04562 |
| 029 O001211 | | JAMES | ELVIN | 15 BRIGHAMPTON LN | PHIPPSBURG | ME | 04562 |
| 029 A001P02, 029 A00104E | | PETER | GIUSTRA | 693 VAUGHNS NECK RD | WARREN | ME | 04864 |
| 029 O001026 | | ERIN | GOMES | 99 SILVER ST # 26 | PORTLAND | ME | 04101 |
| 029 B004009 | | STEPHEN | GOODRICH | 72 COMMERCIAL ST # STE 2 | PORTLAND | ME | 04101 |
| 032 I012314 | | ABIGAIL | GORDON | 10 EXCHANGE ST # 314 | PORTLAND | ME | 04101 |
| 032 N009001 | GOULD COMPANY LLC | | | 12 LAMBERT RD | FREEPORT | ME | 04032 |
| 032 V004001 | GRANITE FACE LLC | | | PO BOX 7626 | PORTLAND | ME | 04112 |
| 029 A00104J | | NEIL | GREENZWEIG | PO BOX 393 | SWANS ISLAND | ME | 04685 |
| 032 I012407 | | BARRY | GRINDLE | PO BOX 554 | WINTERPORT | ME | 04496 |
| 029 A00104D | | JOHN AND LENORA | GUTWIN | 150 MIDDLE ST # 04D | PORTLAND | ME | 04101 |
| 032 P004002 | H & A PROPERTY GROUP LLC | | | 6 CITY CENTER STE 400 | PORTLAND | ME | 04101 |
| 032 I012313 | | CARL | HANSON | 10 EXCHANGE ST # 313 | PORTLAND | ME | 04101 |
| 038 F009001 | HARBOR PLAZA ASSOCIATES II | | | 470 FORE ST STE 400 | PORTLAND | ME | 04101 |
| 032 N011001 | | RICHARD | HARDING | 207 COMMERCIAL ST | PORTLAND | ME | 04101 |
| 029 A00103I, 029 A001P27 | | WILLIAM | HARDING | 150 MIDDLE ST # 3I | PORTLAND | ME | 04101 |
| 029 O001310 | | ROBERT AND CATHERINE | HEALY | 5978 WELLINGTON AVE | GAINESVILLE | GA | 30506 |
| 029 A00103H | | HAROLD AND RACHEL | HENDERSON | 150 MIDDLE ST # 3H | PORTLAND | ME | 04101 |
| 029 O001210 | | ANTHONY AND TERESE | HEYMAN | 27 VESPER ST | SCARBOROUGH | ME | 04074 |
| 029 O001043 | | CHRISTOPHER | HIGGINS | 99 SILVER ST # 43 | PORTLAND | ME | 04101 |
| 029 O001035 | | HELENA | HIGGINS | 123 UNION ST | BELFAST | ME | 04915 |
| 029 O001035 | | TAMARA | BOETCH | 123 UNION ST | BELFAST | ME | 04915 |
| 029 O001013 | | ERIC | HOLSTEIN | 74 CLIFF ST | HASTINGS ON HUDSON | NY | 10706 |
| 029 O001041 | | SARAH | HUBER | 99 SILVER ST # 4-1 | PORTLAND | ME | 04101 |
| 029 A00104B | | KIMBERLY | HUNT | 42 PUMPKIN COVE RD | NEW HARBOR | ME | 04554 |
| 029 A00104B | | MICHAEL | BISSON | 42 PUMPKIN COVE RD | NEW HARBOR | ME | 04554 |
| 029 O001024 | | BRADLEY AND CEREN | IANNONE | 48 CALEB ST | PORTLAND | ME | 04102 |
| 029 A001P07, 029 A001P06, 029 A00101D, 029 A00101C, 029 | IN FIRM GROUP THE | | | PO BOX 10189 | PORTLAND | ME | 04104 |
| 032 J005004, 032 J005003 | | ROGER | INGALLS | 22 CARROLL ST | PORTLAND | ME | 04101 |
| 032 H01604B | ITM REALTY II LLC | | | 183 MIDDLE ST # 4B | PORTLAND | ME | 04101 |
| 032 H01604A | ITM REALTY II LLC | | | 183 MIDDLE ST # 4A | PORTLAND | ME | 04101 |
| 032 V016001, 032 V001001 | IVY HOLDINGS LLC | | | ONE DANA ST | PORTLAND | ME | 04101 |
| 029 B004001 | | MICHAEL | JACKSON | 920 SHORE RD | CAPE ELIZABETH | ME | 04107 |
| 038 A001001 | JBG&H ASSOCIATES | | | PO BOX 4510 | PORTLAND | ME | 04112 |
| 029 A00102H | | ARTHUR | JOHNS | 150 MIDDLE ST # 2H | PORTLAND | ME | 04101 |
| 029 O001B02 | | BEN | JOHNSON | 99 SILVER ST # B02 | PORTLAND | ME | 04101 |
| 032 I012406 | JULASA INVESTMENTS LLC | | | 246 N BOWMAN AVE | MERION STATION | PA | 19066 |
| 029 A00102G | | CHARLES | KIRK | 150 MIDDLE ST # 2G | PORTLAND | ME | 04101 |
| 032 I040001 | KOWTOWER LLC | | | 100 COMMERCIAL ST | PORTLAND | ME | 04101 |
| 032 V002001 | LANDFALL LLC | | | 207 COMMERCIAL ST | PORTLAND | ME | 04101 |
| 028 K002001 | LEADER PROPERTIES LLC | | | 100 COMMERCIAL ST STE 300 | PORTLAND | ME | 04101 |
| 029 O001044 | | CLIFTON | LITTLEJOHN | 99 SILVER ST # 44 | PORTLAND | ME | 04101 |
| 029 O001036 | | SAMUEL | LLOYD | 99 SILVER ST # 36 | PORTLAND | ME | 04101 |
| 029 O001036 | | MARGO | LEE | 99 SILVER ST # 36 | PORTLAND | ME | 04101 |

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|---|---|---|---|---|---|---|---|
| 029 O001048 | | PNICHOLAS AND ALLAN | LOBOZZO | 48 WINTER ST | TOPSHAM | ME | 04086 |
| 029 O001032 | | STEVEN | LOPEZ | 1 LONGFELLOW PL # 2024 | BOSTON | MA | 02114 |
| 029 O001037 | | ISAAC | LUTKOFF | 32 WESCOTT ST | LIMERICK | ME | 04048 |
| 029 A00103F | M & B 101 INC | | | PO BOX 2808 | SOUTH PORTLAND | ME | 04116 |
| 029 A00103G | M & B 101 INC | | | 8 WESTERN AVE | KENNEBUNK | ME | 04043 |
| 032 H006001 | MAINESCAPE PROPERTIES LLC | | | 92 EXCHANGE ST 2ND FLOOR | PORTLAND | ME | 04101 |
| 029 B004011 | MAMI PROPERTIES LLC | | | 339 FORE ST | PORTLAND | ME | 04101 |
| 032 E010001 | MARKET MILK PARTNERS LLC | | | 82 HANOVER ST STE 5 | PORTLAND | ME | 04101 |
| 029 A00102C | | HENRY AND JOAN | MEIL | 9 GRANITE DR | CAMDEN | ME | 04843 |
| 029 A00102J, 029 A001P13, 029 | | PETER | MILLS | PO BOX 9 | SKOWHEGAN | ME | 04976 |
| 032 P017001 | MINA BUILDING LLC | | | 10 CITY CENTER | PORTLAND | ME | 04101 |
| 029 A001P23, 029 A00105A, 029 A001P24, 029 A001P26, 029 A001P04, 029 A001P05, 029 | MIRS PROPERTIES LLC | | | 148 MIDDLE ST STE 506 | PORTLAND | ME | 04101 |
| 032 I012401 | MOON HILL PROPERTY MANAGEMENT LLC | | | 381 FALMOUTH RD | FALMOUTH | ME | 04105 |
| 029 A00102F | | CAROL | MORRISSETTE | 150 MIDDLE ST # 2F | PORTLAND | ME | 04101 |
| 032 S005001 | MOULTON STREET REALTY LLC | | | 5 MOULTON ST | PORTLAND | ME | 04101 |
| 029 A00103A | | JEANNE | NELSON | 5454 W 110TH ST | OVERLAND PARK | KS | 66211 |
| 029 O001047 | | ELIZABETH | NIKAZMERAD | 99 SILVER ST # 47 | PORTLAND | ME | 04101 |
| 038 B001001, 038 B003001, 038 G001001, 038 B002001 | NORTH RIVER IV LLC | | | 610 WEST 26TH ST STE 910 | NEW YORK | NY | 10001 |
| 032 F001001, 032 F009001 | OCEAN BLOCK ASSOCIATES | | | 42 MARKET ST | PORTLAND | ME | 04101 |
| 029 B004002 | | DENNIS AND BARBARA | O'CONNOR | 208 GATEWAY CT | UNION BEACH | NJ | 07735 |
| 032 I002001 | OLD PORT ARMS LLC | | | PO BOX 368 | SCARBOROUGH | ME | 04070 |
| 029 A003001 | OLYMPIA MILK STREET LLC | | | PO BOX 508 | PORTLAND | ME | 04112 |
| 032 L002001 | ONE CITY CENTER ASSOCIATES LLC | | | ONE CITY CENTER | PORTLAND | ME | 04101 |
| 032 U004001 | ONE DANA LLC | | | PO BOX 4894 | PORTLAND | ME | 04112 |
| 038 B001000 | ONE PORTLAND SQUARE CONDO | | | 1 PORTLAND SQUARE | PORTLAND | ME | 04101 |
| 032 R008001 | ORANGE CRUSH LLC | | | PO BOX 66749 | FALMOUTH | ME | 04105 |
| 029 O001028 | | KATHERINE | ORNE | 99 SILVER ST # 28 | PORTLAND | ME | 04101 |
| 032 H016000 | OXFORD BUILDING CONDO | | | 183 MIDDLE ST | PORTLAND | ME | 04101 |
| 032 H003001, 032 E004001, 032 F002001, 032 F008001, 032 I010001 | | JOSEPH AND SION | PALACCI | 53 EXCHANGE ST STE 400 | PORTLAND | ME | 04101 |
| 029 A00101B | PEG REALTY LLC | | | 22 BIRCH LN | CUMBERLAND FORESIDE | ME | 04110 |
| 029 B004005 | | JOHN | PENDERS | 29 MARSHALL TER | WAYLAND | MA | 01778 |
| 029 R001001, 029 O004001, 029 O003001, 029 B003001 | PORTLAND REGENCY INC | | | 20 MILK ST | PORTLAND | ME | 04101 |
| 029 A001P18, 029 A001P19, 029 | PROSPERITA LLC | | | 5 CLIFFORD ST | PORTLAND | ME | 04102 |
| 029 O001213 | | JAMES | PROSSER | 99 SILVER ST # 213 | PORTLAND | ME | 04101 |
| 038 B001007 | PS ONE REALTY LLC | | | ONE CITY CENTER 4TH FLOOR | PORTLAND | ME | 04101 |
| 032 H016001, 032 H016002, 032 | Q STREET REAL ESTATE FIRST HOLDINGS LLC | | | PO BOX 17888 | PORTLAND | ME | 04112 |
| 032 I012304 | | CURTIS | RICH | 22 UPPER ST | BUCKLAND | MA | 01338 |
| 032 I012304 | | KATHLEEN | THERESE | 22 UPPER ST | BUCKLAND | MA | 01338 |
| 032 H007001 | RIVENDELL REAL ESTATE LLC | | | 45 PAGE ST | BRUNSWICK | ME | 04011 |
| 032 I012409 | | DEBASMITA | SAHA | 6098 BLUE CHURCH RD | COOPERSBURG | PA | 18036 |
| 032 I012409 | | RAVI | SINGH | 6098 BLUE CHURCH RD | COOPERSBURG | PA | 18036 |
| 029 O001025 | | KEVIN | SAJDAK | 23 NORTH GREEN ST # 201 | CHICAGO | IL | 60607 |
| 029 O001025 | | KATHERINE | STORK | 23 NORTH GREEN ST # 201 | CHICAGO | IL | 60607 |

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|---|---|---|---|---|---|---|---|
| 029 O001011 | | AUSTIN | SANDLER | 99 SILVER ST # 11 | PORTLAND | ME | 04101 |
| 032 I006001 | SANTANA LLC | | | 6 ISLAND VIEW DR | CUMBERLAND FORESIDE | ME | 04110 |
| 029 A00102B | | SALVATORE AND MIRIAM | SAVATTERI | 150 MIDDLE ST # 2B | PORTLAND | ME | 04101 |
| 032 H022001 | SAVI REALTY LLC | | | 54 BATH ST | BATH | ME | 04530 |
| 029 A00103J | | KAREN | SCHAFFER | 338 LITTLE BAY RD | NEWINGTON | NH | 03801 |
| 032 I012309 | | THOMAS AND ELIZABETH | SHEPHERD | PO BOX 185 | BETHEL | ME | 04217 |
| 029 A001P28, 029 A001P29 | SHIPYARD INC | | | 8 WESTERN AVE | KENNEBUNK | ME | 04043 |
| 029 O001212 | | VICTORIA | SILVER | PO BOX 5 | AUBURN | ME | 04212 |
| 032 P004000 | SIX CITY CENTER CONDO | | | 6 SIX CITY CENTER | PORTLAND | ME | 04101 |
| 032 P004001 | SIX CITY CENTER LLC | | | PO BOX 17536 | PORTLAND | ME | 04112 |
| 038 F004001 | SLM PROPERTIES INC | | | PO BOX 3892 | PORTLAND | ME | 04104 |
| 032 N012001 | SOLETSKY LIMITED LIABILITY CO | | | 100 COMMERCIAL ST STE 300 | PORTLAND | ME | 04101 |
| 029 O001039 | | KENNETH AND SANDRA | SOREL-LEDUC | 287 POITRAS RD | BRISTOL | CT | 06010 |
| 032 I012411 | | MICHAELA | SPANNAUS | 10 EXCHANGE ST # 411 | PORTLAND | ME | 04101 |
| 029 O001045 | | JORDAN | STANHOPE | 58 FORESIDE RD | FALMOUTH | ME | 04105 |
| 029 B004006 | | CHRISTOPHER | STEPHENSON | 960 SHORE RD | CAPE ELIZABETH | ME | 04107 |
| 029 A00102I | | JOHN AND JANN | STERLING | 34 GOVERNORS POINT RD | HARPSWELL | ME | 04079 |
| 029 A00103E, 029 A001P03 | | JOSEPH AND SUSAN | SULLIVAN | 150 MIDDLE ST # 3E | PORTLAND | ME | 04101 |
| 038 A001000 | TEN FREE STREET CONDO | | | 10 FREE ST | PORTLAND | ME | 04101 |
| 032 R003001 | TERRAPIN PROPERTIES LLC | | | ONE CITY CENTER 4TH FLOOR | PORTLAND | ME | 04101 |
| 029 O001501 | THE NAUTILUS AT OCEAN PARK LLC | | | 99 SILVER ST | PORTLAND | ME | 04101 |
| 029 A001000 | THE STORER BUILDING CONDO | | | 150 MIDDLE ST | PORTLAND | ME | 04101 |
| 032 I012410 | | STEVEN AND ALISA | THOMAS | 5835 W 167TH ST | STILWELL | KS | 66085 |
| 029 O001021 | | DEBORAH | THOMS | 99 SILVER ST # 21 | PORTLAND | ME | 04101 |
| 032 D002001, 032 D003001, 032 | TOP OF EXCHANGE LLC | | | 42 MARKET ST | PORTLAND | ME | 04101 |
| 029 O001012 | | DAVID | TOZESKI | 99 SILVER ST # 1-2 | PORTLAND | ME | 04101 |
| 032 U005001 | TRANSMAINE | | | 230 ANDERSON ST | PORTLAND | ME | 04101 |
| 032 P001001 | TWO CITY CENTER LLC | | | 1 CATE ST STE 4B | PORTSMOUTH | NH | 03801 |
| 032 I012412 | | NICHOLAS | URBANEK | 81 GRAY ST # 2 | PORTLAND | ME | 04102 |
| 029 O001046 | | CORRINNE | VAN | 24 WITHAM ST # 6 | SPRINGVALE | ME | 04083 |
| 032 I012408 | | BRETT AND KAILI | WALTERS | 543 SHEPHERD AVE | WINTER PARK | FL | 32789 |
| 028 L005001 | WBFM LLC | | | 44 THOMSON PL | BOSTON | MA | 02210 |
| 032 I012413 | | HENRY | WHEELWRIGHT | 17 LANDGRANE ST | QUINCY | MA | 02171 |
| 028 K003001 | WHOLLY COW LLC | | | 100 COMMERCIAL ST STE 300 | PORTLAND | ME | 04101 |
| 029 A00104F | | DARREN AND KATHLEEN | WINSLOW | 150 MIDDLE ST # 4F | PORTLAND | ME | 04101 |
| 032 P003001 | WIRELESS PARTNERS II LLC ETAL | | | PO BOX 34 | GARDINER | ME | 04345 |
| 029 B001001 | WITT-T LLC | | | PO BOX 51 | WEST BOOTHBAY HARBOR | ME | 04575 |
| 028 L00502A, 028 L00502B, 028 L00504B, 028 L00504A, 028 | WOODMAN BUILDING ASSOCIATES LLC | | | PO BOX 9785 | PORTLAND | ME | 04104 |
| 028 L005000 | WOODMAN CONDO | | | 75 PEARL ST | PORTLAND | ME | 04101 |
| 029 A00104K | | MARIAGRAZIA | ZANARDI | 5 BACK COVE EST | PORTLAND | ME | 04103 |
| 029 A00103B | | MIN | ZHAO | 14 CHESTNUT ST | ACTON | MA | 01720 |
| 029 A00103B | | HUANG | YUHONG | 14 CHESTNUT ST | ACTON | MA | 01720 |
| 029 O001038 | | WILLIAM | ZURKAN | 41 SPRAGUE ST | SOUTH PORTLAND | ME | 04106 |

# Section 1

# 1

## 1A. Site Plan

East Brown Cow – Kowtower LLC, the applicant, is proposing the development of a 30-story mixed use building on the parcel addressed 45 Union Street in the City of Portland. The multi-use building will provide 88 hotel rooms, 73 residential dwelling units, a 1,495 nsf café on the ground floor, a 5,007 nsf restaurant, a 3,271 nsf bar and lounge, a 1,100 nsf viewing area on the top floor, and a 6,373 gsf wellness level with a pool and a gym. The café, restaurant, bar, viewing area, and wellness level will be open to the public. The proposed building has a roughly 5,650 gsf footprint at-grade totaling approximately 200,000sf gross floor area.

The development site is 25,397sf and currently serves as a 32-space surface parking lot. With the project's development, the parking lot will be removed.

Vehicle access to the site will be provided via an existing driveway entrance on Union Street, located approximately 260 feet northwest of Fore Street. Pedestrian access will be provided to the site by a sidewalk along the site driveway from Union Street, a pedestrian path between Exchange Street, Middle Street, and Union Street via the plaza, and a sidewalk connection to Fore Street along Patton Court (A.K.A. Fox Court).

No vehicle parking will be provided on-site. In lieu, a drop-off loop will be provided at the main entrances, and a valet service will be offered for residents, guests, and the public. The valet service will use the adjoining Old Port Square Garage, which has 423 spaces. Some of these spaces will be available for residents and guests. Users of the development can also park in the parking garage without using the valet system.

The project will provide storage for 43 bicycles, external to the building. All 43 spaces will be located outside on the site itself and on adjacent properties owned by a related party for utilization by all users.

## 1B. Existing & Proposed Uses

**Existing**

The existing parcel is occupied by a 32-space surface parking lot, which will be removed when the proposed project is developed.

**Proposed**

The proposed multi-use building will provide 88 hotel rooms, 73 residential dwelling units, a 1,495 nsf café on the ground floor, a 5,007 nsf restaurant, a 3,271 nsf bar and lounge, a 1,100 nsf viewing area on the top floor, and a 6,373 gsf wellness level with a pool and a gym. The viewing area will be ticketed, with a capacity of 110 persons (10sf per standing person). Limited amenities such as food, drink, and souvenirs will be provided.

The café, restaurant, bar, viewing area, and wellness level will be open to the public.

## 1C. Regional Mapping

For the regional mapping analysis, we have established a study area with a ¼-mile radius from the site entrance at Union Street. The study area is based on MaineDOT's requirements for an urban/suburban development area.

**Pedestrian & Bicycle Trip Origins/Destinations**
Portland, within a ¼-mile radius of the site entrance, generally consists of residential, hotel, retail, recreational, and commercial land uses. It is assumed that these existing residential dwellings and lodgings could be pedestrian/bicycle trip origins and that the pedestrian/bicycle destinations would be the retail, commercial, and recreational uses.

**Pedestrian Infrastructure**
A review of existing pedestrian and bicycle infrastructure was completed using Google Earth and field surveys. Our surveys show that within the ¼-mile study radius, there are existing sidewalks on one or both sides of most streets. The existing sidewalks and crosswalks are illustrated in the *Regional Mapping Plan* attached in *Section A of the appendix*.

**Bicycle Infrastructure**
A review of existing pedestrian and bicycle infrastructure was completed using the City's Bikeway Network Map. The map shows that within the study area, there are striped one-way bike lanes on Spring Street, southwest of Temple Street, and Preble Street. The existing bike lanes are illustrated in the *Regional Mapping Plan* attached in *Section A of the appendix*.

**Pedestrian Infrastructure Gaps**
As shown in the *Regional Mapping Plan*, there are no significant gaps in the pedestrian sidewalk infrastructure.

## 1D. Proposed Uses in the General Vicinity of the Proposed Development

Traffic generated by projects that have been approved by the Local Planning Board and/or the Maine Department of Transportation, but are not yet opened, must be included in the estimate of pre-development traffic. The City of Portland has been consulted to identify any and all development projects whose trips may impact the study area. The City has identified a few minor reuse projects for existing buildings within the general vicinity of the site, which do not need to be considered in this application.

## 1E. Site Trip Generation

Site trip generation estimates for the proposed multi-use building have been determined based on the trip generation rates provided in the 11th edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The ITE Manual provides numerous land use codes (LUC) and the volume of site generated trips produced by each category.

Trip generation calculations for the 73 residential dwelling units have been prepared using **LUC #222 – Multifamily Housing (High-Rise)** (Dense Multi-Use Urban). ITE describes LUC #222 as "*high-rise multifamily housing includes apartments, townhouses, and condominiums. Each building has more than 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevators, and a set of hallways.*"

The trip generation calculations for the 88 hotel rooms have been prepared using **LUC #310 – Hotel** (Dense Multi-Use Urban). ITE describes LUC 310 as *"a place of lodging that provides sleeping accommodations and supporting facilities such as a full-service restaurant, a cocktail lounge, meeting rooms, banquet room, and convention facilities. A hotel typically provides a swimming pool or another recreational facility such as a fitness room."*

To estimate the trips generated by the 5,007sf restaurant, we have utilized **LUC #931 – Fine Dining Restaurant** (General Urban/Suburban), described as "*a full-service eating establishment with a typical duration of stay of at least 1 hour. A fine dining restaurant generally does not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some of the study sites have lounge or bar facilities (serving alcoholic beverages), but meal service is the primary draw to the restaurant.*"

The trip generation estimates for the 1,495sf café have been prepared using **LUC #930 – Fast Casual Restaurant** (General Urban/Suburban). ITE describes LUC #930 as "*a sit-down restaurant with no (or very limited) wait staff or table service. A customer typically orders off a menu board, pays for food before the food is prepared, and seats themselves. The menu generally contains higher-quality, made-to-order food items with fewer frozen or processed ingredients than a fast-food restaurant. Most patrons eat their meal within the restaurant, but a significant proportion of the restaurant sales can be carry-out orders. A fast-casual restaurant typically serves lunch and dinner; some serve breakfast. A typical duration of stay for an eat-in customer is 40 minutes or less.*"

For the 3,271sf bar and lounge, trip generation calculations have been prepared using **LUC #975 – Drinking Place** (General Urban/Suburban), which ITE describes as *"a drinking place contains a bar, where alcoholic beverages and food are sold, and possibly some type of entertainment, such as music, television screens, video games, or pool tables."*

ITE does not provide a LUC specifically for the 1,100sf viewing area with a capacity of 110 standing persons. For this application, we have assumed that it is similar to **LUC #931 – Fine Dining** (General Urban/Suburban), which typically has a duration of stay of at least 1 hour. For the trip generation calculations, we will use the independent variable of "seats," using the 110 person capacity, for a total of 110 "Seats."

Trip generation estimates for the proposed 6,373sf wellness level, with a gym and pool, have been determined using **LUC #492 – Health/Fitness Club** (General Urban/Suburban), defined by ITE as "*a privately-owned facility that primarily focuses on individual fitness or training. It typically provides exercise classes, fitness equipment, a weight room, spa, lockers rooms, and a small restaurant or snack bar. This land use may also include ancillary facilities, such as a swimming pool, whirlpool, sauna, limited retail, and tennis, pickle ball, racquetball, or handball courts. These facilities are membership clubs that may allow access to the general public for a fee.*"

In the *Trip Generation Manual*, ITE provides the *Average* trip generation rate, and the *Fitted Curve* trip generation rate. MaineDOT guidelines state that when $R^2 \geq 0.80$, the *Fitted Curve* trip generation rate shall be used. The trip generation calculations for the proposed uses are provided below in Table 1.1 through Table 1.7:

| Table 1.1<br>ITE Trip Generation Calculations - Dense Multi-Use Urban | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Land Use** | **Multifamily Housing (High-Rise) Not Close to Rail Transit - LUC 222** | | | | | | |
| **Time Period** | **Dwelling Units (X)** | **$R^2$** | **Fitted Curve Equation/Avg. Rate** | **Trips Generated (T)** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 73 | 0.92 | T = 0.28(X) - 7.17 | 13 | 41% / 59% | 5 | 8 |
| PM Weekday Peak Hour (Street) | 73 | 0.91 | Ln(T) = 0.95 Ln(X) - 1.36 | 15 | 50% / 50% | 8 | 7 |
| AM Weekday Peak Hour (Generator) | 73 | n/a | 0.26 | 19 | 10% / 90% | 2 | 17 |
| PM Weekday Peak Hour (Generator) | 73 | n/a | 0.15 | 11 | 66% / 34% | 7 | 4 |
| Saturday Peak Hour | 73 | n/a | 0.09 | 7 | 43% / 57% | 3 | 4 |

| Table 1.2<br>ITE Trip Generation Calculations - Dense Multi-Use Urban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Hotel - LUC 310** | | | | | |
| **Time Period** | **Rooms** | **Avg. Trip Gen. Rate (Trips/Room)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 88 | 0.31 | 27 | 39% / 61% | 11 | 16 |
| PM Weekday Peak Hour (Street) | 88 | 0.21 | 18 | 44% / 56% | 8 | 10 |
| AM Weekday Peak Hour (Generator) | 88 | 0.33 | 29 | 51% / 49% | 15 | 14 |
| PM Weekday Peak Hour (Generator) | 88 | 0.34 | 30 | 30% / 70% | 9 | 21 |
| Saturday Peak Hour | 88 | 0.22 | 19 | 67% / 33% | 13 | 6 |

| Table 1.3<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Fine Dining Restaurant - LUC 931** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1 ksf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | | n/a | | | | |
| PM Weekday Peak Hour (Street) | 5.007 | 7.80 | 39 | 67% / 33% | 26 | 13 |
| AM Weekday Peak Hour (Generator) | 5.007 | 4.47 | 22 | 80% / 20% | 18 | 4 |
| PM Weekday Peak Hour (Generator) | 5.007 | 8.28 | 41 | 61% / 39% | 25 | 16 |
| Saturday Peak Hour | 5.007 | 10.68 | 53 | 59% / 41% | 31 | 22 |

| Table 1.4<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Fast Casual Restaurant - LUC 930** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1k Sf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street)* | 1.495 | 12.55 | 19 | 50% / 50% | 10 | 9 |
| PM Weekday Peak Hour (Street) | 1.495 | 12.55 | 19 | 55% / 45% | 10 | 9 |
| AM Weekday Peak Hour (Generator)* | 1.495 | 18.57 | 28 | 63% / 37% | 18 | 10 |
| PM Weekday Peak Hour (Generator) | 1.495 | 18.57 | 28 | 62% / 38% | 17 | 11 |
| Saturday Peak Hour | 1.495 | 32.64 | 49 | 55% / 45% | 27 | 22 |

*We have assumed that the AM peak hours are similar to the PM peak hours because the study sites do not typically serve breakfast.

| Table 1.5<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Drinking Place - LUC 975** | | | | | |
| **Time Period** | **Sq. Footage (1k)** | **Avg. Trip Generation Rate (Trips Per 1k Sf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | | Closed | | | | |
| PM Weekday Peak Hour (Street) | 3.271 | 11.36 | 37 | 66% / 34% | 24 | 13 |
| AM Weekday Peak Hour (Generator) | | Closed | | | | |
| PM Weekday Peak Hour (Generator) | 3.271 | 15.53 | 51 | 68% / 32% | 35 | 16 |
| Saturday Peak Hour* | 3.271 | 15.53 | 51 | 68% / 32% | 35 | 16 |

*Saturday peak hour data not provided by ITE; Saturday peak hour assumed similar to Weekday PM (generator),

| Table 1.6<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Fine Dining Restaurant - LUC 931** | | | | | |
| **Time Period** | **Seats** | **Avg. Trip Generation Rate (Trips Per Seat)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street)* | 110 | 0.15 | 17 | 69% / 31% | 12 | 5 |
| PM Weekday Peak Hour (Street) | 110 | 0.28 | 31 | 67% / 33% | 21 | 10 |
| AM Weekday Peak Hour (Generator) | 110 | 0.15 | 17 | 69% / 31% | 12 | 5 |
| PM Weekday Peak Hour (Generator) | 110 | 0.29 | 32 | 59% / 41% | 19 | 13 |
| Saturday Peak Hour | 110 | 0.33 | 36 | 59% / 41% | 22 | 14 |

*ITE does not provide trip generation data for AM peak hour (street). Assumed similar to AM peak hour (generator).

| Table 1.7<br>ITE Trip Generation Calculations - General Urban/Suburban | | | | | | |
|---|---|---|---|---|---|---|
| **Land Use** | **Health/Fitness Club - LUC 492** | | | | | |
| **Time Period** | **Sq. Footage (1k Sf)** | **Avg. Trip Generation Rate (Trips Per 1k Sf)** | **Trips Generated** | **Distribution Entering / Exiting** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 6.373 | 1.31 | 8 | 51% / 49% | 4 | 4 |
| PM Weekday Peak Hour (Street) | 6.373 | 3.45 | 22 | 57% / 43% | 13 | 9 |
| AM Weekday Peak Hour (Generator) | 6.373 | 1.40 | 9 | 46% / 54% | 4 | 5 |
| PM Weekday Peak Hour (Generator) | 6.373 | 3.92 | 25 | 52% / 48% | 13 | 12 |
| Saturday Peak Hour | 6.373 | 3.19 | 20 | 49% / 51% | 10 | 10 |

Table 1.8, following, summarizes the trip generation calculations provided in Tables 1.1 through 1.7, and presents the total trip generation for the proposed multi-use building.

| Table 1.8<br>ITE Trip Generation Summary | | | |
|---|---|---|---|
| **Time Period** | **Total Trips Generated** | **Enter** | **Exit** |
| AM Weekday Peak Hour (Street) | 84 | 26 | 33 |
| PM Weekday Peak Hour (Street) | 181 | 76 | 52 |
| AM Weekday Peak Hour (Generator) | 124 | 53 | 45 |
| PM Weekday Peak Hour (Generator) | 218 | 93 | 68 |
| Saturday Peak Hour | 235 | 109 | 70 |

The preceding table shows that the proposed multi-use building is expected to generate 84 trips during the AM peak hour of the adjacent street and 181 trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the site is expected to produce 124 trips in the AM and 218 trips in the PM. The development is expected to generate 235 trips during the Saturday peak hour.

## 1F. Trip Adjustments

It is assumed that a certain number of trips generated by the proposed residential units and hotel rooms will also visit the on-site café, restaurant, bar and lounge, wellness level, and the viewing area. We have calculated the internally captured (shared) trips for proposed developments using the approach recommended by the ITE *Trip Generation Handbook*, which recommends using the NCHRP Report 684 methodology. The NCHRP Report 684 determines the internally captured trips between office, retail, restaurant, cinema/entertainment, residential, and hotel land uses.

The NCHRP spreadsheets, *attached in Section A of the appendix*, have been prepared by inputting the trips generated by the proposed residential, hotel, and restaurant uses. The outputs of the spreadsheets are summarized below in Table 1.9:

| Table 1.9<br>NCHRP Report 684 Summary | | | | | | |
|---|---|---|---|---|---|---|
| Time Period | Internal Capture Percentages | | | External Vehicle Trips | | |
| | Total | Enter | Exit | Total | Enter | Exit |
| AM Weekday Peak Hour (Street) | 12% | 12% | 12% | 74 | 37 | 37 |
| PM Weekday Peak Hour (Street) | 13% | 11% | 17% | 157 | 98 | 59 |
| Saturday Peak Hour | 14% | 12% | 18% | 201 | 124 | 77 |

Table 1.7 shows that with the internally captured trips accounted for, the site is expected to produce 74 external vehicle trips in the AM peak hour, 157 external vehicle trips in the PM peak hour, and 201 external vehicle trips in the Saturday peak hour.

## 1G. Site Trip Distribution

Vehicle trips generated by the proposed multi-use building have been assigned to and from the site during the AM and PM peak hours based on the entering and exiting distribution patterns provided by ITE. The entering and exiting distributions are provided in Table 1.1 through Table 1.7

## 1H. Site Trip Assignment

Trips generated by the proposed development during the PM and Saturday peak hour time periods have been assigned to and from the development site based on the existing traffic patterns found at the following intersections:

- Union St at Fore St
- Union St and Temple St at Spring St and Middle St
- Exchange St at Middle St
- Exchange St at Fore St and Moulton St

The turning movement counts, recorded on the 10th and 12th of April, 2025, are attached in *Section A of the appendix* and illustrated in **Figure 1**, which is also attached in *Section A of the appendix*. The applied trip assignment percentages are provided below in Table 1.10:

| Table 1.10<br>Vehicle Trip Assignment | | |
|---|---|---|
| Approach | PM Peak Hour | Saturday Peak Hour |
| Middle St (East of Site) | 16% | 12% |
| Exchange St (North of Site) | 8% | 10% |
| Fore St (East of Site) | 13% | 11% |
| Temple St (North of Site) | 18% | 21% |
| Spring St (West of Site) | 16% | 18% |
| Union St (South of Site) | 9% | 10% |
| Fore St (West of Site) | 20% | 18% |

The site generated trips have been assigned through the intersections, to/from the site, following the percentages shown in Table 10. **Figure 2**, attached in *Section A of the appendix*, illustrates the site trip assignment.

# Section 2

# 2

## 2A. Crash Analysis

MaineDOT's Office of Safety, Crash Records Section, has provided crash data for the latest three-year period (2022 – 2024) for the roadway sections and intersections within the vicinity of the site. A summary of the crash report is provided below, and the crash report plus a map showing the crash study area is included in *Section B of the appendix*.

**Table 2**
**2022 - 2024 Crash Summary**

| # | Location | | Total Crashes | Critical Rate Factor |
|---|---|---|---|---|
| 1 | Spring St @ | Center St | 5 | 0.33 |
| 2 | Spring St @ | Temple St & Union St | 5 | 0.36 |
| 3 | Spring St @ | Middle St and Spring St | 3 | 1.03 |
| 4 | Union St @ | Fore St | 5 | 0.46 |
| 5 | Fore St @ | Dana St | 2 | 1.40 |
| 6 | Fore St @ | Patton Ct | 4 | 2.79 |
| 7 | Union St @ | Commercial St and Union Warf Rd | 3 | 0.19 |
| 8 | Commercial St @ | Dana St | 3 | 0.68 |
| 9 | Commercial St @ | Moulton St | 1 | 0.23 |
| 10 | Spring St btw. | Center St and Union St | 5 | 2.15 |
| 11 | Spring St btw. | Middle St and Union St | 1 | 0.81 |
| 12 | Middle St btw. | Spring St and Exchange St | 1 | 0.85 |
| 13 | Spring St btw. | Middle St and Union St | 3 | 2.66 |
| 14 | Spring St btw. | Union St and Cross St N | 1 | 1.18 |
| 15 | Spring St btw. | Cross St N and Center St | 1 | 0.35 |
| 16 | Exchange St btw. | Milk St and Fore St | 3 | 3.66 |
| **17** | **Exchange St btw.** | **Milk St and Middle St** | **8** | **5.56** |
| 18 | Moulton St btw. | Fore St and Warf St | 1 | 4.79 |
| 19 | Patton Ct btw. | End of Rd and Fore St | 7 | n/a |
| 20 | Union St btw. | Warf St and Commercial St | 5 | 6.43 |
| 21 | Union St btw. | Warf St and Fore St | 1 | 2.68 |
| 22 | Union St btw. | Fore St and Middle St | 3 | 1.27 |
| 23 | Fore St btw. | Patton Ct and Exchange St | 6 | 17.39 |
| 24 | Fore St btw. | Non. Intersection and Dana St | 6 | 16.54 |
| **25** | **Fore St btw.** | **Non. Intersection and Union St** | **8** | **8.45** |
| 26 | Commercial St btw. | Cross St S and Union St | 7 | 1.72 |
| **27** | **Commercial St btw.** | **Union St and Dana St** | **11** | **2.67** |
| 28 | Commercial St btw. | Dana St and Moulton St | 7 | 2.59 |

MaineDOT considers any roadway intersection or segment a high crash location (HCL) if both of the following criteria are met:

- ***8 or more crashes in the most recent three-year period***
- ***A Critical Rate Factor greater than or equal to 1.00***

As shown in the preceding table, there are three HCLs identified. **Location #17**, the section of Exchange Street located between Milk Street and Middle Street, meets MaineDOT's dual HCL criteria with 8 total crashes and a critical rate factor (CRF) of 5.56. **Location #25**, the 0.05-mile section of Fore Street between Union Street and non-intersection, is classified as an HCL with 8 total crashes and a CRF of 8.45. **Location #27**, the section of Commercial Street between Dana Street and Moulton Street, meets MaineDOT's HCL criteria with 11 crashes and a CRF of 2.67.

For each of the three HCLs, MaineDOT has prepared detailed collision diagrams that illustrate the location, type, and cause of each crash identified on the HCL. The HCLs are attached in *Section B of the appendix*, and a summary of the diagrams is provided below.

**Location #17 – Exchange St btw. Milk St and Middle St**
The collision diagram shows that of the 8 total crashes, 6 involved parked cars caused by one of the following: "*improper backing,*" "*Improper turn,*" or "*failure to keep in lane.*" One (1) crash was a "*head-on*" collision caused by an "*OUI," and one was a "side swipe" caused by a "failure to yield."* All 8 of the identified crashes were property damage only.

**Location #25 – Fore St btw. Union St and Non-Int.**
Of the 8 identified crashes, 5 involved parked cars caused by one of the following: *"hit-and-run," "Improper backing,"* or *"fail to keep in lane."* One (1) crash was a *side swipe"* caused by a *"failure to yield,"* 1 was a *"head-on"* collision caused by an *"OUI,"* and 1 involved a motorist backing into a light pole. Of the 8 identified crashes, 1 was a Type A crash (suspected major injury), and 7 were property damage only.

**Location #27 – Commercial St btw. Dana St and Moulton St**
Of the 11 identified crashes, 8 crashes involved motorists backing out of the angled parking spaces on the northwest side of Commercial Street. Of these 8 crashes, 6 vehicles backed into motorists traveling southwest on Commercial Street, and 2 vehicles backed into vehicles in the adjacent parking space. OF the remaining 3 crashes, 1 was a single-vehicle crash where a vehicle struck the curb due to snow road conditions, 1 was a "*rear-end*" crash, and the last was a "*side-swipe*" crash caused by a "*failure to keep in lane.*" All 11 crashes were property damage only.

## 2B. Pedestrian & Bike Crash Analysis

MaineDOT's crash report shows that within the study area, there were 6 pedestrian crashes and 2 bicycle crashes. From a review of MaineDOT's Public Map Viewer, we have identified the location and Injury Crash severity for each bicycle and pedestrian crash within the study area. The crashes are summarized in the following chart:

| Table 3<br>2022 - 2024 Pedestrian & Bicycle Crash Summary | | | | |
|---|---|---|---|---|
| **#** | **Location** | | **Crash Type** | **Injury Crash** |
| 1 | Fore St @ | Patton Ct | Bicycle | B |
| 2 | Commercial St btw. | Cross St S and Union St | Bicycle | B |
| 3 | Union St @ | Temple St, Spring St, and Middle St | Pedestrian | C |
| 4 | Union St @ | Commercial St | Pedestrian | C |
| 5 | Spring St btw. | Center St and Union St | Pedestrian | A |
| 6 | Union St @ | Fore St | Pedestrian | C |
| 7 | Spring St btw. | Center St and Union St | Pedestrian | A |
| 8 | Middle St @ | Exchange St | Pedestrian | B |

Type A = Suspected Serious Injury, Type B = Suspected Minor Injury, Type C = Possible Injury, PD = Property Damage.

# Section 3

# 3

## 3A. Entrance/Exit Location

Vehicle access to the site will be provided via an existing driveway entrance on Union Street, located approximately 260 feet northwest of Fore Street.

## 3B. Entrance & Exit Plan View

Intersection sight distances were directionally recorded from the existing site entrance in accordance with the criteria established within the MaineDOT's *Highway Driveway and Entrance Rules* publication, which require the following minimum sight distances for non-mobility roadways based upon the posted speed limit:

| MaineDOT Sight Distance Standards | |
|---|---|
| **Posted Speed Limit** | **Minimum Sight Distance** |
| **25 mph** | **200 feet** |
| 30 mph | 250 feet |
| 35 mph | 305 feet |
| 40 mph | 360 feet |
| 45 mph | 425 feet |
| 50 mph | 495 feet |

The section of Union Street fronting the site driveway is unposted and assumed to be 25 mph, requiring an unobstructed sight distance of 200 feet. In accordance with *Highway Driveway and Entrance Rules,* sight distance measurements were recorded using the following procedures: "*Sight distance is measured to and from the point on the centerline of the proposed access that is located 10 feet from the edge of traveled way. The height of the hypothetical person's view is considered to be 3½ feet above the pavement, and the height of the object being viewed is considered to be 4¼ feet above the pavement.*"

The field measurements recorded from the proposed site entrance looking directionally onto Union Street indicate that existing sight distances do not meet the minimum requirements based on the assumed speed limit. The sight distances, looking both left and right, are obstructed by the on-street parking spaces located adjacent to the site driveway.

To meet the sight distance requirements, we recommend that the two (minimum) on street parking spots adjacent to the driveway entrance, on the left and right, be removed. Once the parking spaces are removed, we recommend that sight distances are measured in the field to confirm that the minimum requirement is provided.

## 3C. Entrance/Exit Design

The proposed project, including any required off-site improvements, will be designed and constructed as directed by the City of Portland.

## 3D. Entrance/Exit Criteria

This site driveway will be designed to meet the requirements of the City of Portland's Technical Standards.

# Section 4

4

## 4. Title, Right or Interest

A SHORT FORM QUITCLAIM DEED WITHOUT COVENANT, signed and dated April 2, 2019, provides documentation of Kowtower LLC's ownership of the property portrayed in the *Boundary Survey Plan*, dated 4/22/2025, prepared by Sebago Technics, and attached In *Section D of the appendix*. The deed is attached in *Section C of the appendix*.

# Section 5

## 5

## 5. Public or Private Right-of-way

The *Boundary Survey Plan*, dated 4/22/2025, prepared by Sebago Technics, and attached In *Section D of the appendix*, identifies three easements on the development parcel:

- Easement J: Subject to right of way to access the parking garage recorded in Book 30060, page 82.
- Easement G: Subject to access and maintenance rights recorded in Book 3495, Page 183.
- Easement M: Subject to building restrictions recorded in Book 2074, Page 29.

# Section 6

# 6

## 6. Schedule

East Brown Cow – Kowtower LLC is anticipating the start of construction in 2028 with a 2030 completion.

# APPENDIX

## A. TRAFFIC FIGURES, NCHRP REPORT 684 CALCULATION SHEETS, REGIONAL MAPPING PLAN, & TRAFFIC COUNTS

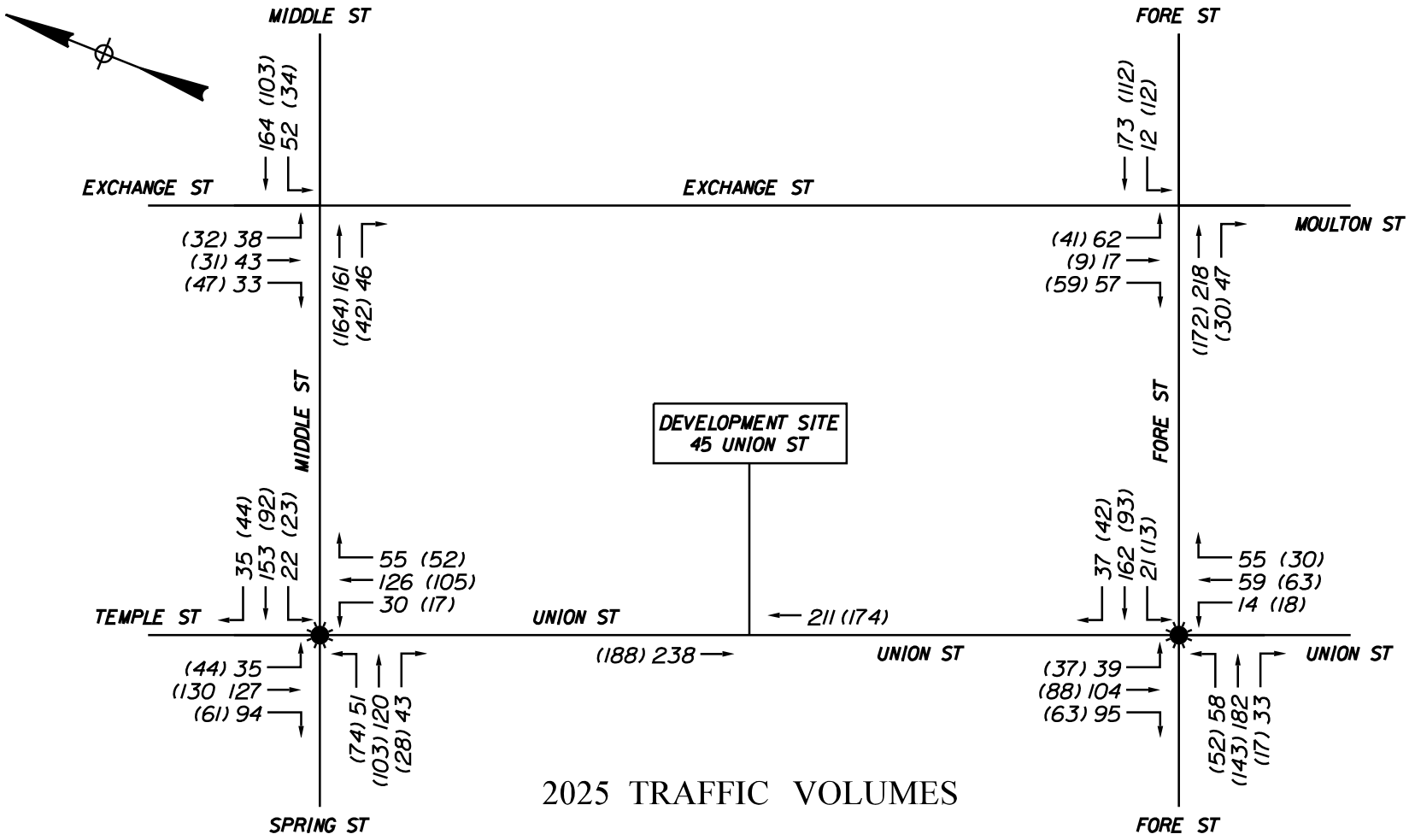
## B. MAINEDOT CRASH DATA

## C. DEED

## D. SURVEY PLAN & SITE PLAN

# APPENDIX A

- TRAFFIC FIGURES
- NCHRP REPORT 684 CALCULATION SHEETS
- REGIONAL MAPPING PLAN
- TRAFFIC COUNTS




2025 TRAFFIC VOLUMES

FIGURE 1

LEGEND:

XX = PM PEAK HOUR

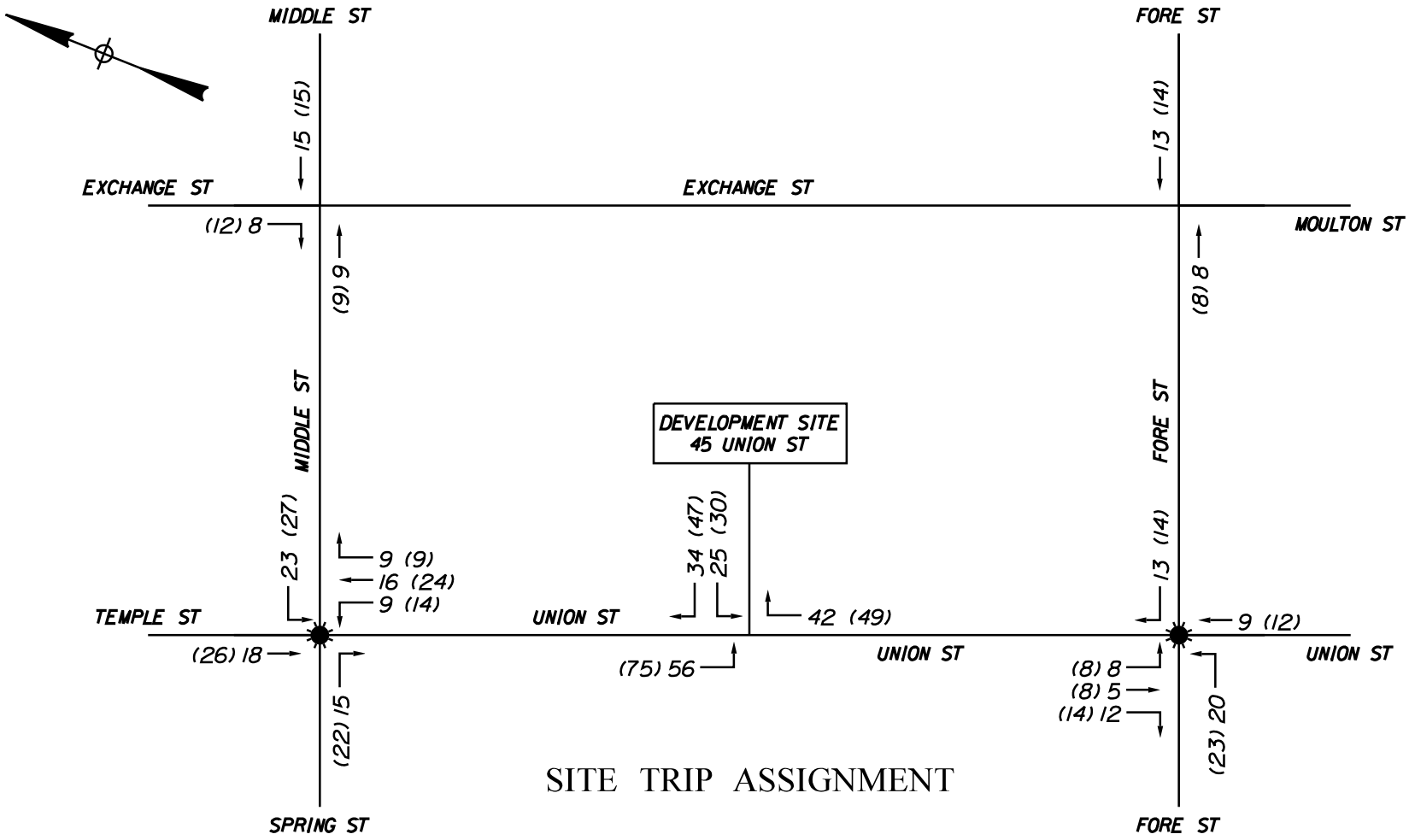
(XX) = SATURDAY PEAK HOUR

☼ = TRAFFIC SIGNAL

**45 UNION STREET**
**MULTI-USE BUILDING**
PORTLAND, MAINE

4464.007.001 DATE: SEPT., 2025

Barton & Loguidice




SITE TRIP ASSIGNMENT

FIGURE 2

LEGEND:

XX = PM PEAK HOUR

(XX) = SATURDAY PEAK HOUR

= TRAFFIC SIGNAL

**45 UNION STREET**
**MULTI-USE BUILDING**
PORTLAND, MAINE

4464.007.001 DATE: SEPT., 2025

Barton & Loguidice

| NCHRP 684 Internal Trip Capture Estimation Tool | | | |
|---|---|---|---|
| **Project Name:** | Multi-Use Building | **Organization:** | B&L |
| **Project Location:** | 45 Union St, Portland | **Performed By:** | JWS |
| **Scenario Description:** | | **Date:** | 9/17/2025 |
| **Analysis Year:** | | **Checked By:** | JQA |
| **Analysis Period:** | **AM Peak Hour** | **Date:** | |

**Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)**

| Land Use | Development Data (*For Information Only*) | | | Estimated Vehicle-Trips | | |
|---|---|---|---|---|---|---|
| | ITE LUCs[1] | Quantity | Units | Total | Entering | Exiting |
| Office | | | | 0 | | |
| Retail | | | | 0 | | |
| Restaurant | 931, 930, 975 | 9,773 | sf | 19 | 10 | 9 |
| Cinema/Entertainment | 931 | 110 | Seats | 17 | 12 | 5 |
| Residential | 222 | 73 | units | 13 | 5 | 8 |
| Hotel | 310 | 88 | rooms | 27 | 11 | 16 |
| All Other Land Uses[2] | 492 | 6,373 | sf | 8 | 4 | 4 |
| Total | | | | 84 | 42 | 42 |

**Table 2-P: Mode Split and Vehicle Occupancy Estimates**

| Land Use | Entering Trips | | | Exiting Trips | | |
|---|---|---|---|---|---|---|
| | Veh. Occ. | % Transit | % Non-Motorized | Veh. Occ. | % Transit | % Non-Motorized |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |
| All Other Land Uses[2] | | | | | | |

**Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)**

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |

**Table 4-P: Internal Person-Trip Origin-Destination Matrix***

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 0 | 0 | 0 | 0 | 0 |
| Retail | 0 | | 0 | 0 | 0 | 0 |
| Restaurant | 0 | 0 | | 1 | 1 | 1 |
| Cinema/Entertainment | 0 | 0 | 0 | | 0 | 0 |
| Residential | 0 | 0 | 1 | 0 | | 0 |
| Hotel | 0 | 0 | 1 | 0 | 0 | |

**Table 5-P: Computations Summary**

| | Total | Entering | Exiting |
|---|---|---|---|
| All Person-Trips | 84 | 42 | 42 |
| Internal Capture Percentage | 12% | 12% | 12% |
| | | | |
| External Vehicle-Trips[3] | 74 | 37 | 37 |
| External Transit-Trips[4] | 0 | 0 | 0 |
| External Non-Motorized Trips[4] | 0 | 0 | 0 |

**Table 6-P: Internal Trip Capture Percentages by Land Use**

| Land Use | Entering Trips | Exiting Trips |
|---|---|---|
| Office | N/A | N/A |
| Retail | N/A | N/A |
| Restaurant | 20% | 33% |
| Cinema/Entertainment | 8% | 0% |
| Residential | 20% | 13% |
| Hotel | 9% | 6% |

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

| NCHRP 684 Internal Trip Capture Estimation Tool | | | |
|---|---|---|---|
| **Project Name:** | Multi-Use Building | **Organization:** | B&L |
| **Project Location:** | 45 Union St, Portland | **Performed By:** | JWS |
| **Scenario Description:** | | **Date:** | 9/17/2025 |
| **Analysis Year:** | | **Checked By:** | JQA |
| **Analysis Period:** | **PM Peak Hour** | **Date:** | |

**Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)**

| Land Use | Development Data (*For Information Only*) | | | Estimated Vehicle-Trips | | |
|---|---|---|---|---|---|---|
| | ITE LUCs[1] | Quantity | Units | Total | Entering | Exiting |
| Office | | | | 0 | | |
| Retail | | | | 0 | | |
| Restaurant | 931, 930, 975 | 10 | ksf | 95 | 60 | 35 |
| Cinema/Entertainment | 931 | 110 | Seats | 31 | 21 | 10 |
| Residential | 222 | 73 | units | 15 | 8 | 7 |
| Hotel | 310 | 88 | rooms | 18 | 8 | 10 |
| All Other Land Uses[2] | 492 | 110 | seats | 22 | 13 | 9 |
| Total | | | | 181 | 110 | 71 |

**Table 2-P: Mode Split and Vehicle Occupancy Estimates**

| Land Use | Entering Trips | | | Exiting Trips | | |
|---|---|---|---|---|---|---|
| | Veh. Occ. | % Transit | % Non-Motorized | Veh. Occ. | % Transit | % Non-Motorized |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |
| All Other Land Uses[2] | | | | | | |

**Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)**

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |

**Table 4-P: Internal Person-Trip Origin-Destination Matrix***

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 0 | 0 | 0 | 0 | 0 |
| Retail | 0 | | 0 | 0 | 0 | 0 |
| Restaurant | 0 | 0 | | 3 | 1 | 2 |
| Cinema/Entertainment | 0 | 0 | 2 | | 0 | 0 |
| Residential | 0 | 0 | 1 | 0 | | 0 |
| Hotel | 0 | 0 | 3 | 0 | 0 | |

**Table 5-P: Computations Summary**

| | Total | Entering | Exiting |
|---|---|---|---|
| All Person-Trips | 181 | 110 | 71 |
| Internal Capture Percentage | 13% | 11% | 17% |
| | | | |
| External Vehicle-Trips[3] | 157 | 98 | 59 |
| External Transit-Trips[4] | 0 | 0 | 0 |
| External Non-Motorized Trips[4] | 0 | 0 | 0 |

**Table 6-P: Internal Trip Capture Percentages by Land Use**

| Land Use | Entering Trips | Exiting Trips |
|---|---|---|
| Office | N/A | N/A |
| Retail | N/A | N/A |
| Restaurant | 10% | 17% |
| Cinema/Entertainment | 14% | 20% |
| Residential | 13% | 14% |
| Hotel | 25% | 30% |

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

| NCHRP 684 Internal Trip Capture Estimation Tool | | | |
|---|---|---|---|
| **Project Name:** | Multi-Use Building | **Organization:** | B&L |
| **Project Location:** | 45 Union St, Portland | **Performed By:** | JWS |
| **Scenario Description:** | | **Date:** | 9/17/2025 |
| **Analysis Year:** | | **Checked By:** | JQA |
| **Analysis Period:** | **Saturday Peak Hour** | **Date:** | |

**Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)**

| Land Use | Development Data (*For Information Only*) | | | Estimated Vehicle-Trips | | |
|---|---|---|---|---|---|---|
| | ITE LUCs[1] | Quantity | Units | Total | Entering | Exiting |
| Office | | | | 0 | | |
| Retail | | | | 0 | | |
| Restaurant | 931, 930, 975 | 10 | ksf | 153 | 93 | 60 |
| Cinema/Entertainment | 931 | | | 36 | 22 | 14 |
| Residential | 222 | 73 | units | 7 | 3 | 4 |
| Hotel | 310 | 88 | rooms | 19 | 13 | 6 |
| All Other Land Uses[2] | 492 | | | 20 | 10 | 10 |
| Total | | | | 235 | 141 | 94 |

**Table 2-P: Mode Split and Vehicle Occupancy Estimates**

| Land Use | Entering Trips | | | Exiting Trips | | |
|---|---|---|---|---|---|---|
| | Veh. Occ. | % Transit | % Non-Motorized | Veh. Occ. | % Transit | % Non-Motorized |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |
| All Other Land Uses[2] | | | | | | |

**Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)**

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |

**Table 4-P: Internal Person-Trip Origin-Destination Matrix***

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 0 | 0 | 0 | 0 | 0 |
| Retail | 0 | | 0 | 0 | 0 | 0 |
| Restaurant | 0 | 0 | | 5 | 0 | 4 |
| Cinema/Entertainment | 0 | 0 | 3 | | 0 | 0 |
| Residential | 0 | 0 | 1 | 0 | | 0 |
| Hotel | 0 | 0 | 4 | 0 | 0 | |

**Table 5-P: Computations Summary**

| | Total | Entering | Exiting |
|---|---|---|---|
| All Person-Trips | 235 | 141 | 94 |
| Internal Capture Percentage | 14% | 12% | 18% |
| | | | |
| External Vehicle-Trips[3] | 201 | 124 | 77 |
| External Transit-Trips[4] | 0 | 0 | 0 |
| External Non-Motorized Trips[4] | 0 | 0 | 0 |

**Table 6-P: Internal Trip Capture Percentages by Land Use**

| Land Use | Entering Trips | Exiting Trips |
|---|---|---|
| Office | N/A | N/A |
| Retail | N/A | N/A |
| Restaurant | 9% | 15% |
| Cinema/Entertainment | 23% | 21% |
| Residential | 0% | 25% |
| Hotel | 31% | 67% |

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

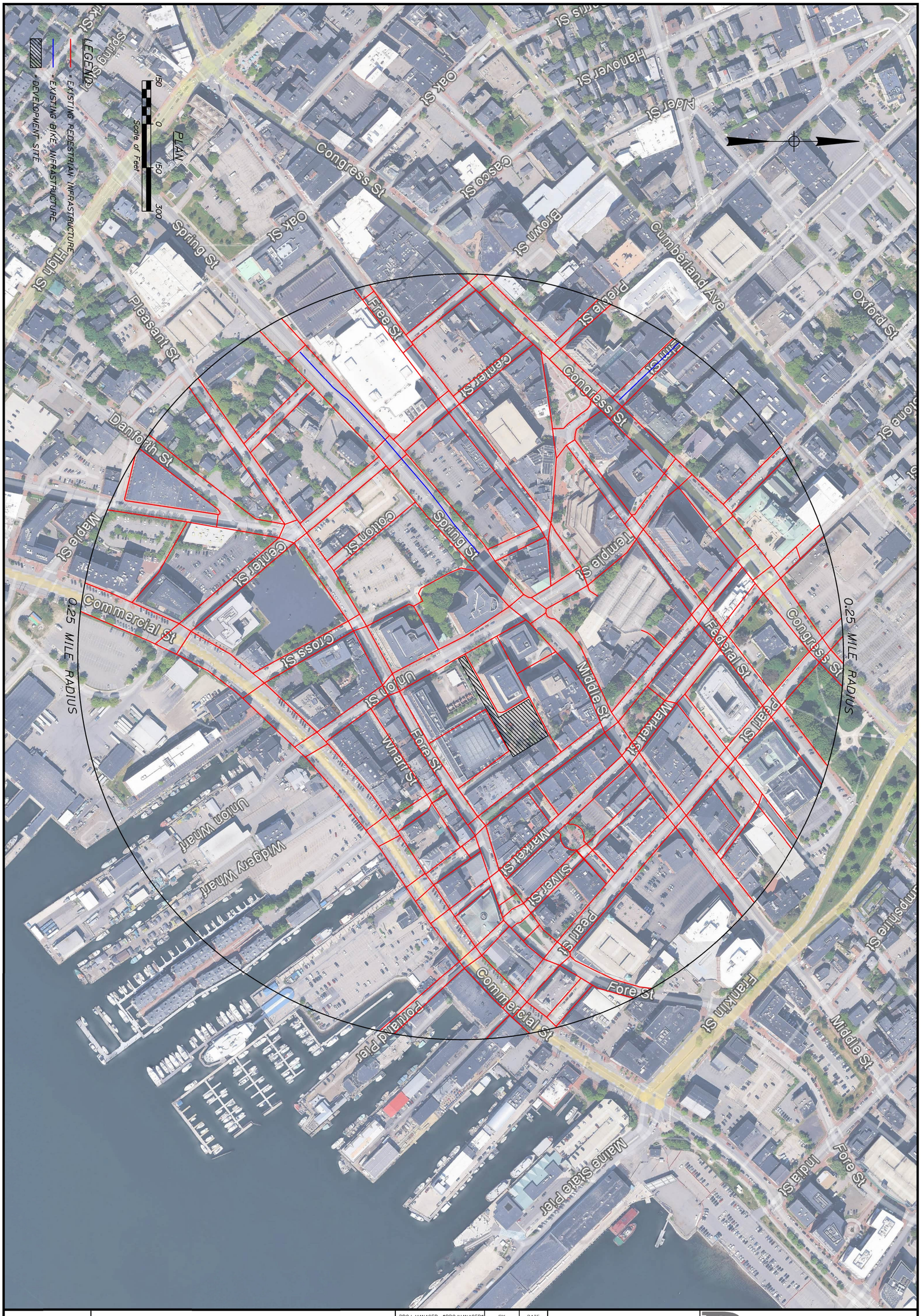
[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

FILE NAME = I:\Projects\4400\4464 - Woodard & Curran\007\005_RegionalMappingPlan.dgn
DATE = 9/17/2025
TIME = 1:16:36 PM

jsirois
I:\Projects\4400\4464 - Woodard & Curran\007\Plot\lpentable_regionalmapping.tbl
C:\Workspace\Portland\Workspace\Standards\pltcfg\pdf_COLOR_full.pltcfg




CITY OF PORTLAND
45 UNION STREET

REGIONAL MAPPING PLAN

SHEET NUMBER 1 OF 1

| PROJ. MANAGER $PROJMANAGER$ | | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | JWS | JWS | 04/2025 |
| CHECKED-REVIEWED | JQA | JQA | 04/2025 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

Barton & Loguidice

| SUMMARY | |
|---|---|
| Project | Barton & Loguidice |
| Project Code | 12061 |
| Site Name | 12061-1 |
| Intersection Name | Union St/Temple St & Spring St/Middle St |
| Legs and Movements | All Processed Legs & Movements |
| Count Interval | 15 |
| Start Time | 15:00 |
| End Time | 17:45 |
| Location | 12061-1 |
| Latitude and Longitude | (43.656987, -70.256138) |

| | START | END | PHF |
|---|---|---|---|
| AM PEAK | | | |
| PM PEAK | **04-10-2025 16:45:00** | **04-10-2025 17:45:00** | **0.96** |
| Mid-Day PEAK | | | |
| Forced Peak AM | | | |
| Forced Peak PM | | | |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

## TURNING MOVEMENT DATA

| Leg | Spring St | | | | | | | | Middle St | | | | | | | | Union St | | | | | | | | Temple St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | | WestBound | | | | | | | | NorthBound | | | | | | | | SouthBound | | | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 15:00 | 10 | 20 | 7 | 3 | 0 | 40 | 6 | 25 | 10 | 29 | 12 | 1 | 0 | 52 | 3 | 7 | 4 | 20 | 11 | 4 | 0 | 39 | 16 | 3 | 6 | 25 | 13 | 3 | 0 | 47 | 11 | 7 | 178 |
| 15:15 | 11 | 31 | 1 | 0 | 0 | 43 | 5 | 20 | 4 | 22 | 7 | 6 | 0 | 39 | 4 | 15 | 4 | 20 | 10 | 3 | 0 | 37 | 12 | 5 | 25 | 36 | 11 | 3 | 0 | 75 | 16 | 13 | 194 |
| 15:30 | 8 | 38 | 5 | 2 | 0 | 53 | 4 | 7 | 6 | 27 | 5 | 3 | 0 | 41 | 2 | 6 | 4 | 27 | 14 | 1 | 0 | 46 | 3 | 2 | 14 | 23 | 13 | 4 | 1 | 55 | 16 | 5 | 195 |
| 15:45 | 7 | 39 | 6 | 3 | 0 | 55 | 6 | 20 | 2 | 28 | 3 | 1 | 0 | 34 | 11 | 11 | 5 | 20 | 11 | 5 | 0 | 41 | 6 | 19 | 10 | 27 | 17 | 6 | 0 | 60 | 22 | 19 | 190 |
| Hourly Total | 36 | 128 | 19 | 8 | 0 | 191 | 21 | 72 | 22 | 106 | 27 | 11 | 0 | 166 | 20 | 39 | 17 | 87 | 46 | 13 | 0 | 163 | 37 | 29 | 55 | 111 | 54 | 16 | 1 | 237 | 65 | 44 | 757 |
| 16:00 | 14 | 27 | 9 | 4 | 0 | 54 | 7 | 9 | 4 | 34 | 6 | 4 | 0 | 48 | 4 | 10 | 6 | 34 | 9 | 1 | 0 | 50 | 8 | 9 | 18 | 26 | 7 | 4 | 0 | 55 | 5 | 11 | 207 |
| 16:15 | 8 | 36 | 8 | 1 | 0 | 53 | 7 | 13 | 4 | 34 | 5 | 2 | 0 | 45 | 4 | 13 | 4 | 36 | 16 | 3 | 0 | 59 | 11 | 8 | 17 | 15 | 11 | 1 | 0 | 44 | 15 | 6 | 201 |
| 16:30 | 7 | 28 | 3 | 3 | 0 | 41 | 12 | 7 | 11 | 32 | 5 | 1 | 0 | 49 | 10 | 15 | 4 | 40 | 12 | 2 | 0 | 58 | 10 | 10 | 8 | 36 | 14 | 5 | 0 | 63 | 22 | 16 | 211 |
| 16:45 | 13 | 37 | 9 | 2 | 0 | 61 | 6 | 10 | 5 | 37 | 5 | 6 | 0 | 53 | 6 | 6 | 6 | 30 | 7 | 5 | 0 | 48 | 12 | 5 | 8 | 34 | 20 | 1 | 0 | 63 | 21 | 10 | 225 |
| Hourly Total | 42 | 128 | 29 | 10 | 0 | 209 | 32 | 39 | 24 | 137 | 21 | 13 | 0 | 195 | 24 | 44 | 20 | 140 | 44 | 11 | 0 | 215 | 41 | 32 | 51 | 111 | 52 | 11 | 0 | 225 | 63 | 43 | 844 |
| 17:00 | 16 | 32 | 5 | 7 | 0 | 60 | 7 | 24 | 3 | 40 | 5 | 2 | 0 | 50 | 11 | 14 | 7 | 26 | 8 | 2 | 0 | 43 | 10 | 13 | 12 | 24 | 17 | 9 | 0 | 62 | 18 | 13 | 215 |
| 17:15 | 10 | 25 | 11 | 1 | 0 | 47 | 9 | 11 | 10 | 32 | 7 | 3 | 0 | 52 | 11 | 12 | 10 | 27 | 9 | 6 | 0 | 52 | 12 | 3 | 7 | 44 | 23 | 6 | 0 | 80 | 24 | 10 | 231 |
| 17:30 | 12 | 26 | 7 | 1 | 0 | 46 | 2 | 13 | 4 | 44 | 5 | 2 | 0 | 55 | 8 | 9 | 7 | 43 | 12 | 6 | 0 | 68 | 6 | 10 | 8 | 25 | 15 | 3 | 0 | 51 | 19 | 8 | 220 |
| 17:45 | 15 | 35 | 6 | 4 | 0 | 60 | 11 | 13 | 10 | 25 | 8 | 5 | 0 | 48 | 10 | 6 | 3 | 27 | 7 | 4 | 0 | 41 | 6 | 12 | 7 | 42 | 14 | 3 | 0 | 66 | 19 | 5 | 215 |
| Hourly Total | 53 | 118 | 29 | 13 | 0 | 213 | 29 | 61 | 27 | 141 | 25 | 12 | 0 | 205 | 40 | 41 | 27 | 123 | 36 | 18 | 0 | 204 | 34 | 38 | 34 | 135 | 69 | 21 | 0 | 259 | 80 | 36 | 881 |
| Grand Total | 131 | 374 | 77 | 31 | 0 | 613 | 82 | 172 | 73 | 384 | 73 | 36 | 0 | 566 | 84 | 124 | 64 | 350 | 126 | 42 | 0 | 582 | 112 | 99 | 140 | 357 | 175 | 48 | 1 | 721 | 208 | 123 | 2482 |
| approach % | 21 | 61 | 12 | 5 | 0 | 100 | 13 | 28 | 12 | 67 | 12 | 6 | 0 | 100 | 14 | 21 | 10 | 60 | 21 | 7 | 0 | 100 | 19 | 17 | 19 | 49 | 24 | 6 | 0 | 100 | 28 | 17 | 400 |
| Total % | 5 | 15 | 3 | 1 | 0 | 24 | 3 | 6 | 2 | 15 | 2 | 1 | 0 | 22 | 3 | 5 | 2 | 14 | 5 | 1 | 0 | 23 | 4 | 3 | 5 | 14 | 7 | 1 | 0 | 29 | 8 | 4 | 100 |
| Motorcycles | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 7 |
| Motorcycles % | 0 | 0 | 0 | 3 | 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 |
| Cars & Light Goods | 130 | 363 | 75 | 30 | 0 | 598 | 0 | 0 | 70 | 376 | 68 | 35 | 0 | 549 | 0 | 0 | 63 | 340 | 122 | 40 | 0 | 565 | 0 | 0 | 129 | 342 | 173 | 47 | 1 | 692 | 0 | 0 | 2404 |
| Cars & Light Goods | 99 | 97 | 97 | 96 | 0 | 0 | 0 | 0 | 95 | 97 | 93 | 97 | 0 | 0 | 0 | 0 | 98 | 97 | 96 | 95 | 0 | 0 | 0 | 0 | 92 | 95 | 98 | 97 | 100 | 0 | 0 | 0 | 96 |
| Single Unit Trucks | 1 | 3 | 1 | 0 | 0 | 5 | 0 | 0 | 1 | 3 | 0 | 1 | 0 | 5 | 0 | 0 | 1 | 5 | 3 | 0 | 0 | 9 | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 9 | 0 | 0 | 28 |
| Single Unit Trucks | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Articulated Trucks | 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 | 0 | 0 |
| Articulated Trucks % | 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 | 0 | 0 |
| Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 6 | 6 | 0 | 1 | 0 | 13 | 0 | 0 | 17 |
| Buses % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Bicycles on Road | 0 | 6 | 1 | 0 | 0 | 7 | 0 | 0 | 2 | 2 | 5 | 0 | 0 | 9 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 6 | 0 | 0 | 26 |
| Bicycles on Road % | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 172 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 123 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 207 | 123 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 0 | 0 |
| Pcl | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Pcl % | 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 |

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

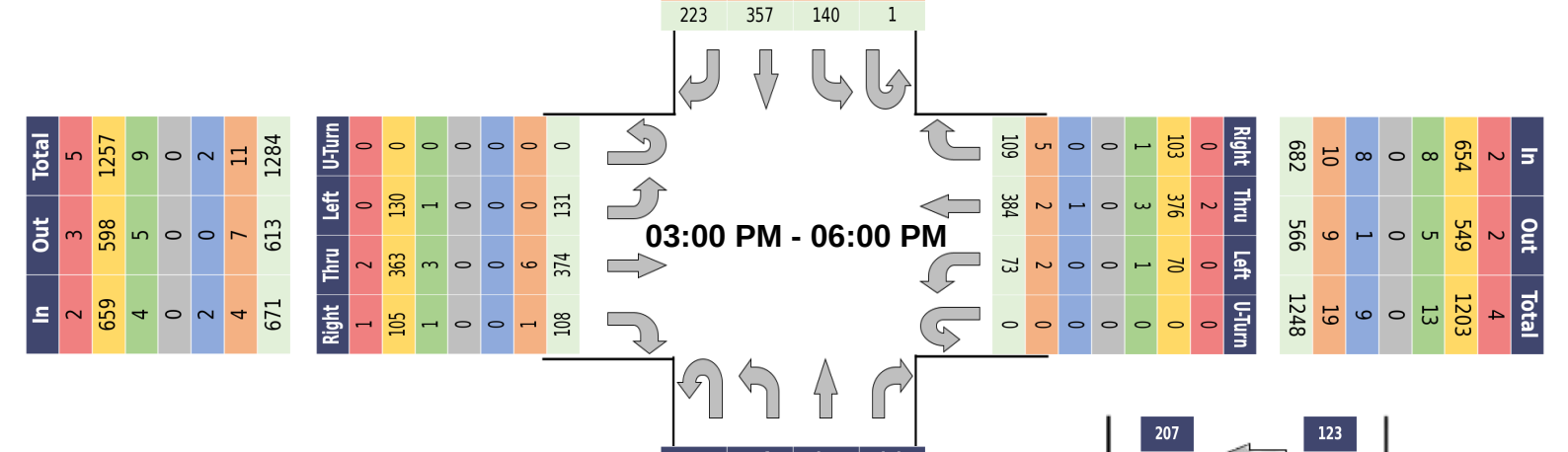
Date: 04-10-2025

## Turning Movement Data

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

| In | Out | Total |
|---|---|---|
| 1 | 1 | 2 |
| 574 | 691 | 1265 |
| 7 | 9 | 16 |
| 0 | 0 | 0 |
| 1 | 13 | 14 |
| 8 | 6 | 14 |
| 591 | 720 | 1311 |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 1 | 0 | 0 |
| 220 | 342 | 129 | 1 |
| 0 | 7 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 6 | 6 | 0 |
| 2 | 1 | 3 | 0 |
| 223 | 357 | 140 | 1 |




| In | 2 | 659 | 4 | 0 | 2 | 4 | 671 |
|---|---|---|---|---|---|---|---|
| Out | 3 | 598 | 5 | 0 | 0 | 7 | 613 |
| Total | 5 | 1257 | 9 | 0 | 2 | 11 | 1284 |

| Right | 1 | 105 | 1 | 0 | 0 | 1 | 108 |
|---|---|---|---|---|---|---|---|
| Thru | 2 | 363 | 3 | 0 | 0 | 6 | 374 |
| Left | 0 | 130 | 1 | 0 | 0 | 0 | 131 |
| U-Turn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Right | 0 | 103 | 1 | 0 | 0 | 109 |
|---|---|---|---|---|---|---|
| Thru | 2 | 376 | 3 | 1 | 0 | 384 |
| Left | 0 | 70 | 1 | 0 | 0 | 73 |
| U-Turn | 0 | 0 | 0 | 0 | 0 | 0 |

| In | 2 | 654 | 8 | 0 | 8 | 10 | 682 |
|---|---|---|---|---|---|---|---|
| Out | 2 | 549 | 5 | 0 | 1 | 9 | 566 |
| Total | 4 | 1203 | 13 | 0 | 9 | 19 | 1248 |

| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 0 | 0 | 1 | 0 |
| 0 | 63 | 340 | 162 |
| 0 | 1 | 5 | 3 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 2 |
| 0 | 0 | 3 | 1 |
| 0 | 64 | 350 | 168 |

| In | Out | Total |
|---|---|---|
| 2 | 1 | 3 |
| 517 | 565 | 1082 |
| 9 | 9 | 18 |
| 0 | 0 | 0 |
| 6 | 3 | 9 |
| 4 | 4 | 8 |
| 538 | 582 | 1120 |

| 207 | 123 |
|---|---|
| 1 | 0 |
| 208 | 123 |

| 82 | 1 | 81 |
|---|---|---|
| 172 | 0 | 172 |

| Peds |
|---|
| Pcl |
| Total |

| 123 | 1 | 124 |
|---|---|---|
| 84 | 0 | 84 |

| 111 | 99 |
|---|---|
| 1 | 0 |
| 112 | 99 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

## TURNING MOVEMENT PM PEAK HOUR

| Leg | Spring St | | | | | | | | Middle St | | | | | | | | Union St | | | | | | | | Temple St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | | WestBound | | | | | | | | NorthBound | | | | | | | | SouthBound | | | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 16:45:00 | 13 | 37 | 9 | 2 | 0 | 61 | 6 | 10 | 5 | 37 | 5 | 6 | 0 | 53 | 6 | 6 | 6 | 30 | 7 | 5 | 0 | 48 | 12 | 5 | 8 | 34 | 20 | 1 | 0 | 63 | 21 | 10 | 225 |
| 17:00:00 | 16 | 32 | 5 | 7 | 0 | 60 | 7 | 24 | 3 | 40 | 5 | 2 | 0 | 50 | 11 | 14 | 7 | 26 | 8 | 2 | 0 | 43 | 10 | 13 | 12 | 24 | 17 | 9 | 0 | 62 | 18 | 13 | 215 |
| 17:15:00 | 10 | 25 | 11 | 1 | 0 | 47 | 9 | 11 | 10 | 32 | 7 | 3 | 0 | 52 | 11 | 12 | 10 | 27 | 9 | 6 | 0 | 52 | 12 | 3 | 7 | 44 | 23 | 6 | 0 | 80 | 24 | 10 | 231 |
| 17:30:00 | 12 | 26 | 7 | 1 | 0 | 46 | 2 | 13 | 4 | 44 | 5 | 2 | 0 | 55 | 8 | 9 | 7 | 43 | 12 | 6 | 0 | 68 | 6 | 10 | 8 | 25 | 15 | 3 | 0 | 51 | 19 | 8 | 220 |
| Grand Total | 51 | 120 | 32 | 11 | 0 | 214 | 24 | 58 | 22 | 153 | 22 | 13 | 0 | 210 | 36 | 41 | 30 | 126 | 36 | 19 | 0 | 211 | 40 | 31 | 35 | 127 | 75 | 19 | 0 | 256 | 82 | 41 | 891 |
| approach % | 24 | 56 | 15 | 5 | 0 | 100 | 11 | 27 | 10 | 73 | 10 | 6 | 0 | 100 | 17 | 20 | 14 | 60 | 17 | 9 | 0 | 100 | 19 | 15 | 14 | 50 | 29 | 7 | 0 | 100 | 32 | 16 | 400 |
| Total % | 6 | 13 | 4 | 1 | 0 | 24 | 3 | 7 | 2 | 17 | 2 | 1 | 0 | 24 | 4 | 5 | 3 | 14 | 4 | 2 | 0 | 24 | 4 | 3 | 4 | 14 | 8 | 2 | 0 | 29 | 9 | 5 | 100 |
| Motorcycles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| Motorcycles % | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cars & Light Goods | 51 | 118 | 31 | 11 | 0 | 211 | 0 | 0 | 19 | 149 | 21 | 13 | 0 | 202 | 0 | 0 | 29 | 122 | 36 | 19 | 0 | 206 | 0 | 0 | 33 | 120 | 75 | 19 | 0 | 247 | 0 | 0 | 866 |
| Cars & Light Goods | 100 | 98 | 97 | 100 | 0 | 0 | 0 | 0 | 86 | 97 | 95 | 100 | 0 | 0 | 0 | 0 | 97 | 97 | 100 | 100 | 0 | 0 | 0 | 0 | 94 | 94 | 100 | 100 | 0 | 0 | 0 | 0 | 97 |
| Single Unit Trucks | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 10 |
| Single Unit Trucks | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Articulated Trucks | 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 | 0 | 0 |
| Articulated Trucks % | 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 | 0 | 0 |
| Buses | 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 | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| Buses % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bicycles on Road | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 8 |
| Bicycles on Road % | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 41 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 0 | 0 |
| Pcl | 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 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Pcl % | 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 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| PHF | 0.8 | 0.81 | 0.73 | 0.39 | 0.0 | 0.88 | 0.67 | 0.6 | 0.55 | 0.87 | 0.79 | 0.54 | 0.0 | 0.95 | 0.82 | 0.73 | 0.75 | 0.73 | 0.75 | 0.79 | 0.0 | 0.78 | 0.83 | 0.6 | 0.73 | 0.72 | 0.82 | 0.53 | 0.0 | 0.8 | 0.85 | 0.79 | 0.96 |

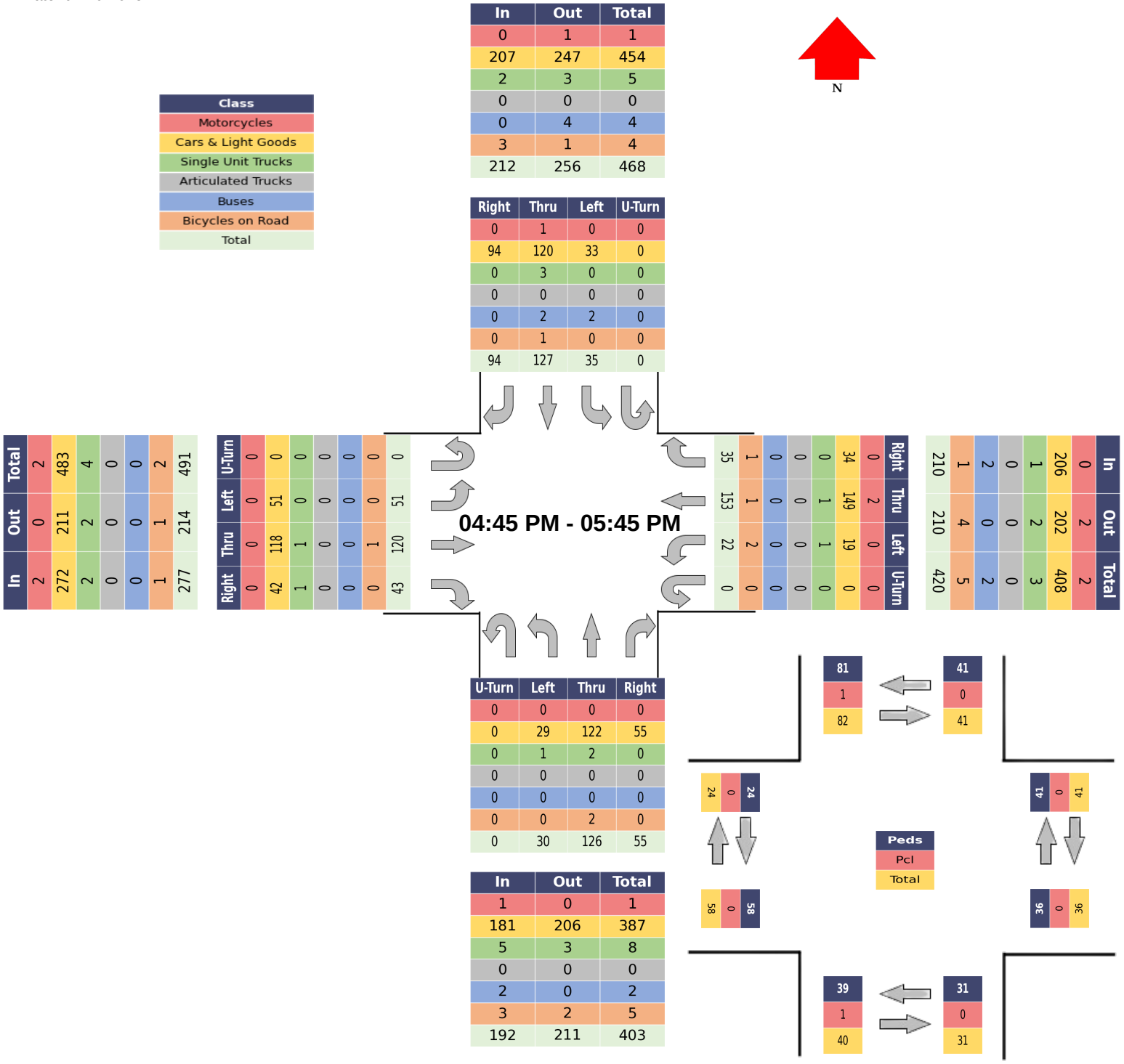
Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

# PM Peak Turning Movement Data Summary



## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

# Motorcycles

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 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 |
| 15:15 | 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 |
| 15:30 | 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 |
| 15:45 | 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 |
| Hourly Total | 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 |
| 16:00 | 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 |
| 16:15 | 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 |
| 16:30 | 0 | 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 | 0 | 0 |
| 16:45 | 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 |
| Hourly Total | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 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 |
| 17:15 | 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 |
| 17:30 | 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 | 0 | 0 |
| 17:45 | 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 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

# Cars & Light Goods

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 10 | 19 | 7 | 3 | 0 | 0 | 0 | 10 | 28 | 11 | 1 | 0 | 0 | 0 | 4 | 18 | 11 | 4 | 0 | 0 | 0 | 5 | 25 | 12 | 3 | 0 | 0 | 0 |
| 15:15 | 11 | 31 | 1 | 0 | 0 | 0 | 0 | 4 | 22 | 7 | 6 | 0 | 0 | 0 | 4 | 19 | 9 | 3 | 0 | 0 | 0 | 24 | 35 | 11 | 3 | 0 | 0 | 0 |
| 15:30 | 8 | 38 | 5 | 2 | 0 | 0 | 0 | 6 | 27 | 4 | 3 | 0 | 0 | 0 | 4 | 27 | 13 | 0 | 0 | 0 | 0 | 13 | 21 | 13 | 4 | 1 | 0 | 0 |
| 15:45 | 7 | 33 | 6 | 3 | 0 | 0 | 0 | 2 | 27 | 3 | 1 | 0 | 0 | 0 | 5 | 19 | 11 | 4 | 0 | 0 | 0 | 8 | 26 | 16 | 6 | 0 | 0 | 0 |
| Hourly Total | 36 | 121 | 19 | 8 | 0 | 0 | 0 | 22 | 104 | 25 | 11 | 0 | 0 | 0 | 17 | 83 | 44 | 11 | 0 | 0 | 0 | 50 | 107 | 52 | 16 | 1 | 0 | 0 |
| 16:00 | 14 | 27 | 9 | 3 | 0 | 0 | 0 | 4 | 33 | 5 | 3 | 0 | 0 | 0 | 6 | 34 | 9 | 1 | 0 | 0 | 0 | 17 | 26 | 7 | 4 | 0 | 0 | 0 |
| 16:15 | 7 | 35 | 8 | 1 | 0 | 0 | 0 | 4 | 34 | 5 | 2 | 0 | 0 | 0 | 4 | 36 | 15 | 3 | 0 | 0 | 0 | 16 | 14 | 11 | 1 | 0 | 0 | 0 |
| 16:30 | 7 | 28 | 2 | 3 | 0 | 0 | 0 | 11 | 31 | 4 | 1 | 0 | 0 | 0 | 4 | 39 | 11 | 2 | 0 | 0 | 0 | 8 | 34 | 14 | 4 | 0 | 0 | 0 |
| 16:45 | 13 | 37 | 9 | 2 | 0 | 0 | 0 | 5 | 36 | 5 | 6 | 0 | 0 | 0 | 6 | 29 | 7 | 5 | 0 | 0 | 0 | 7 | 32 | 20 | 1 | 0 | 0 | 0 |
| Hourly Total | 41 | 127 | 28 | 9 | 0 | 0 | 0 | 24 | 134 | 19 | 12 | 0 | 0 | 0 | 20 | 138 | 42 | 11 | 0 | 0 | 0 | 48 | 106 | 52 | 10 | 0 | 0 | 0 |
| 17:00 | 16 | 31 | 4 | 7 | 0 | 0 | 0 | 2 | 39 | 5 | 2 | 0 | 0 | 0 | 7 | 25 | 8 | 2 | 0 | 0 | 0 | 12 | 23 | 17 | 9 | 0 | 0 | 0 |
| 17:15 | 10 | 24 | 11 | 1 | 0 | 0 | 0 | 8 | 32 | 6 | 3 | 0 | 0 | 0 | 10 | 25 | 9 | 6 | 0 | 0 | 0 | 7 | 43 | 23 | 6 | 0 | 0 | 0 |
| 17:30 | 12 | 26 | 7 | 1 | 0 | 0 | 0 | 4 | 42 | 5 | 2 | 0 | 0 | 0 | 6 | 43 | 12 | 6 | 0 | 0 | 0 | 7 | 22 | 15 | 3 | 0 | 0 | 0 |
| 17:45 | 15 | 34 | 6 | 4 | 0 | 0 | 0 | 10 | 25 | 8 | 5 | 0 | 0 | 0 | 3 | 26 | 7 | 4 | 0 | 0 | 0 | 5 | 41 | 14 | 3 | 0 | 0 | 0 |
| Hourly Total | 53 | 115 | 28 | 13 | 0 | 0 | 0 | 24 | 138 | 24 | 12 | 0 | 0 | 0 | 26 | 119 | 36 | 18 | 0 | 0 | 0 | 31 | 129 | 69 | 21 | 0 | 0 | 0 |
| Total | 130 | 363 | 75 | 30 | 0 | 0 | 0 | 70 | 376 | 68 | 35 | 0 | 0 | 0 | 63 | 340 | 122 | 40 | 0 | 0 | 0 | 129 | 342 | 173 | 47 | 1 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

# Single Unit Trucks

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 1 | 0 | 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 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 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 |
| Hourly Total | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 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 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 1 | 5 | 3 | 0 | 0 | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

# Articulated Trucks

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 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 |
| 15:15 | 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 |
| 15:30 | 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 |
| 15:45 | 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 |
| Hourly Total | 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 |
| 16:00 | 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 |
| 16:15 | 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 |
| 16:30 | 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 |
| 16:45 | 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 |
| Hourly Total | 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 |
| 17:00 | 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 |
| 17:15 | 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 |
| 17:30 | 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 |
| 17:45 | 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 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

# Buses

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 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 |
| 15:15 | 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 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 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 |
| 16:15 | 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 | 0 | 0 | 0 |
| 16:30 | 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 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 0 | 0 |
| 17:00 | 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 |
| 17:15 | 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 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 6 | 6 | 0 | 1 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-10-2025

# Bicycles on Road

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 15:15 | 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 |
| 15:30 | 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 |
| 15:45 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| 16:00 | 0 | 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 | 0 |
| 16:15 | 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 |
| 16:30 | 0 | 0 | 1 | 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 |
| 16:45 | 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 |
| Hourly Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 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 | 0 | 0 |
| 17:15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 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 |
| 17:45 | 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 |
| Hourly Total | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 0 |

| SUMMARY | |
|---|---|
| Project | Barton & Loguidice |
| Project Code | 12061 |
| Site Name | 12061-1 |
| Intersection Name | Union St/Temple St & Spring St/Middle St |
| Legs and Movements | All Processed Legs & Movements |
| Count Interval | 15 |
| Start Time | 11:00 |
| End Time | 13:45 |
| Location | 12061-1 |
| Latitude and Longitude | (43.656987, -70.256138) |

| | START | END | PHF |
|---|---|---|---|
| AM PEAK | | | |
| PM PEAK | | | |
| Mid-Day PEAK | **04-12-2025 11:45:00** | **04-12-2025 12:45:00** | **0.91** |
| Forced Peak AM | | | |
| Forced Peak PM | | | |



## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

# TURNING MOVEMENT DATA

| Leg | Spring St | | | | | | | | Middle St | | | | | | | | Union St | | | | | | | | Temple St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | | WestBound | | | | | | | | NorthBound | | | | | | | | SouthBound | | | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 11:00 | 25 | 24 | 7 | 0 | 0 | 56 | 2 | 1 | 1 | 19 | 11 | 2 | 0 | 33 | 5 | 7 | 3 | 19 | 8 | 12 | 0 | 42 | 1 | 3 | 10 | 30 | 15 | 10 | 0 | 65 | 15 | 4 | 196 |
| 11:15 | 16 | 16 | 5 | 2 | 0 | 39 | 0 | 10 | 7 | 22 | 10 | 4 | 0 | 43 | 2 | 3 | 5 | 23 | 12 | 3 | 0 | 43 | 2 | 1 | 11 | 28 | 19 | 5 | 0 | 63 | 22 | 2 | 188 |
| 11:30 | 20 | 26 | 8 | 1 | 0 | 55 | 5 | 10 | 5 | 20 | 4 | 1 | 0 | 30 | 4 | 1 | 9 | 19 | 5 | 2 | 0 | 35 | 3 | 9 | 16 | 22 | 13 | 5 | 0 | 56 | 20 | 5 | 176 |
| 11:45 | 16 | 24 | 5 | 0 | 0 | 45 | 0 | 14 | 2 | 26 | 10 | 0 | 0 | 38 | 18 | 13 | 7 | 29 | 11 | 5 | 0 | 52 | 0 | 12 | 7 | 28 | 8 | 4 | 0 | 47 | 7 | 10 | 182 |
| Hourly Total | 77 | 90 | 25 | 3 | 0 | 195 | 7 | 35 | 15 | 87 | 35 | 7 | 0 | 144 | 29 | 24 | 24 | 90 | 36 | 22 | 0 | 172 | 6 | 25 | 44 | 108 | 55 | 24 | 0 | 231 | 64 | 21 | 742 |
| 12:00 | 18 | 28 | 4 | 3 | 0 | 53 | 2 | 11 | 6 | 23 | 5 | 4 | 0 | 38 | 0 | 0 | 2 | 25 | 5 | 2 | 0 | 34 | 6 | 0 | 12 | 32 | 14 | 5 | 0 | 63 | 17 | 13 | 188 |
| 12:15 | 16 | 19 | 4 | 2 | 0 | 41 | 3 | 8 | 8 | 19 | 10 | 4 | 0 | 41 | 2 | 18 | 2 | 30 | 12 | 3 | 0 | 47 | 4 | 4 | 14 | 29 | 11 | 8 | 0 | 62 | 16 | 16 | 191 |
| 12:30 | 24 | 32 | 8 | 2 | 0 | 66 | 4 | 7 | 7 | 24 | 11 | 0 | 0 | 42 | 3 | 6 | 6 | 21 | 9 | 5 | 0 | 41 | 2 | 13 | 11 | 41 | 8 | 3 | 0 | 63 | 17 | 8 | 212 |
| 12:45 | 24 | 24 | 5 | 1 | 0 | 54 | 13 | 9 | 5 | 18 | 4 | 2 | 0 | 29 | 10 | 2 | 3 | 28 | 6 | 4 | 0 | 41 | 9 | 7 | 10 | 28 | 14 | 6 | 0 | 58 | 23 | 3 | 182 |
| Hourly Total | 82 | 103 | 21 | 8 | 0 | 214 | 22 | 35 | 26 | 84 | 30 | 10 | 0 | 150 | 15 | 26 | 13 | 104 | 32 | 14 | 0 | 163 | 21 | 24 | 47 | 130 | 47 | 22 | 0 | 246 | 73 | 40 | 773 |
| 13:00 | 27 | 24 | 2 | 1 | 0 | 54 | 6 | 13 | 4 | 15 | 8 | 5 | 0 | 32 | 6 | 10 | 2 | 29 | 12 | 0 | 0 | 43 | 12 | 9 | 11 | 25 | 13 | 5 | 0 | 54 | 12 | 14 | 183 |
| 13:15 | 18 | 24 | 6 | 0 | 0 | 48 | 1 | 14 | 2 | 25 | 2 | 3 | 0 | 32 | 2 | 14 | 2 | 25 | 7 | 3 | 0 | 37 | 4 | 8 | 14 | 32 | 18 | 4 | 0 | 68 | 18 | 15 | 185 |
| 13:30 | 19 | 25 | 7 | 2 | 0 | 53 | 8 | 7 | 5 | 25 | 6 | 1 | 0 | 37 | 5 | 13 | 4 | 21 | 10 | 3 | 0 | 38 | 6 | 9 | 11 | 28 | 11 | 7 | 0 | 57 | 17 | 14 | 185 |
| 13:45 | 15 | 25 | 8 | 1 | 0 | 49 | 4 | 9 | 11 | 21 | 5 | 1 | 0 | 38 | 11 | 21 | 10 | 21 | 5 | 7 | 0 | 43 | 10 | 4 | 11 | 28 | 17 | 4 | 0 | 60 | 25 | 16 | 190 |
| Hourly Total | 79 | 98 | 23 | 4 | 0 | 204 | 19 | 43 | 22 | 86 | 21 | 10 | 0 | 139 | 24 | 58 | 18 | 96 | 34 | 13 | 0 | 161 | 32 | 30 | 47 | 113 | 59 | 20 | 0 | 239 | 72 | 59 | 743 |
| Grand Total | 238 | 291 | 69 | 15 | 0 | 613 | 48 | 113 | 63 | 257 | 86 | 27 | 0 | 433 | 68 | 108 | 55 | 290 | 102 | 49 | 0 | 496 | 59 | 79 | 138 | 351 | 161 | 66 | 0 | 716 | 209 | 120 | 2258 |
| approach % | 38 | 47 | 11 | 2 | 0 | 100 | 7 | 18 | 14 | 59 | 19 | 6 | 0 | 100 | 15 | 24 | 11 | 58 | 20 | 9 | 0 | 100 | 11 | 15 | 19 | 49 | 22 | 9 | 0 | 100 | 29 | 16 | 400 |
| Total % | 10 | 12 | 3 | 0 | 0 | 27 | 2 | 5 | 2 | 11 | 3 | 1 | 0 | 19 | 3 | 4 | 2 | 12 | 4 | 2 | 0 | 21 | 2 | 3 | 6 | 15 | 7 | 2 | 0 | 31 | 9 | 5 | 100 |
| Motorcycles | 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 | 0 | 0 |
| Motorcycles % | 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 | 0 | 0 |
| Cars & Light Goods | 237 | 288 | 69 | 15 | 0 | 609 | 0 | 0 | 62 | 255 | 85 | 26 | 0 | 428 | 0 | 0 | 54 | 286 | 101 | 49 | 0 | 490 | 0 | 0 | 134 | 341 | 161 | 66 | 0 | 702 | 0 | 0 | 2229 |
| Cars & Light Goods | 99 | 98 | 100 | 100 | 0 | 0 | 0 | 0 | 98 | 99 | 98 | 96 | 0 | 0 | 0 | 0 | 98 | 98 | 99 | 100 | 0 | 0 | 0 | 0 | 97 | 97 | 100 | 100 | 0 | 0 | 0 | 0 | 98 |
| Single Unit Trucks | 1 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 4 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 5 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 6 | 0 | 0 | 19 |
| Single Unit Trucks | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Articulated Trucks | 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 | 0 | 0 |
| Articulated Trucks % | 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 | 0 | 0 |
| Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 8 | 0 | 0 | 8 |
| Buses % | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Bicycles on Road % | 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 | 0 | 0 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 113 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 108 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 208 | 120 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 0 | 0 |
| Pcl | 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 | 0 | 0 |
| Pcl % | 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 | 0 | 0 |

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

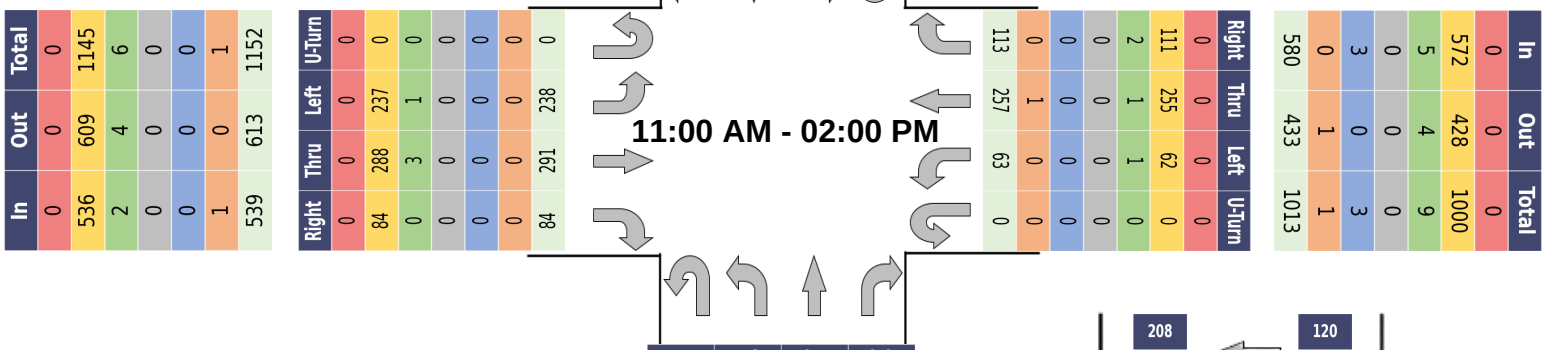
Date: 04-12-2025

## Turning Movement Data

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

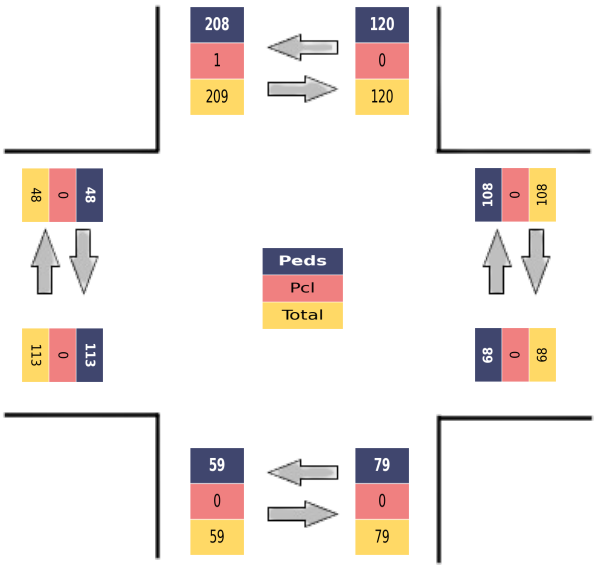
| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 634 | 702 | 1336 |
| 6 | 6 | 12 |
| 0 | 0 | 0 |
| 0 | 8 | 8 |
| 1 | 0 | 1 |
| 641 | 716 | 1357 |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 227 | 341 | 134 | 0 |
| 0 | 5 | 1 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 5 | 3 | 0 |
| 0 | 0 | 0 | 0 |
| 227 | 351 | 138 | 0 |




| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 0 | 54 | 286 | 150 |
| 0 | 1 | 3 | 1 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 55 | 290 | 151 |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 487 | 490 | 977 |
| 6 | 5 | 11 |
| 0 | 0 | 0 |
| 5 | 0 | 5 |
| 0 | 1 | 1 |
| 498 | 496 | 994 |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

## TURNING MOVEMENT MID PEAK HOUR

| Leg | Spring St | | | | | | | | Middle St | | | | | | | | Union St | | | | | | | | Temple St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | | WestBound | | | | | | | | NorthBound | | | | | | | | SouthBound | | | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 11:45:00 | 16 | 24 | 5 | 0 | 0 | 45 | 0 | 14 | 2 | 26 | 10 | 0 | 0 | 38 | 18 | 13 | 7 | 29 | 11 | 5 | 0 | 52 | 0 | 12 | 7 | 28 | 8 | 4 | 0 | 47 | 7 | 10 | 182 |
| 12:00:00 | 18 | 28 | 4 | 3 | 0 | 53 | 2 | 11 | 6 | 23 | 5 | 4 | 0 | 38 | 0 | 0 | 2 | 25 | 5 | 2 | 0 | 34 | 6 | 0 | 12 | 32 | 14 | 5 | 0 | 63 | 17 | 13 | 188 |
| 12:15:00 | 16 | 19 | 4 | 2 | 0 | 41 | 3 | 8 | 8 | 19 | 10 | 4 | 0 | 41 | 2 | 18 | 2 | 30 | 12 | 3 | 0 | 47 | 4 | 4 | 14 | 29 | 11 | 8 | 0 | 62 | 16 | 16 | 191 |
| 12:30:00 | 24 | 32 | 8 | 2 | 0 | 66 | 4 | 7 | 7 | 24 | 11 | 0 | 0 | 42 | 3 | 6 | 6 | 21 | 9 | 5 | 0 | 41 | 2 | 13 | 11 | 41 | 8 | 3 | 0 | 63 | 17 | 8 | 212 |
| Grand Total | 74 | 103 | 21 | 7 | 0 | 205 | 9 | 40 | 23 | 92 | 36 | 8 | 0 | 159 | 23 | 37 | 17 | 105 | 37 | 15 | 0 | 174 | 12 | 29 | 44 | 130 | 41 | 20 | 0 | 235 | 57 | 47 | 773 |
| approach % | 36 | 50 | 10 | 3 | 0 | 100 | 4 | 20 | 14 | 58 | 23 | 5 | 0 | 100 | 14 | 23 | 10 | 60 | 21 | 9 | 0 | 100 | 7 | 17 | 19 | 55 | 17 | 9 | 0 | 100 | 24 | 20 | 400 |
| Total % | 10 | 13 | 3 | 1 | 0 | 27 | 1 | 5 | 3 | 12 | 5 | 1 | 0 | 21 | 3 | 5 | 2 | 14 | 5 | 2 | 0 | 23 | 2 | 4 | 6 | 17 | 5 | 3 | 0 | 30 | 7 | 6 | 100 |
| Motorcycles | 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 | 0 | 0 |
| Motorcycles % | 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 | 0 | 0 |
| Cars & Light Goods | 74 | 101 | 21 | 7 | 0 | 203 | 0 | 0 | 23 | 92 | 36 | 8 | 0 | 159 | 0 | 0 | 17 | 103 | 37 | 15 | 0 | 172 | 0 | 0 | 43 | 129 | 41 | 20 | 0 | 233 | 0 | 0 | 767 |
| Cars & Light Goods | 100 | 98 | 100 | 100 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 0 | 0 | 0 | 0 | 100 | 98 | 100 | 100 | 0 | 0 | 0 | 0 | 98 | 99 | 100 | 100 | 0 | 0 | 0 | 0 | 99 |
| Single Unit Trucks | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Single Unit Trucks | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Articulated Trucks | 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 | 0 | 0 |
| Articulated Trucks % | 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 | 0 | 0 |
| Buses | 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 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Buses % | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bicycles on Road | 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 | 0 | 0 |
| Bicycles on Road % | 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 | 0 | 0 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 47 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 0 | 0 |
| Pcl | 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 | 0 | 0 |
| Pcl % | 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 | 2 | 0 | 0 |
| PHF | 0.77 | 0.8 | 0.66 | 0.58 | 0.0 | 0.78 | 0.56 | 0.71 | 0.72 | 0.88 | 0.82 | 0.5 | 0.0 | 0.95 | 0.32 | 0.51 | 0.61 | 0.88 | 0.77 | 0.75 | 0.0 | 0.84 | 0.5 | 0.56 | 0.79 | 0.79 | 0.73 | 0.62 | 0.0 | 0.93 | 0.84 | 0.73 | 0.91 |

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

# Mid Peak Turning Movement Data Summary

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 221 | 233 | 454 |
| 2 | 0 | 2 |
| 0 | 0 | 0 |
| 0 | 2 | 2 |
| 0 | 0 | 0 |
| 223 | 235 | 458 |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 61 | 129 | 43 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 0 |
| 0 | 0 | 0 | 0 |
| 61 | 130 | 44 | 0 |

| Total | 0 | 373 | 2 | 0 | 0 | 0 | 375 |
|---|---|---|---|---|---|---|---|
| Out | 0 | 203 | 2 | 0 | 0 | 0 | 205 |
| In | 0 | 170 | 0 | 0 | 0 | 0 | 170 |

| U-Turn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|---|---|
| Left | 0 | 74 | 0 | 0 | 0 | 0 | 74 |
| Thru | 0 | 101 | 2 | 0 | 0 | 0 | 103 |
| Right | 0 | 28 | 0 | 0 | 0 | 0 | 28 |

| Right | 44 | 0 | 0 | 0 | 0 | 44 | 0 |
|---|---|---|---|---|---|---|---|
| Thru | 92 | 0 | 0 | 0 | 0 | 92 | 0 |
| Left | 23 | 0 | 0 | 0 | 0 | 23 | 0 |
| U-Turn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| In | 199 | 0 | 1 | 0 | 2 | 196 | 0 |
|---|---|---|---|---|---|---|---|
| Out | 159 | 0 | 0 | 0 | 0 | 159 | 0 |
| Total | 358 | 0 | 1 | 0 | 2 | 355 | 0 |

**11:45 AM - 12:45 PM**

| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 0 | 17 | 103 | 52 |
| 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 17 | 105 | 52 |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 180 | 172 | 352 |
| 0 | 2 | 2 |
| 0 | 0 | 0 |
| 1 | 0 | 1 |
| 0 | 0 | 0 |
| 181 | 174 | 355 |

| 56 | 47 |
|---|---|
| 1 | 0 |
| 57 | 47 |

| 6 | 0 | 6 |
|---|---|---|
| 40 | 0 | 40 |

| 37 | 0 | 37 |
|---|---|---|
| 23 | 0 | 23 |

| Peds |
|---|
| Pcl |
| Total |

| 12 | 29 |
|---|---|
| 0 | 0 |
| 12 | 29 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

# Motorcycles

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 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 |
| 11:15 | 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 |
| 11:30 | 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 |
| 11:45 | 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 |
| Hourly Total | 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 |
| 12:00 | 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 |
| 12:15 | 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 |
| 12:30 | 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 |
| 12:45 | 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 |
| Hourly Total | 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 |
| 13:00 | 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 |
| 13:15 | 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 |
| 13:30 | 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 |
| 13:45 | 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 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

# Cars & Light Goods

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 25 | 24 | 7 | 0 | 0 | 0 | 0 | 1 | 18 | 10 | 2 | 0 | 0 | 0 | 3 | 19 | 7 | 12 | 0 | 0 | 0 | 8 | 28 | 15 | 10 | 0 | 0 | 0 |
| 11:15 | 16 | 16 | 5 | 2 | 0 | 0 | 0 | 7 | 22 | 10 | 4 | 0 | 0 | 0 | 5 | 23 | 12 | 3 | 0 | 0 | 0 | 11 | 27 | 19 | 5 | 0 | 0 | 0 |
| 11:30 | 19 | 26 | 8 | 1 | 0 | 0 | 0 | 5 | 20 | 4 | 1 | 0 | 0 | 0 | 8 | 19 | 5 | 2 | 0 | 0 | 0 | 16 | 21 | 13 | 5 | 0 | 0 | 0 |
| 11:45 | 16 | 24 | 5 | 0 | 0 | 0 | 0 | 2 | 26 | 10 | 0 | 0 | 0 | 0 | 7 | 29 | 11 | 5 | 0 | 0 | 0 | 7 | 28 | 8 | 4 | 0 | 0 | 0 |
| Hourly Total | 76 | 90 | 25 | 3 | 0 | 0 | 0 | 15 | 86 | 34 | 7 | 0 | 0 | 0 | 23 | 90 | 35 | 22 | 0 | 0 | 0 | 42 | 104 | 55 | 24 | 0 | 0 | 0 |
| 12:00 | 18 | 26 | 4 | 3 | 0 | 0 | 0 | 6 | 23 | 5 | 4 | 0 | 0 | 0 | 2 | 25 | 5 | 2 | 0 | 0 | 0 | 11 | 32 | 14 | 5 | 0 | 0 | 0 |
| 12:15 | 16 | 19 | 4 | 2 | 0 | 0 | 0 | 8 | 19 | 10 | 4 | 0 | 0 | 0 | 2 | 28 | 12 | 3 | 0 | 0 | 0 | 14 | 29 | 11 | 8 | 0 | 0 | 0 |
| 12:30 | 24 | 32 | 8 | 2 | 0 | 0 | 0 | 7 | 24 | 11 | 0 | 0 | 0 | 0 | 6 | 21 | 9 | 5 | 0 | 0 | 0 | 11 | 40 | 8 | 3 | 0 | 0 | 0 |
| 12:45 | 24 | 24 | 5 | 1 | 0 | 0 | 0 | 4 | 18 | 4 | 1 | 0 | 0 | 0 | 3 | 28 | 6 | 4 | 0 | 0 | 0 | 10 | 27 | 14 | 6 | 0 | 0 | 0 |
| Hourly Total | 82 | 101 | 21 | 8 | 0 | 0 | 0 | 25 | 84 | 30 | 9 | 0 | 0 | 0 | 13 | 102 | 32 | 14 | 0 | 0 | 0 | 46 | 128 | 47 | 22 | 0 | 0 | 0 |
| 13:00 | 27 | 24 | 2 | 1 | 0 | 0 | 0 | 4 | 15 | 8 | 5 | 0 | 0 | 0 | 2 | 29 | 12 | 0 | 0 | 0 | 0 | 11 | 24 | 13 | 5 | 0 | 0 | 0 |
| 13:15 | 18 | 23 | 6 | 0 | 0 | 0 | 0 | 2 | 24 | 2 | 3 | 0 | 0 | 0 | 2 | 25 | 7 | 3 | 0 | 0 | 0 | 13 | 31 | 18 | 4 | 0 | 0 | 0 |
| 13:30 | 19 | 25 | 7 | 2 | 0 | 0 | 0 | 5 | 25 | 6 | 1 | 0 | 0 | 0 | 4 | 19 | 10 | 3 | 0 | 0 | 0 | 11 | 27 | 11 | 7 | 0 | 0 | 0 |
| 13:45 | 15 | 25 | 8 | 1 | 0 | 0 | 0 | 11 | 21 | 5 | 1 | 0 | 0 | 0 | 10 | 21 | 5 | 7 | 0 | 0 | 0 | 11 | 27 | 17 | 4 | 0 | 0 | 0 |
| Hourly Total | 79 | 97 | 23 | 4 | 0 | 0 | 0 | 22 | 85 | 21 | 10 | 0 | 0 | 0 | 18 | 94 | 34 | 13 | 0 | 0 | 0 | 46 | 109 | 59 | 20 | 0 | 0 | 0 |
| Total | 237 | 288 | 69 | 15 | 0 | 0 | 0 | 62 | 255 | 85 | 26 | 0 | 0 | 0 | 54 | 286 | 101 | 49 | 0 | 0 | 0 | 134 | 341 | 161 | 66 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

# Single Unit Trucks

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 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 | 0 | 0 |
| 11:30 | 1 | 0 | 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 | 0 |
| 11:45 | 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 |
| Hourly Total | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 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 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 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 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 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 |
| 13:15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 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 | 0 | 0 |
| 13:45 | 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 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

# Articulated Trucks

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 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 |
| 11:15 | 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 |
| 11:30 | 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 |
| 11:45 | 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 |
| Hourly Total | 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 |
| 12:00 | 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 |
| 12:15 | 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 |
| 12:30 | 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 |
| 12:45 | 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 |
| Hourly Total | 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 |
| 13:00 | 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 |
| 13:15 | 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 |
| 13:30 | 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 |
| 13:45 | 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 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

# Buses

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 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 |
| 11:30 | 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 | 0 | 0 |
| 11:45 | 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 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 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 | 0 | 0 | 0 |
| 12:15 | 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 |
| 12:30 | 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 | 0 | 0 |
| 12:45 | 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 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 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 | 0 | 0 |
| 13:15 | 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 | 0 | 0 | 0 |
| 13:30 | 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 | 0 | 0 |
| 13:45 | 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 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 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 | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-1

Intersection Name: Union St/Temple St & Spring St/Middle St

GPS: 43.656987, -70.256138

Date: 04-12-2025

# Bicycles on Road

| Leg | Spring St | | | | | | | Middle St | | | | | | | Union St | | | | | | | Temple St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 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 |
| 11:15 | 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 |
| 11:30 | 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 |
| 11:45 | 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 |
| Hourly Total | 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 |
| 12:00 | 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 |
| 12:15 | 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 |
| 12:30 | 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 |
| 12:45 | 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 |
| Hourly Total | 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 |
| 13:00 | 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 |
| 13:15 | 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 |
| 13:30 | 0 | 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 | 0 | 0 |
| 13:45 | 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 |
| Hourly Total | 0 | 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 | 0 | 0 |
| Total | 0 | 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 |

| SUMMARY | |
|---|---|
| Project | Barton & Loguidice |
| Project Code | 12061 |
| Site Name | 12061-3 |
| Intersection Name | Fore St & Exchange St/Moulton St |
| Legs and Movements | All Processed Legs & Movements |
| Count Interval | 15 |
| Start Time | 15:00 |
| End Time | 17:45 |
| Location | 12061-3 |
| Latitude and Longitude | (43.656507, -70.253223) |

| | START | END | PHF |
|---|---|---|---|
| AM PEAK | | | |
| PM PEAK | **04-10-2025 16:45:00** | **04-10-2025 17:45:00** | **0.9** |
| Mid-Day PEAK | | | |
| Forced Peak AM | | | |
| Forced Peak PM | | | |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## TURNING MOVEMENT DATA

| Leg | Fore St | | | | | | | Fore St | | | | | | | Moulton St | | | | | | | Exchange St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | | |
| Start Time | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 15:00 | 0 | 41 | 7 | 0 | 48 | 21 | 29 | 4 | 32 | 0 | 0 | 36 | 7 | 13 | 0 | 0 | 0 | 0 | 0 | 14 | 4 | 8 | 3 | 14 | 0 | 25 | 6 | 11 | 109 |
| 15:15 | 0 | 39 | 6 | 1 | 46 | 11 | 13 | 2 | 26 | 0 | 0 | 28 | 16 | 11 | 0 | 0 | 0 | 0 | 0 | 8 | 3 | 12 | 5 | 15 | 0 | 32 | 10 | 12 | 106 |
| 15:30 | 0 | 45 | 9 | 0 | 54 | 19 | 9 | 4 | 30 | 0 | 0 | 34 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 20 | 3 | 9 | 4 | 11 | 0 | 24 | 3 | 11 | 112 |
| 15:45 | 0 | 33 | 5 | 0 | 38 | 13 | 14 | 4 | 30 | 0 | 0 | 34 | 19 | 9 | 0 | 0 | 0 | 0 | 0 | 15 | 13 | 10 | 3 | 20 | 0 | 33 | 13 | 13 | 105 |
| Hourly Total | 0 | 158 | 27 | 1 | 186 | 64 | 65 | 14 | 118 | 0 | 0 | 132 | 58 | 49 | 0 | 0 | 0 | 0 | 0 | 57 | 23 | 39 | 15 | 60 | 0 | 114 | 32 | 47 | 432 |
| 16:00 | 0 | 55 | 2 | 0 | 57 | 16 | 16 | 5 | 35 | 0 | 0 | 40 | 6 | 17 | 0 | 0 | 0 | 0 | 0 | 10 | 6 | 14 | 5 | 9 | 0 | 28 | 6 | 9 | 125 |
| 16:15 | 0 | 45 | 4 | 0 | 49 | 9 | 7 | 4 | 31 | 0 | 0 | 35 | 11 | 13 | 0 | 0 | 0 | 0 | 0 | 6 | 12 | 13 | 4 | 13 | 0 | 30 | 4 | 11 | 114 |
| 16:30 | 0 | 38 | 8 | 0 | 46 | 5 | 13 | 3 | 30 | 0 | 0 | 33 | 13 | 11 | 0 | 0 | 0 | 0 | 0 | 10 | 6 | 8 | 9 | 11 | 0 | 28 | 7 | 10 | 107 |
| 16:45 | 0 | 60 | 8 | 0 | 68 | 18 | 16 | 4 | 44 | 0 | 0 | 48 | 18 | 6 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 8 | 4 | 10 | 0 | 22 | 9 | 16 | 138 |
| Hourly Total | 0 | 198 | 22 | 0 | 220 | 48 | 52 | 16 | 140 | 0 | 0 | 156 | 48 | 47 | 0 | 0 | 0 | 0 | 0 | 41 | 39 | 43 | 22 | 43 | 0 | 108 | 26 | 46 | 484 |
| 17:00 | 0 | 43 | 15 | 0 | 58 | 18 | 18 | 2 | 38 | 0 | 0 | 40 | 14 | 20 | 0 | 0 | 0 | 0 | 0 | 17 | 10 | 22 | 2 | 12 | 0 | 36 | 13 | 13 | 134 |
| 17:15 | 0 | 57 | 9 | 0 | 66 | 4 | 10 | 2 | 47 | 0 | 0 | 49 | 10 | 14 | 0 | 0 | 0 | 0 | 0 | 13 | 11 | 19 | 4 | 14 | 0 | 37 | 4 | 15 | 152 |
| 17:30 | 0 | 58 | 15 | 0 | 73 | 14 | 12 | 4 | 44 | 0 | 0 | 48 | 18 | 18 | 0 | 0 | 0 | 0 | 0 | 15 | 14 | 13 | 7 | 21 | 0 | 41 | 21 | 25 | 162 |
| 17:45 | 0 | 58 | 14 | 0 | 72 | 16 | 22 | 2 | 31 | 0 | 1 | 34 | 11 | 9 | 0 | 0 | 0 | 0 | 0 | 18 | 9 | 7 | 3 | 15 | 0 | 25 | 6 | 14 | 131 |
| Hourly Total | 0 | 216 | 53 | 0 | 269 | 52 | 62 | 10 | 160 | 0 | 1 | 171 | 53 | 61 | 0 | 0 | 0 | 0 | 0 | 63 | 44 | 61 | 16 | 62 | 0 | 139 | 44 | 67 | 579 |
| Grand Total | 0 | 572 | 102 | 1 | 675 | 164 | 179 | 40 | 418 | 0 | 1 | 459 | 159 | 157 | 0 | 0 | 0 | 0 | 0 | 161 | 106 | 143 | 53 | 165 | 0 | 361 | 102 | 160 | 1495 |
| approach % | 0 | 84 | 15 | 0 | 100 | 24 | 26 | 8 | 91 | 0 | 0 | 100 | 34 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 14 | 45 | 0 | 100 | 28 | 44 | 300 |
| Total % | 0 | 38 | 6 | 0 | 45 | 10 | 11 | 2 | 27 | 0 | 0 | 30 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 7 | 9 | 3 | 11 | 0 | 24 | 6 | 10 | 100 |
| Motorcycles | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 4 | 0 | 0 | 5 |
| Motorcycles % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Cars & Light Goods | 0 | 562 | 101 | 1 | 664 | 0 | 0 | 40 | 411 | 0 | 1 | 452 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 | 52 | 156 | 0 | 349 | 0 | 0 | 1465 |
| Cars & Light Goods | 0 | 98 | 99 | 100 | 0 | 0 | 0 | 100 | 98 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 98 | 94 | 0 | 0 | 0 | 0 | 97 |
| Single Unit Trucks | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 | 0 | 0 | 11 |
| Single Unit Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Articulated Trucks | 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 |
| Articulated Trucks % | 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 |
| Buses | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Buses % | 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 |
| Bicycles on Road | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 11 |
| Bicycles on Road % | 0 | 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 | 0 | 0 |
| Peds | 0 | 0 | 0 | 0 | 0 | 164 | 178 | 0 | 0 | 0 | 0 | 0 | 159 | 156 | 0 | 0 | 0 | 0 | 0 | 161 | 106 | 0 | 0 | 0 | 0 | 0 | 102 | 159 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 | 1 | 0 |
| Pcl % | 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 |

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

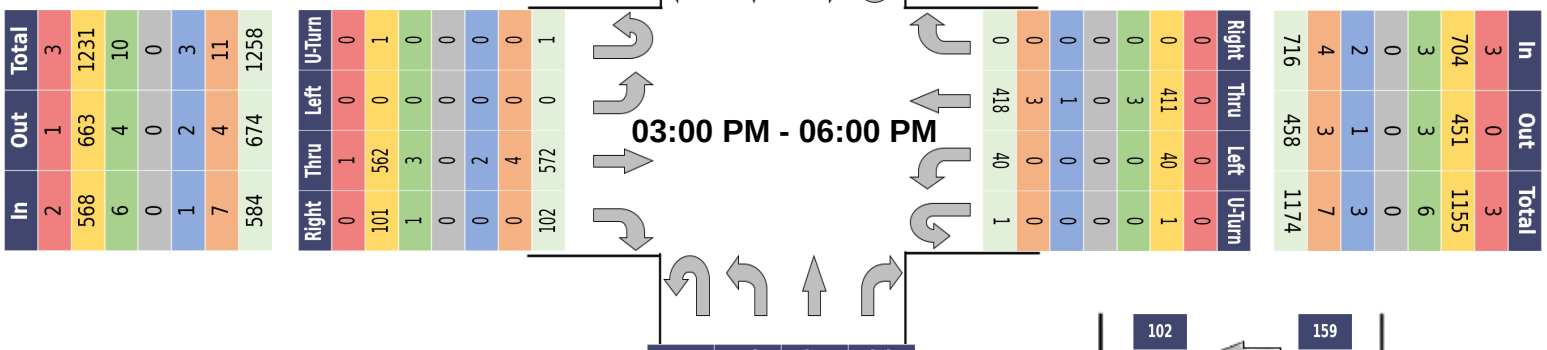
Date: 04-10-2025

## Turning Movement Data

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

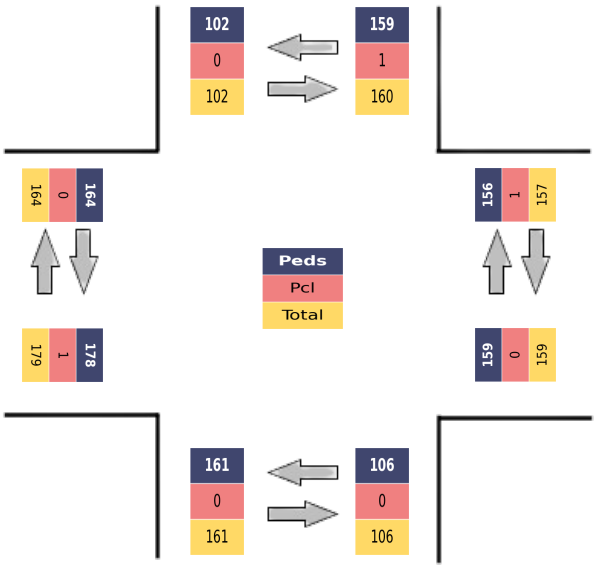
| In | Out | Total |
|---|---|---|
| 0 | 4 | 4 |
| 0 | 349 | 349 |
| 0 | 4 | 4 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 4 | 4 |
| 0 | 361 | 361 |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 2 | 0 | 2 | 0 |
| 156 | 52 | 141 | 0 |
| 3 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 |
| 165 | 53 | 143 | 0 |




| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 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 |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 193 | 0 | 193 |
| 2 | 0 | 2 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 195 | 0 | 195 |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## TURNING MOVEMENT PM PEAK HOUR

| Leg | Fore St | | | | | | | Fore St | | | | | | | Moulton St | | | | | | | Exchange St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | | |
| Start Time | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 16:45:00 | 0 | 60 | 8 | 0 | 68 | 18 | 16 | 4 | 44 | 0 | 0 | 48 | 18 | 6 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 8 | 4 | 10 | 0 | 22 | 9 | 16 | 138 |
| 17:00:00 | 0 | 43 | 15 | 0 | 58 | 18 | 18 | 2 | 38 | 0 | 0 | 40 | 14 | 20 | 0 | 0 | 0 | 0 | 0 | 17 | 10 | 22 | 2 | 12 | 0 | 36 | 13 | 13 | 134 |
| 17:15:00 | 0 | 57 | 9 | 0 | 66 | 4 | 10 | 2 | 47 | 0 | 0 | 49 | 10 | 14 | 0 | 0 | 0 | 0 | 0 | 13 | 11 | 19 | 4 | 14 | 0 | 37 | 4 | 15 | 152 |
| 17:30:00 | 0 | 58 | 15 | 0 | 73 | 14 | 12 | 4 | 44 | 0 | 0 | 48 | 18 | 18 | 0 | 0 | 0 | 0 | 0 | 15 | 14 | 13 | 7 | 21 | 0 | 41 | 21 | 25 | 162 |
| Grand Total | 0 | 218 | 47 | 0 | 265 | 54 | 56 | 12 | 173 | 0 | 0 | 185 | 60 | 58 | 0 | 0 | 0 | 0 | 0 | 60 | 50 | 62 | 17 | 57 | 0 | 136 | 47 | 69 | 586 |
| approach % | 0 | 82 | 18 | 0 | 100 | 20 | 21 | 6 | 94 | 0 | 0 | 100 | 32 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 12 | 42 | 0 | 100 | 35 | 51 | 300 |
| Total % | 0 | 37 | 8 | 0 | 45 | 9 | 10 | 2 | 30 | 0 | 0 | 32 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 9 | 11 | 3 | 10 | 0 | 23 | 8 | 12 | 100 |
| Motorcycles | 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 |
| Motorcycles % | 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 |
| Cars & Light Goods | 0 | 215 | 47 | 0 | 262 | 0 | 0 | 12 | 172 | 0 | 0 | 184 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 16 | 54 | 0 | 132 | 0 | 0 | 578 |
| Cars & Light Goods | 0 | 99 | 100 | 0 | 0 | 0 | 0 | 100 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 94 | 95 | 0 | 0 | 0 | 0 | 99 |
| Single Unit Trucks | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Single Unit Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| Articulated Trucks | 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 |
| Articulated Trucks % | 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 |
| Buses | 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 | 0 | 0 | 0 | 1 |
| Buses % | 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 |
| Bicycles on Road | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 5 |
| Bicycles on Road % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 1 |
| Peds | 0 | 0 | 0 | 0 | 0 | 54 | 56 | 0 | 0 | 0 | 0 | 0 | 60 | 58 | 0 | 0 | 0 | 0 | 0 | 60 | 50 | 0 | 0 | 0 | 0 | 0 | 47 | 69 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 |
| Pcl % | 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 |
| PHF | 0.0 | 0.91 | 0.78 | 0.0 | 0.91 | 0.75 | 0.78 | 0.75 | 0.92 | 0.0 | 0.0 | 0.94 | 0.83 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.88 | 0.83 | 0.7 | 0.61 | 0.68 | 0.0 | 0.83 | 0.56 | 0.69 | 0.9 |

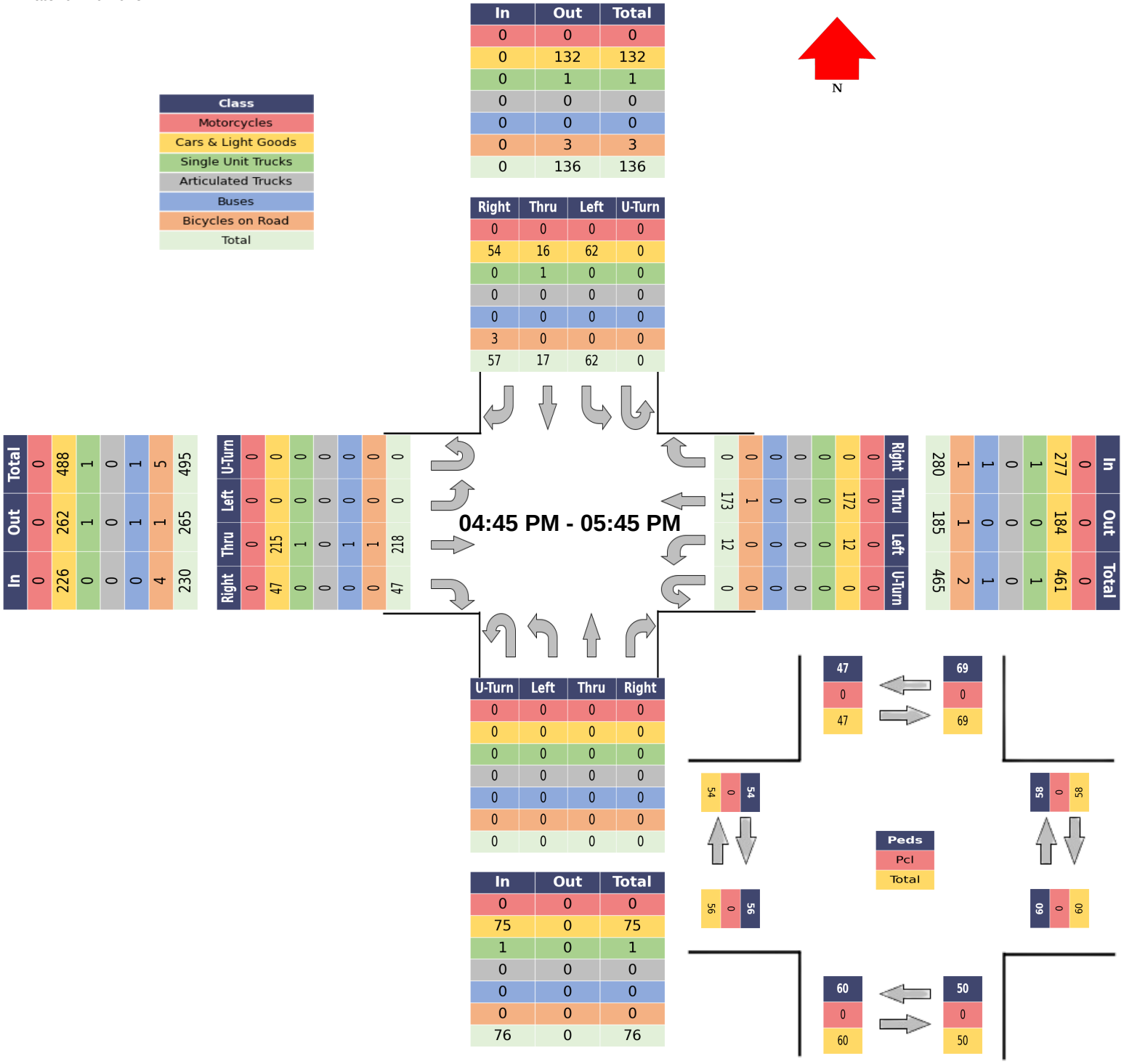
Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

# PM Peak Turning Movement Data Summary



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Motorcycles

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 |
| 16:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

# Cars & Light Goods

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 41 | 7 | 0 | 0 | 0 | 4 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 3 | 13 | 0 | 0 | 0 |
| 15:15 | 0 | 37 | 5 | 1 | 0 | 0 | 2 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 5 | 14 | 0 | 0 | 0 |
| 15:30 | 0 | 45 | 9 | 0 | 0 | 0 | 4 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 4 | 9 | 0 | 0 | 0 |
| 15:45 | 0 | 33 | 5 | 0 | 0 | 0 | 4 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 3 | 19 | 0 | 0 | 0 |
| Hourly Total | 0 | 156 | 26 | 1 | 0 | 0 | 14 | 116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 15 | 55 | 0 | 0 | 0 |
| 16:00 | 0 | 53 | 2 | 0 | 0 | 0 | 5 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 5 | 8 | 0 | 0 | 0 |
| 16:15 | 0 | 44 | 4 | 0 | 0 | 0 | 4 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 4 | 13 | 0 | 0 | 0 |
| 16:30 | 0 | 37 | 8 | 0 | 0 | 0 | 3 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 9 | 11 | 0 | 0 | 0 |
| 16:45 | 0 | 58 | 8 | 0 | 0 | 0 | 4 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 4 | 10 | 0 | 0 | 0 |
| Hourly Total | 0 | 192 | 22 | 0 | 0 | 0 | 16 | 136 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 22 | 42 | 0 | 0 | 0 |
| 17:00 | 0 | 43 | 15 | 0 | 0 | 0 | 2 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 2 | 11 | 0 | 0 | 0 |
| 17:15 | 0 | 57 | 9 | 0 | 0 | 0 | 2 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 3 | 13 | 0 | 0 | 0 |
| 17:30 | 0 | 57 | 15 | 0 | 0 | 0 | 4 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 7 | 20 | 0 | 0 | 0 |
| 17:45 | 0 | 57 | 14 | 0 | 0 | 0 | 2 | 31 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 15 | 0 | 0 | 0 |
| Hourly Total | 0 | 214 | 53 | 0 | 0 | 0 | 10 | 159 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 15 | 59 | 0 | 0 | 0 |
| Total | 0 | 562 | 101 | 1 | 0 | 0 | 40 | 411 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 | 52 | 156 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

# Single Unit Trucks

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Total | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 |

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## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Articulated Trucks

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Buses

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Bicycles on Road

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17:30 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| Total | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |

| SUMMARY | |
|---|---|
| Project | Barton & Loguidice |
| Project Code | 12061 |
| Site Name | 12061-2 |
| Intersection Name | Middle St & Exchange St |
| Legs and Movements | All Processed Legs & Movements |
| Count Interval | 15 |
| Start Time | 11:00 |
| End Time | 13:45 |
| Location | 12061-2 |
| Latitude and Longitude | (43.657723, -70.254672) |

| | START | END | PHF |
|---|---|---|---|
| AM PEAK | | | |
| PM PEAK | | | |
| Mid-Day PEAK | **04-12-2025 12:15:00** | **04-12-2025 13:15:00** | **0.93** |
| Forced Peak AM | | | |
| Forced Peak PM | | | |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

## TURNING MOVEMENT DATA

| Leg | Middle St | | | | | | | Middle St | | | | | | | Exchange St | | | | | | | Exchange St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | | |
| Start Time | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 11:00 | 0 | 41 | 13 | 0 | 54 | 14 | 4 | 4 | 25 | 0 | 0 | 29 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 10 | 6 | 8 | 6 | 5 | 0 | 19 | 8 | 17 | 102 |
| 11:15 | 0 | 28 | 12 | 0 | 40 | 6 | 19 | 6 | 33 | 0 | 0 | 39 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 10 | 11 | 3 | 8 | 8 | 0 | 19 | 16 | 3 | 98 |
| 11:30 | 0 | 38 | 7 | 0 | 45 | 18 | 20 | 7 | 23 | 0 | 0 | 30 | 5 | 7 | 0 | 0 | 0 | 0 | 0 | 17 | 12 | 6 | 5 | 5 | 0 | 16 | 8 | 18 | 91 |
| 11:45 | 0 | 44 | 9 | 0 | 53 | 13 | 15 | 6 | 26 | 0 | 0 | 32 | 9 | 4 | 0 | 0 | 0 | 0 | 0 | 21 | 30 | 6 | 7 | 9 | 0 | 22 | 7 | 20 | 107 |
| Hourly Total | 0 | 151 | 41 | 0 | 192 | 51 | 58 | 23 | 107 | 0 | 0 | 130 | 21 | 20 | 0 | 0 | 0 | 0 | 0 | 58 | 59 | 23 | 26 | 27 | 0 | 76 | 39 | 58 | 398 |
| 12:00 | 0 | 38 | 6 | 0 | 44 | 15 | 23 | 1 | 26 | 0 | 0 | 27 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 22 | 24 | 7 | 5 | 9 | 0 | 21 | 13 | 10 | 92 |
| 12:15 | 0 | 39 | 13 | 0 | 52 | 16 | 17 | 11 | 30 | 0 | 0 | 41 | 10 | 15 | 0 | 0 | 0 | 0 | 0 | 17 | 12 | 8 | 7 | 14 | 0 | 29 | 17 | 13 | 122 |
| 12:30 | 0 | 46 | 12 | 0 | 58 | 13 | 33 | 10 | 29 | 0 | 0 | 39 | 13 | 5 | 0 | 0 | 0 | 0 | 0 | 22 | 30 | 5 | 5 | 13 | 0 | 23 | 19 | 15 | 120 |
| 12:45 | 0 | 39 | 8 | 0 | 47 | 30 | 35 | 6 | 23 | 0 | 0 | 29 | 15 | 6 | 0 | 0 | 0 | 0 | 0 | 14 | 14 | 11 | 11 | 8 | 0 | 30 | 17 | 9 | 106 |
| Hourly Total | 0 | 162 | 39 | 0 | 201 | 74 | 108 | 28 | 108 | 0 | 0 | 136 | 45 | 33 | 0 | 0 | 0 | 0 | 0 | 75 | 80 | 31 | 28 | 44 | 0 | 103 | 66 | 47 | 440 |
| 13:00 | 0 | 40 | 9 | 1 | 50 | 13 | 9 | 7 | 21 | 0 | 0 | 28 | 17 | 8 | 0 | 0 | 0 | 0 | 0 | 24 | 7 | 8 | 8 | 12 | 0 | 28 | 18 | 15 | 106 |
| 13:15 | 0 | 38 | 8 | 0 | 46 | 22 | 20 | 8 | 24 | 0 | 0 | 32 | 27 | 16 | 0 | 0 | 0 | 0 | 0 | 26 | 29 | 11 | 12 | 7 | 0 | 30 | 31 | 16 | 108 |
| 13:30 | 0 | 38 | 13 | 0 | 51 | 28 | 28 | 12 | 25 | 0 | 0 | 37 | 18 | 19 | 0 | 0 | 0 | 0 | 0 | 15 | 38 | 6 | 11 | 7 | 0 | 24 | 23 | 15 | 112 |
| 13:45 | 0 | 34 | 6 | 0 | 40 | 14 | 46 | 14 | 26 | 0 | 0 | 40 | 20 | 14 | 0 | 0 | 0 | 0 | 0 | 24 | 17 | 9 | 14 | 8 | 0 | 31 | 28 | 17 | 111 |
| Hourly Total | 0 | 150 | 36 | 1 | 187 | 77 | 103 | 41 | 96 | 0 | 0 | 137 | 82 | 57 | 0 | 0 | 0 | 0 | 0 | 89 | 91 | 34 | 45 | 34 | 0 | 113 | 100 | 63 | 437 |
| Grand Total | 0 | 463 | 116 | 1 | 580 | 202 | 269 | 92 | 311 | 0 | 0 | 403 | 148 | 110 | 0 | 0 | 0 | 0 | 0 | 222 | 230 | 88 | 99 | 105 | 0 | 292 | 205 | 168 | 1275 |
| approach % | 0 | 79 | 20 | 0 | 100 | 34 | 46 | 22 | 77 | 0 | 0 | 100 | 36 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 33 | 35 | 0 | 100 | 70 | 57 | 300 |
| Total % | 0 | 36 | 9 | 0 | 45 | 15 | 21 | 7 | 24 | 0 | 0 | 31 | 11 | 8 | 0 | 0 | 0 | 0 | 0 | 17 | 18 | 6 | 7 | 8 | 0 | 22 | 16 | 13 | 100 |
| Motorcycles | 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 |
| Motorcycles % | 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 |
| Cars & Light Goods | 0 | 456 | 115 | 1 | 572 | 0 | 0 | 92 | 308 | 0 | 0 | 400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 97 | 104 | 0 | 289 | 0 | 0 | 1261 |
| Cars & Light Goods | 0 | 98 | 99 | 100 | 0 | 0 | 0 | 100 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 97 | 99 | 0 | 0 | 0 | 0 | 98 |
| Single Unit Trucks | 0 | 4 | 1 | 0 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 10 |
| Single Unit Trucks | 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 | 0 | 0 | 0 |
| Articulated Trucks | 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 |
| Articulated Trucks % | 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 |
| Buses | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Buses % | 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 |
| Bicycles on Road | 0 | 0 | 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 | 0 | 1 |
| Bicycles on Road % | 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 |
| Peds | 0 | 0 | 0 | 0 | 0 | 202 | 269 | 0 | 0 | 0 | 0 | 0 | 148 | 110 | 0 | 0 | 0 | 0 | 0 | 222 | 230 | 0 | 0 | 0 | 0 | 0 | 205 | 168 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 |
| Pcl % | 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 |

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

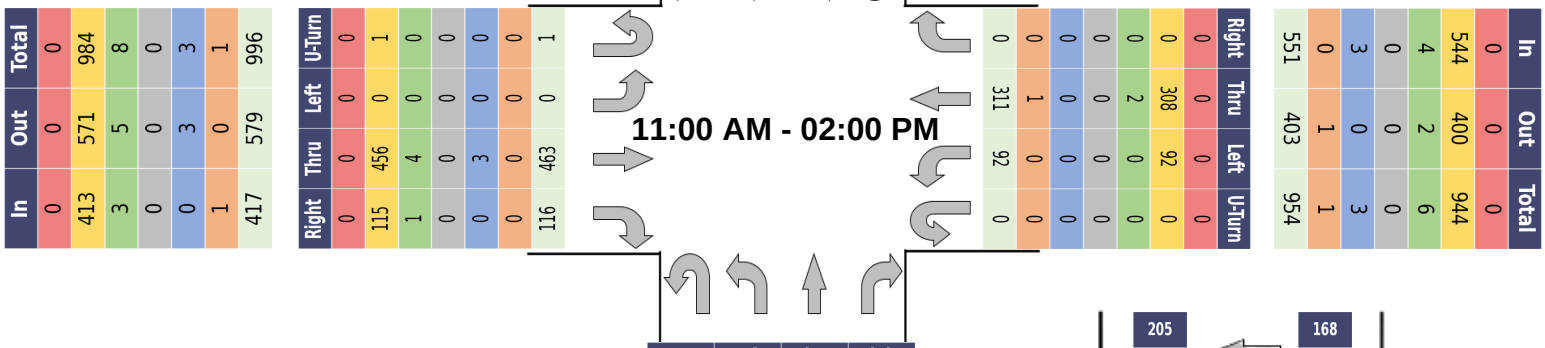
Date: 04-12-2025

## Turning Movement Data

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

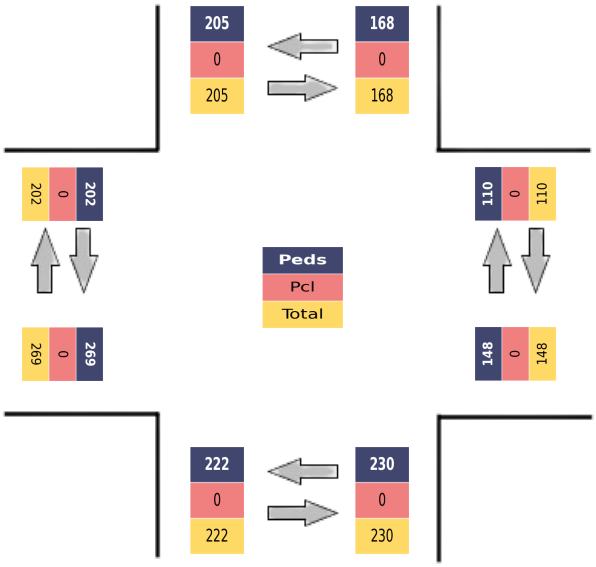
| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 289 | 289 |
| 0 | 3 | 3 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 292 | 292 |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 104 | 97 | 88 | 0 |
| 1 | 2 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 105 | 99 | 88 | 0 |




| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 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 |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 304 | 0 | 304 |
| 3 | 0 | 3 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 307 | 0 | 307 |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

## TURNING MOVEMENT MID PEAK HOUR

| Leg | Middle St | | | | | | | Middle St | | | | | | | Exchange St | | | | | | | Exchange St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | | |
| Start Time | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 12:15:00 | 0 | 39 | 13 | 0 | 52 | 16 | 17 | 11 | 30 | 0 | 0 | 41 | 10 | 15 | 0 | 0 | 0 | 0 | 0 | 17 | 12 | 8 | 7 | 14 | 0 | 29 | 17 | 13 | 122 |
| 12:30:00 | 0 | 46 | 12 | 0 | 58 | 13 | 33 | 10 | 29 | 0 | 0 | 39 | 13 | 5 | 0 | 0 | 0 | 0 | 0 | 22 | 30 | 5 | 5 | 13 | 0 | 23 | 19 | 15 | 120 |
| 12:45:00 | 0 | 39 | 8 | 0 | 47 | 30 | 35 | 6 | 23 | 0 | 0 | 29 | 15 | 6 | 0 | 0 | 0 | 0 | 0 | 14 | 14 | 11 | 11 | 8 | 0 | 30 | 17 | 9 | 106 |
| 13:00:00 | 0 | 40 | 9 | 1 | 50 | 13 | 9 | 7 | 21 | 0 | 0 | 28 | 17 | 8 | 0 | 0 | 0 | 0 | 0 | 24 | 7 | 8 | 8 | 12 | 0 | 28 | 18 | 15 | 106 |
| Grand Total | 0 | 164 | 42 | 1 | 207 | 72 | 94 | 34 | 103 | 0 | 0 | 137 | 55 | 34 | 0 | 0 | 0 | 0 | 0 | 77 | 63 | 32 | 31 | 47 | 0 | 110 | 71 | 52 | 454 |
| approach % | 0 | 79 | 20 | 0 | 100 | 35 | 45 | 25 | 75 | 0 | 0 | 100 | 40 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 28 | 43 | 0 | 100 | 65 | 47 | 300 |
| Total % | 0 | 36 | 9 | 0 | 46 | 16 | 21 | 7 | 23 | 0 | 0 | 30 | 12 | 7 | 0 | 0 | 0 | 0 | 0 | 17 | 14 | 7 | 7 | 10 | 0 | 24 | 16 | 11 | 100 |
| Motorcycles | 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 |
| Motorcycles % | 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 |
| Cars & Light Goods | 0 | 164 | 42 | 1 | 207 | 0 | 0 | 34 | 102 | 0 | 0 | 136 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 31 | 46 | 0 | 109 | 0 | 0 | 452 |
| Cars & Light Goods | 0 | 100 | 100 | 100 | 0 | 0 | 0 | 100 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 98 | 0 | 0 | 0 | 0 | 100 |
| Single Unit Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Single Unit Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Articulated Trucks | 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 |
| Articulated Trucks % | 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 |
| Buses | 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 |
| Buses % | 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 |
| Bicycles on Road | 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 |
| Bicycles on Road % | 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 |
| Peds | 0 | 0 | 0 | 0 | 0 | 72 | 94 | 0 | 0 | 0 | 0 | 0 | 55 | 34 | 0 | 0 | 0 | 0 | 0 | 77 | 63 | 0 | 0 | 0 | 0 | 0 | 71 | 52 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 |
| Pcl % | 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 |
| PHF | 0.0 | 0.89 | 0.81 | 0.25 | 0.89 | 0.6 | 0.67 | 0.77 | 0.86 | 0.0 | 0.0 | 0.84 | 0.81 | 0.57 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.52 | 0.73 | 0.7 | 0.84 | 0.0 | 0.92 | 0.93 | 0.87 | 0.93 |

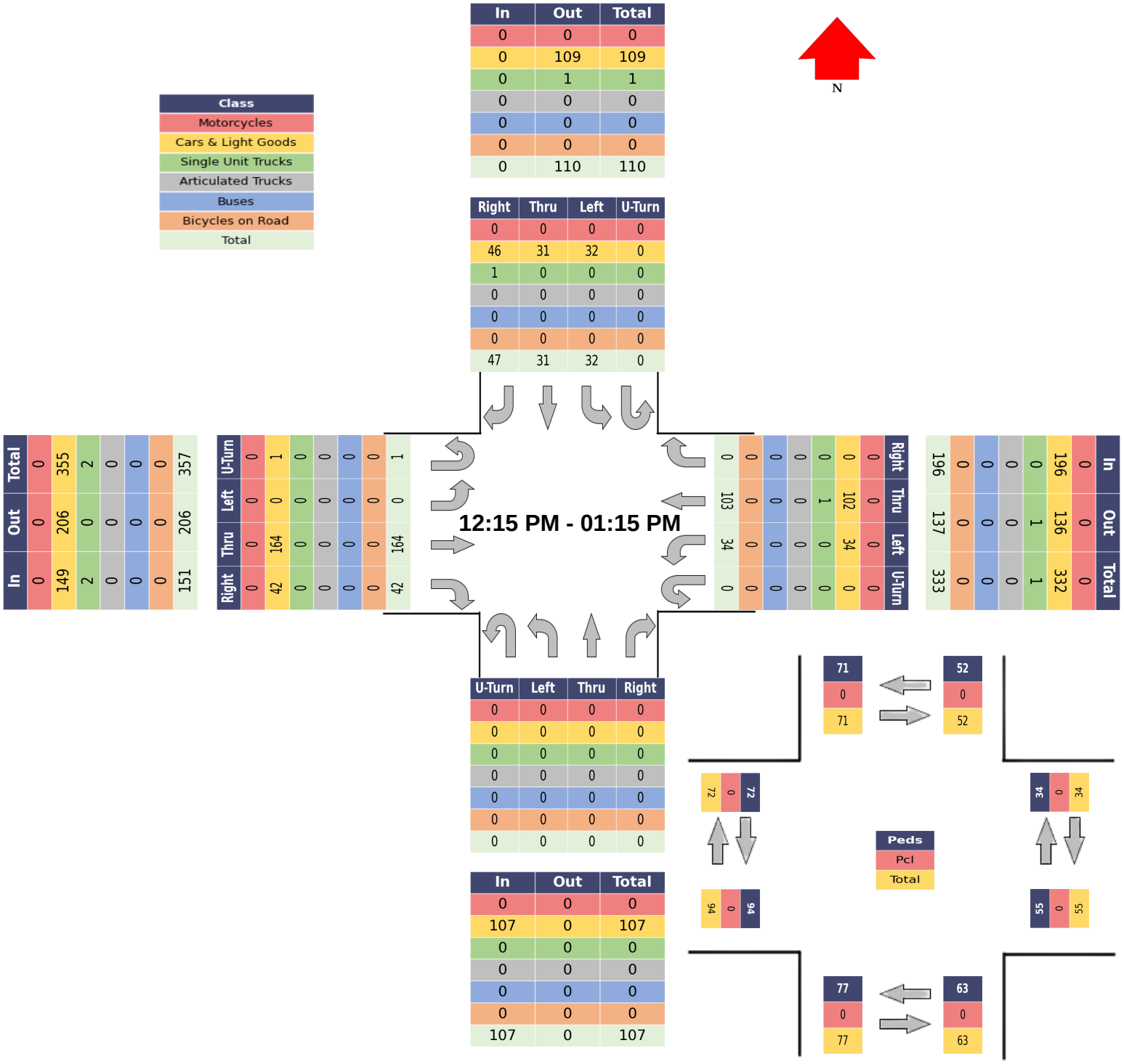
Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

# Mid Peak Turning Movement Data Summary



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

## Motorcycles

| Leg | Middle St | | | | | | Middle St | | | | | | Exchange St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

## Cars & Light Goods

| Leg | Middle St | | | | | | Middle St | | | | | | Exchange St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 39 | 12 | 0 | 0 | 0 | 4 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 6 | 5 | 0 | 0 | 0 |
| 11:15 | 0 | 28 | 12 | 0 | 0 | 0 | 6 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 8 | 0 | 0 | 0 |
| 11:30 | 0 | 38 | 7 | 0 | 0 | 0 | 7 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 5 | 0 | 0 | 0 |
| 11:45 | 0 | 44 | 9 | 0 | 0 | 0 | 6 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 7 | 9 | 0 | 0 | 0 |
| Hourly Total | 0 | 149 | 40 | 0 | 0 | 0 | 23 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 26 | 27 | 0 | 0 | 0 |
| 12:00 | 0 | 35 | 6 | 0 | 0 | 0 | 1 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 5 | 9 | 0 | 0 | 0 |
| 12:15 | 0 | 39 | 13 | 0 | 0 | 0 | 11 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 7 | 14 | 0 | 0 | 0 |
| 12:30 | 0 | 46 | 12 | 0 | 0 | 0 | 10 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 13 | 0 | 0 | 0 |
| 12:45 | 0 | 39 | 8 | 0 | 0 | 0 | 6 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 7 | 0 | 0 | 0 |
| Hourly Total | 0 | 159 | 39 | 0 | 0 | 0 | 28 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 28 | 43 | 0 | 0 | 0 |
| 13:00 | 0 | 40 | 9 | 1 | 0 | 0 | 7 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 12 | 0 | 0 | 0 |
| 13:15 | 0 | 36 | 8 | 0 | 0 | 0 | 8 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 12 | 7 | 0 | 0 | 0 |
| 13:30 | 0 | 38 | 13 | 0 | 0 | 0 | 12 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 10 | 7 | 0 | 0 | 0 |
| 13:45 | 0 | 34 | 6 | 0 | 0 | 0 | 14 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 13 | 8 | 0 | 0 | 0 |
| Hourly Total | 0 | 148 | 36 | 1 | 0 | 0 | 41 | 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 43 | 34 | 0 | 0 | 0 |
| Total | 0 | 456 | 115 | 1 | 0 | 0 | 92 | 308 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 97 | 104 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

# Single Unit Trucks

| Leg | Middle St | | | | | | Middle St | | | | | | Exchange St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Hourly Total | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| Total | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

## Articulated Trucks

| Leg | Middle St | | | | | | Middle St | | | | | | Exchange St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

## Buses

| Leg | Middle St | | | | | | Middle St | | | | | | Exchange St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-2

Intersection Name: Middle St & Exchange St

GPS: 43.657723, -70.254672

Date: 04-12-2025

## Bicycles on Road

| Leg | Middle St | | | | | | Middle St | | | | | | Exchange St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| SUMMARY | |
|---|---|
| Project | Barton & Loguidice |
| Project Code | 12061 |
| Site Name | 12061-3 |
| Intersection Name | Fore St & Exchange St/Moulton St |
| Legs and Movements | All Processed Legs & Movements |
| Count Interval | 15 |
| Start Time | 15:00 |
| End Time | 17:45 |
| Location | 12061-3 |
| Latitude and Longitude | (43.656507, -70.253223) |

| | START | END | PHF |
|---|---|---|---|
| AM PEAK | | | |
| PM PEAK | **04-10-2025 16:45:00** | **04-10-2025 17:45:00** | **0.9** |
| Mid-Day PEAK | | | |
| Forced Peak AM | | | |
| Forced Peak PM | | | |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## TURNING MOVEMENT DATA

| Leg | Fore St | | | | | | | Fore St | | | | | | | Moulton St | | | | | | | Exchange St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | | |
| Start Time | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 15:00 | 0 | 41 | 7 | 0 | 48 | 21 | 29 | 4 | 32 | 0 | 0 | 36 | 7 | 13 | 0 | 0 | 0 | 0 | 0 | 14 | 4 | 8 | 3 | 14 | 0 | 25 | 6 | 11 | 109 |
| 15:15 | 0 | 39 | 6 | 1 | 46 | 11 | 13 | 2 | 26 | 0 | 0 | 28 | 16 | 11 | 0 | 0 | 0 | 0 | 0 | 8 | 3 | 12 | 5 | 15 | 0 | 32 | 10 | 12 | 106 |
| 15:30 | 0 | 45 | 9 | 0 | 54 | 19 | 9 | 4 | 30 | 0 | 0 | 34 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 20 | 3 | 9 | 4 | 11 | 0 | 24 | 3 | 11 | 112 |
| 15:45 | 0 | 33 | 5 | 0 | 38 | 13 | 14 | 4 | 30 | 0 | 0 | 34 | 19 | 9 | 0 | 0 | 0 | 0 | 0 | 15 | 13 | 10 | 3 | 20 | 0 | 33 | 13 | 13 | 105 |
| Hourly Total | 0 | 158 | 27 | 1 | 186 | 64 | 65 | 14 | 118 | 0 | 0 | 132 | 58 | 49 | 0 | 0 | 0 | 0 | 0 | 57 | 23 | 39 | 15 | 60 | 0 | 114 | 32 | 47 | 432 |
| 16:00 | 0 | 55 | 2 | 0 | 57 | 16 | 16 | 5 | 35 | 0 | 0 | 40 | 6 | 17 | 0 | 0 | 0 | 0 | 0 | 10 | 6 | 14 | 5 | 9 | 0 | 28 | 6 | 9 | 125 |
| 16:15 | 0 | 45 | 4 | 0 | 49 | 9 | 7 | 4 | 31 | 0 | 0 | 35 | 11 | 13 | 0 | 0 | 0 | 0 | 0 | 6 | 12 | 13 | 4 | 13 | 0 | 30 | 4 | 11 | 114 |
| 16:30 | 0 | 38 | 8 | 0 | 46 | 5 | 13 | 3 | 30 | 0 | 0 | 33 | 13 | 11 | 0 | 0 | 0 | 0 | 0 | 10 | 6 | 8 | 9 | 11 | 0 | 28 | 7 | 10 | 107 |
| 16:45 | 0 | 60 | 8 | 0 | 68 | 18 | 16 | 4 | 44 | 0 | 0 | 48 | 18 | 6 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 8 | 4 | 10 | 0 | 22 | 9 | 16 | 138 |
| Hourly Total | 0 | 198 | 22 | 0 | 220 | 48 | 52 | 16 | 140 | 0 | 0 | 156 | 48 | 47 | 0 | 0 | 0 | 0 | 0 | 41 | 39 | 43 | 22 | 43 | 0 | 108 | 26 | 46 | 484 |
| 17:00 | 0 | 43 | 15 | 0 | 58 | 18 | 18 | 2 | 38 | 0 | 0 | 40 | 14 | 20 | 0 | 0 | 0 | 0 | 0 | 17 | 10 | 22 | 2 | 12 | 0 | 36 | 13 | 13 | 134 |
| 17:15 | 0 | 57 | 9 | 0 | 66 | 4 | 10 | 2 | 47 | 0 | 0 | 49 | 10 | 14 | 0 | 0 | 0 | 0 | 0 | 13 | 11 | 19 | 4 | 14 | 0 | 37 | 4 | 15 | 152 |
| 17:30 | 0 | 58 | 15 | 0 | 73 | 14 | 12 | 4 | 44 | 0 | 0 | 48 | 18 | 18 | 0 | 0 | 0 | 0 | 0 | 15 | 14 | 13 | 7 | 21 | 0 | 41 | 21 | 25 | 162 |
| 17:45 | 0 | 58 | 14 | 0 | 72 | 16 | 22 | 2 | 31 | 0 | 1 | 34 | 11 | 9 | 0 | 0 | 0 | 0 | 0 | 18 | 9 | 7 | 3 | 15 | 0 | 25 | 6 | 14 | 131 |
| Hourly Total | 0 | 216 | 53 | 0 | 269 | 52 | 62 | 10 | 160 | 0 | 1 | 171 | 53 | 61 | 0 | 0 | 0 | 0 | 0 | 63 | 44 | 61 | 16 | 62 | 0 | 139 | 44 | 67 | 579 |
| Grand Total | 0 | 572 | 102 | 1 | 675 | 164 | 179 | 40 | 418 | 0 | 1 | 459 | 159 | 157 | 0 | 0 | 0 | 0 | 0 | 161 | 106 | 143 | 53 | 165 | 0 | 361 | 102 | 160 | 1495 |
| approach % | 0 | 84 | 15 | 0 | 100 | 24 | 26 | 8 | 91 | 0 | 0 | 100 | 34 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 14 | 45 | 0 | 100 | 28 | 44 | 300 |
| Total % | 0 | 38 | 6 | 0 | 45 | 10 | 11 | 2 | 27 | 0 | 0 | 30 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 7 | 9 | 3 | 11 | 0 | 24 | 6 | 10 | 100 |
| Motorcycles | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 4 | 0 | 0 | 5 |
| Motorcycles % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Cars & Light Goods | 0 | 562 | 101 | 1 | 664 | 0 | 0 | 40 | 411 | 0 | 1 | 452 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 | 52 | 156 | 0 | 349 | 0 | 0 | 1465 |
| Cars & Light Goods | 0 | 98 | 99 | 100 | 0 | 0 | 0 | 100 | 98 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 98 | 94 | 0 | 0 | 0 | 0 | 97 |
| Single Unit Trucks | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 | 0 | 0 | 11 |
| Single Unit Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Articulated Trucks | 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 |
| Articulated Trucks % | 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 |
| Buses | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Buses % | 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 |
| Bicycles on Road | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 11 |
| Bicycles on Road % | 0 | 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 | 0 | 0 |
| Peds | 0 | 0 | 0 | 0 | 0 | 164 | 178 | 0 | 0 | 0 | 0 | 0 | 159 | 156 | 0 | 0 | 0 | 0 | 0 | 161 | 106 | 0 | 0 | 0 | 0 | 0 | 102 | 159 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 | 1 | 0 |
| Pcl % | 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 |

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Turning Movement Data

| In | Out | Total |
|---|---|---|
| 0 | 4 | 4 |
| 0 | 349 | 349 |
| 0 | 4 | 4 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 4 | 4 |
| 0 | 361 | 361 |

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

N

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 2 | 0 | 2 | 0 |
| 156 | 52 | 141 | 0 |
| 3 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 |
| 165 | 53 | 143 | 0 |

| In | 2 | 568 | 6 | 0 | 1 | 7 | 584 |
|---|---|---|---|---|---|---|---|
| Out | 1 | 663 | 4 | 0 | 2 | 4 | 674 |
| Total | 3 | 1231 | 10 | 0 | 3 | 11 | 1258 |

| Right | 0 | 101 | 1 | 0 | 0 | 0 | 102 |
|---|---|---|---|---|---|---|---|
| Thru | 1 | 562 | 3 | 0 | 2 | 4 | 572 |
| Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| U-Turn | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

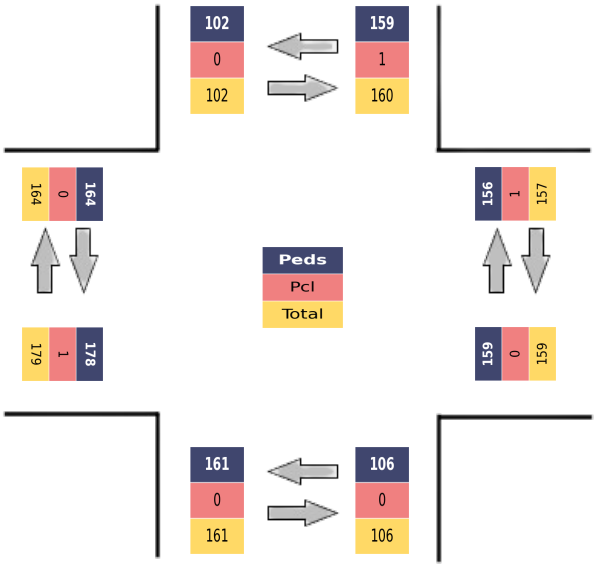
| Right | 0 | 418 | 40 | 1 |
|---|---|---|---|---|
| Thru | 0 | 3 | 0 | 0 |
| Left | 0 | 411 | 40 | 1 |
| U-Turn | 0 | 0 | 0 | 0 |

| In | 3 | 704 | 3 | 0 | 6 | 3 | 716 |
|---|---|---|---|---|---|---|---|
| Out | 0 | 451 | 3 | 0 | 1 | 3 | 458 |
| Total | 3 | 1155 | 6 | 0 | 3 | 7 | 1174 |

**03:00 PM - 06:00 PM**

| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 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 |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 193 | 0 | 193 |
| 2 | 0 | 2 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 195 | 0 | 195 |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## TURNING MOVEMENT PM PEAK HOUR

| Leg | Fore St | | | | | | | Fore St | | | | | | | Moulton St | | | | | | | Exchange St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | | |
| Start Time | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 16:45:00 | 0 | 60 | 8 | 0 | 68 | 18 | 16 | 4 | 44 | 0 | 0 | 48 | 18 | 6 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 8 | 4 | 10 | 0 | 22 | 9 | 16 | 138 |
| 17:00:00 | 0 | 43 | 15 | 0 | 58 | 18 | 18 | 2 | 38 | 0 | 0 | 40 | 14 | 20 | 0 | 0 | 0 | 0 | 0 | 17 | 10 | 22 | 2 | 12 | 0 | 36 | 13 | 13 | 134 |
| 17:15:00 | 0 | 57 | 9 | 0 | 66 | 4 | 10 | 2 | 47 | 0 | 0 | 49 | 10 | 14 | 0 | 0 | 0 | 0 | 0 | 13 | 11 | 19 | 4 | 14 | 0 | 37 | 4 | 15 | 152 |
| 17:30:00 | 0 | 58 | 15 | 0 | 73 | 14 | 12 | 4 | 44 | 0 | 0 | 48 | 18 | 18 | 0 | 0 | 0 | 0 | 0 | 15 | 14 | 13 | 7 | 21 | 0 | 41 | 21 | 25 | 162 |
| Grand Total | 0 | 218 | 47 | 0 | 265 | 54 | 56 | 12 | 173 | 0 | 0 | 185 | 60 | 58 | 0 | 0 | 0 | 0 | 0 | 60 | 50 | 62 | 17 | 57 | 0 | 136 | 47 | 69 | 586 |
| approach % | 0 | 82 | 18 | 0 | 100 | 20 | 21 | 6 | 94 | 0 | 0 | 100 | 32 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 12 | 42 | 0 | 100 | 35 | 51 | 300 |
| Total % | 0 | 37 | 8 | 0 | 45 | 9 | 10 | 2 | 30 | 0 | 0 | 32 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 9 | 11 | 3 | 10 | 0 | 23 | 8 | 12 | 100 |
| Motorcycles | 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 |
| Motorcycles % | 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 |
| Cars & Light Goods | 0 | 215 | 47 | 0 | 262 | 0 | 0 | 12 | 172 | 0 | 0 | 184 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 16 | 54 | 0 | 132 | 0 | 0 | 578 |
| Cars & Light Goods | 0 | 99 | 100 | 0 | 0 | 0 | 0 | 100 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 94 | 95 | 0 | 0 | 0 | 0 | 99 |
| Single Unit Trucks | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Single Unit Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| Articulated Trucks | 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 |
| Articulated Trucks % | 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 |
| Buses | 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 | 0 | 0 | 0 | 1 |
| Buses % | 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 |
| Bicycles on Road | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 5 |
| Bicycles on Road % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 1 |
| Peds | 0 | 0 | 0 | 0 | 0 | 54 | 56 | 0 | 0 | 0 | 0 | 0 | 60 | 58 | 0 | 0 | 0 | 0 | 0 | 60 | 50 | 0 | 0 | 0 | 0 | 0 | 47 | 69 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 |
| Pcl % | 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 |
| PHF | 0.0 | 0.91 | 0.78 | 0.0 | 0.91 | 0.75 | 0.78 | 0.75 | 0.92 | 0.0 | 0.0 | 0.94 | 0.83 | 0.72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.88 | 0.83 | 0.7 | 0.61 | 0.68 | 0.0 | 0.83 | 0.56 | 0.69 | 0.9 |

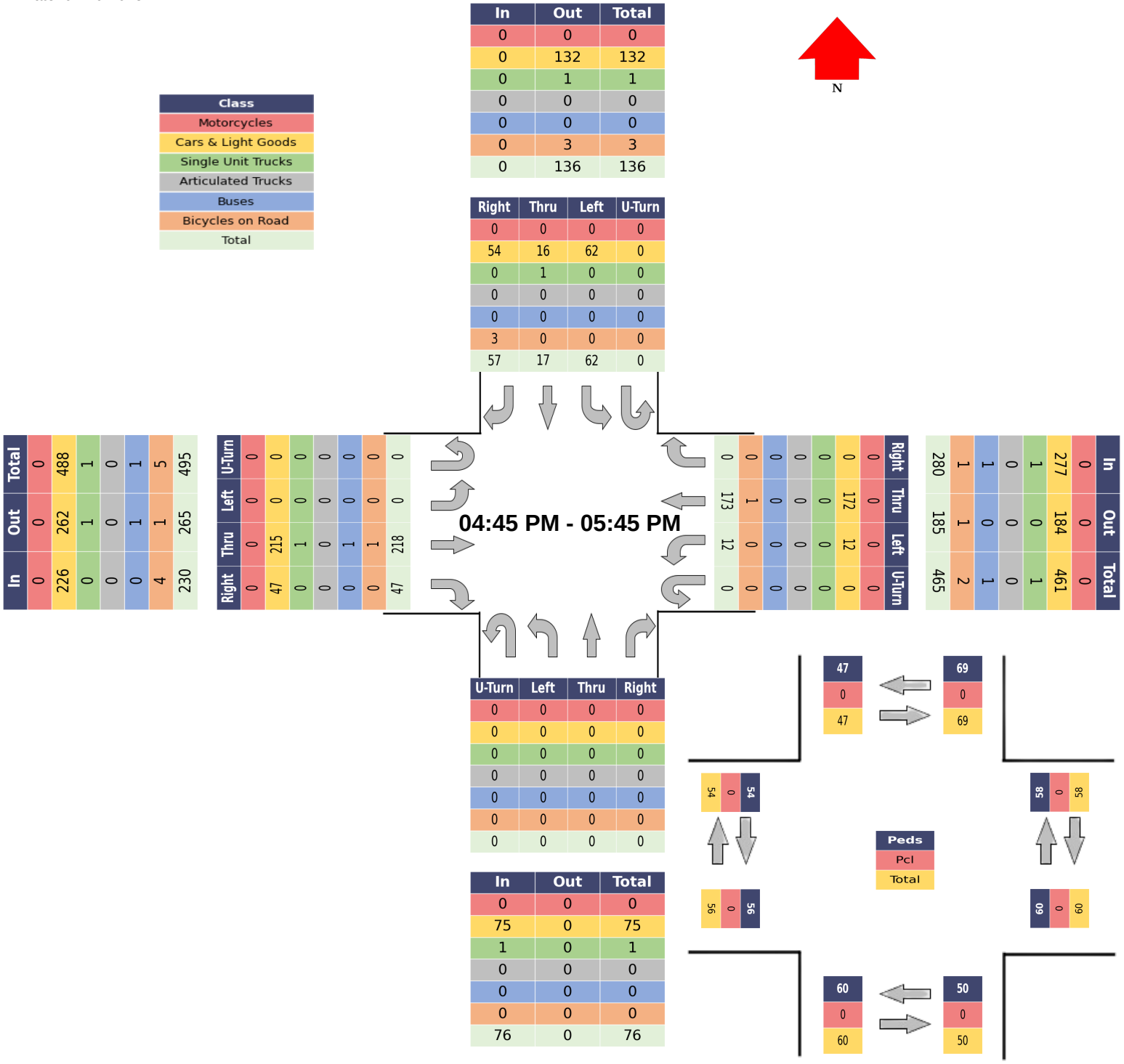
Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

# PM Peak Turning Movement Data Summary



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Motorcycles

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 |
| 16:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Cars & Light Goods

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 41 | 7 | 0 | 0 | 0 | 4 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 3 | 13 | 0 | 0 | 0 |
| 15:15 | 0 | 37 | 5 | 1 | 0 | 0 | 2 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 5 | 14 | 0 | 0 | 0 |
| 15:30 | 0 | 45 | 9 | 0 | 0 | 0 | 4 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 4 | 9 | 0 | 0 | 0 |
| 15:45 | 0 | 33 | 5 | 0 | 0 | 0 | 4 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 3 | 19 | 0 | 0 | 0 |
| Hourly Total | 0 | 156 | 26 | 1 | 0 | 0 | 14 | 116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 15 | 55 | 0 | 0 | 0 |
| 16:00 | 0 | 53 | 2 | 0 | 0 | 0 | 5 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 5 | 8 | 0 | 0 | 0 |
| 16:15 | 0 | 44 | 4 | 0 | 0 | 0 | 4 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 4 | 13 | 0 | 0 | 0 |
| 16:30 | 0 | 37 | 8 | 0 | 0 | 0 | 3 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 9 | 11 | 0 | 0 | 0 |
| 16:45 | 0 | 58 | 8 | 0 | 0 | 0 | 4 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 4 | 10 | 0 | 0 | 0 |
| Hourly Total | 0 | 192 | 22 | 0 | 0 | 0 | 16 | 136 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 22 | 42 | 0 | 0 | 0 |
| 17:00 | 0 | 43 | 15 | 0 | 0 | 0 | 2 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 2 | 11 | 0 | 0 | 0 |
| 17:15 | 0 | 57 | 9 | 0 | 0 | 0 | 2 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 3 | 13 | 0 | 0 | 0 |
| 17:30 | 0 | 57 | 15 | 0 | 0 | 0 | 4 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 7 | 20 | 0 | 0 | 0 |
| 17:45 | 0 | 57 | 14 | 0 | 0 | 0 | 2 | 31 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 15 | 0 | 0 | 0 |
| Hourly Total | 0 | 214 | 53 | 0 | 0 | 0 | 10 | 159 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 15 | 59 | 0 | 0 | 0 |
| Total | 0 | 562 | 101 | 1 | 0 | 0 | 40 | 411 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 | 52 | 156 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Single Unit Trucks

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Total | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Articulated Trucks

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Buses

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-10-2025

## Bicycles on Road

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17:30 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| Total | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |

| SUMMARY | |
|---|---|
| Project | Barton & Loguidice |
| Project Code | 12061 |
| Site Name | 12061-3 |
| Intersection Name | Fore St & Exchange St/Moulton St |
| Legs and Movements | All Processed Legs & Movements |
| Count Interval | 15 |
| Start Time | 11:00 |
| End Time | 13:45 |
| Location | 12061-3 |
| Latitude and Longitude | (43.656507, -70.253223) |

| | START | END | PHF |
|---|---|---|---|
| AM PEAK | | | |
| PM PEAK | | | |
| Mid-Day PEAK | **04-12-2025 12:15:00** | **04-12-2025 13:15:00** | **0.98** |
| Forced Peak AM | | | |
| Forced Peak PM | | | |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

## TURNING MOVEMENT DATA

| Leg | Fore St | | | | | | | Fore St | | | | | | | Moulton St | | | | | | | Exchange St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | | |
| Start Time | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 11:00 | 0 | 43 | 6 | 0 | 49 | 13 | 8 | 1 | 32 | 0 | 0 | 33 | 13 | 12 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 10 | 0 | 12 | 0 | 22 | 7 | 4 | 104 |
| 11:15 | 0 | 38 | 0 | 0 | 38 | 8 | 11 | 2 | 22 | 0 | 0 | 24 | 17 | 11 | 0 | 0 | 0 | 0 | 0 | 16 | 9 | 10 | 7 | 13 | 0 | 30 | 8 | 15 | 92 |
| 11:30 | 0 | 34 | 6 | 0 | 40 | 17 | 19 | 2 | 26 | 0 | 0 | 28 | 8 | 6 | 0 | 0 | 0 | 0 | 0 | 10 | 14 | 10 | 1 | 8 | 0 | 19 | 9 | 4 | 87 |
| 11:45 | 0 | 43 | 10 | 0 | 53 | 22 | 20 | 3 | 37 | 0 | 0 | 40 | 14 | 12 | 0 | 0 | 0 | 0 | 0 | 4 | 19 | 5 | 6 | 9 | 0 | 20 | 6 | 13 | 113 |
| Hourly Total | 0 | 158 | 22 | 0 | 180 | 60 | 58 | 8 | 117 | 0 | 0 | 125 | 52 | 41 | 0 | 0 | 0 | 0 | 0 | 32 | 51 | 35 | 14 | 42 | 0 | 91 | 30 | 36 | 396 |
| 12:00 | 0 | 41 | 11 | 0 | 52 | 7 | 13 | 1 | 20 | 0 | 0 | 21 | 14 | 20 | 0 | 0 | 0 | 0 | 0 | 12 | 11 | 3 | 3 | 7 | 0 | 13 | 12 | 23 | 86 |
| 12:15 | 0 | 43 | 8 | 0 | 51 | 11 | 12 | 4 | 28 | 0 | 0 | 32 | 9 | 14 | 0 | 0 | 0 | 0 | 0 | 4 | 12 | 11 | 4 | 14 | 0 | 29 | 7 | 13 | 112 |
| 12:30 | 0 | 45 | 4 | 0 | 49 | 16 | 14 | 3 | 34 | 0 | 0 | 37 | 19 | 10 | 0 | 0 | 0 | 0 | 0 | 4 | 13 | 9 | 3 | 13 | 0 | 25 | 11 | 5 | 111 |
| 12:45 | 0 | 43 | 11 | 0 | 54 | 23 | 24 | 2 | 26 | 0 | 0 | 28 | 18 | 13 | 0 | 0 | 0 | 0 | 0 | 16 | 13 | 13 | 0 | 15 | 0 | 28 | 16 | 18 | 110 |
| Hourly Total | 0 | 172 | 34 | 0 | 206 | 57 | 63 | 10 | 108 | 0 | 0 | 118 | 60 | 57 | 0 | 0 | 0 | 0 | 0 | 36 | 49 | 36 | 10 | 49 | 0 | 95 | 46 | 59 | 419 |
| 13:00 | 0 | 41 | 7 | 0 | 48 | 19 | 18 | 3 | 24 | 0 | 2 | 29 | 23 | 17 | 0 | 0 | 0 | 0 | 0 | 7 | 8 | 8 | 2 | 17 | 0 | 27 | 13 | 26 | 104 |
| 13:15 | 0 | 40 | 7 | 0 | 47 | 33 | 21 | 4 | 17 | 0 | 0 | 21 | 24 | 43 | 0 | 0 | 0 | 0 | 0 | 16 | 4 | 8 | 5 | 16 | 0 | 29 | 5 | 29 | 97 |
| 13:30 | 0 | 47 | 8 | 0 | 55 | 29 | 15 | 4 | 25 | 0 | 0 | 29 | 16 | 24 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 11 | 2 | 21 | 0 | 34 | 21 | 29 | 118 |
| 13:45 | 0 | 31 | 7 | 0 | 38 | 35 | 33 | 0 | 25 | 0 | 0 | 25 | 33 | 22 | 0 | 0 | 0 | 0 | 0 | 13 | 10 | 12 | 7 | 18 | 0 | 37 | 19 | 26 | 100 |
| Hourly Total | 0 | 159 | 29 | 0 | 188 | 116 | 87 | 11 | 91 | 0 | 2 | 104 | 96 | 106 | 0 | 0 | 0 | 0 | 0 | 42 | 28 | 39 | 16 | 72 | 0 | 127 | 58 | 110 | 419 |
| Grand Total | 0 | 489 | 85 | 0 | 574 | 233 | 208 | 29 | 316 | 0 | 2 | 347 | 208 | 204 | 0 | 0 | 0 | 0 | 0 | 110 | 128 | 110 | 40 | 163 | 0 | 313 | 134 | 205 | 1234 |
| approach % | 0 | 85 | 14 | 0 | 100 | 40 | 36 | 8 | 91 | 0 | 0 | 100 | 59 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 12 | 52 | 0 | 100 | 42 | 65 | 300 |
| Total % | 0 | 39 | 6 | 0 | 46 | 18 | 16 | 2 | 25 | 0 | 0 | 28 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 8 | 10 | 8 | 3 | 13 | 0 | 25 | 10 | 16 | 100 |
| Motorcycles | 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 |
| Motorcycles % | 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 |
| Cars & Light Goods | 0 | 483 | 85 | 0 | 568 | 0 | 0 | 29 | 313 | 0 | 2 | 344 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 39 | 163 | 0 | 310 | 0 | 0 | 1222 |
| Cars & Light Goods | 0 | 98 | 100 | 0 | 0 | 0 | 0 | 100 | 99 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 97 | 100 | 0 | 0 | 0 | 0 | 99 |
| Single Unit Trucks | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 3 | 0 | 0 | 11 |
| Single Unit Trucks | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Articulated Trucks | 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 |
| Articulated Trucks % | 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 |
| Buses | 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 |
| Buses % | 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 |
| Bicycles on Road | 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 | 0 | 0 | 0 | 1 |
| Bicycles on Road % | 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 |
| Peds | 0 | 0 | 0 | 0 | 0 | 233 | 208 | 0 | 0 | 0 | 0 | 0 | 208 | 204 | 0 | 0 | 0 | 0 | 0 | 110 | 128 | 0 | 0 | 0 | 0 | 0 | 134 | 205 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 |
| Pcl % | 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 |

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

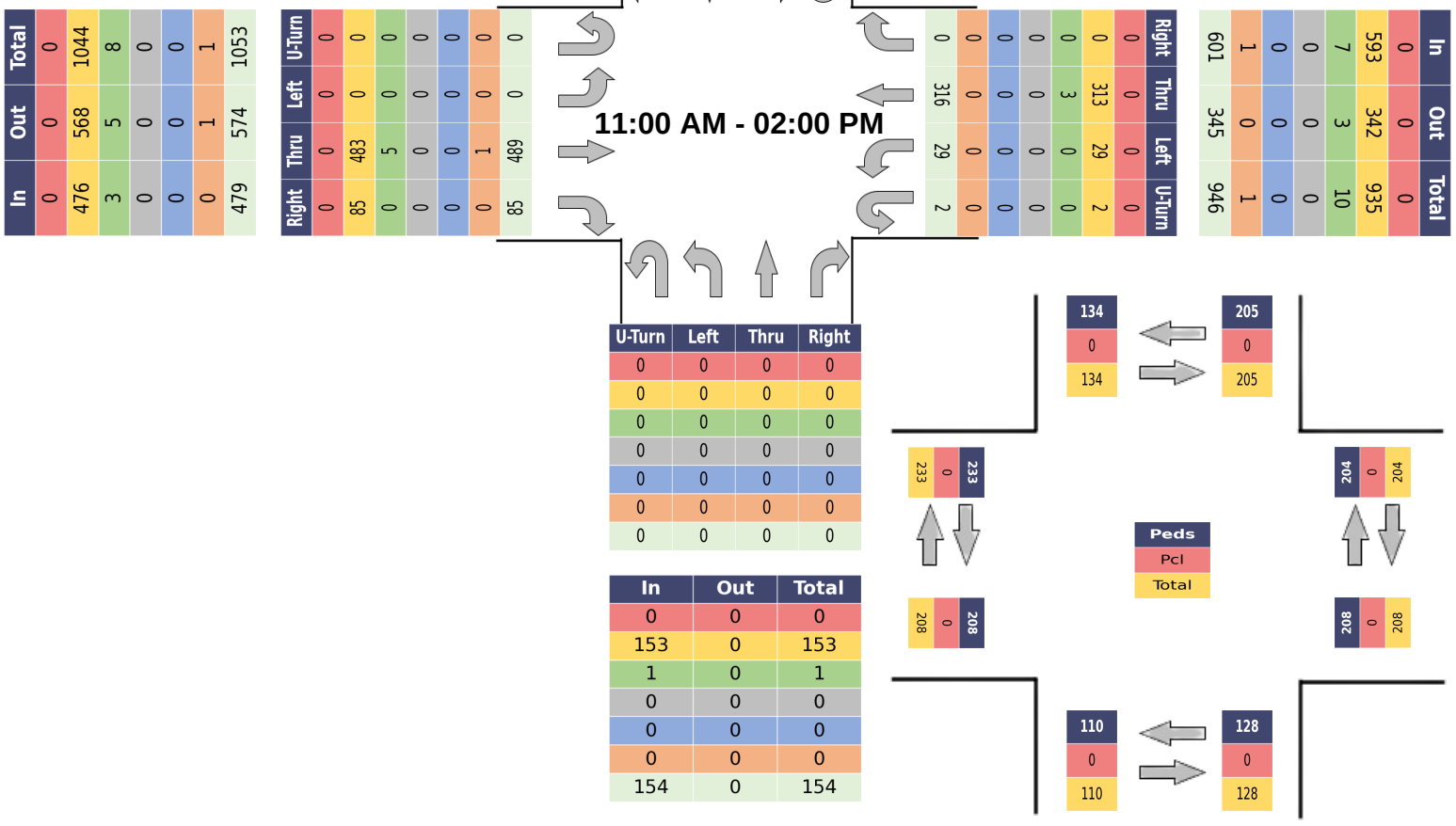
## Turning Movement Data

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 310 | 310 |
| 0 | 3 | 3 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 313 | 313 |

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

N

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 163 | 39 | 108 | 0 |
| 0 | 1 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 163 | 40 | 110 | 0 |




| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 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 |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 153 | 0 | 153 |
| 1 | 0 | 1 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 154 | 0 | 154 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

## TURNING MOVEMENT MID PEAK HOUR

| Leg | Fore St | | | | | | | Fore St | | | | | | | Moulton St | | | | | | | Exchange St | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | | |
| Start Time | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 12:15:00 | 0 | 43 | 8 | 0 | 51 | 11 | 12 | 4 | 28 | 0 | 0 | 32 | 9 | 14 | 0 | 0 | 0 | 0 | 0 | 4 | 12 | 11 | 4 | 14 | 0 | 29 | 7 | 13 | 112 |
| 12:30:00 | 0 | 45 | 4 | 0 | 49 | 16 | 14 | 3 | 34 | 0 | 0 | 37 | 19 | 10 | 0 | 0 | 0 | 0 | 0 | 4 | 13 | 9 | 3 | 13 | 0 | 25 | 11 | 5 | 111 |
| 12:45:00 | 0 | 43 | 11 | 0 | 54 | 23 | 24 | 2 | 26 | 0 | 0 | 28 | 18 | 13 | 0 | 0 | 0 | 0 | 0 | 16 | 13 | 13 | 0 | 15 | 0 | 28 | 16 | 18 | 110 |
| 13:00:00 | 0 | 41 | 7 | 0 | 48 | 19 | 18 | 3 | 24 | 0 | 2 | 29 | 23 | 17 | 0 | 0 | 0 | 0 | 0 | 7 | 8 | 8 | 2 | 17 | 0 | 27 | 13 | 26 | 104 |
| Grand Total | 0 | 172 | 30 | 0 | 202 | 69 | 68 | 12 | 112 | 0 | 2 | 126 | 69 | 54 | 0 | 0 | 0 | 0 | 0 | 31 | 46 | 41 | 9 | 59 | 0 | 109 | 47 | 62 | 437 |
| approach % | 0 | 85 | 15 | 0 | 100 | 34 | 34 | 10 | 89 | 0 | 2 | 100 | 55 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 8 | 54 | 0 | 100 | 43 | 57 | 300 |
| Total % | 0 | 39 | 7 | 0 | 46 | 16 | 16 | 3 | 26 | 0 | 0 | 29 | 16 | 12 | 0 | 0 | 0 | 0 | 0 | 7 | 11 | 9 | 2 | 14 | 0 | 25 | 11 | 14 | 100 |
| Motorcycles | 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 |
| Motorcycles % | 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 |
| Cars & Light Goods | 0 | 171 | 30 | 0 | 201 | 0 | 0 | 12 | 112 | 0 | 2 | 126 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 9 | 59 | 0 | 109 | 0 | 0 | 436 |
| Cars & Light Goods | 0 | 99 | 100 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 0 | 0 | 0 | 0 | 100 |
| Single Unit Trucks | 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 | 0 | 0 | 0 | 1 |
| Single Unit Trucks | 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 |
| Articulated Trucks | 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 |
| Articulated Trucks % | 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 |
| Buses | 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 |
| Buses % | 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 |
| Bicycles on Road | 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 |
| Bicycles on Road % | 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 |
| Peds | 0 | 0 | 0 | 0 | 0 | 69 | 68 | 0 | 0 | 0 | 0 | 0 | 69 | 54 | 0 | 0 | 0 | 0 | 0 | 31 | 46 | 0 | 0 | 0 | 0 | 0 | 47 | 62 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 |
| Pcl % | 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 |
| PHF | 0.0 | 0.96 | 0.68 | 0.0 | 0.94 | 0.75 | 0.71 | 0.75 | 0.82 | 0.0 | 0.25 | 0.85 | 0.75 | 0.79 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.48 | 0.88 | 0.79 | 0.56 | 0.87 | 0.0 | 0.94 | 0.73 | 0.6 | 0.98 |

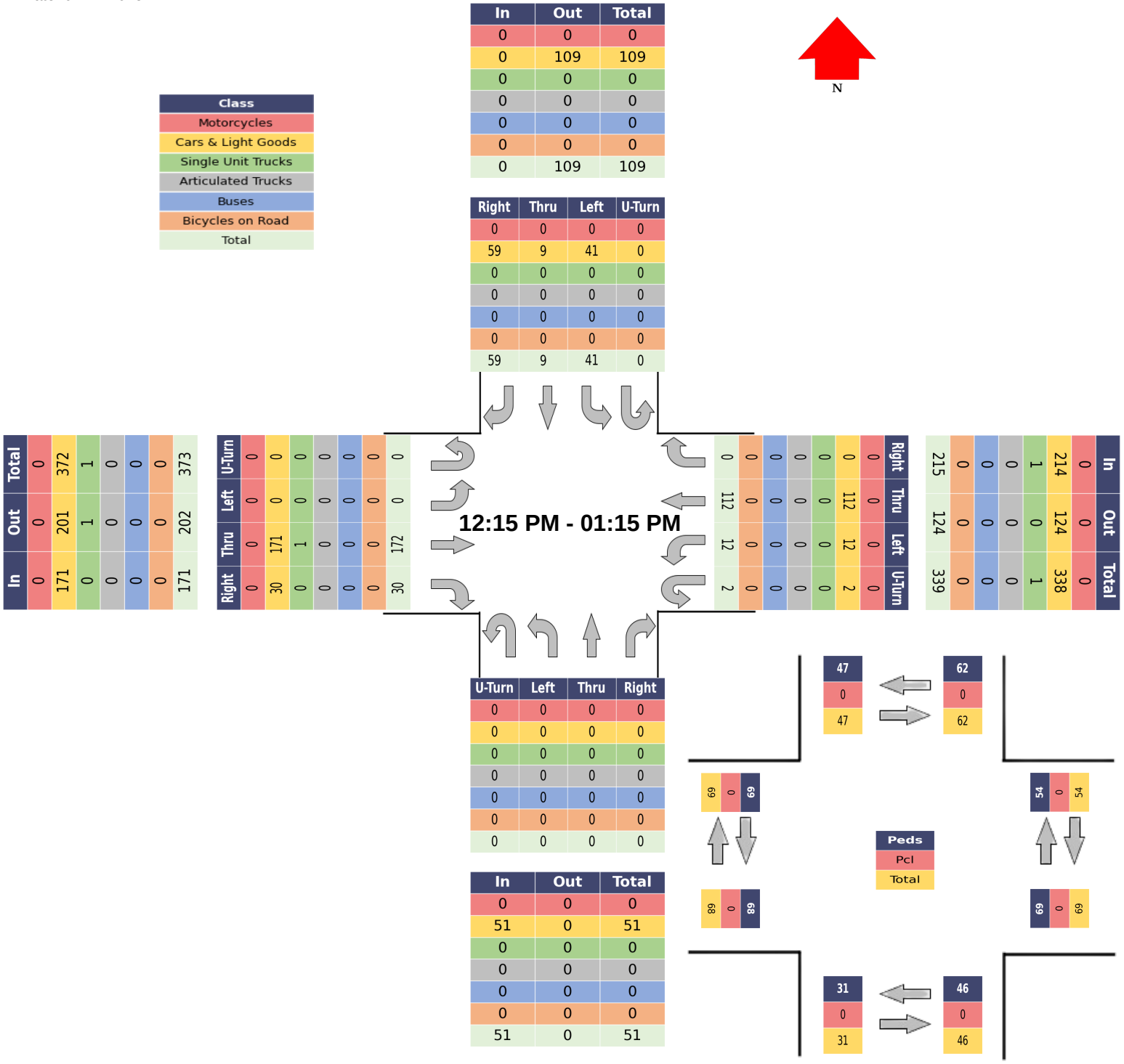
Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

# Mid Peak Turning Movement Data Summary



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

## Motorcycles

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

## Cars & Light Goods

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 42 | 6 | 0 | 0 | 0 | 1 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 12 | 0 | 0 | 0 |
| 11:15 | 0 | 37 | 0 | 0 | 0 | 0 | 2 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 7 | 13 | 0 | 0 | 0 |
| 11:30 | 0 | 33 | 6 | 0 | 0 | 0 | 2 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1 | 8 | 0 | 0 | 0 |
| 11:45 | 0 | 43 | 10 | 0 | 0 | 0 | 3 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 9 | 0 | 0 | 0 |
| Hourly Total | 0 | 155 | 22 | 0 | 0 | 0 | 8 | 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 14 | 42 | 0 | 0 | 0 |
| 12:00 | 0 | 41 | 11 | 0 | 0 | 0 | 1 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 7 | 0 | 0 | 0 |
| 12:15 | 0 | 43 | 8 | 0 | 0 | 0 | 4 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 4 | 14 | 0 | 0 | 0 |
| 12:30 | 0 | 45 | 4 | 0 | 0 | 0 | 3 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 3 | 13 | 0 | 0 | 0 |
| 12:45 | 0 | 42 | 11 | 0 | 0 | 0 | 2 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 15 | 0 | 0 | 0 |
| Hourly Total | 0 | 171 | 34 | 0 | 0 | 0 | 10 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 10 | 49 | 0 | 0 | 0 |
| 13:00 | 0 | 41 | 7 | 0 | 0 | 0 | 3 | 24 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 2 | 17 | 0 | 0 | 0 |
| 13:15 | 0 | 40 | 7 | 0 | 0 | 0 | 4 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 5 | 16 | 0 | 0 | 0 |
| 13:30 | 0 | 45 | 8 | 0 | 0 | 0 | 4 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 2 | 21 | 0 | 0 | 0 |
| 13:45 | 0 | 31 | 7 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 6 | 18 | 0 | 0 | 0 |
| Hourly Total | 0 | 157 | 29 | 0 | 0 | 0 | 11 | 91 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 15 | 72 | 0 | 0 | 0 |
| Total | 0 | 483 | 85 | 0 | 0 | 0 | 29 | 313 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 39 | 163 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

## Single Unit Trucks

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Total | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

## Articulated Trucks

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

## Buses

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-3

Intersection Name: Fore St & Exchange St/Moulton St

GPS: 43.656507, -70.253223

Date: 04-12-2025

## Bicycles on Road

| Leg | Fore St | | | | | | Fore St | | | | | | Moulton St | | | | | | Exchange St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | WestBound | | | | | | NorthBound | | | | | | SouthBound | | | | | |
| Start Time | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | U-Turn | Peds CW | Peds CCW |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 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 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| SUMMARY | |
|---|---|
| Project | Barton & Loguidice |
| Project Code | 12061 |
| Site Name | 12061-4 |
| Intersection Name | Union St & Fore St |
| Legs and Movements | All Processed Legs & Movements |
| Count Interval | 15 |
| Start Time | 15:00 |
| End Time | 17:45 |
| Location | 12061-4 |
| Latitude and Longitude | (43.65567, -70.255107) |

| | START | END | PHF |
|---|---|---|---|
| AM PEAK | | | |
| PM PEAK | **04-10-2025 17:00:00** | **04-10-2025 18:00:00** | **0.85** |
| Mid-Day PEAK | | | |
| Forced Peak AM | | | |
| Forced Peak PM | | | |



## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-10-2025

# TURNING MOVEMENT DATA

| Leg | Fore St | | | | | | | | Fore St | | | | | | | | Union St | | | | | | | | Union St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | | WestBound | | | | | | | | NorthBound | | | | | | | | SouthBound | | | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 15:00 | 9 | 36 | 1 | 0 | 0 | 46 | 5 | 6 | 4 | 30 | 6 | 3 | 0 | 43 | 9 | 7 | 2 | 11 | 8 | 0 | 0 | 21 | 11 | 19 | 9 | 22 | 13 | 9 | 0 | 53 | 8 | 7 | 163 |
| 15:15 | 10 | 42 | 2 | 1 | 0 | 55 | 1 | 8 | 3 | 32 | 12 | 0 | 0 | 47 | 4 | 4 | 7 | 10 | 3 | 9 | 0 | 29 | 6 | 14 | 6 | 21 | 7 | 7 | 0 | 41 | 13 | 4 | 172 |
| 15:30 | 14 | 42 | 4 | 1 | 0 | 61 | 1 | 6 | 5 | 27 | 10 | 2 | 0 | 44 | 6 | 2 | 2 | 15 | 1 | 2 | 0 | 20 | 7 | 14 | 6 | 17 | 9 | 5 | 0 | 37 | 11 | 9 | 162 |
| 15:45 | 17 | 32 | 5 | 1 | 0 | 55 | 7 | 15 | 6 | 29 | 9 | 2 | 0 | 46 | 5 | 3 | 3 | 15 | 0 | 1 | 0 | 19 | 19 | 6 | 7 | 16 | 14 | 4 | 0 | 41 | 4 | 4 | 161 |
| Hourly Total | 50 | 152 | 12 | 3 | 0 | 217 | 14 | 35 | 18 | 118 | 37 | 7 | 0 | 180 | 24 | 16 | 14 | 51 | 12 | 12 | 0 | 89 | 43 | 53 | 28 | 76 | 43 | 25 | 0 | 172 | 36 | 24 | 658 |
| 16:00 | 20 | 48 | 4 | 0 | 0 | 72 | 4 | 4 | 9 | 38 | 4 | 0 | 0 | 51 | 13 | 5 | 1 | 15 | 4 | 1 | 0 | 21 | 16 | 16 | 9 | 13 | 18 | 8 | 0 | 48 | 3 | 10 | 192 |
| 16:15 | 18 | 39 | 5 | 0 | 0 | 62 | 0 | 2 | 7 | 28 | 7 | 3 | 0 | 45 | 11 | 11 | 2 | 19 | 5 | 0 | 0 | 26 | 9 | 22 | 5 | 15 | 7 | 8 | 0 | 35 | 3 | 3 | 168 |
| 16:30 | 18 | 30 | 8 | 0 | 0 | 56 | 4 | 13 | 6 | 26 | 6 | 0 | 0 | 38 | 3 | 13 | 4 | 26 | 5 | 6 | 0 | 41 | 14 | 18 | 9 | 18 | 21 | 14 | 0 | 62 | 7 | 5 | 197 |
| 16:45 | 22 | 46 | 1 | 1 | 0 | 70 | 7 | 4 | 5 | 43 | 5 | 2 | 0 | 55 | 11 | 9 | 3 | 8 | 13 | 0 | 0 | 24 | 11 | 12 | 11 | 25 | 10 | 9 | 0 | 55 | 13 | 5 | 204 |
| Hourly Total | 78 | 163 | 18 | 1 | 0 | 260 | 15 | 23 | 27 | 135 | 22 | 5 | 0 | 189 | 38 | 38 | 10 | 68 | 27 | 7 | 0 | 112 | 50 | 68 | 34 | 71 | 56 | 39 | 0 | 200 | 26 | 23 | 761 |
| 17:00 | 12 | 34 | 2 | 0 | 0 | 48 | 3 | 4 | 9 | 38 | 9 | 0 | 0 | 56 | 11 | 16 | 0 | 14 | 6 | 8 | 0 | 28 | 18 | 19 | 12 | 19 | 10 | 7 | 0 | 48 | 32 | 7 | 180 |
| 17:15 | 16 | 43 | 12 | 2 | 0 | 73 | 5 | 3 | 3 | 47 | 7 | 1 | 0 | 58 | 6 | 2 | 5 | 19 | 12 | 2 | 0 | 38 | 12 | 17 | 10 | 32 | 22 | 19 | 0 | 83 | 6 | 8 | 252 |
| 17:30 | 18 | 51 | 5 | 0 | 0 | 74 | 2 | 10 | 6 | 44 | 11 | 2 | 0 | 63 | 9 | 10 | 6 | 14 | 11 | 6 | 0 | 37 | 12 | 13 | 3 | 25 | 5 | 6 | 0 | 39 | 14 | 9 | 213 |
| 17:45 | 12 | 54 | 10 | 2 | 0 | 78 | 13 | 8 | 3 | 33 | 5 | 2 | 0 | 43 | 3 | 4 | 3 | 12 | 6 | 4 | 0 | 25 | 8 | 30 | 14 | 28 | 18 | 8 | 0 | 68 | 6 | 9 | 214 |
| Hourly Total | 58 | 182 | 29 | 4 | 0 | 273 | 23 | 25 | 21 | 162 | 32 | 5 | 0 | 220 | 29 | 32 | 14 | 59 | 35 | 20 | 0 | 128 | 50 | 79 | 39 | 104 | 55 | 40 | 0 | 238 | 58 | 33 | 859 |
| Grand Total | 186 | 497 | 59 | 8 | 0 | 750 | 52 | 83 | 66 | 415 | 91 | 17 | 0 | 589 | 91 | 86 | 38 | 178 | 74 | 39 | 0 | 329 | 143 | 200 | 101 | 251 | 154 | 104 | 0 | 610 | 120 | 80 | 2278 |
| approach % | 24 | 66 | 7 | 1 | 0 | 99 | 6 | 11 | 11 | 70 | 15 | 2 | 0 | 100 | 15 | 14 | 11 | 54 | 22 | 11 | 0 | 100 | 43 | 60 | 16 | 41 | 25 | 17 | 0 | 100 | 19 | 13 | 400 |
| Total % | 8 | 21 | 2 | 0 | 0 | 32 | 2 | 3 | 2 | 18 | 3 | 0 | 0 | 25 | 3 | 3 | 1 | 7 | 3 | 1 | 0 | 14 | 6 | 8 | 4 | 11 | 6 | 4 | 0 | 26 | 5 | 3 | 100 |
| Motorcycles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 6 |
| Motorcycles % | 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 | 0 | 0 | 0 |
| Cars & Light Goods | 181 | 490 | 57 | 8 | 0 | 736 | 0 | 0 | 65 | 403 | 88 | 17 | 0 | 573 | 0 | 0 | 37 | 168 | 74 | 39 | 0 | 318 | 0 | 0 | 98 | 244 | 146 | 100 | 0 | 588 | 0 | 0 | 2215 |
| Cars & Light Goods | 97 | 98 | 96 | 100 | 0 | 0 | 0 | 0 | 98 | 97 | 96 | 100 | 0 | 0 | 0 | 0 | 97 | 94 | 100 | 100 | 0 | 0 | 0 | 0 | 97 | 97 | 94 | 96 | 0 | 0 | 0 | 0 | 97 |
| Single Unit Trucks | 2 | 2 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 6 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 6 | 0 | 0 | 2 | 4 | 1 | 2 | 0 | 9 | 0 | 0 | 26 |
| Single Unit Trucks | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Articulated Trucks | 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 | 0 | 0 |
| Articulated Trucks % | 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 | 0 | 0 |
| Buses | 3 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 7 | 0 | 0 | 12 |
| Buses % | 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 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| Bicycles on Road | 0 | 4 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 4 | 0 | 0 | 19 |
| Bicycles on Road % | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 82 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 85 | 0 | 0 | 0 | 0 | 0 | 0 | 143 | 200 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 77 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| Pcl % | 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 | 0 | 0 |

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

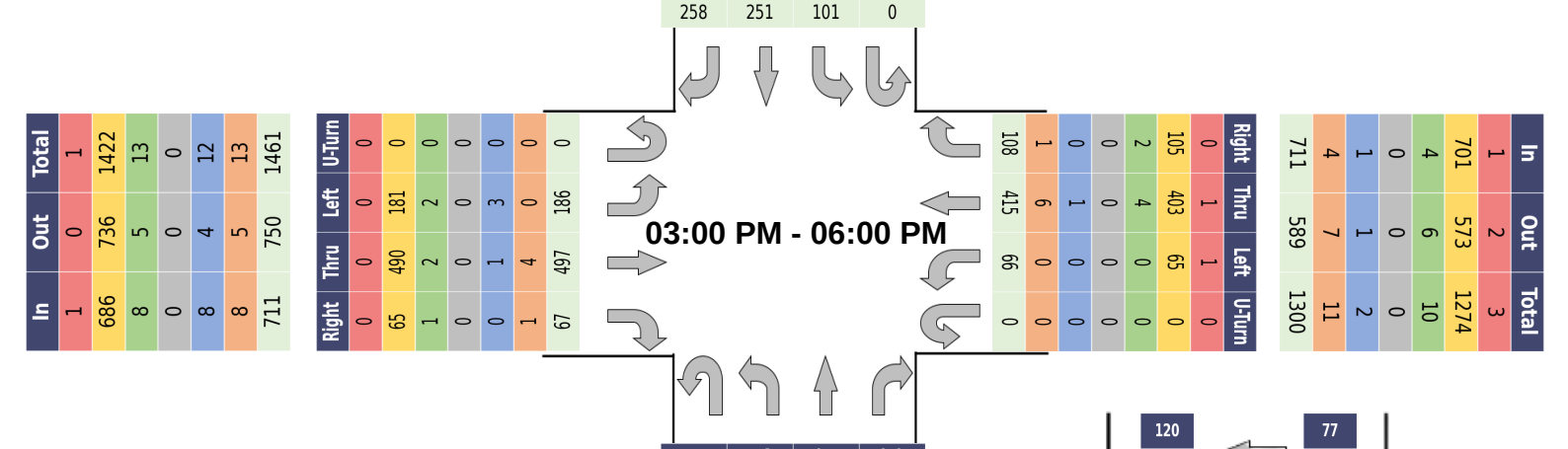
Date: 04-10-2025

## Turning Movement Data

| In | Out | Total |
|---|---|---|
| 2 | 2 | 4 |
| 454 | 588 | 1042 |
| 9 | 9 | 18 |
| 0 | 0 | 0 |
| 3 | 7 | 10 |
| 4 | 4 | 8 |
| 472 | 610 | 1082 |

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 1 | 1 | 0 |
| 246 | 244 | 98 | 0 |
| 3 | 4 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 7 | 0 | 0 | 0 |
| 2 | 2 | 0 | 0 |
| 258 | 251 | 101 | 0 |




| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 0 | 0 | 2 | 0 |
| 0 | 37 | 168 | 113 |
| 0 | 1 | 5 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 3 | 0 |
| 0 | 38 | 178 | 113 |

| In | Out | Total |
|---|---|---|
| 2 | 2 | 4 |
| 374 | 318 | 692 |
| 5 | 6 | 11 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 3 | 3 | 6 |
| 384 | 329 | 713 |

| Peds |
|---|
| Pcl |
| Total |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-10-2025

# TURNING MOVEMENT PM PEAK HOUR

| Leg | Fore St | | | | | | | | Fore St | | | | | | | | Union St | | | | | | | | Union St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | | WestBound | | | | | | | | NorthBound | | | | | | | | SouthBound | | | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 17:00:00 | 12 | 34 | 2 | 0 | 0 | 48 | 3 | 4 | 9 | 38 | 9 | 0 | 0 | 56 | 11 | 16 | 0 | 14 | 6 | 8 | 0 | 28 | 18 | 19 | 12 | 19 | 10 | 7 | 0 | 48 | 32 | 7 | 180 |
| 17:15:00 | 16 | 43 | 12 | 2 | 0 | 73 | 5 | 3 | 3 | 47 | 7 | 1 | 0 | 58 | 6 | 2 | 5 | 19 | 12 | 2 | 0 | 38 | 12 | 17 | 10 | 32 | 22 | 19 | 0 | 83 | 6 | 8 | 252 |
| 17:30:00 | 18 | 51 | 5 | 0 | 0 | 74 | 2 | 10 | 6 | 44 | 11 | 2 | 0 | 63 | 9 | 10 | 6 | 14 | 11 | 6 | 0 | 37 | 12 | 13 | 3 | 25 | 5 | 6 | 0 | 39 | 14 | 9 | 213 |
| 17:45:00 | 12 | 54 | 10 | 2 | 0 | 78 | 13 | 8 | 3 | 33 | 5 | 2 | 0 | 43 | 3 | 4 | 3 | 12 | 6 | 4 | 0 | 25 | 8 | 30 | 14 | 28 | 18 | 8 | 0 | 68 | 6 | 9 | 214 |
| Grand Total | 58 | 182 | 29 | 4 | 0 | 273 | 23 | 25 | 21 | 162 | 32 | 5 | 0 | 220 | 29 | 32 | 14 | 59 | 35 | 20 | 0 | 128 | 50 | 79 | 39 | 104 | 55 | 40 | 0 | 238 | 58 | 33 | 859 |
| approach % | 21 | 67 | 11 | 1 | 0 | 100 | 8 | 9 | 10 | 74 | 15 | 2 | 0 | 100 | 13 | 15 | 11 | 46 | 27 | 16 | 0 | 100 | 39 | 62 | 16 | 44 | 23 | 17 | 0 | 100 | 24 | 14 | 400 |
| Total % | 7 | 21 | 3 | 0 | 0 | 32 | 3 | 3 | 2 | 19 | 4 | 1 | 0 | 26 | 3 | 4 | 2 | 7 | 4 | 2 | 0 | 15 | 6 | 9 | 5 | 12 | 6 | 5 | 0 | 28 | 7 | 4 | 100 |
| Motorcycles | 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 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Motorcycles % | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cars & Light Goods | 57 | 180 | 28 | 4 | 0 | 269 | 0 | 0 | 21 | 159 | 31 | 5 | 0 | 216 | 0 | 0 | 14 | 56 | 35 | 20 | 0 | 125 | 0 | 0 | 39 | 98 | 52 | 39 | 0 | 228 | 0 | 0 | 838 |
| Cars & Light Goods | 98 | 99 | 97 | 100 | 0 | 0 | 0 | 0 | 100 | 98 | 97 | 100 | 0 | 0 | 0 | 0 | 100 | 95 | 100 | 100 | 0 | 0 | 0 | 0 | 100 | 94 | 95 | 98 | 0 | 0 | 0 | 0 | 98 |
| Single Unit Trucks | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 7 |
| Single Unit Trucks | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Articulated Trucks | 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 | 0 | 0 |
| Articulated Trucks % | 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 | 0 | 0 |
| Buses | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 3 |
| Buses % | 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 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Bicycles on Road | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 10 |
| Bicycles on Road % | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 1 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 32 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 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 |
| Pcl % | 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 | 0 | 0 |
| PHF | 0.81 | 0.84 | 0.6 | 0.5 | 0.0 | 0.88 | 0.44 | 0.62 | 0.58 | 0.86 | 0.73 | 0.62 | 0.0 | 0.87 | 0.66 | 0.5 | 0.58 | 0.78 | 0.73 | 0.62 | 0.0 | 0.84 | 0.69 | 0.66 | 0.7 | 0.81 | 0.62 | 0.53 | 0.0 | 0.72 | 0.45 | 0.92 | 0.85 |

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

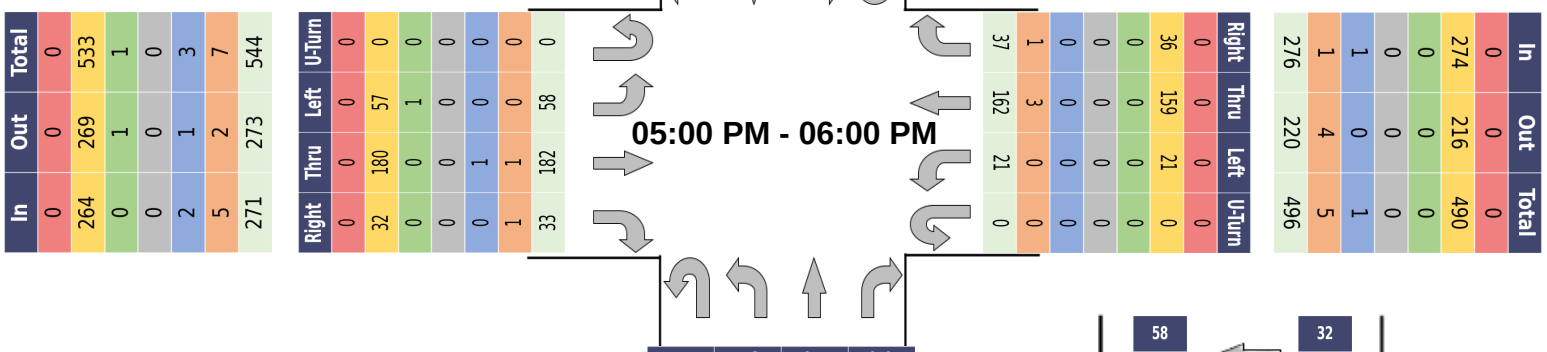
Date: 04-10-2025

# PM Peak Turning Movement Data Summary

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

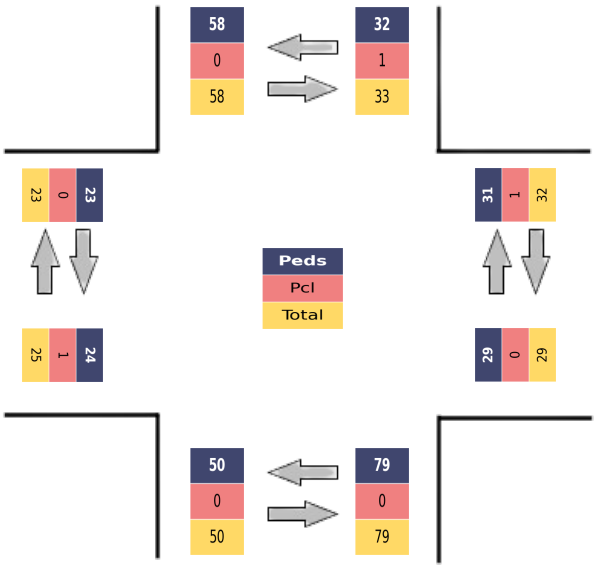
| In | Out | Total |
|---|---|---|
| 0 | 1 | 1 |
| 149 | 228 | 377 |
| 3 | 4 | 7 |
| 0 | 0 | 0 |
| 0 | 2 | 2 |
| 2 | 3 | 5 |
| 154 | 238 | 392 |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 1 | 0 | 0 |
| 91 | 98 | 39 | 0 |
| 0 | 4 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 |
| 2 | 1 | 0 | 0 |
| 95 | 104 | 39 | 0 |




| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 0 | 14 | 56 | 55 |
| 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 14 | 59 | 55 |

| In | Out | Total |
|---|---|---|
| 1 | 0 | 1 |
| 151 | 125 | 276 |
| 4 | 2 | 6 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 2 | 1 | 3 |
| 158 | 128 | 286 |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-10-2025

## Motorcycles

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 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 |
| 15:15 | 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 |
| 15:30 | 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 |
| 15:45 | 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 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 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 | 0 | 0 | 0 |
| 16:15 | 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 |
| 16:30 | 0 | 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 | 0 | 0 |
| 16:45 | 0 | 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 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 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 |
| 17:00 | 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 |
| 17:15 | 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 |
| 17:30 | 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 | 0 | 0 |
| 17:45 | 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 |
| Hourly Total | 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 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-10-2025

## Cars & Light Goods

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 9 | 36 | 1 | 0 | 0 | 0 | 0 | 4 | 30 | 5 | 3 | 0 | 0 | 0 | 2 | 10 | 8 | 0 | 0 | 0 | 0 | 9 | 22 | 13 | 9 | 0 | 0 | 0 |
| 15:15 | 10 | 40 | 2 | 1 | 0 | 0 | 0 | 3 | 31 | 11 | 0 | 0 | 0 | 0 | 7 | 9 | 3 | 9 | 0 | 0 | 0 | 5 | 21 | 7 | 7 | 0 | 0 | 0 |
| 15:30 | 13 | 42 | 4 | 1 | 0 | 0 | 0 | 5 | 24 | 10 | 2 | 0 | 0 | 0 | 2 | 14 | 1 | 2 | 0 | 0 | 0 | 6 | 17 | 7 | 5 | 0 | 0 | 0 |
| 15:45 | 15 | 32 | 4 | 1 | 0 | 0 | 0 | 5 | 29 | 9 | 2 | 0 | 0 | 0 | 2 | 15 | 0 | 1 | 0 | 0 | 0 | 7 | 16 | 13 | 4 | 0 | 0 | 0 |
| Hourly Total | 47 | 150 | 11 | 3 | 0 | 0 | 0 | 17 | 114 | 35 | 7 | 0 | 0 | 0 | 13 | 48 | 12 | 12 | 0 | 0 | 0 | 27 | 76 | 40 | 25 | 0 | 0 | 0 |
| 16:00 | 20 | 47 | 4 | 0 | 0 | 0 | 0 | 9 | 37 | 4 | 0 | 0 | 0 | 0 | 1 | 15 | 4 | 1 | 0 | 0 | 0 | 8 | 13 | 18 | 8 | 0 | 0 | 0 |
| 16:15 | 18 | 38 | 5 | 0 | 0 | 0 | 0 | 7 | 24 | 7 | 3 | 0 | 0 | 0 | 2 | 18 | 5 | 0 | 0 | 0 | 0 | 5 | 15 | 7 | 7 | 0 | 0 | 0 |
| 16:30 | 18 | 29 | 8 | 0 | 0 | 0 | 0 | 6 | 26 | 6 | 0 | 0 | 0 | 0 | 4 | 24 | 5 | 6 | 0 | 0 | 0 | 9 | 17 | 20 | 12 | 0 | 0 | 0 |
| 16:45 | 21 | 46 | 1 | 1 | 0 | 0 | 0 | 5 | 43 | 5 | 2 | 0 | 0 | 0 | 3 | 7 | 13 | 0 | 0 | 0 | 0 | 10 | 25 | 9 | 9 | 0 | 0 | 0 |
| Hourly Total | 77 | 160 | 18 | 1 | 0 | 0 | 0 | 27 | 130 | 22 | 5 | 0 | 0 | 0 | 10 | 64 | 27 | 7 | 0 | 0 | 0 | 32 | 70 | 54 | 36 | 0 | 0 | 0 |
| 17:00 | 12 | 34 | 2 | 0 | 0 | 0 | 0 | 9 | 38 | 9 | 0 | 0 | 0 | 0 | 0 | 13 | 6 | 8 | 0 | 0 | 0 | 12 | 16 | 10 | 7 | 0 | 0 | 0 |
| 17:15 | 16 | 43 | 11 | 2 | 0 | 0 | 0 | 3 | 46 | 6 | 1 | 0 | 0 | 0 | 5 | 18 | 12 | 2 | 0 | 0 | 0 | 10 | 32 | 20 | 19 | 0 | 0 | 0 |
| 17:30 | 18 | 50 | 5 | 0 | 0 | 0 | 0 | 6 | 42 | 11 | 2 | 0 | 0 | 0 | 6 | 13 | 11 | 6 | 0 | 0 | 0 | 3 | 22 | 4 | 6 | 0 | 0 | 0 |
| 17:45 | 11 | 53 | 10 | 2 | 0 | 0 | 0 | 3 | 33 | 5 | 2 | 0 | 0 | 0 | 3 | 12 | 6 | 4 | 0 | 0 | 0 | 14 | 28 | 18 | 7 | 0 | 0 | 0 |
| Hourly Total | 57 | 180 | 28 | 4 | 0 | 0 | 0 | 21 | 159 | 31 | 5 | 0 | 0 | 0 | 14 | 56 | 35 | 20 | 0 | 0 | 0 | 39 | 98 | 52 | 39 | 0 | 0 | 0 |
| Total | 181 | 490 | 57 | 8 | 0 | 0 | 0 | 65 | 403 | 88 | 17 | 0 | 0 | 0 | 37 | 168 | 74 | 39 | 0 | 0 | 0 | 98 | 244 | 146 | 100 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-10-2025

## Single Unit Trucks

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 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 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 1 | 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 |
| Hourly Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 16:00 | 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 |
| 16:15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 16:30 | 0 | 1 | 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 |
| 16:45 | 1 | 0 | 0 | 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 |
| Hourly Total | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 |
| 17:00 | 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 |
| 17:15 | 0 | 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 | 0 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 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 |
| Hourly Total | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 1 | 2 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-10-2025

# Articulated Trucks

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 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 |
| 15:15 | 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 |
| 15:30 | 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 |
| 15:45 | 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 |
| Hourly Total | 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 |
| 16:00 | 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 |
| 16:15 | 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 |
| 16:30 | 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 |
| 16:45 | 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 |
| Hourly Total | 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 |
| 17:00 | 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 |
| 17:15 | 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 |
| 17:30 | 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 |
| 17:45 | 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 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-10-2025

## Buses

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 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 |
| 15:15 | 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 |
| 15:30 | 1 | 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 | 0 |
| 15:45 | 2 | 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 | 0 |
| Hourly Total | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 16:00 | 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 |
| 16:15 | 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 |
| 16:30 | 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 | 0 | 0 | 0 |
| 16:45 | 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 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 |
| 17:00 | 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 |
| 17:15 | 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 |
| 17:30 | 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 | 0 |
| 17:45 | 0 | 1 | 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 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Total | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-10-2025

# Bicycles on Road

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 15:00 | 0 | 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 | 0 | 0 |
| 15:15 | 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 |
| 15:30 | 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 |
| 15:45 | 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 |
| Hourly Total | 0 | 2 | 0 | 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 |
| 16:00 | 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 |
| 16:15 | 0 | 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 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 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 |
| Hourly Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 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 | 0 | 0 |
| 17:15 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 17:30 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 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 |
| Hourly Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 |
| Total | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 |

| SUMMARY | |
|---|---|
| Project | Barton & Loguidice |
| Project Code | 12061 |
| Site Name | 12061-4 |
| Intersection Name | Union St & Fore St |
| Legs and Movements | All Processed Legs & Movements |
| Count Interval | 15 |
| Start Time | 11:00 |
| End Time | 13:45 |
| Location | 12061-4 |
| Latitude and Longitude | (43.65567, -70.255107) |

| | START | END | PHF |
|---|---|---|---|
| AM PEAK | | | |
| PM PEAK | | | |
| Mid-Day PEAK | **04-12-2025 11:45:00** | **04-12-2025 12:45:00** | **0.93** |
| Forced Peak AM | | | |
| Forced Peak PM | | | |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-12-2025

## TURNING MOVEMENT DATA

| Leg | Fore St | | | | | | | | Fore St | | | | | | | | Union St | | | | | | | | Union St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | | WestBound | | | | | | | | NorthBound | | | | | | | | SouthBound | | | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 11:00 | 14 | 35 | 1 | 1 | 0 | 51 | 0 | 2 | 2 | 30 | 7 | 1 | 0 | 40 | 6 | 1 | 0 | 10 | 8 | 0 | 0 | 18 | 9 | 12 | 6 | 23 | 5 | 5 | 0 | 39 | 13 | 7 | 148 |
| 11:15 | 20 | 29 | 3 | 1 | 0 | 53 | 4 | 2 | 7 | 17 | 7 | 3 | 0 | 34 | 6 | 3 | 3 | 11 | 4 | 5 | 0 | 23 | 2 | 9 | 4 | 25 | 12 | 6 | 0 | 47 | 3 | 7 | 157 |
| 11:30 | 18 | 32 | 7 | 0 | 0 | 57 | 2 | 3 | 3 | 20 | 6 | 0 | 0 | 29 | 4 | 0 | 5 | 12 | 3 | 2 | 0 | 22 | 7 | 19 | 5 | 21 | 4 | 8 | 0 | 38 | 6 | 2 | 146 |
| 11:45 | 15 | 30 | 6 | 0 | 0 | 51 | 4 | 9 | 4 | 29 | 11 | 1 | 0 | 45 | 15 | 3 | 8 | 20 | 8 | 3 | 0 | 39 | 9 | 19 | 9 | 21 | 4 | 2 | 0 | 36 | 14 | 7 | 171 |
| Hourly Total | 67 | 126 | 17 | 2 | 0 | 212 | 10 | 16 | 16 | 96 | 31 | 5 | 0 | 148 | 31 | 7 | 16 | 53 | 23 | 10 | 0 | 102 | 27 | 59 | 24 | 90 | 25 | 21 | 0 | 160 | 36 | 23 | 622 |
| 12:00 | 11 | 39 | 1 | 1 | 0 | 52 | 4 | 17 | 2 | 16 | 6 | 0 | 0 | 24 | 23 | 1 | 3 | 17 | 6 | 0 | 0 | 26 | 10 | 20 | 9 | 27 | 4 | 6 | 0 | 46 | 25 | 1 | 148 |
| 12:15 | 17 | 38 | 3 | 2 | 0 | 60 | 5 | 6 | 4 | 22 | 7 | 2 | 0 | 35 | 4 | 11 | 2 | 13 | 7 | 0 | 0 | 22 | 8 | 28 | 10 | 17 | 10 | 9 | 0 | 46 | 4 | 6 | 163 |
| 12:30 | 9 | 36 | 3 | 1 | 0 | 49 | 3 | 9 | 3 | 26 | 10 | 5 | 0 | 44 | 8 | 4 | 5 | 13 | 5 | 1 | 0 | 24 | 8 | 25 | 9 | 23 | 20 | 8 | 0 | 60 | 17 | 9 | 177 |
| 12:45 | 15 | 38 | 2 | 0 | 0 | 55 | 2 | 8 | 4 | 24 | 9 | 1 | 0 | 38 | 6 | 10 | 0 | 16 | 7 | 2 | 0 | 25 | 6 | 22 | 9 | 13 | 7 | 10 | 0 | 39 | 15 | 5 | 157 |
| Hourly Total | 52 | 151 | 9 | 4 | 0 | 216 | 14 | 40 | 13 | 88 | 32 | 8 | 0 | 141 | 41 | 26 | 10 | 59 | 25 | 3 | 0 | 97 | 32 | 95 | 37 | 80 | 41 | 33 | 0 | 191 | 61 | 21 | 645 |
| 13:00 | 14 | 33 | 3 | 2 | 0 | 52 | 7 | 2 | 6 | 22 | 6 | 2 | 0 | 36 | 5 | 15 | 5 | 16 | 10 | 0 | 0 | 31 | 16 | 19 | 8 | 13 | 8 | 6 | 0 | 35 | 16 | 5 | 154 |
| 13:15 | 12 | 37 | 7 | 0 | 0 | 56 | 3 | 5 | 5 | 22 | 7 | 1 | 0 | 35 | 13 | 6 | 1 | 14 | 4 | 3 | 0 | 22 | 10 | 15 | 3 | 21 | 7 | 7 | 0 | 38 | 15 | 8 | 151 |
| 13:30 | 12 | 38 | 5 | 0 | 0 | 55 | 8 | 9 | 5 | 23 | 13 | 1 | 0 | 42 | 10 | 13 | 5 | 15 | 6 | 4 | 0 | 30 | 10 | 21 | 10 | 27 | 5 | 3 | 0 | 45 | 6 | 10 | 172 |
| 13:45 | 15 | 18 | 5 | 4 | 0 | 42 | 1 | 7 | 4 | 18 | 7 | 1 | 0 | 30 | 9 | 12 | 3 | 16 | 3 | 2 | 0 | 24 | 10 | 16 | 7 | 22 | 9 | 11 | 0 | 49 | 13 | 8 | 145 |
| Hourly Total | 53 | 126 | 20 | 6 | 0 | 205 | 19 | 23 | 20 | 85 | 33 | 5 | 0 | 143 | 37 | 46 | 14 | 61 | 23 | 9 | 0 | 107 | 46 | 71 | 28 | 83 | 29 | 27 | 0 | 167 | 50 | 31 | 622 |
| Grand Total | 172 | 403 | 46 | 12 | 0 | 633 | 43 | 79 | 49 | 269 | 96 | 18 | 0 | 432 | 109 | 79 | 40 | 173 | 71 | 22 | 0 | 306 | 105 | 225 | 89 | 253 | 95 | 81 | 0 | 518 | 147 | 75 | 1889 |
| approach % | 27 | 63 | 7 | 1 | 0 | 100 | 6 | 12 | 11 | 62 | 22 | 4 | 0 | 100 | 25 | 18 | 13 | 56 | 23 | 7 | 0 | 100 | 34 | 73 | 17 | 48 | 18 | 15 | 0 | 100 | 28 | 14 | 400 |
| Total % | 9 | 21 | 2 | 0 | 0 | 33 | 2 | 4 | 2 | 14 | 5 | 0 | 0 | 22 | 5 | 4 | 2 | 9 | 3 | 1 | 0 | 16 | 5 | 11 | 4 | 13 | 5 | 4 | 0 | 27 | 7 | 3 | 100 |
| Motorcycles | 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 | 0 | 0 |
| Motorcycles % | 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 | 0 | 0 |
| Cars & Light Goods | 170 | 400 | 43 | 12 | 0 | 625 | 0 | 0 | 49 | 266 | 95 | 18 | 0 | 428 | 0 | 0 | 39 | 170 | 71 | 22 | 0 | 302 | 0 | 0 | 87 | 249 | 92 | 78 | 0 | 506 | 0 | 0 | 1861 |
| Cars & Light Goods | 98 | 99 | 93 | 100 | 0 | 0 | 0 | 0 | 100 | 98 | 98 | 100 | 0 | 0 | 0 | 0 | 97 | 98 | 100 | 100 | 0 | 0 | 0 | 0 | 97 | 98 | 96 | 96 | 0 | 0 | 0 | 0 | 98 |
| Single Unit Trucks | 2 | 3 | 2 | 0 | 0 | 7 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 2 | 4 | 0 | 1 | 0 | 7 | 0 | 0 | 21 |
| Single Unit Trucks | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Articulated Trucks | 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 | 0 | 0 |
| Articulated Trucks % | 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 | 0 | 0 |
| Buses | 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 | 3 | 2 | 0 | 5 | 0 | 0 | 5 |
| Buses % | 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 | 3 | 2 | 0 | 0 | 0 | 0 | 0 |
| Bicycles on Road | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Bicycles on Road % | 0 | 0 | 2 | 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 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | 224 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 75 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pcl % | 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 | 0 | 0 |

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

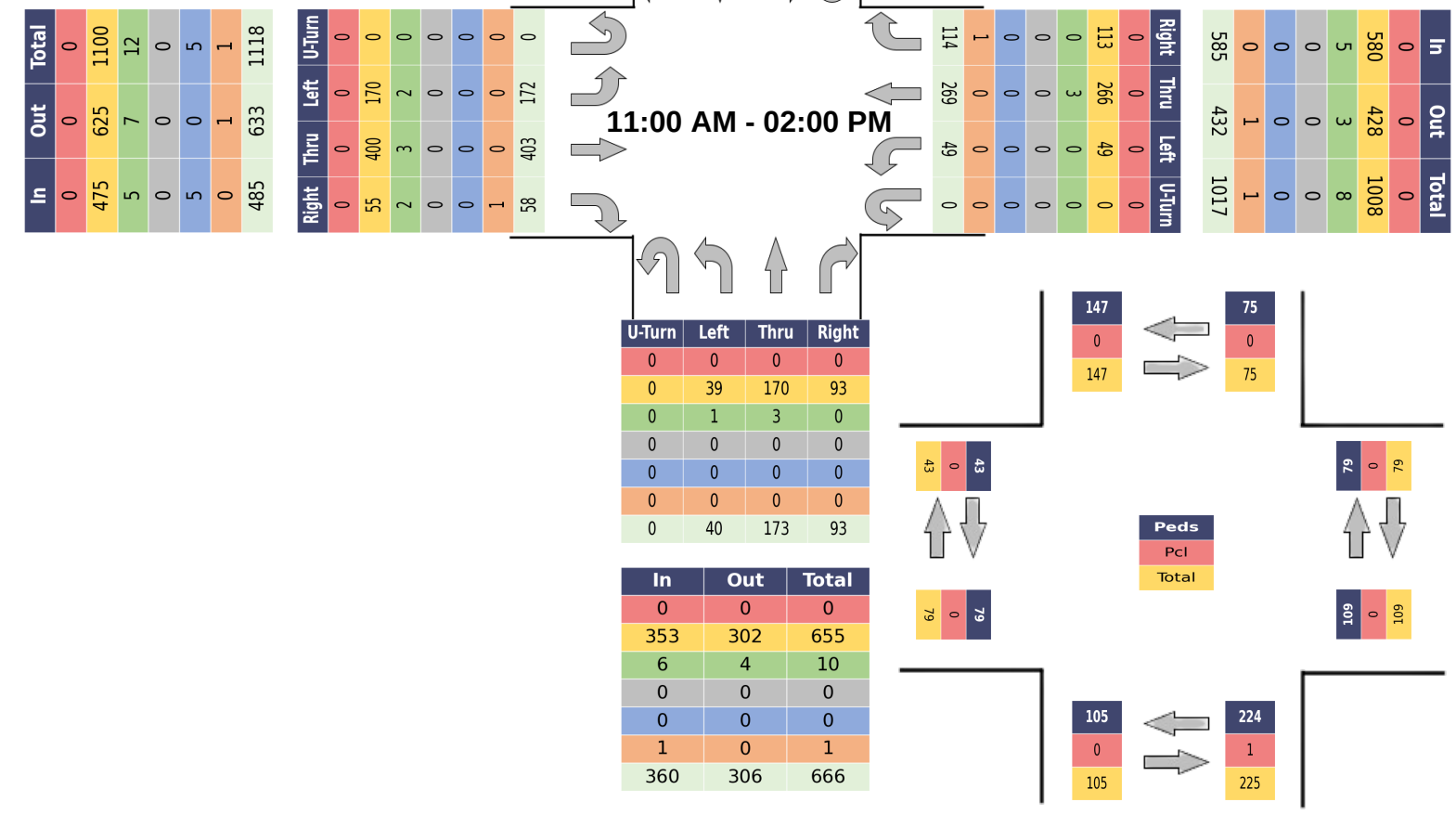
Date: 04-12-2025

## Turning Movement Data

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 453 | 506 | 959 |
| 5 | 7 | 12 |
| 0 | 0 | 0 |
| 0 | 5 | 5 |
| 1 | 0 | 1 |
| 459 | 518 | 977 |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 170 | 249 | 87 | 0 |
| 1 | 4 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 176 | 253 | 89 | 0 |




| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 0 | 39 | 170 | 93 |
| 0 | 1 | 3 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 40 | 173 | 93 |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 353 | 302 | 655 |
| 6 | 4 | 10 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 1 | 0 | 1 |
| 360 | 306 | 666 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-12-2025

# TURNING MOVEMENT MID PEAK HOUR

| Leg | Fore St | | | | | | | | Fore St | | | | | | | | Union St | | | | | | | | Union St | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | | WestBound | | | | | | | | NorthBound | | | | | | | | SouthBound | | | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | App Total | Peds CW | Peds CCW | Int Total |
| 11:45:00 | 15 | 30 | 6 | 0 | 0 | 51 | 4 | 9 | 4 | 29 | 11 | 1 | 0 | 45 | 15 | 3 | 8 | 20 | 8 | 3 | 0 | 39 | 9 | 19 | 9 | 21 | 4 | 2 | 0 | 36 | 14 | 7 | 171 |
| 12:00:00 | 11 | 39 | 1 | 1 | 0 | 52 | 4 | 17 | 2 | 16 | 6 | 0 | 0 | 24 | 23 | 1 | 3 | 17 | 6 | 0 | 0 | 26 | 10 | 20 | 9 | 27 | 4 | 6 | 0 | 46 | 25 | 1 | 148 |
| 12:15:00 | 17 | 38 | 3 | 2 | 0 | 60 | 5 | 6 | 4 | 22 | 7 | 2 | 0 | 35 | 4 | 11 | 2 | 13 | 7 | 0 | 0 | 22 | 8 | 28 | 10 | 17 | 10 | 9 | 0 | 46 | 4 | 6 | 163 |
| 12:30:00 | 9 | 36 | 3 | 1 | 0 | 49 | 3 | 9 | 3 | 26 | 10 | 5 | 0 | 44 | 8 | 4 | 5 | 13 | 5 | 1 | 0 | 24 | 8 | 25 | 9 | 23 | 20 | 8 | 0 | 60 | 17 | 9 | 177 |
| Grand Total | 52 | 143 | 13 | 4 | 0 | 212 | 16 | 41 | 13 | 93 | 34 | 8 | 0 | 148 | 50 | 19 | 18 | 63 | 26 | 4 | 0 | 111 | 35 | 92 | 37 | 88 | 38 | 25 | 0 | 188 | 60 | 23 | 659 |
| approach % | 25 | 67 | 6 | 2 | 0 | 100 | 8 | 19 | 9 | 63 | 23 | 5 | 0 | 100 | 34 | 13 | 16 | 57 | 23 | 4 | 0 | 100 | 32 | 83 | 20 | 47 | 20 | 13 | 0 | 100 | 32 | 12 | 400 |
| Total % | 8 | 22 | 2 | 1 | 0 | 32 | 2 | 6 | 2 | 14 | 5 | 1 | 0 | 22 | 8 | 3 | 3 | 10 | 4 | 1 | 0 | 17 | 5 | 14 | 6 | 13 | 6 | 4 | 0 | 29 | 9 | 3 | 100 |
| Motorcycles | 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 | 0 | 0 |
| Motorcycles % | 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 | 0 | 0 |
| Cars & Light Goods | 52 | 143 | 13 | 4 | 0 | 212 | 0 | 0 | 13 | 90 | 34 | 8 | 0 | 145 | 0 | 0 | 18 | 61 | 26 | 4 | 0 | 109 | 0 | 0 | 37 | 88 | 37 | 25 | 0 | 187 | 0 | 0 | 653 |
| Cars & Light Goods | 100 | 100 | 100 | 100 | 0 | 0 | 0 | 0 | 100 | 97 | 100 | 100 | 0 | 0 | 0 | 0 | 100 | 97 | 100 | 100 | 0 | 0 | 0 | 0 | 100 | 100 | 97 | 100 | 0 | 0 | 0 | 0 | 99 |
| Single Unit Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Single Unit Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Articulated Trucks | 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 | 0 | 0 |
| Articulated Trucks % | 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 | 0 | 0 |
| Buses | 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 | 0 | 0 | 1 | 0 | 0 | 1 |
| Buses % | 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 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bicycles on Road | 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 | 0 | 0 |
| Bicycles on Road % | 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 | 0 | 0 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 23 | 0 |
| Peds % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 |
| Pcl | 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 | 0 | 0 |
| Pcl % | 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 | 0 | 0 |
| PHF | 0.76 | 0.92 | 0.54 | 0.5 | 0.0 | 0.88 | 0.8 | 0.6 | 0.81 | 0.8 | 0.77 | 0.4 | 0.0 | 0.82 | 0.54 | 0.43 | 0.56 | 0.79 | 0.81 | 0.33 | 0.0 | 0.71 | 0.88 | 0.82 | 0.92 | 0.81 | 0.48 | 0.69 | 0.0 | 0.78 | 0.6 | 0.64 | 0.93 |

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

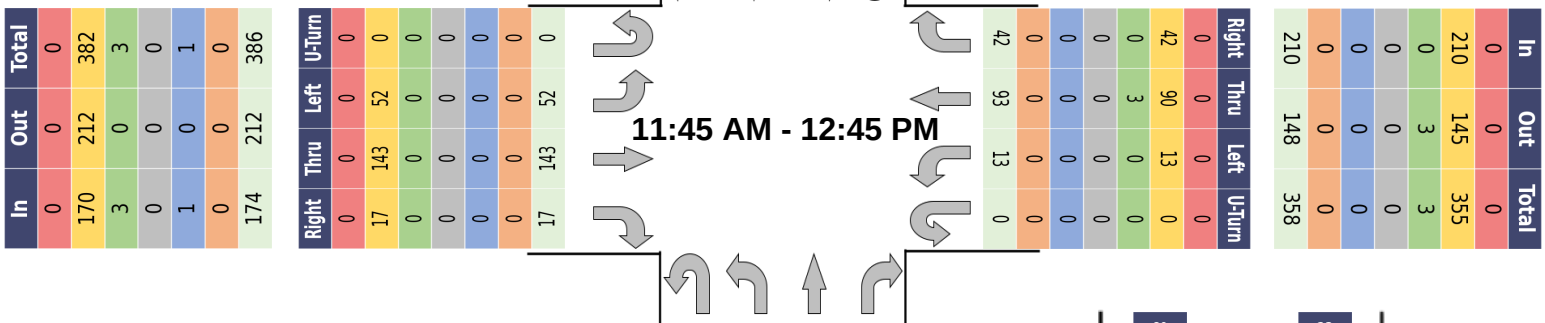
Date: 04-12-2025

# Mid Peak Turning Movement Data Summary

| Class |
|---|
| Motorcycles |
| Cars & Light Goods |
| Single Unit Trucks |
| Articulated Trucks |
| Buses |
| Bicycles on Road |
| Total |

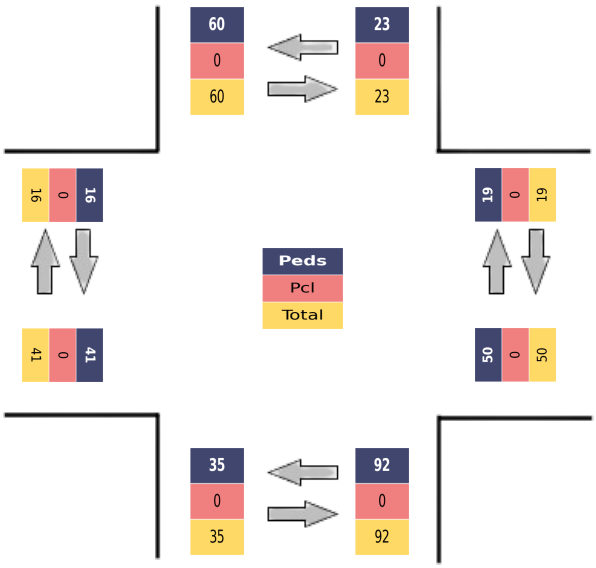
| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 155 | 187 | 342 |
| 2 | 0 | 2 |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 0 | 0 | 0 |
| 157 | 188 | 345 |

| Right | Thru | Left | U-Turn |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 62 | 88 | 37 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 63 | 88 | 37 | 0 |




| U-Turn | Left | Thru | Right |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 0 | 18 | 61 | 30 |
| 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 18 | 63 | 30 |

| In | Out | Total |
|---|---|---|
| 0 | 0 | 0 |
| 118 | 109 | 227 |
| 0 | 2 | 2 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 118 | 111 | 229 |



# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-12-2025

## Motorcycles

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 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 |
| 11:15 | 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 |
| 11:30 | 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 |
| 11:45 | 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 |
| Hourly Total | 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 |
| 12:00 | 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 |
| 12:15 | 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 |
| 12:30 | 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 |
| 12:45 | 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 |
| Hourly Total | 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 |
| 13:00 | 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 |
| 13:15 | 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 |
| 13:30 | 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 |
| 13:45 | 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 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-12-2025

## Cars & Light Goods

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 13 | 35 | 1 | 1 | 0 | 0 | 0 | 2 | 30 | 7 | 1 | 0 | 0 | 0 | 0 | 10 | 8 | 0 | 0 | 0 | 0 | 5 | 22 | 5 | 4 | 0 | 0 | 0 |
| 11:15 | 20 | 28 | 2 | 1 | 0 | 0 | 0 | 7 | 17 | 7 | 3 | 0 | 0 | 0 | 3 | 11 | 4 | 5 | 0 | 0 | 0 | 4 | 24 | 12 | 6 | 0 | 0 | 0 |
| 11:30 | 18 | 31 | 6 | 0 | 0 | 0 | 0 | 3 | 20 | 6 | 0 | 0 | 0 | 0 | 5 | 11 | 3 | 2 | 0 | 0 | 0 | 5 | 21 | 3 | 8 | 0 | 0 | 0 |
| 11:45 | 15 | 30 | 6 | 0 | 0 | 0 | 0 | 4 | 27 | 11 | 1 | 0 | 0 | 0 | 8 | 20 | 8 | 3 | 0 | 0 | 0 | 9 | 21 | 4 | 2 | 0 | 0 | 0 |
| Hourly Total | 66 | 124 | 15 | 2 | 0 | 0 | 0 | 16 | 94 | 31 | 5 | 0 | 0 | 0 | 16 | 52 | 23 | 10 | 0 | 0 | 0 | 23 | 88 | 24 | 20 | 0 | 0 | 0 |
| 12:00 | 11 | 39 | 1 | 1 | 0 | 0 | 0 | 2 | 15 | 6 | 0 | 0 | 0 | 0 | 3 | 17 | 6 | 0 | 0 | 0 | 0 | 9 | 27 | 4 | 6 | 0 | 0 | 0 |
| 12:15 | 17 | 38 | 3 | 2 | 0 | 0 | 0 | 4 | 22 | 7 | 2 | 0 | 0 | 0 | 2 | 11 | 7 | 0 | 0 | 0 | 0 | 10 | 17 | 10 | 9 | 0 | 0 | 0 |
| 12:30 | 9 | 36 | 3 | 1 | 0 | 0 | 0 | 3 | 26 | 10 | 5 | 0 | 0 | 0 | 5 | 13 | 5 | 1 | 0 | 0 | 0 | 9 | 23 | 19 | 8 | 0 | 0 | 0 |
| 12:45 | 15 | 38 | 2 | 0 | 0 | 0 | 0 | 4 | 24 | 9 | 1 | 0 | 0 | 0 | 0 | 16 | 7 | 2 | 0 | 0 | 0 | 8 | 13 | 7 | 9 | 0 | 0 | 0 |
| Hourly Total | 52 | 151 | 9 | 4 | 0 | 0 | 0 | 13 | 87 | 32 | 8 | 0 | 0 | 0 | 10 | 57 | 25 | 3 | 0 | 0 | 0 | 36 | 80 | 40 | 32 | 0 | 0 | 0 |
| 13:00 | 14 | 33 | 3 | 2 | 0 | 0 | 0 | 6 | 22 | 6 | 2 | 0 | 0 | 0 | 5 | 16 | 10 | 0 | 0 | 0 | 0 | 8 | 13 | 7 | 6 | 0 | 0 | 0 |
| 13:15 | 12 | 37 | 7 | 0 | 0 | 0 | 0 | 5 | 22 | 7 | 1 | 0 | 0 | 0 | 1 | 14 | 4 | 3 | 0 | 0 | 0 | 3 | 20 | 7 | 7 | 0 | 0 | 0 |
| 13:30 | 11 | 37 | 4 | 0 | 0 | 0 | 0 | 5 | 23 | 12 | 1 | 0 | 0 | 0 | 5 | 15 | 6 | 4 | 0 | 0 | 0 | 10 | 27 | 5 | 2 | 0 | 0 | 0 |
| 13:45 | 15 | 18 | 5 | 4 | 0 | 0 | 0 | 4 | 18 | 7 | 1 | 0 | 0 | 0 | 2 | 16 | 3 | 2 | 0 | 0 | 0 | 7 | 21 | 9 | 11 | 0 | 0 | 0 |
| Hourly Total | 52 | 125 | 19 | 6 | 0 | 0 | 0 | 20 | 85 | 32 | 5 | 0 | 0 | 0 | 13 | 61 | 23 | 9 | 0 | 0 | 0 | 28 | 81 | 28 | 26 | 0 | 0 | 0 |
| Total | 170 | 400 | 43 | 12 | 0 | 0 | 0 | 49 | 266 | 95 | 18 | 0 | 0 | 0 | 39 | 170 | 71 | 22 | 0 | 0 | 0 | 87 | 249 | 92 | 78 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-12-2025

## Single Unit Trucks

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 11:15 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 0 | 1 | 1 | 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 |
| 11:45 | 0 | 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 |
| Hourly Total | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 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 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 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 |
| 12:45 | 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 | 0 | 0 | 0 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 13:00 | 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 |
| 13:15 | 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 | 0 | 0 |
| 13:30 | 1 | 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 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Hourly Total | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 1 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-12-2025

## Articulated Trucks

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 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 |
| 11:15 | 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 |
| 11:30 | 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 |
| 11:45 | 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 |
| Hourly Total | 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 |
| 12:00 | 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 |
| 12:15 | 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 |
| 12:30 | 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 |
| 12:45 | 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 |
| Hourly Total | 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 |
| 13:00 | 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 |
| 13:15 | 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 |
| 13:30 | 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 |
| 13:45 | 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 |
| Hourly Total | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

Date: 04-12-2025

## Buses

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 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 |
| 11:15 | 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 |
| 11:30 | 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 | 0 |
| 11:45 | 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 |
| Hourly Total | 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 | 0 | 0 | 0 |
| 12:00 | 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 |
| 12:15 | 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 |
| 12:30 | 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 | 0 |
| 12:45 | 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 |
| Hourly Total | 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 | 0 |
| 13:00 | 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 | 0 |
| 13:15 | 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 |
| 13:30 | 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 |
| 13:45 | 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 |
| Hourly Total | 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 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 |

## Tri-State Traffic Data, Inc.

## www.TSTData.com

Site: 12061-4

Intersection Name: Union St & Fore St

GPS: 43.65567, -70.255107

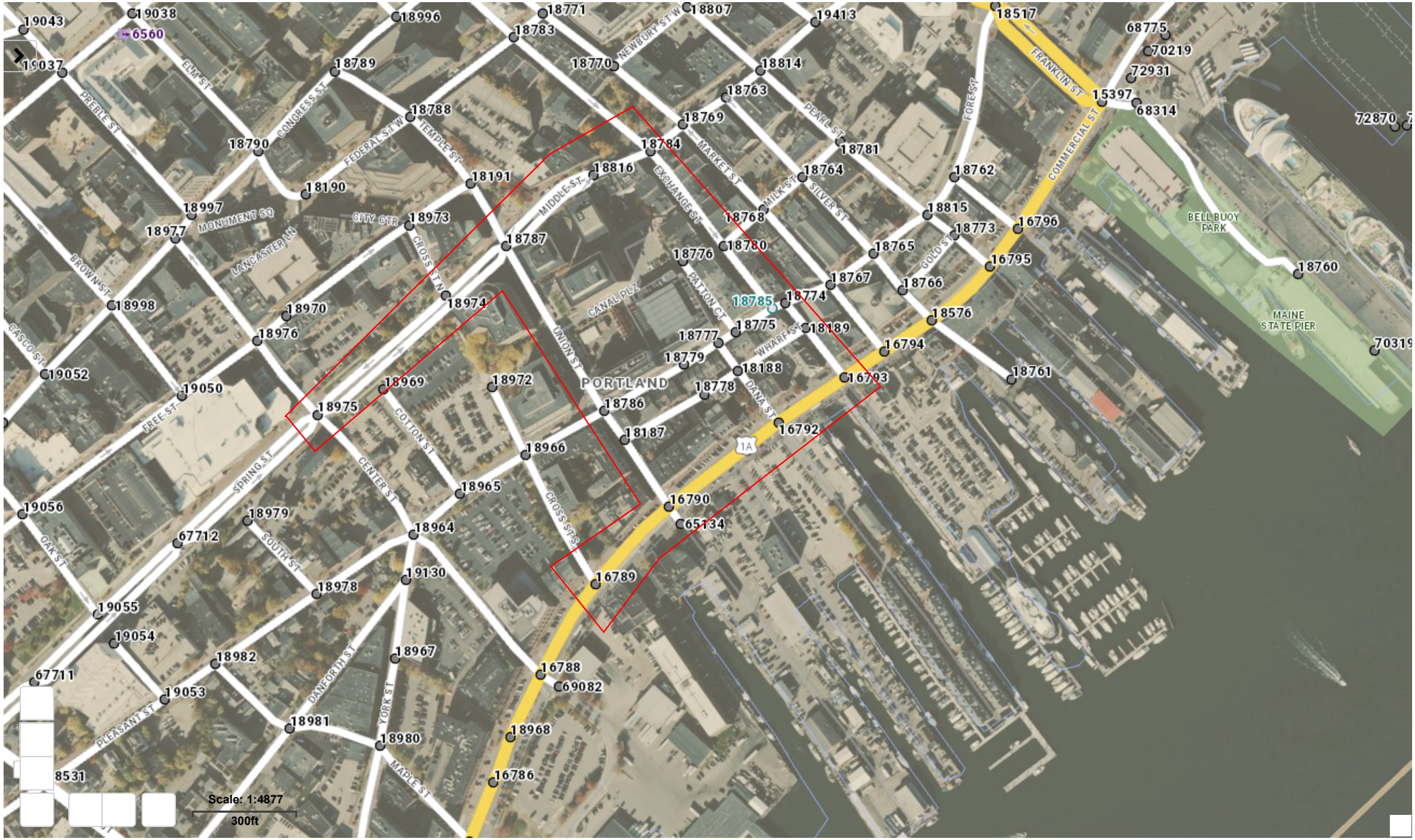
Date: 04-12-2025

# Bicycles on Road

| Leg | Fore St | | | | | | | Fore St | | | | | | | Union St | | | | | | | Union St | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direction | EastBound | | | | | | | WestBound | | | | | | | NorthBound | | | | | | | SouthBound | | | | | | |
| Start Time | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW | Left | Thru | Right | RTOR | U-Turn | Peds CW | Peds CCW |
| 11:00 | 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 |
| 11:15 | 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 |
| 11:30 | 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 |
| 11:45 | 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 |
| Hourly Total | 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 |
| 12:00 | 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 |
| 12:15 | 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 |
| 12:30 | 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 |
| 12:45 | 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 |
| Hourly Total | 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 |
| 13:00 | 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 |
| 13:15 | 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 |
| 13:30 | 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 |
| 13:45 | 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 |
| Hourly Total | 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 |
| Total | 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 |

# APPENDIX B

- MAINEDOT CRASH REPORT
- COLLISION DIAGRAMS


PORTLAND
MAINE STATE PIER
BELL BUOY PARK
Scale: 1:4877
300ft

# 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
Spring St-Middle St-Exchange St-Moulton St-Union St-Commercial St area

### REPORT PARAMETERS

Year 2022, Start Month 1 through Year 2024 End Month: 12

| | | | |
|---|---|---|---|
| Route: 3209786 | Start Node: 18975 | Start Offset: 0 | ☐ Exclude First Node |
| | End Node: 18816 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0560505 | Start Node: 18816 | Start Offset: 0 | ☐ Exclude First Node |
| | End Node: 18784 | End Offset: 0 | ☐ Exclude Last Node |
| Route: 0560505 | Start Node: 18787 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18816 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0560672 | Start Node: 18974 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18787 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0560672 | Start Node: 18975 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18974 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0560258 | Start Node: 18785 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18784 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0560523 | Start Node: 16793 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18774 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0560569 | Start Node: 18775 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18776 | End Offset: 0 | ☐ Exclude Last Node |
| Route: 0560188 | Start Node: 16792 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18777 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0560719 | Start Node: 16790 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18787 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 3201882 | Start Node: 16790 | Start Offset: 0 | ☑ Exclude First 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

Portland
Spring St-Middle St-Exchange St-Moulton St-Union St-Commercial St area

### REPORT PARAMETERS

Year 2022, Start Month 1 through Year 2024 End Month: 12

| | | | |
|---|---|---|---|
| | End Node: 65134 | End Offset: 0 | ☐ Exclude Last Node |
| Route: 0560286 | Start Node: 18774 | Start Offset: 0 | ☐ Exclude First Node |
| | End Node: 18786 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0560742 | Start Node: 18187 | Start Offset: 0 | ☑ Exclude First Node |
| | End Node: 18189 | End Offset: 0 | ☑ Exclude Last Node |
| Route: 0001A | Start Node: 16789 | Start Offset: 0 | ☐ Exclude First Node |
| | End Node: 16793 | End Offset: 0 | ☐ Exclude Last Node |

# Crash Summary I

## Nodes

| Node | Route - MP | Node Description | U/R | Total Crashes | Injury Crashes K | A | B | C | PD | Percent Injury | Annual M Ent-Veh | Crash Rate | Critical Rate | CRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18975 | 3209786 - 0.27 | Int of CENTER ST SPRING ST | 9 | 5 | 0 | 0 | 0 | 2 | 3 | 40.0 | 4.010 | 0.42 | 1.27 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.69 | |
| 18787 | 3209786 - 0.41 | Int of SPRING ST TEMPLE ST UNION ST | 9 | 5 | 0 | 0 | 1 | 1 | 3 | 40.0 | 3.649 | 0.46 | 1.29 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.69 | |
| 18784 | 0560505 - 0.09 | Int of EXCHANGE ST MIDDLE ST SPRING ST | 2 | 3 | 0 | 0 | 1 | 0 | 2 | 33.3 | 2.379 | 0.42 | 0.41 | 1.03 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18816 | 0560505 - 0.06 | Non Int SPRING ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 2.119 | 0.00 | 0.42 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18780 | 0560258 - 0.04 | Int of EXCHANGE ST MILK ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.625 | 0.00 | 0.54 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18189 | 0560523 - 0.03 | Int of MOULTON ST WHARF ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.324 | 0.00 | 0.56 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18776 | 0560569 - 0.05 | End of PATTON CT | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.025 | 0.00 | -3.18 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18188 | 0560188 - 0.04 | Int of DANA ST WHARF ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.195 | 0.00 | 0.49 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18187 | 0560719 - 0.04 | Int of UNION ST WHARF ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 1.065 | 0.00 | 0.49 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18786 | 0560719 - 0.06 | Int of FORE ST UNION ST | 9 | 5 | 0 | 0 | 0 | 1 | 4 | 20.0 | 2.620 | 0.64 | 1.39 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.69 | |
| 65134 | 3201882 - 0.01 | End of UNION WHARF Z RD | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.262 | 0.00 | 0.54 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18777 | 0560286 - 0.83 | Int of DANA ST FORE ST | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0.0 | 0.939 | 0.71 | 0.51 | 1.40 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18779 | 0560286 - 0.85 | Non Int FORE ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.959 | 0.00 | 0.50 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18775 | 0560286 - 0.82 | Int of FORE ST PATTON CT | 2 | 4 | 0 | 0 | 1 | 0 | 3 | 25.0 | 0.946 | 1.41 | 0.51 | 2.79 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| P18774 | 0560286 - 0.79 | Int of FORE ST MOULTON ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 1.525 | 0.00 | 0.45 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| A18785 | 0560286 - 0.80 | Int of EXCHANGE ST FORE ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18778 | 0560742 - 0.05 | Non Int WHARF ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.092 | 0.00 | 0.09 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 18188 | 0560742 - 0.07 | Int of DANA ST WHARF ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.195 | 0.00 | 0.49 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.13 | |
| 16793 | 0001A - 11.60 | Int of COMMERCIAL ST MOULTON ST | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 100.0 | 3.754 | 0.09 | 0.40 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.15 | |
| 16792 | 0001A - 11.56 | Int of COMMERCIAL ST DANA ST | 2 | 3 | 0 | 0 | 0 | 1 | 2 | 33.3 | 3.594 | 0.28 | 0.41 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.15 | |
| 16789 | 0001A - 11.43 | Int of COMMERCIAL ST CROSS ST S | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 4.415 | 0.00 | 0.39 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.15 | |
| 16790 | 0001A - 11.49 | Int of COMMERCIAL ST UNION ST UNION WHARF Z RD | 9 | 3 | 0 | 0 | 0 | 1 | 2 | 33.3 | 4.444 | 0.23 | 1.24 | 0.00 |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.69 | |

# Crash Summary I

## Nodes

| Node | Route - MP | Node Description | U/R | Total Crashes | Injury Crashes K | A | B | C | PD | Percent Injury | Annual M Ent-Veh | Crash Rate | Critical Rate | CRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Study Years: | 3.00 | NODE TOTALS: | | 31 | 0 | 0 | 3 | 7 | 21 | 32.3 | 38.136 | 0.27 | 0.49 | 0.55 |

# Crash Summary I

Sections

| Start Node | End Node | Element | Offset Begin - End | Route - MP | Section Length | U/R | Total Crashes | Injury Crashes K | A | B | C | PD | Percent Injury | Annual HMVM | Crash Rate | Critical Rate | CRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18975 | 18787 | 3417148 | 0 - 0.14 | 3209786 - 0.27 | 0.14 | 2 | 5 | 0 | 2 | 0 | 0 | 3 | 40.0 | 0.00147 | 1133.28 | 528.05 | 2.15 |
| Int of CENTER ST SPRING ST | | | | RD INV 3209786 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18787 | 18816 | 3417149 | 0 - 0.06 | 3209786 - 0.41 | 0.06 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0.00065 | 511.79 | 629.28 | 0.00 |
| Int of SPRING ST TEMPLE ST UNION ST | | | | RD INV 3209786 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18784 | 18816 | 3129296 | 0 - 0.03 | 0560505 - 0.06 | 0.03 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0.00062 | 537.64 | 634.53 | 0.00 |
| Int of EXCHANGE ST MIDDLE ST SPRING ST | | | | RD INV 05 60505 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18787 | 18816 | 3123997 | 0 - 0.06 | 0560505 - 0 | 0.06 | 2 | 3 | 0 | 0 | 0 | 0 | 3 | 0.0 | 0.00059 | 1699.37 | 639.88 | 2.66 |
| Int of SPRING ST TEMPLE ST UNION ST | | | | RD INV 05 60505 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18787 | 18974 | 194373 | 0 - 0.04 | 0560672 - 1.13 | 0.04 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0.00042 | 785.38 | 666.50 | 1.18 |
| Int of SPRING ST TEMPLE ST UNION ST | | | | RD INV 05 60672 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18974 | 18975 | 3119282 | 0 - 0.10 | 0560672 - 1.03 | 0.10 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0.00197 | 169.40 | 490.97 | 0.00 |
| Int of CROSS ST N SPRING ST | | | | RD INV 05 60672 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18780 | 18785 | 194362 | 0 - 0.04 | 0560258 - 0 | 0.04 | 2 | 3 | 0 | 0 | 0 | 0 | 3 | 0.0 | 0.00018 | 5707.76 | 1561.32 | 3.66 |
| Int of EXCHANGE ST MILK ST | | | | RD INV 05 60258 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 18780 | 18784 | 5080251 | 0 - 0.06 | 0560258 - 0.04 | 0.06 | 2 | 8 | 0 | 0 | 0 | 0 | 8 | 0.0 | 0.00034 | 7876.17 | 1417.69 | 5.56 |
| Int of EXCHANGE ST MILK ST | | | | RD INV 05 60258 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 16793 | 18189 | 192474 | 0 - 0.03 | 0560523 - 0 | 0.03 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00011 | 0.00 | 1554.79 | 0.00 |
| Int of COMMERCIAL ST MOULTON ST | | | | RD INV 05 60523 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 18189 | 18774 | 5080241 | 0 - 0.02 | 0560523 - 0.03 | 0.02 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0.00006 | 5809.43 | 1212.86 | 4.79 |
| Int of MOULTON ST WHARF ST | | | | RD INV 05 60523 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 18775 | 18776 | 5206226 | 0 - 0.05 | 0560569 - 0 | 0.05 | 2 | 7 | 0 | 0 | 0 | 0 | 7 | 0.0 | 0.00002 | 94010.21 | -644.54 | 0.00 |
| Int of FORE ST PATTON CT | | | | RD INV 05 60569 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 16792 | 18188 | 5918548 | 0 - 0.04 | 0560188 - 0 | 0.04 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00007 | 0.00 | 1336.84 | 0.00 |
| Int of COMMERCIAL ST DANA ST | | | | RD INV 05 60188 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 18188 | 18777 | 5080243 | 0 - 0.02 | 0560188 - 0.04 | 0.02 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00003 | 0.00 | 135.29 | 0.00 |
| Int of DANA ST WHARF ST | | | | RD INV 05 60188 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 16790 | 18187 | 3131647 | 0 - 0.04 | 0560719 - 0 | 0.04 | 2 | 5 | 0 | 0 | 0 | 0 | 5 | 0.0 | 0.00039 | 4315.89 | 671.26 | 6.43 |
| Int of COMMERCIAL ST UNION ST UNION WHARF Z RD | | | | RD INV 05 60719 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18187 | 18786 | 3122284 | 0 - 0.02 | 0560719 - 0.04 | 0.02 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 100.0 | 0.00020 | 1700.64 | 634.55 | 2.68 |
| Int of UNION ST WHARF ST | | | | RD INV 05 60719 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18786 | 18787 | 3106806 | 0 - 0.10 | 0560719 - 0.06 | 0.10 | 2 | 3 | 0 | 0 | 0 | 0 | 3 | 0.0 | 0.00150 | 667.25 | 525.62 | 1.27 |
| Int of FORE ST UNION ST | | | | RD INV 05 60719 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 16790 | 65134 | 2783199 | 0 - 0.01 | 3201882 - 0 | 0.01 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00005 | 0.00 | 1110.58 | 0.00 |
| Int of COMMERCIAL ST UNION ST UNION WHARF Z RD | | | | RD INV 3201882 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 18774 | 18785 | 3121699 | 0 - 0.01 | 0560286 - 0.79 | 0.01 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00024 | 0.00 | 663.20 | 0.00 |
| Int of FORE ST MOULTON ST | | | | RD INV 05 60286 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18775 | 18785 | 5206225 | 0 - 0.02 | 0560286 - 0.80 | 0.02 | 2 | 6 | 0 | 0 | 0 | 0 | 6 | 0.0 | 0.00018 | 10828.96 | 622.55 | 17.39 |
| Int of FORE ST PATTON CT | | | | RD INV 05 60286 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |

# Crash Summary I

**Sections**

| Start Node | End Node | Element | Offset Begin - End | Route - MP | Section Length | U/R | Total Crashes | Injury Crashes K | A | B | C | PD | Percent Injury | Annual HMVM | Crash Rate | Critical Rate | CRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18775 | 18777 | 5206224 | 0 - 0.01 | 0560286 - 0.82 | 0.01 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00009 | 0.00 | 282.69 | 0.00 |
| Int of FORE ST PATTON CT | | | | RD INV 05 60286 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18777 | 18779 | 3106803 | 0 - 0.02 | 0560286 - 0.83 | 0.02 | 2 | 6 | 0 | 0 | 1 | 0 | 5 | 16.7 | 0.00019 | 10429.11 | 630.37 | 16.54 |
| Int of DANA ST FORE ST | | | | RD INV 05 60286 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18779 | 18786 | 3106804 | 0 - 0.05 | 0560286 - 0.85 | 0.05 | 2 | 8 | 0 | 1 | 0 | 0 | 7 | 12.5 | 0.00048 | 5562.19 | 658.18 | 8.45 |
| Non Int FORE ST | | | | RD INV 05 60286 | | | | | | | | | | | Statewide Crash Rate: 156.39 | | |
| 18187 | 18778 | 5080242 | 0 - 0.05 | 0560742 - 0 | 0.05 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00005 | 0.00 | 932.51 | 0.00 |
| Int of UNION ST WHARF ST | | | | RD INV 05 60742 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 18188 | 18778 | 5095052 | 0 - 0.02 | 0560742 - 0.05 | 0.02 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00002 | 0.00 | -2067.77 | 0.00 |
| Int of DANA ST WHARF ST | | | | RD INV 05 60742 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 18188 | 18189 | 193776 | 0 - 0.04 | 0560742 - 0.07 | 0.04 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00003 | 0.00 | -22.46 | 0.00 |
| Int of DANA ST WHARF ST | | | | RD INV 05 60742 | | | | | | | | | | | Statewide Crash Rate: 365.24 | | |
| 16789 | 16790 | 3120311 | 0 - 0.06 | 0001A - 11.43 | 0.06 | 2 | 7 | 0 | 0 | 1 | 0 | 6 | 14.3 | 0.00237 | 983.25 | 571.58 | 1.72 |
| Int of COMMERCIAL ST CROSS ST S | | | | US 1A | | | | | | | | | | | Statewide Crash Rate: 204.85 | | |
| 16790 | 16792 | 3943906 | 0 - 0.07 | 0001A - 11.49 | 0.07 | 2 | 11 | 0 | 0 | 0 | 0 | 11 | 0.0 | 0.00241 | 1521.52 | 569.31 | 2.67 |
| Int of COMMERCIAL ST UNION ST UNION WHARF Z RD | | | | US 1A | | | | | | | | | | | Statewide Crash Rate: 204.85 | | |
| 16792 | 16793 | 3131648 | 0 - 0.04 | 0001A - 11.56 | 0.04 | 2 | 7 | 0 | 0 | 0 | 0 | 7 | 0.0 | 0.00137 | 1707.27 | 658.69 | 2.59 |
| Int of COMMERCIAL ST DANA ST | | | | US 1A | | | | | | | | | | | Statewide Crash Rate: 204.85 | | |
| Study Years: 3.00 | | | | Section Totals: | 1.25 | | 85 | 0 | 3 | 2 | 1 | 79 | 7.1 | 0.01609 | 1761.02 | 337.27 | 5.22 |
| | | | | Grand Totals: | 1.25 | | 116 | 0 | 3 | 5 | 8 | 100 | 13.8 | 0.01609 | 2403.28 | 474.43 | 5.07 |

# Crash Summary

Section Details

| Start Node | End Node | Element | Offset Begin - End | Route - MP | Total Crashes | Injury Crashes K | A | B | C | PD | Crash Report | Crash Date | Crash Mile Point | Injury Degree |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18975 | 18787 | 3417148 | 0 - 0.14 | 3209786 - 0.27 | 5 | 0 | 2 | 0 | 0 | 3 | 2024-36721 | 12/19/2024 | 0.29 | PD |
| | | | | | | | | | | | 2023-29265 | 10/07/2023 | 0.32 | A |
| | | | | | | | | | | | 2024-26494 | 09/25/2024 | 0.33 | A |
| | | | | | | | | | | | 2022-27985 | 10/01/2022 | 0.34 | PD |
| | | | | | | | | | | | 2023-35877 | 12/02/2023 | 0.39 | PD |
| 18787 | 18816 | 3417149 | 0 - 0.06 | 3209786 - 0.41 | 1 | 0 | 0 | 0 | 0 | 1 | 2024-34652 | 12/04/2024 | 0.44 | PD |
| 18784 | 18816 | 3129296 | 0 - 0.03 | 0560505 - 0.06 | 1 | 0 | 0 | 0 | 0 | 1 | 2023-17556 | 06/21/2023 | 0.08 | PD |
| 18787 | 18816 | 3123997 | 0 - 0.06 | 0560505 - 0 | 3 | 0 | 0 | 0 | 0 | 3 | 2022-14389 | 05/25/2022 | 0.03 | PD |
| | | | | | | | | | | | 2024-6079 | 02/01/2024 | 0.05 | PD |
| | | | | | | | | | | | 2022-20298 | 07/20/2022 | 0.05 | PD |
| 18787 | 18974 | 194373 | 0 - 0.04 | 0560672 - 1.13 | 1 | 0 | 0 | 0 | 0 | 1 | 2023-33058 | 11/11/2023 | 1.15 | PD |
| 18974 | 18975 | 3119282 | 0 - 0.10 | 0560672 - 1.03 | 1 | 0 | 0 | 0 | 0 | 1 | 2022-8020 | 03/10/2022 | 1.11 | PD |
| 18780 | 18785 | 194362 | 0 - 0.04 | 0560258 - 0 | 3 | 0 | 0 | 0 | 0 | 3 | 2024-16101 | 06/17/2024 | 0.01 | PD |
| | | | | | | | | | | | 2024-26537 | 09/24/2024 | 0.01 | PD |
| | | | | | | | | | | | 2024-36415 | 12/18/2024 | 0.02 | PD |
| 18780 | 18784 | 5080251 | 0 - 0.06 | 0560258 - 0.04 | 8 | 0 | 0 | 0 | 0 | 8 | 2024-25086 | 09/11/2024 | 0.05 | PD |
| | | | | | | | | | | | 2022-35399 | 11/29/2022 | 0.06 | PD |
| | | | | | | | | | | | 2023-25585 | 09/01/2023 | 0.06 | PD |
| | | | | | | | | | | | 2024-35134 | 12/07/2024 | 0.07 | PD |
| | | | | | | | | | | | 2023-21714 | 07/29/2023 | 0.08 | PD |
| | | | | | | | | | | | 2022-18117 | 06/28/2022 | 0.08 | PD |
| | | | | | | | | | | | 2022-11163 | 04/15/2022 | 0.09 | PD |
| | | | | | | | | | | | 2024-25017 | 09/11/2024 | 0.09 | PD |
| 16793 | 18189 | 192474 | 0 - 0.03 | 0560523 - 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 18189 | 18774 | 5080241 | 0 - 0.02 | 0560523 - 0.03 | 1 | 0 | 0 | 0 | 0 | 1 | 2024-35471 | 11/09/2024 | 0.04 | PD |
| 18775 | 18776 | 5206226 | 0 - 0.05 | 0560569 - 0 | 7 | 0 | 0 | 0 | 0 | 7 | 2024-18230 | 07/06/2024 | 0.03 | PD |
| | | | | | | | | | | | 2023-8059 | 03/13/2023 | 0.03 | PD |
| | | | | | | | | | | | 2023-21475 | 07/27/2023 | 0.03 | PD |
| | | | | | | | | | | | 2023-21115 | 07/23/2023 | 0.03 | PD |
| | | | | | | | | | | | 2022-30166 | 10/20/2022 | 0.04 | PD |
| | | | | | | | | | | | 2024-11072 | 04/26/2024 | 0.04 | PD |
| | | | | | | | | | | | 2024-23712 | 04/05/2024 | 0.04 | PD |
| 16792 | 18188 | 5918548 | 0 - 0.04 | 0560188 - 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

# Crash Summary

Section Details

| Start Node | End Node | Element | Offset Begin - End | Route - MP | Total Crashes | Injury Crashes K | A | B | C | PD | Crash Report | Crash Date | Crash Mile Point | Injury Degree |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18188 | 18777 | 5080243 | 0 - 0.02 | 0560188 - 0.04 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 16790 | 18187 | 3131647 | 0 - 0.04 | 0560719 - 0 | 5 | 0 | 0 | 0 | 0 | 5 | 2024-21466 | 08/06/2024 | 0.01 | PD |
| | | | | | | | | | | | 2022-5887 | 02/20/2022 | 0.03 | PD |
| | | | | | | | | | | | 2022-3789 | 02/04/2022 | 0.03 | PD |
| | | | | | | | | | | | 2023-29413 | 10/09/2023 | 0.03 | PD |
| | | | | | | | | | | | 2022-9164 | 03/16/2022 | 0.03 | PD |
| 18187 | 18786 | 3122284 | 0 - 0.02 | 0560719 - 0.04 | 1 | 0 | 0 | 0 | 1 | 0 | 2022-24072 | 08/24/2022 | 0.05 | C |
| 18786 | 18787 | 3106806 | 0 - 0.10 | 0560719 - 0.06 | 3 | 0 | 0 | 0 | 0 | 3 | 2023-18910 | 07/05/2023 | 0.07 | PD |
| | | | | | | | | | | | 2023-22603 | 07/30/2023 | 0.13 | PD |
| | | | | | | | | | | | 2022-5611 | 02/18/2022 | 0.14 | PD |
| 16790 | 65134 | 2783199 | 0 - 0.01 | 3201882 - 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 18774 | 18785 | 3121699 | 0 - 0.01 | 0560286 - 0.79 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 18775 | 18785 | 5206225 | 0 - 0.02 | 0560286 - 0.80 | 6 | 0 | 0 | 0 | 0 | 6 | 2023-12132 | 04/27/2023 | 0.81 | PD |
| | | | | | | | | | | | 2023-16871 | 06/16/2023 | 0.81 | PD |
| | | | | | | | | | | | 2024-18300 | 07/08/2024 | 0.81 | PD |
| | | | | | | | | | | | 2022-4551 | 02/09/2022 | 0.81 | PD |
| | | | | | | | | | | | 2024-5292 | 02/20/2024 | 0.81 | PD |
| | | | | | | | | | | | 2022-38899 | 12/23/2022 | 0.81 | PD |
| 18775 | 18777 | 5206224 | 0 - 0.01 | 0560286 - 0.82 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 18777 | 18779 | 3106803 | 0 - 0.02 | 0560286 - 0.83 | 6 | 0 | 0 | 1 | 0 | 5 | 2022-28010 | 10/02/2022 | 0.84 | B |
| | | | | | | | | | | | 2023-7962 | 03/10/2023 | 0.84 | PD |
| | | | | | | | | | | | 2022-28910 | 10/09/2022 | 0.84 | PD |
| | | | | | | | | | | | 2023-6678 | 03/02/2023 | 0.84 | PD |
| | | | | | | | | | | | 2022-27369 | 09/16/2022 | 0.84 | PD |
| | | | | | | | | | | | 2024-20050 | 07/23/2024 | 0.85 | PD |
| 18779 | 18786 | 3106804 | 0 - 0.05 | 0560286 - 0.85 | 8 | 0 | 1 | 0 | 0 | 7 | 2024-23935 | 08/31/2024 | 0.86 | PD |
| | | | | | | | | | | | 2024-14355 | 06/02/2024 | 0.86 | PD |
| | | | | | | | | | | | 2023-20241 | 07/17/2023 | 0.87 | PD |
| | | | | | | | | | | | 2024-18786 | 07/12/2024 | 0.88 | A |
| | | | | | | | | | | | 2022-19218 | 07/10/2022 | 0.88 | PD |
| | | | | | | | | | | | 2022-9305 | 03/24/2022 | 0.88 | PD |
| | | | | | | | | | | | 2023-21106 | 06/13/2023 | 0.89 | PD |
| | | | | | | | | | | | 2024-30000 | 10/26/2024 | 0.89 | PD |
| 18187 | 18778 | 5080242 | 0 - 0.05 | 0560742 - 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

# Crash Summary

## Section Details

| Start Node | End Node | Element | Offset Begin - End | Route - MP | Total Crashes | Injury Crashes K | A | B | C | PD | Crash Report | Crash Date | Crash Mile Point | Injury Degree |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18188 | 18778 | 5095052 | 0 - 0.02 | 0560742 - 0.05 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 18188 | 18189 | 193776 | 0 - 0.04 | 0560742 - 0.07 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 16789 | 16790 | 3120311 | 0 - 0.06 | 0001A - 11.43 | 7 | 0 | 0 | 1 | 0 | 6 | 2022-29787 | 10/17/2022 | 11.46 | PD |
| | | | | | | | | | | | 2024-31304 | 11/08/2024 | 11.46 | PD |
| | | | | | | | | | | | 2023-21476 | 07/27/2023 | 11.48 | B |
| | | | | | | | | | | | 2023-24048 | 08/19/2023 | 11.48 | PD |
| | | | | | | | | | | | 2023-19865 | 07/13/2023 | 11.48 | PD |
| | | | | | | | | | | | 2023-28294 | 08/27/2023 | 11.48 | PD |
| | | | | | | | | | | | 2024-24714 | 09/06/2024 | 11.48 | PD |
| 16790 | 16792 | 3943906 | 0 - 0.07 | 0001A - 11.49 | 11 | 0 | 0 | 0 | 0 | 11 | 2024-18234 | 07/07/2024 | 11.50 | PD |
| | | | | | | | | | | | 2023-36965 | 12/08/2023 | 11.50 | PD |
| | | | | | | | | | | | 2023-29378 | 10/10/2023 | 11.50 | PD |
| | | | | | | | | | | | 2024-35335 | 12/09/2024 | 11.51 | PD |
| | | | | | | | | | | | 2023-21094 | 07/25/2023 | 11.51 | PD |
| | | | | | | | | | | | 2024-71 | 01/03/2024 | 11.52 | PD |
| | | | | | | | | | | | 2023-27642 | 09/17/2023 | 11.52 | PD |
| | | | | | | | | | | | 2023-40007 | 12/24/2023 | 11.53 | PD |
| | | | | | | | | | | | 2024-23574 | 08/27/2024 | 11.54 | PD |
| | | | | | | | | | | | 2024-20700 | 07/27/2024 | 11.54 | PD |
| | | | | | | | | | | | 2023-9821 | 03/30/2023 | 11.55 | PD |
| 16792 | 16793 | 3131648 | 0 - 0.04 | 0001A - 11.56 | 7 | 0 | 0 | 0 | 0 | 7 | 2024-9748 | 03/30/2024 | 11.58 | PD |
| | | | | | | | | | | | 2023-32403 | 11/04/2023 | 11.58 | PD |
| | | | | | | | | | | | 2023-11862 | 04/17/2023 | 11.58 | PD |
| | | | | | | | | | | | 2023-22604 | 08/02/2023 | 11.59 | PD |
| | | | | | | | | | | | 2023-784 | 01/11/2023 | 11.59 | PD |
| | | | | | | | | | | | 2023-17787 | 06/25/2023 | 11.59 | PD |
| | | | | | | | | | | | 2024-1089 | 01/13/2024 | 11.59 | PD |
| | | | | Totals: | 85 | 0 | 3 | 2 | 1 | 79 | | | | |

# Crash Summary II - Characteristics

## Crashes by Day and Hour

| | AM | | | | | | | | | | | | PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hour of Day | | | | | | | | | | | | | | | | | | | | | | | | |
| Day Of Week | 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 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 15 |
| MONDAY | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 12 |
| TUESDAY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 13 |
| WEDNESDAY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 1 | 2 | 1 | 3 | 2 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 18 |
| THURSDAY | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 0 | 2 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 15 |
| FRIDAY | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 3 | 0 | 2 | 2 | 3 | 1 | 1 | 1 | 0 | 2 | 0 | 22 |
| SATURDAY | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 2 | 2 | 0 | 1 | 4 | 0 | 21 |
| Totals | 6 | 14 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 6 | 3 | 10 | 6 | 6 | 9 | 5 | 8 | 7 | 5 | 7 | 4 | 3 | 3 | 10 | 0 | 116 |

## Vehicle Counts by Type

| Unit Type | Total |
|---|---|
| 1-Passenger Car | 94 |
| 2-(Sport) Utility Vehicle | 65 |
| 3-Passenger Van | 2 |
| 4-Cargo Van (10K lbs or Less) | 4 |
| 5-Pickup | 33 |
| 6-Motor Home | 0 |
| 7-School Bus | 0 |
| 8-Transit Bus | 1 |
| 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) | 7 |
| 18-ATV - (4 wheel) | 0 |
| 20-ATV - (2 wheel) | 0 |
| 21-Snowmobile | 0 |
| 22-Pedestrian | 8 |
| 23-Bicyclist | 3 |
| 24-Witness | 22 |
| 25-Other | 11 |
| 26-Construction | 0 |
| 27-Farm Vehicle | 0 |
| 28-Horse and Buggy | 0 |
| Total | 251 |

# 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 | 10 | 50 | 2 | 1 | 0 | 0 | 63 |
| Ran Off Roadway | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Failed to Yield Right-of-Way | 14 | 0 | 0 | 0 | 0 | 0 | 14 |
| 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 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Improper Turn | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| Improper Backing | 23 | 0 | 0 | 0 | 0 | 0 | 23 |
| Improper Passing | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Wrong Way | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Followed Too Closely | 11 | 1 | 0 | 0 | 0 | 0 | 12 |
| Failed to Keep in Proper Lane | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| 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 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Over-Correcting/Over-Steering | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Other Contributing Action | 8 | 2 | 0 | 0 | 0 | 0 | 10 |
| Unknown | 2 | 2 | 0 | 0 | 0 | 0 | 4 |
| Total | 92 | 56 | 2 | 1 | 0 | 0 | 151 |

## Crashes by Apparent Physical Condition And Driver

| Apparent Physical Condition | Dr 1 | Dr 2 | Dr 3 | Dr 4 | Dr 5 | Other | Total |
|---|---|---|---|---|---|---|---|
| Apparently Normal | 82 | 57 | 2 | 1 | 0 | 6 | 148 |
| Physically Impaired | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Emotional(Depressed, Angry, Disturbed, etc.) | 1 | 0 | 0 | 0 | 0 | 1 | 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 | 7 | 0 | 0 | 0 | 0 | 4 | 11 |
| Other | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 92 | 57 | 2 | 1 | 0 | 11 | 163 |

## 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 | 21 | 0 | 0 | 0 | 0 | 21 |
| 25-29 | 19 | 0 | 0 | 0 | 0 | 19 |
| 30-39 | 48 | 0 | 0 | 0 | 0 | 48 |
| 40-49 | 33 | 0 | 0 | 0 | 0 | 33 |
| 50-59 | 21 | 0 | 0 | 0 | 0 | 21 |
| 60-69 | 13 | 0 | 0 | 0 | 0 | 13 |
| 70-79 | 12 | 0 | 0 | 0 | 0 | 12 |
| 80-Over | 3 | 0 | 0 | 0 | 0 | 3 |
| Unknown | 40 | 3 | 0 | 8 | 0 | 51 |
| Total | 218 | 3 | 0 | 8 | 0 | 229 |

# Crash Summary II - Characteristics

## Most Harmful Event

| Most Harmful Event | Total | Most Harmful Event | Total |
|---|---|---|---|
| 1-Overturn / Rollover | 0 | 38-Other Fixed Object (wall, building, tunnel, etc.) | 1 |
| 2-Fire / Explosion | 0 | 39-Unknown | 0 |
| 3-Immersion | 0 | 40-Gate or Cable | 0 |
| 4-Jackknife | 0 | 41-Pressure Ridge | 0 |
| 5-Cargo / Equipment Loss Or Shift | 0 | Total | 201 |
| 6-Fell / Jumped from Motor Vehicle | 0 | | |
| 7-Thrown or Falling Object | 0 | | |
| 8-Other Non-Collision | 0 | | |
| 9-Pedestrian | 2 | | |
| 10-Pedalcycle | 1 | | |
| 11-Railway Vehicle - Train, Engine | 0 | | |
| 12-Animal | 0 | | |
| 13-Motor Vehicle in Transport | 161 | | |
| 14-Parked Motor Vehicle | 34 | | |
| 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 | 1 | | |
| 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 | | |

## Injury Data

| Severity Code | Injury Crashes | Number Of Injuries |
|---|---|---|
| K | 0 | 0 |
| A | 3 | 3 |
| B | 5 | 6 |
| C | 8 | 10 |
| PD | 100 | 0 |
| Total | 116 | 19 |

## Road Character

| Road Grade | Total |
|---|---|
| 1-Level | 101 |
| 2-On Grade | 14 |
| 3-Top of Hill | 0 |
| 4-Bottom of Hill | 1 |
| 5-Other | 0 |
| Total | 116 |

## Traffic Control Devices

| Traffic Control Device | Total |
|---|---|
| 1-Traffic Signals (Stop & Go) | 31 |
| 2-Traffic Signals (Flashing) | 1 |
| 3-Advisory/Warning Sign | 0 |
| 4-Stop Signs - All Approaches | 4 |
| 5-Stop Signs - Other | 6 |
| 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 | 1 |
| 13-None | 72 |
| 14-Other | 1 |
| Total | 116 |

## Light

| Light Condition | Total |
|---|---|
| 1-Daylight | 62 |
| 2-Dawn | 0 |
| 3-Dusk | 1 |
| 4-Dark - Lighted | 51 |
| 5-Dark - Not Lighted | 1 |
| 6-Dark - Unknown Lighting | 1 |
| 7-Unknown | 0 |
| Total | 116 |

# Crash Summary II - Characteristics

## Crashes by Year and Month

| Month | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|
| JANUARY | 1 | 1 | 3 | 5 |
| FEBRUARY | 5 | 1 | 2 | 8 |
| MARCH | 3 | 6 | 1 | 10 |
| APRIL | 1 | 3 | 2 | 6 |
| MAY | 2 | 0 | 0 | 2 |
| JUNE | 2 | 6 | 2 | 10 |
| JULY | 3 | 9 | 7 | 19 |
| AUGUST | 1 | 6 | 4 | 11 |
| SEPTEMBER | 3 | 2 | 5 | 10 |
| OCTOBER | 5 | 3 | 3 | 11 |
| NOVEMBER | 3 | 4 | 4 | 11 |
| DECEMBER | 2 | 5 | 6 | 13 |
| Total | 31 | 46 | 39 | 116 |

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 | Traffic Circle-Roundabout | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Object in Road | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Rear End - Sideswipe | 68 | 1 | 6 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| Head-on - Sideswipe | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Intersection Movement | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Pedestrians | 2 | 0 | 0 | 4 | 0 | 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 | 0 |
| Went Off Road | 7 | 0 | 0 | 3 | 0 | 1 | 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 | 0 |
| Bicycle | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Other | 1 | 0 | 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 | 0 |
| Rollover | 0 | 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 | 0 |
| Submersion | 0 | 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 | 0 |
| Bear | 0 | 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 | 0 |
| Moose | 0 | 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 | 0 |
| Total | 84 | 1 | 8 | 21 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 116 |

# 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 | 0 | 0 | 0 | 0 | 3 | 40 |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Daylight | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 48 |
| 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 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 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 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |

# 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 | 5 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 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 | 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 | 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 |
| **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 | 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 |
| TOTAL | 94 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 18 | 116 |

# H. C. L.
# CRASH COLLISION DIAGRAM
# DATA PACKAGE

COUNTY: **CUMBERLAND** TOWN: **PORTLAND**

LOW NODE: **18780** HIGH NODE: **18784** REGION: **1** U/R: **URBAN**

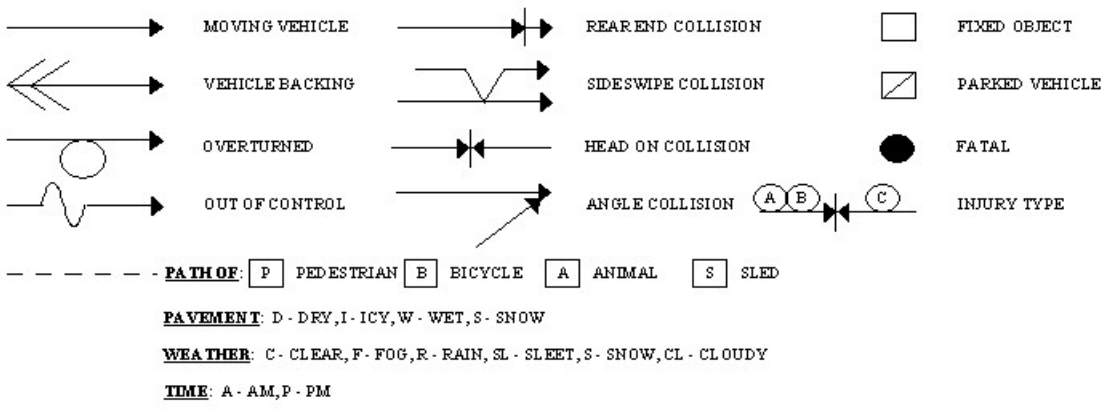
DESCRIPTION: **Exchange St from Milk St to Middle St**

RTE # / RD #: **0560258** DATE DRAWN: **4/4/2025** DRAWN BY: **Duncan**

STUDY FROM: **1/1/2021** STUDY TO: **12/31/2023**

CRASH RATE: **7876.17** CRF: **5.56** % INJURY: **0** TOTAL CRASHES: **8**

LEGEND



# Portland

## Link: 18780-18784

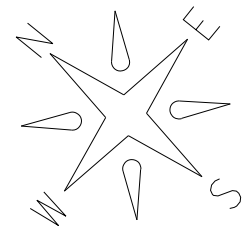
## Element: 19436

## Study Period: 2022-2024

## # of Crashes: 8 / CRF: 5.56

Prepared by Office of Safety & Mobility

(DS 4/4/25)




18784

Key Bank

18780

Exchange St

ONE WAY

25017 9-11-24 9:22A D/C Improper Backing

18117 6-28-22 12:39P D/C Improper Backing

35134 12-7-24
12:50A D/C OUI

25585 9-1-23 1:01P D/C Fail to Keep in Lane
struck open door

25086 9-11-24 1:20P D/C
Improper Turn

11163 4-15-22 10:36A D/C
Fail to Yield

21714 7-29-23 10:37P D/C Improper Turn

35399 11-29-22 9:30A D/CL Improper Turn

# H. C. L.
# CRASH COLLISION DIAGRAM
# DATA PACKAGE

COUNTY: **CUMBERLAND** TOWN: **PORTLAND**

LOW NODE: **18779** HIGH NODE: **18786** REGION: **1** U/R: **URBAN**

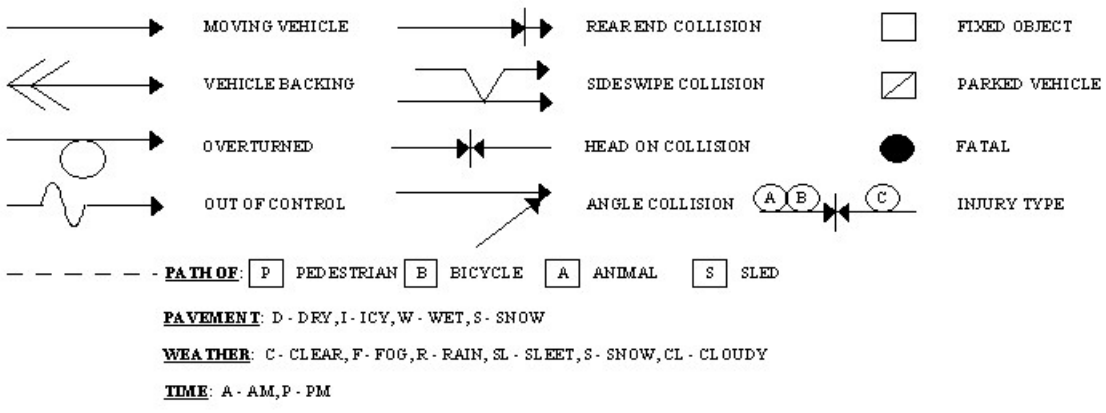
DESCRIPTION: **Fore St from Non Int Fore St to Union St**

RTE # / RD #: **0560286** DATE DRAWN: **4/4/2025** DRAWN BY: **Duncan**

STUDY FROM: **1/1/2021** STUDY TO: **12/31/2023**

CRASH RATE: **5562.19** CRF: **8.45** % INJURY: **12.5** TOTAL CRASHES: **8**

LEGEND



# Portland

Link: 18779-18786

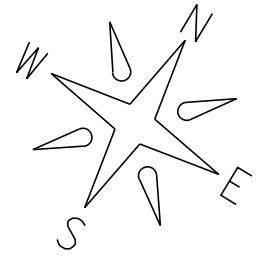
Element: 3106804

Study Period: 2022-2024

# of Crashes: 8 / CRF: 8.45

Prepared by Office of Safety & Mobility

(DS 4/4/25)




18786

18779

Fore St.

C A 18786 7-12-24 1:32A
D/C OUI

20241 7-17-23 11:05A D/C
Hit & Run

23935 8-31-24 1:32A
D/C Hit & Run

21106 6-13-23 11:00P W/R
Improper Backing

19218 7-10-22 1:19A D/C
Improper Backing

9305 3-24-22 12:53A D/C
Fail To Keep In Lane

30000 10-26-24 5:00A D/C
Improper Backing

light pole

14355 6-2-24 12:05P D/C
Fail to Yield

# H. C. L.
# CRASH COLLISION DIAGRAM
# DATA PACKAGE

COUNTY: **CUMBERLAND** TOWN: **PORTLAND**

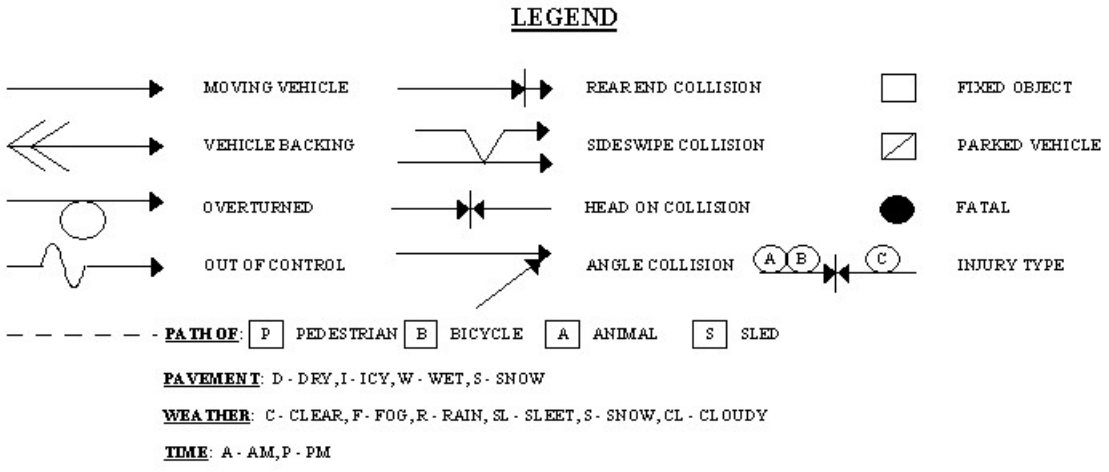
LOW NODE: **16790** HIGH NODE: **16792** REGION: **1** U/R: **URBAN**

DESCRIPTION: **Commercial St from Union St to Dana St**

RTE # / RD #: **0001A** DATE DRAWN: **4/7/2025** DRAWN BY: **Duncan**

STUDY FROM: **1/1/2021** STUDY TO: **12/31/2023**

CRASH RATE: **1521.52** CRF: **2.67** % INJURY: **0** TOTAL CRASHES: **11**



# Portland

## Link: 16790-16792

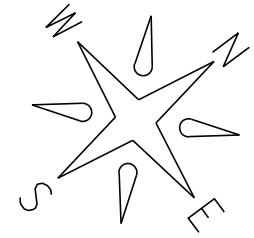
## Element: 3943906

## Study Period: 2022-2024

## # of Crashes: 11 / CRF: 2.67

Prepared by Office of Safety & Mobility

(DS 4-7-25)




16790

16792

36965 12-8-23 6:24P D/C
Improper backing

7111-3-24 3:20P D/C
Improper Backing

40007 12-24-23 6:45P
D/C Hit & Run

27642 9-17-23 7:45P D/C Fail to yield

18234 7-7-24 1:00A D/C
Fail to Keep in Lane

21094 7-25-23 9:02A D/C Improper backing

9821 3-30-23 1:02P D/C
Improper backing

20700 7-27-24 1:30A
D/C Hit & Run

29378 10-10-23 2:28P D/CL
Improper backing

Commercial St.
Rte. 1A

23574 8-27-24 3:02P D/C Hit & Run

35335 12-9-24 11:56P S/S Road Conditions
tire struck curb, side airbags deployed

Motorcycle Parking Spots

Widgery Wharf/MSRC

# APPENDIX C

- **DEED**

Book 35559, Page 67
4/4/2019 10:27 a.m.

**SHORT FORM QUITCLAIM DEED WITHOUT COVENANT**

DLN: 1001940053979

**COW PLAZA 1 LLC**, a Maine limited liability company with a place of business at Portland, Maine ("Grantor"), FOR CONSIDERATION PAID, grants to **KOWTOWER LLC**, a Maine limited liability company with a mailing address of 100 Commercial Street, Portland, Maine 04101 ("Grantee"), certain real property, together with any improvements thereon, located in the City of Portland, Cumberland County, Maine and more particularly described on Exhibit A attached hereto and made a part hereof.

Being a portion of the premises conveyed to the Grantor by deed from GRE Congress Canal LLC dated December 22, 2009 and recorded in the Cumberland County Registry of Deeds in Book 27480, Page 310.

IN WITNESS WHEREOF, Cow Plaza 1 LLC has caused this instrument to be executed by J. Tim Soley, Manager of East Brown Cow Holdings II LLC, the Sole Member of Cow Plaza 1 LLC thereunto duly authorized, as of this 3rd day of April, 2019.

WITNESS:

Name:

COW PLAZA 1 LLC

By: East Brown Cow Holdings II LLC
Its Sole Member

By: _____
J. Tim Soley
Its Manager

State of Maine
County of Cumberland, ss.

April 2nd, 2019

Personally appeared before me the above named J. Tim Soley, Manager of East Brown Cow Holdings II LLC, the Sole Member of Cow Plaza 1 LLC, as aforesaid, and acknowledged the above instrument to be his free act and deed in his said capacity and the free act and deed of said Cow Plaza 1 LLC.

MARINA WAISMAN
NOTARY PUBLIC
CUMBERLAND COUNTY
MAINE
MY COMMISSION EXPIRES JUNE 9, 2023

Before me,

Name: Marina Waisman
Notary Public / Attorney at Law

1

**EXHIBIT A**

A certain lot or parcel of land, with the buildings and other improvements thereon, located on the southwesterly side of Exchange Street, in the City of Portland, County of Cumberland, State of Maine, being bound and described as follows:

BEGINNING on the southwesterly side of Exchange Street at the easterly corner of land now or formerly (N/F) of Fitzgibbons Family Trust, as described in Book 26232, Page 250, recorded in the Cumberland County Registry of Deeds;

THENCE: S 37°49'46" E, along said Exchange Street, 23.55', to the northerly corner of land N/F of 44 Exchange Street, LLC, as described in Book 25643, Page 195;

THENCE: S 51°16'00" W, along said 44 Exchange Street, LLC, 43.00', to a point;

THENCE: S 60°12'30" W, along said 44 Exchange Street, LLC, 37.84', to the westerly corner of said 44 Exchange Street, LLC;

THENCE: S 37°23'00" E, along said 44 Exchange Street, LLC, 26.57', to a point;

THENCE: S 13°55'30" E, along said 44 Exchange Street, LLC, 19.71', to a point;

THENCE: S 59°00'30" W, along said 44 Exchange Street, LLC, 12.59', to a point;

THENCE: S 37°00'30" E, along said 44 Exchange Street, LLC, 26.00', to the northwesterly end of Patton Court;

THENCE: continuing S 37°00'30" E, along said Patton Court, 57.94', to the northerly corner of land of Cow Plaza Garage LLC, as described in Book 27480, Page 325;

THENCE: S 59°56'30" W, along said Cow Plaza Garage LLC, 139.44', to a point;

THENCE: N 29°47'06" W, through land of the Grantor, 64.50', to a point;

THENCE: N 60°12'54" E, through land of said Grantor, 10.00', to a point;

THENCE: N 29°47'06" W, through land of said Grantor, 24.00', to a point;

THENCE: S 60°12'54" W, through land of said Grantor, 10.00', to a point;

THENCE: N 29°47'06" W, through land of said Grantor, 52.00', to a point;

THENCE: N 60°12'54" E, through land of said Grantor, 12.82', to a point;

THENCE: N 29°47'06" W, through land of said Grantor, 28.00', to a point on the southeasterly line of land of Cow Plaza 3 LLC, as described in Book 27480, Page 335;

THENCE: N 60°12'54" E, along said Cow Plaza 3 LLC, 25.00', to a point;

THENCE: N 30°34'30" W, along said Cow Plaza 3 LLC, 3.62', to the southerly corner of land N/F of Middle Street Holdings, LLC, as described in Book 31724, Page 277;

THENCE: N 59°03'34" E, along said Middle Street Holdings, LLC, 21.89', to a point;

THENCE: S 30°56'26" E, along said Middle Street Holdings, LLC, 1.00', to a point;

THENCE: N 59°18'12" E, along said Middle Street Holdings, LLC, 27.42', to a point;

THENCE: S 30°41'48" E, along said Middle Street Holdings, LLC, 1.77', to a point;

THENCE: N 59°42'35" E, along said Middle Street Holdings, LLC, 17.31', to a point;

THENCE: S 29°57'00" E, along said Middle Street Holdings, LLC, 1.13', to a point;

THENCE: N 59°27'00" E, along said Middle Street Holdings, LLC, 20.88', to a point;

THENCE: N 69°43'00" E, along said Middle Street Holdings, LLC, 21.60', to a point;

THENCE: N 79°11'00" E, along said Middle Street Holdings, LLC, 27.13', to the southerly corner of said Fitzgibbons Family Trust;

THENCE: continuing N 79°11'00" E, along said Fitzgibbons Family Trust, 5.61', to a point;

THENCE: S 37°49'00" E, along said Fitzgibbons Family Trust, 2.45', to a point;

THENCE: N 51°21'00" E, along said Fitzgibbons Family Trust, 42.96', to the POINT of BEGINNING.

The above described parcel contains 25,159 square feet.

Bearings for the above described parcel are based on the Maine State Coordinate System, West Zone 1813, Grid North.

The above described parcel is shown on plan entitled "Mortgage Release/Retention Plan, Canal Plaza, Portland, Maine, prepared by Northeast Civil Solutions, Inc., dated December 7, 2018, NCS Project No. 29696.14.

This conveyance is made together with the benefit of and subject to the rights of Grantor and others which are expressly reserved hereby, and the terms and conditions of, that certain Reciprocal Easement Agreement among Grantor, Cow Plaza 2 LLC, Cow Plaza 3 LLC and Cow Plaza Garage LLC dated December 22, 2009 and recorded in the Cumberland County Registry of Deeds in Book 27481, Page 1, as affected by Partial Releases recorded in said Registry of Deeds in Book 30060, Page 93, Book 30060, Page 95, Book 30361, Page 232, and Book 30361, Page 234.

# APPENDIX D

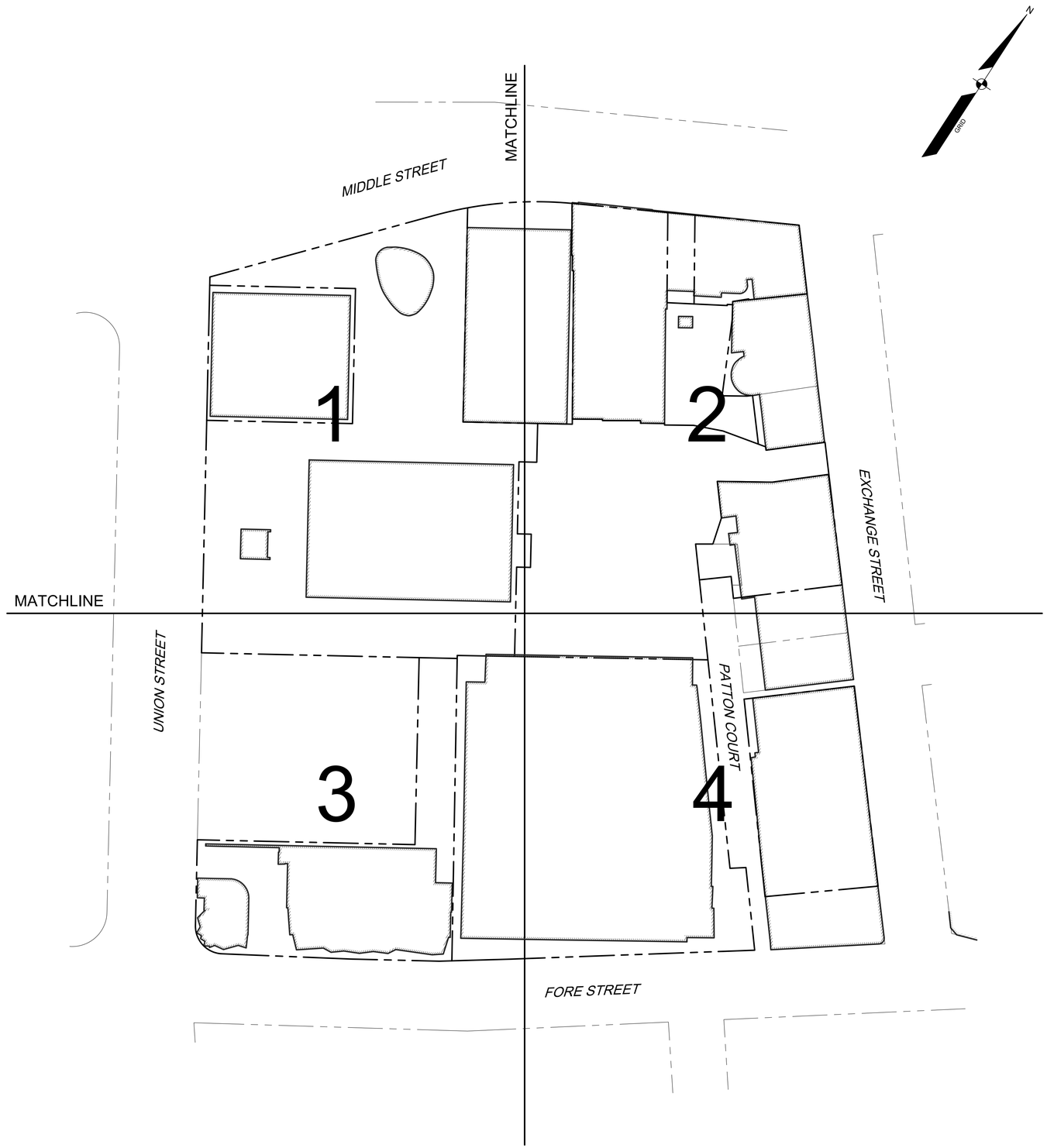
- SURVEY PLAN
- SITE PLAN

## SHEET INDEX:


| | |
|---|---|
| SH. 1 | COVER SHEET & NOTES |
| SH. 2 | BOUNDARY SURVEY - 1 |
| SH. 3 | BOUNDARY SURVEY - 2 |
| SH. 4 | BOUNDARY SURVEY - 3 |
| SH. 5 | BOUNDARY SURVEY - 4 |
| SH. 6 | TOPOGRAPHY PLAN - 1 |
| SH. 7 | TOPOGRAPHY PLAN - 2 |
| SH. 8 | TOPOGRAPHY PLAN - 3 |
| SH. 9 | TOPOGRAPHY PLAN - 4 |
| SH. 10 | UTILITY PLAN - 1 |
| SH. 11 | UTILITY PLAN - 2 |
| SH. 12 | UTILITY PLAN - 3 |
| SH. 13 | UTILITY PLAN - 4 |
| SH. 14 | STRUCTURE TABLE |


## LEGEND

| EXISTING | DESCRIPTION |
|---|---|
| | PROPERTY LINE/R.O.W. |
| | ABUTTER LINE/R.O.W. |
| | EASEMENT |
| | MONUMENT (FOUND) |
| | IRON MARKER (FOUND) |
| N / F | NOW OR FORMERLY |
| 32(I)-33 | TAX MAP (BLOCK), LOT NUMBER |
| | BUILDING |
| | DECK/STEPS |
| | OVERHANG |
| | LEDGE |
| | EDGE OF PAVEMENT |
| | EDGE OF CONCRETE |
| | EDGE OF BRICK |
| | PAVEMENT PAINT |
| | EDGE GRAVEL |
| | CURB LINE |
| 120 118 | CONTOURS |
| | CHAIN LINK FENCE |
| | STOCKADE FENCE |
| | RETAINING WALL |
| | DECIDUOUS TREE |
| | SHRUB |
| | STUMP |
| | MULCH LINE |
| | BOLLARD |
| | SIGN |
| G | GAS |
| | GAS GATE VALVE |
| GM | GAS METER |
| G | GAS MANHOLE |
| W | WATER |
| | WATER GATE VALVE |
| | WATER SHUT OFF |
| | HYDRANT |
| W | WATER MANHOLE |
| | IRRIGATION BOX |
| | IRRIGATION VALVE |
| | YARD DRAIN (YD) |
| | FIRE SPIGGOT |
| MW | MONITORING WELL |
| MH | MANHOLE |
| S | SANITARY SEWER |
| S | SANITARY MANHOLE |
| | SANITARY CLEAN OUT |
| SD | STORM DRAIN |
| D | DRAINAGE MANHOLE |
| | CATCH BASIN |
| | DRAINAGE CLEAN OUT |
| OHU | OVERHEAD UTILITY |
| UGT | UNDERGROUND COMMUNICATIONS |
| UGE | UNDERGROUND ELECTRIC |
| UGU | UNKNOWN UNDERGROUND UTILITY |
| T | TRANSFORMER PAD |
| C | COMMUNICATIONS BOX |
| E | ELECTRICAL MANHOLE |
| EM | ELECTRIC METER |
| H | HVAC UNIT |
| C | COMMUNICATIONS MANHOLE |
| | HANDHOLE |
| | LIGHT POLE |
| | MAILBOX |
| | PARKING METER |




GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 INCH = 40 FT.

## GENERAL NOTES:

1. BOOK AND PAGE NUMBERS ARE REFERENCED TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS UNLESS NOTED OTHERWISE. VAULT AND VOLUME NUMBERS ARE REFERENCED TO THE CITY OF PORTLAND ENGINEERING DIVISION ARCHIVES.
2. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, GEOID18, IN U.S. SURVEY FEET, BASED ON DUAL FREQUENCY GNSS OBSERVATIONS. ELEVATIONS DEPICTED HEREON ARE CITY OF PORTLAND VERTICAL DATUM, BASED UPON A LEVEL RUN FROM THE CITY OF PORTLAND BENCHMARK AT CITY HALL BUILDING, CARD REFERENCE L.B. 786/188.
3. AREA AS NOTED WITHIN EACH PROPERTY (SHOWN ON THE BOUNDARY SHEETS).
4. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN MARCH AND APRIL OF 2025.
5. PLAN REFERENCES:
   A. ALTA/ASCM LAND TITLE SURVEY MADE FOR COW PLAZA 1, LLC BY NORTHEAST CIVIL SOLUTIONS, DATED NOVEMBER 30, 2009, VAULT #1018-011.
   B. PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR CITY OF PORTLAND, MAINE "SITE PLAN" BY H.I. & E.C. JORDAN, DATED MAY 22, 1979, VAULT #738-003.
   C. STREET LINE RETRACEMENT PLAN "SPRING / MIDDLE ARTERIAL" MADE BY THE CITY OF PORTLAND, DATED FEBRUARY 10, 2014, VAULT #882-037A.
   D. PLAN OF PATTON COURT MADE BY THE CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS, DATED THROUGH JANUARY 9, 1939, VAULT #598-009.
   E. PLAN OF PROPOSED FORE STREET PARKING GARAGE SITE MADE FOR THE CITY OF PORTLAND BY OWEN HASKELL, INC. DATED NOVEMBER 5, 1979, VAULT #500-006.
   F. STREET LINE DRAWING OF EXCHANGE STREET DATED NOVEMBER 1925, VOLUME 2, PAGE 117.
   G. STREET LINE DRAWING OF FORE STREET DATED JULY 1925, VOLUME 1, PAGE 27.
   H. STREET LINE DRAWING OF UNION STREET DATED NOVEMBER 1925, VOLUME 2, PAGE 121.
   I. PLAN OF EXCHANGE STREET DATED NOVEMBER 1855, VAULT #363-003.
   J. RIGHT OF WAY PLAN OF SPRING-MIDDLE ARTERIAL MADE FOR THE CITY OF PORTLAND BY OWEN HASKELL, INC. DATED OCTOBER 18, 1977, VAULT #595-010.
   K. EXISTING CONDITIONS PLAN ON UNION STREET MADE FOR CENTRAL MAINE POWER COMPANY BY TRC, DATED THROUGH JUNE 10, 2013, VAULT #1018-011A.
   L. PLAN OF CANAL PLAZA MADE FOR CANAL NATIONAL BANK-PLAZA REALTY TRUST BY H.I. & E.C. JORDAN, DATED AUGUST 1972, RECORDED IN PLAN BOOK 109, PAGE 108.
   M. ALTA/NSPS LAND TITLE SURVEY MADE FOR COW PLAZA HOTEL LLC BY NORTHEAST CIVIL SOLUTIONS DATED DECEMBER 9, 2016.
   N. DESIGN PLANS AND DRAWINGS OF CANAL PLAZA SHOWING PROPOSED UTILITIES PROVIDED BY WOODARD AND CURRAN.
6. EASEMENT/ENCUMBRANCES:
   A. SUBJECT TO A RECIPROCAL EASEMENT AGREEMENT BETWEEN COW PLAZA 1 LLC, COW PLAZA 2 LLC, COW PLAZA 3 LLC, COW PLAZA GARAGE LLC, COW PLAZA HOTEL LLC, AND KOWTOWER LLC RECORDED IN BOOK 27481, PAGE 1 AND AMENDED IN BOOK 35559, PAGE 70.
   B. SUBJECT TO A DRAINAGE AND STORMWATER RUNOFF EASEMENT RECORDED IN BOOK 30060, PAGE 87.
   C. SUBJECT TO A DECLARATION OF RESTRICTIONS RECORDED IN BOOK 30361, PAGE 242.
   D. SUBJECT TO A PARKING AGREEMENT RECORDED IN BOOK 37636, PAGE 111.
   E. SUBJECT TO AN ELECTRICAL EASEMENT RECORDED IN BOOK 30282, PAGE 57.
   F. SUBJECT TO AN EASEMENT FOR SEWER PURPOSES OVER THE DISCONTINUED PORTION OF PLUM STREET RESERVED BY THE CITY OF PORTLAND RECORDED IN BOOK 3231, PAGE 337.
   G. SUBJECT TO ACCESS AND MAINTENANCE RIGHTS RECORDED IN BOOK 3495, PAGE 183.
   H. SUBJECT TO AND BENEFITING FROM RIGHTS AND RESERVATIONS RECORDED IN BOOK 3519, PAGE 165.
   I. SUBJECT TO AND BENEFITING FROM RIGHTS AND RESERVATIONS RECORDED IN BOOK 3344, PAGE 45.
   J. SUBJECT TO A RIGHT OF WAY TO ACCESS THE PARKING GARAGE RECORDED IN BOOK 30060. PAGE 82.
   K. SUBJECT TO AN EASEMENT AGREEMENT AND BUILDING RESTRICTIONS RECORDED IN BOOK 30438, PAGE 253.
   L. BENEFITS FROM A LICENSE AGREEMENT WITH THE CITY OF PORTLAND OVER PORTIONS OF UNION STREET AND FORE STREET RECORDED IN BOOK 30393, PAGE 133.
   M. SUBJECT TO BUILDING RESTRICTIONS RECORDED IN BOOK 2074, PAGE 269.
   N. SUBJECT TO A DECLARATION OF 10 EXCHANGE STREET CONDOMINIUM RECORDED IN BOOK 33536, PAGE 85 AS AMENDED IN BOOK 34266, PAGE 17; BOOK 34289, PAGE 325; BOOK 34493, PAGE 255; AND BOOK 37244, PAGE 295.
   O. SUBJECT TO A PARTY WALL AND RECIPROCAL EASEMENT AGREEMENT RECORDED IN BOOK 37715, PAGE 80.
7. BENCHMARKS:
   BM-1: PAINT BOX ON CONCRETE TRAFFIC SIGNAL BASE
   ELEVATION: 49.96 (CITY OF PORTLAND VERTICAL DATUM)
   BM-2: HYDRANT FLANGE BOLT FACING FORE & UNION INTERSECTION
   ELEVATION: 27.13 (CITY OF PORTLAND VERTICAL DATUM)
   BM-3: HYDRANT FLANGE BOLT FACING FACING FORE ST
   ELEVATION: 21.19 (CITY OF PORTLAND VERTICAL DATUM)
8. UTILITY NOTES:
   A. INFORMATION DEPICTED HEREON IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CI/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION. PROMARK UTILITY LOCATING, INC. MARKED THE UNDERGROUND UTILITIES SHOWN HEREON IN MARCH OF 2025, AND WERE FIELD-LOCATED BY SEBAGO TECHNICS, INC.
   B. UTILITIES SHOWN IN BROWN ON UTILITY PLANS 1-4 ARE BASED ON PLAN REFERENCE N AND HAVE NOT BEEN FIELD VERIFIED.
   C. SEWER STUBS SHOWN ON UTILITY PLANS 1-4 ARE BASED ON CCTV REPORTS PROVIDED BY THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.
9. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, PANEL NUMBER 23005C0692F, HAVING AN EFFECTIVE DATE OF 06/20/2024 . THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE "X", AREAS OF MINIMAL FLOODING.
10. AREAS ADJACENT TO COW PLAZA 4 LLC AND KOWTOWER LLC (INDICATED AS SHADED AREAS WITHIN THIS PLAN SET) WERE UNDER CONSTRUCTION AT THE DATE OF THIS SURVEY. SOME FEATURES MAY HAVE BEEN OBSCURED AND NOT SHOWN ON THIS PLAN SET.

## OWNERS OF RECORD:

COW PLAZA 1 LLC
TAX MAP 32(I), LOTS 7, 36 AND 43
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 27480, PAGE 310

COW PLAZA HOTEL LLC
TAX MAP 32(I), LOT 42
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 29745, PAGE 82

ABATSOBE LLC
TAX MAP 32(I), LOT 22
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 38454, PAGE 17

COW PLAZA 2 LLC
TAX MAP 32(I), LOT 33
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 27480, PAGE 330

COW PLAZA GARAGE LLC
TAX MAP 32(I), LOT 41
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 27480, PAGE 325

FRESNELL LLC
TAX MAP 32(I), LOT 1
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 37832, PAGE 239

COW PLAZA 3 LLC
TAX MAP 32(I), LOT 23
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 27480, PAGE 335

KOWTOWER LLC
TAX MAP 32(I), LOT 40
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 35559, PAGE 67

10 EXCHANGE PROPERTIES, LLC
TAX MAP 32(I), LOTS 12, 13 AND 17
P.O. BOX 4894
PORTLAND, ME 04112
BOOK 18001, PAGE 336

COW PLAZA 4 LLC
TAX MAP 32(I), LOT 21
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 37832, PAGE 235

COW EXCHANGE LLC
TAX MAP 32(I), LOTS 8 AND 9
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 39725, PAGE 172

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE: | STATUS |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1 | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AS INDICATED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.


SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

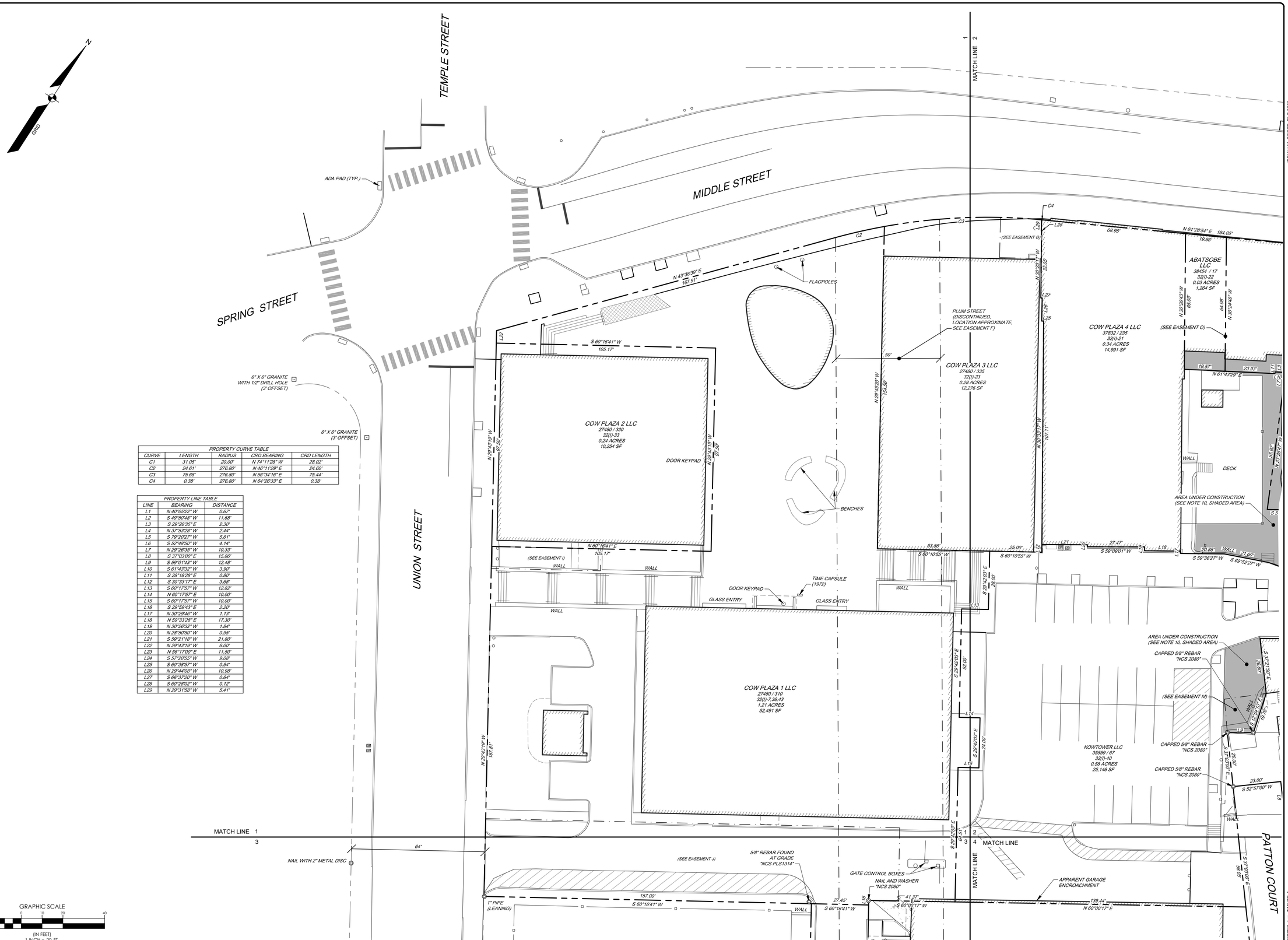

COVER SHEET & NOTES
OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 40' |
| PROJECT | 240988 |

SHEET 1 OF 14

F:\Projects\240000\240988\DWG\Survey\240988EC.dwg - 5/28/2025 1:46 PM - COLEEN N. GIBBONS

240988EC.dwg - TAB:Cover Sheet




| PROPERTY CURVE TABLE | | | | |
|---|---|---|---|---|
| CURVE | LENGTH | RADIUS | CRD BEARING | CRD LENGTH |
| C1 | 31.05' | 20.00' | N 74°11'28" W | 28.02' |
| C2 | 24.61' | 276.80' | N 46°11'29" E | 24.60' |
| C3 | 75.68' | 276.80' | N 56°34'16" E | 75.44' |
| C4 | 0.38' | 276.80' | N 64°26'33" E | 0.38' |

| PROPERTY LINE TABLE | | |
|---|---|---|
| LINE | BEARING | DISTANCE |
| L1 | N 40°05'22" W | 0.67' |
| L2 | S 49°50'48" W | 11.68' |
| L3 | S 29°26'35" E | 2.30' |
| L4 | N 37°53'29" W | 2.44' |
| L5 | S 79°20'27" W | 5.61' |
| L6 | S 52°48'50" W | 4.14' |
| L7 | N 29°26'35" W | 10.33' |
| L8 | S 37°03'00" E | 15.86' |
| L9 | S 59°01'43" W | 12.48' |
| L10 | S 61°43'32" W | 3.90' |
| L11 | S 28°16'28" E | 0.80' |
| L12 | S 30°33'17" E | 3.68' |
| L13 | S 60°17'57" W | 12.82' |
| L14 | N 60°17'57" E | 10.00' |
| L15 | S 60°17'57" W | 10.00' |
| L16 | S 29°59'43" E | 2.20' |
| L17 | N 30°29'46" W | 1.13' |
| L18 | N 59°33'28" E | 17.30' |
| L19 | N 30°26'32" W | 1.84' |
| L20 | N 28°50'50" W | 0.95' |
| L21 | S 59°21'18" W | 21.80' |
| L22 | N 29°43'19" W | 6.00' |
| L23 | N 56°17'00" E | 11.50' |
| L24 | S 57°20'55" W | 9.08' |
| L25 | S 60°38'57" W | 0.94' |
| L26 | N 29°44'08" W | 10.98' |
| L27 | S 66°37'20" W | 0.64' |
| L28 | S 60°28'02" W | 0.12' |
| L29 | N 29°31'58" W | 5.41' |

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE: | STATUS |
|---|---|---|---|
| 2. | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1. | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |

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SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

BOUNDARY SURVEY - 1
OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST., & UNION ST.
PORTLAND, MAINE
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 2 OF 14

F:\Projects\240\00\240988\DWG\Survey\240988EC.dwg - 5/28/2025 1:48 PM - COLEEN N. GIBBONS

240988EC.dwg, TAB:BD-1

MIDDLE STREET

MATCH LINE 1 2

N 43°38'39" E 167.91'

FLAGPOLES

C2 C3 C4

N 64°26'54" E 164.05'

68.95' 19.66' 75.44'

6" X 6" GRANITE (3' OFFSET)

6" X 6" GRANITE WITH 1/2" DRILL HOLE (3' OFFSET)

- (SEE EASEMENT G)

L26 L27 L28 L25

N 30°27'21" W 32.05'

N 30°26'43" W 65.03'

N 30°24'48" W 64.08'

S 26°43'37" E 20.69'

ABATSOBE LLC
38454 / 17
32(I)-22
0.03 ACRES
1,264 SF

FRESNELL LLC
37832 / 239
32(I)-1
0.10 ACRES
4,518 SF

COW PLAZA 4 LLC
37832 / 235
32(I)-21
0.34 ACRES
14,991 SF

(SEE EASEMENT O)

PLUM STREET (DISCONTINUED, LOCATION APPROXIMATE, SEE EASEMENT F)

50'

COW PLAZA 3 LLC
37480 / 335
32(I)-23
0.28 ACRES
12,276 SF

N 29°43'29" W 154.56'

42.27' S 53°07'48" W

19.57' 23.93' N 61°43'29" E

L1 L3 L2 L4 L10

N/F
OLD PORT ARMS LLC
36468 / 120
32(I)-2

EXCHANGE STREET

DOOR KEYPAD

N 29°43'19" W 35.80'

WALL

DECK

AREA UNDER CONSTRUCTION (SEE NOTE 10, SHADED AREA)

N 23°39'34" W 65.82'

17.86' S 59°42'19" W L6

N/F
SANTANA LLC
37242 / 298
32(I)-6

N 17°46'22" W 35.53'

BENCHES

53.86' S 60°10'55" W

25.00' S 60°10'55" W

L22 L21 L20 L19 L18

27.47' S 59°09'01" W

20.88' WALL 21.60' S 59°36'27" W S 69°52'27" W 27.27' S 79°20'27" W

L5

N 51°24'14" E 42.91'

TIME CAPSULE (1972)

DOOR KEYPAD

GLASS ENTRY GLASS ENTRY

WALL

S 3°34'03" E 28.60'

L13

S 51°24'14" E 23.34'

(SEE EASEMENT G)

AREA UNDER CONSTRUCTION (SEE NOTE 10, SHADED AREA)

39.63' S 59°48'04" W

41.22' S 51°10'47" W

CAPPED 5/8" REBAR "NCS 2080"

S 37°21'56" E 25.00'

(SEE EASEMENT M)

WALL

S 37°54'05" E 10.60'

COW EXCHANGE LLC
39725 / 172
32(I)-8.9
0.16 ACRES
7,125 SF

S 37°18'57" E 28.37'

COW PLAZA 1 LLC
27480 / 310
32(I)-7,36,43
1.21 ACRES
52,491 SF

S 29°42'03" E 52.80'

L14

S 29°42'03" E 24.00'

L15

KOWTOWER LLC
35559 / 67
32(I)-40
0.58 ACRES
25,146 SF

CAPPED 5/8" REBAR "NCS 2080"

S 37°18'57" E 36.30'

DISCONTINUED PORTION OF PATTON COURT (1958 & 1981)

CAPPED 5/8" REBAR "NCS 2080"

23.00' S 52°57'00" W

L8

CAPPED 5/8" REBAR "NCS 2080"

78.97' S 51°57'54" W

WALL

2 MATCH LINE 4

3 4 MATCH LINE 1 2

S 29°42'03" E 64.51'

MATCH LINE

PATTON COURT

S 37°21'00" E 36.35'

N/F
SION PALACCI
JOSEPH PALACCI
24073 / 314
32(I)-10

(SEE EASEMENT J)

5/8" REBAR FOUND AT GRADE "NCS PLS1314"

GATE CONTROL BOXES

NAIL AND WASHER "NCS 2080"

APPARENT GARAGE ENCROACHMENT

27.45' S 60°16'41" W

L16

41.37' S 60°00'17" W

139.44' N 60°00'17" E

WALL

N/F
30 EXCHANGE STREET LLC
39483 / 200
32(I)-11

6" X 6" GRANITE WITH 1/4" DRILL HOLE (3' OFFSET, UNDER LID)

MILK STREET

N

GRID

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 INCH = 20 FT.

PROPERTY CURVE TABLE

| CURVE | LENGTH | RADIUS | CRD BEARING | CRD LENGTH |
|---|---|---|---|---|
| C1 | 31.05' | 20.00' | N 74°11'28" W | 28.02' |
| C2 | 24.61' | 276.80' | N 46°11'29" E | 24.60' |
| C3 | 75.68' | 276.80' | N 56°34'16" E | 75.44' |
| C4 | 0.38' | 276.80' | N 64°26'33" E | 0.38' |

PROPERTY LINE TABLE

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N 40°05'22" W | 0.67' |
| L2 | S 49°50'48" W | 11.68' |
| L3 | S 29°26'35" E | 2.30' |
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| L5 | S 79°20'27" W | 5.61' |
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| L14 | N 60°17'57" E | 10.00' |
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| L17 | N 30°29'46" W | 1.13' |
| L18 | N 59°33'28" E | 17.30' |
| L19 | N 30°26'32" W | 1.84' |
| L20 | N 28°50'50" W | 0.95' |
| L21 | S 59°21'18" W | 21.80' |
| L22 | N 29°43'19" W | 6.00' |
| L23 | N 56°17'00" E | 11.50' |
| L24 | S 57°20'55" W | 9.08' |
| L25 | S 60°38'57" W | 0.94' |
| L26 | N 29°44'08" W | 10.98' |
| L27 | S 66°37'20" W | 0.64' |
| L28 | S 60°28'02" W | 0.12' |
| L29 | N 29°31'58" W | 5.41' |

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT #2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE: | STATUS: |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
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South Portland, ME 04106
207-200-2100

South Portland, Bridgton, and Sanford

BOUNDARY SURVEY - 2

OF:

COW PROPERTIES

MIDDLE ST, EXCHANGE ST, FORE ST., & UNION ST.
PORTLAND, MAINE

FOR:

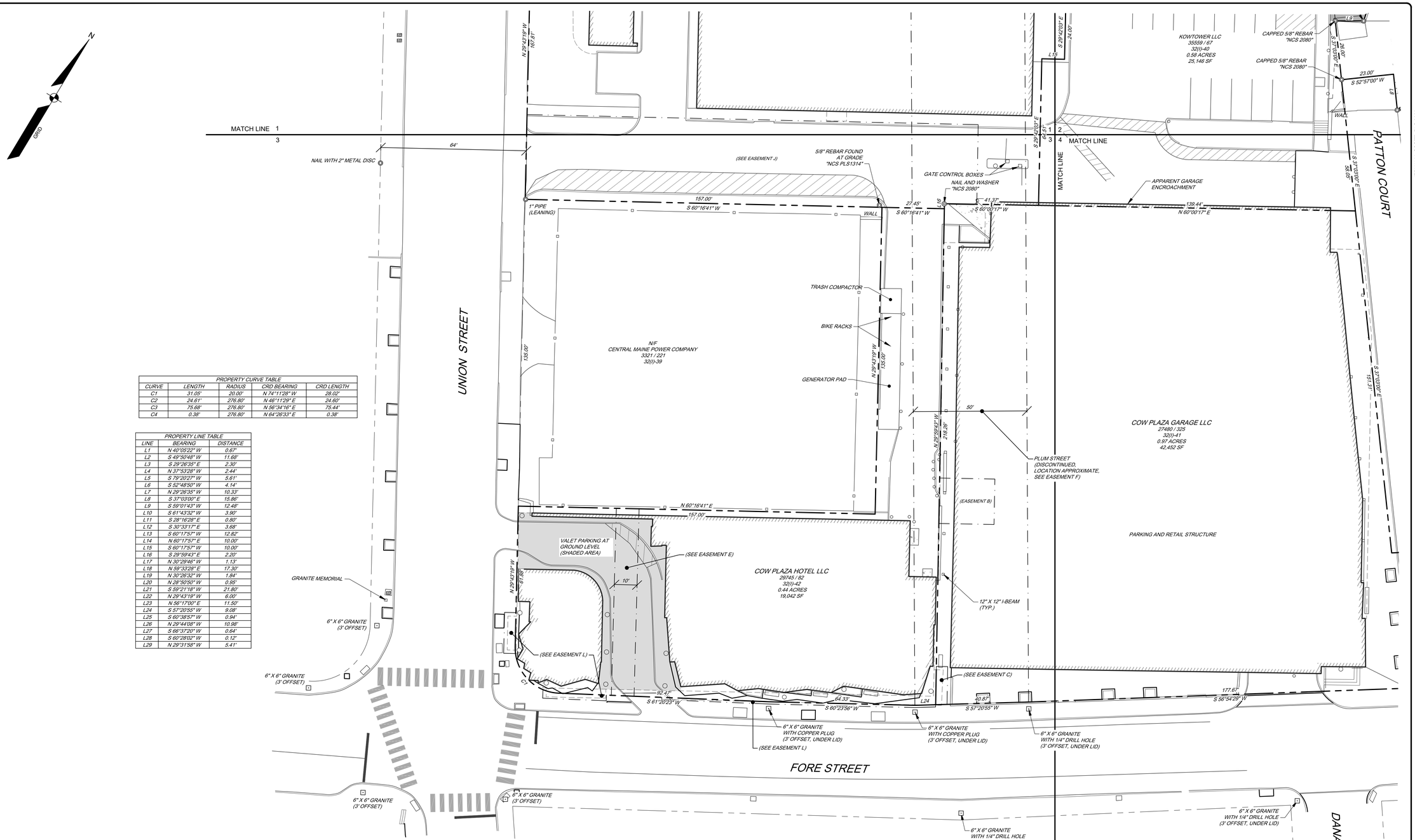
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| - | - |
|---|---|
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 3 OF 14

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240988EC.dwg, TAB:BD-2




| PROPERTY CURVE TABLE | | | | |
|---|---|---|---|---|
| CURVE | LENGTH | RADIUS | CRD BEARING | CRD LENGTH |
| C1 | 31.05' | 20.00' | N 74°11'28" W | 28.02' |
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| L4 | N 37°53'28" W | 2.44' |
| L5 | S 79°20'27" W | 5.61' |
| L6 | S 52°48'50" W | 4.14' |
| L7 | N 29°26'35" W | 10.33' |
| L8 | S 37°03'00" E | 15.86' |
| L9 | S 89°01'43" W | 12.48' |
| L10 | S 61°43'32" W | 3.90' |
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| L13 | S 60°17'57" W | 12.82' |
| L14 | N 60°17'57" E | 10.00' |
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| L16 | S 29°59'43" E | 2.20' |
| L17 | N 30°29'46" W | 1.13' |
| L18 | N 59°33'28" E | 17.30' |
| L19 | N 30°26'32" W | 1.84' |
| L20 | N 28°50'50" W | 0.95' |
| L21 | S 59°21'18" W | 21.80' |
| L22 | N 29°43'19" W | 6.00' |
| L23 | N 56°17'00" E | 11.50' |
| L24 | S 57°20'55" W | 9.08' |
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| L26 | N 29°44'08" W | 10.98' |
| L27 | S 66°37'26" W | 0.64' |
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| L29 | N 29°31'58" W | 5.41' |

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

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JEDIAH M. SCOTT, PLS 2660

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JEDIAH M. SCOTT
#2660
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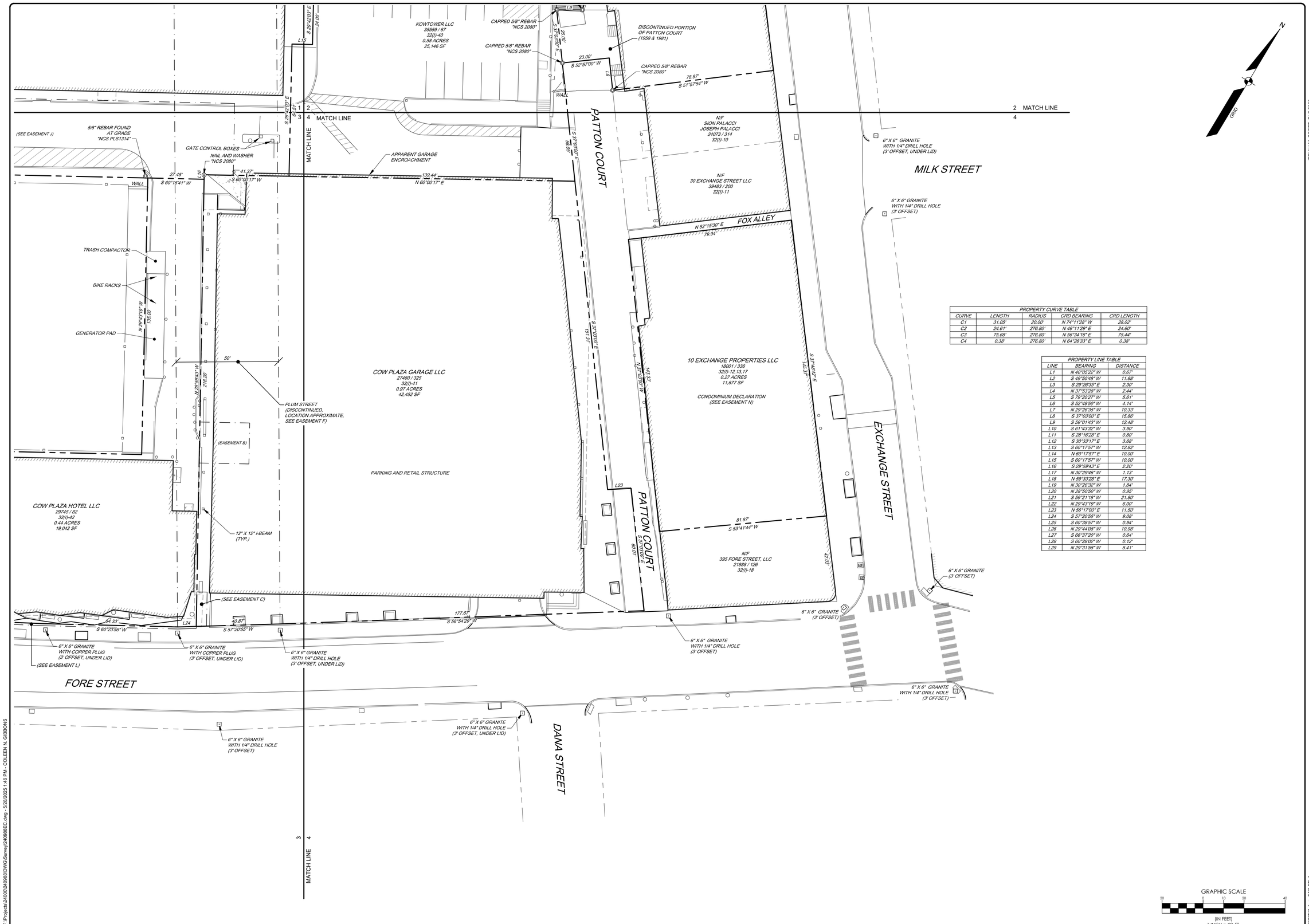
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SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

BOUNDARY SURVEY - 3
OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| - | - |
|---|---|
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

240988EC.dwg, TAB:BD-3

SHEET 4 OF 14




| PROPERTY CURVE TABLE | | | | |
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JEDIAH M. SCOTT, PLS 2660

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JEDIAH M. SCOTT
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South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

# BOUNDARY SURVEY - 4

OF:
## COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE

FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| - | - |
|---|---|
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 5 OF 14

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240988EC.dwg - TAB:BD-4

NOT FOR CONSTRUCTION

## LEGEND

PROPERTY LINE

LIMIT OF WORK

## SCHEDULE KEY NOTES

**PAVEMENTS, RAMPS, CURBS**

1.1 BRICK PAVERS

1.2 BRICK RAMP

1.3 GRANITE PAVERS

1.4 GRANITE SETTS

1.5 GRANITE STEPS

1.6 GRANITE CURBING

1.7 SLOPED WALKWAY

**SITE WALLS/ EMBANKMENTS**

3.1 STONE VENEER WALL

3.2 GRANITE FEATURE WALL

**SITE FURNITURE**

4.1 STONE BENCH

**RAILINGS, BARRIERS, FENCING**

5.1 HANDRAIL

5.2 GUARDRAIL AT RETAINING WALL

**PLANTING AND LANDSCAPE**

6.1 PROPOSED TREE IN PLANTING BED

6.2 PROPOSED TREE IN PAVEMENT

6.3 PLANTING BED

**MISCELLANEOUS SITE FEATURES**

8.1 SECURITY BOLLARD

8.2 CURB CUT

ALIGN

ALIGN

ALIGN

ALIGN TREES WITH BUILDING COLUMNS, TYP.

STORAGE

IT/ DATA

1 SITE PLAN

1"=20'


mbla

michael boucher landscape architecture

457 US Route 1 Suite 2
Freeport, ME 04032
t 207.865.1080
www.boucherlandscape.com


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Client
East Brown Cow - Kowtower LLC
100 Commercial St
Suite 300
Portland ME 04101

# 45 Union St

PORTLAND, ME

LICENSED LANDSCAPE ARCHITECT
JEFFREY PELLETIER
No. 3192
STATE OF MAINE

**REVISION:**

| | |
|---|---|
| 1 | DATE |
| 2 | DATE |
| 3 | DATE |
| 4 | DATE |
| 5 | DATE |
| 6 | DATE |

DATE OF ISSUE: 08.11.2025

STATUS: SCHEMATIC DESIGN

SCALE: AS NOTED

# L1.0

SITE PLAN

# No to 30 stories 1 view

Subscribe

PC1



Chris Lomaka <clontheroad2@gmail.com> Sep 29, 2025, 11:27:22 PM (9 hours ago)
to planningboard@portlandmaine.gov

Dear sirs and madams,

A 30 story building will do NOTHING to improve the city of Portland. We need truly affordable housing, cops that walk the beat in the Old Port area, and investment in education and local businesses. This plan is nothing but a show that will put money in the pockets of real estate agents and investors. Get real and do good for the people, not the wealthy.

Sincerely,

Chris Lomaka
76 Monument St.
Portland, ME. 04101

PC2

Betsy Callahan <betsycallahan@hotmail.com> Sep 28, 2025, 7:28:06 PM (13 hours ago)
to planningboard@portlandmaine.gov

Ladies and Gentlemen:

For the reasons listed below, this is to formally oppose the above project:

1). It is NOT necessary! We do not need any more hotels! There are plenty of already! We can comfortably live without another one.

2). Parking: There needs to be more parking downtown, and more hotel guests would take up what is left (which isn't much). The priority needs to focus on the people who live and work in Portland, not out of town guests.

3). Vacant store front: There are already alot of vacant store fronts in the Old Port (parking situation isn't helping this situation). This proves retail is challenging for downtown. I suggest you use this vacant space for housing.

4). History: Thers been a bad history of store fronts in that area. For example: the round building on Middle St, at Canal Plaza. That has gone through MANY businesses, all closing after a short amount of time.

5). It's an eyesore! It's ugly and unnecessary. It will detract from the Portland skyline.

In summary, it's a bad idea. It does not bring any benefits to the citizens of Portland.

Thank you

Elizabeth Callahan
74 Glen Haven Rd West
Portland, ME

PC3

Josiah Baker-Connick <josiahbakerconnick@gmail.com> Sep 23, 2025, 2:41:15 PM (18 hours ago)

to planningboard@portlandmaine.gov

This project is a net negative for the city of Portland. We do not need massive towers messing with our city.

Josiah
26 School St, Portland, ME 04102

PC4

Judith Cutler <jcutlersp@gmail.com> Sep 24, 2025, 8:24:26 AM (yesterday)

to planningboard@portlandmaine.gov

Are you serious? Portland needs more important projects that will help people.
NO is my opinion.
Please respond that this email was noted in tonight's meeting.
Judith Cutler
45 Eastern Promenade
Portland

PC5

Paul Correia <followtheowl@zoho.com> Sep 25, 2025, 9:11:51 PM (11 hours ago)
to planningboard

Hello,

I attended the planning board meeting on Tuesday evening, and wanted to share a few observations on the information presented by East Brown Cow. I sincerely hope the Board will take these into consideration as it evaluates the luxury hotel proposal:

The shadow analysis indicated significant shadows would be cast by the tower in December (which is when sunlight is in greatest demand) . One of the Board members correctly noted that the EBC team omitted results from the impact analysis on Tommy's Park, Lobsterman Park, etc. during December. It seems odd they would omit these results for the month where shadows would have the greatest impact, or perhaps it was intentional. I hope the Board will follow up on this omission.

Also related to the shadow analysis, the projections show significant shadows running down Milk Street in each month. Milk Street has been closed to traffic for several years and is now set up as a public place with picnic tables, Adirondack chairs, and games for children and adults. The shadows that would be cast down Milk Street would negatively affect this public space and the local businesses that surround it.

The EBC team has no concern about increased traffic volumes, congestion, and limited parking. The valet model it proposes is not a reasonable solution. This plan has all the makings of a traffic nightmare for the old port.

Finally, the excuse given by EBC team for building a 365 ft tall tower is based on its "small footprint". This is no justification for building an obscenely tall tower in the old port, and ruining the city's charm and appeal in the process.

Thank you,

Sean

PC6

# Old Port Tower Project 1 view

Subscribe



Siana Emery <sianaemery@gmail.com> 8:38 AM (1 hour ago)

to planning@portlandmaine.gov

Hello,

I recently read a news piece that developers of the suggested the proposed 30-story tower in the Old Port plan to bypass including any workforce housing by simply paying a fee.

If true, that is absolutely abhorrent.

The project already promises to accelerate Portland's departure from itself, catering (yet again) to the ultra wealthy and short term residents. Not to mention the eyesore of it all. But if a developer is allowed to bypass including any workforce housing simply by paying a fee, why have the rule at all? Those fees mean nothing to these giant corporations. This just solidifies what the community already knows: this project is designed for massive profit, not for Portland, or it's sustained future.

For the love of God, do NOT let this happen. At the very minimum, require EVERYONE to abide by the rules of mixed income housing.

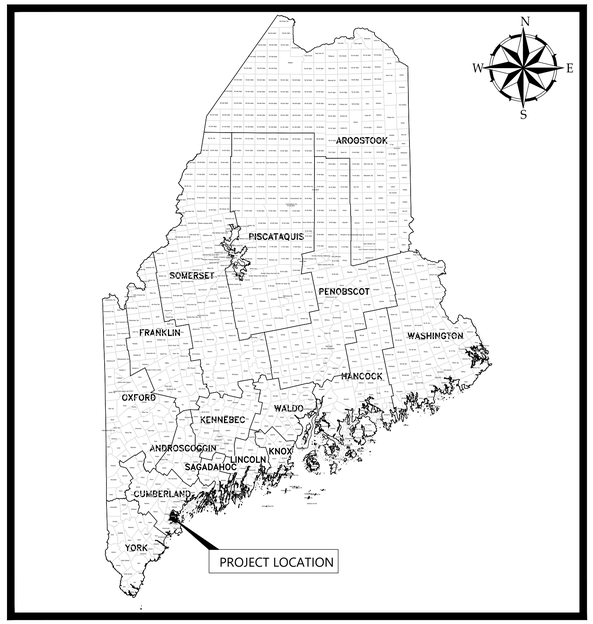
# 45 UNION STREET

# PORTLAND, MAINE

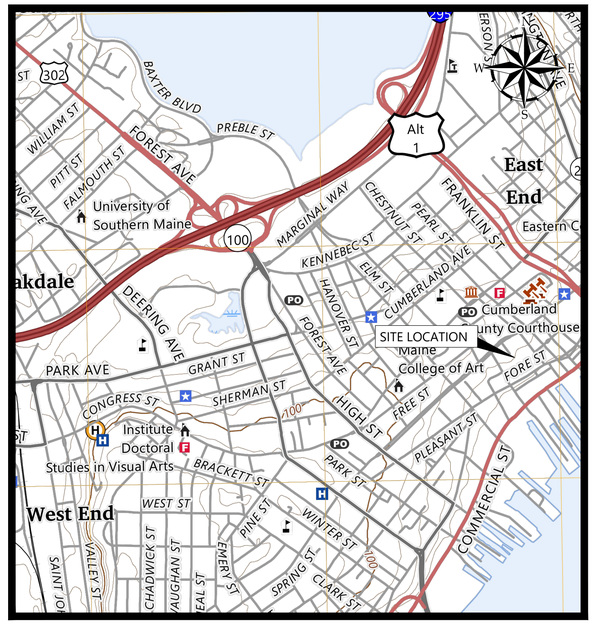
**NOT FOR CONSTRUCTION**

**AUGUST 2025**

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**PROJECT LOCATION MAP**




**SITE LOCATION MAP**

**SOURCE: USGS TOPO QUADRANGLE**


45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®

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100 Commercial Street, Suite 300, Portland, Maine, 04101

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KEY PLAN

NOTES

NOT FOR CONSTRUCTION

| PROJECT NUMBER | DRAWN BY |
|---|---|
| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

PHASE

ISSUED FOR SITE PLAN APPROVAL

SCALE

AS NOTED

DRAWING TITLE

COVER

SHEET NUMBER

G-000

3/19/2025 9:54:17 AM

## GENERAL NOTES

1. EXISTING CONDITIONS SHOWN HEREON HAVE BEEN PROVIDED FROM A FIELD SURVEY PREPARED BY SEBAGO TECHNICS, DATED APRIL 22, 2025.
2. ELEVATIONS DEPICTED HEREON ARE CITY OF PORTLAND VERTICAL DATUM, BASED UPON A LEVEL RUN FROM CITY OF PORTLAND BENCHMARK AT CITY HALL BUILDING, CARD REFERENCE L.B. 786/188.
3. 3.BASIS OF BEARING IS REFERENCED TO GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, GEOID18, IN U.S. SURVEY FEET.
4. THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED ON THE SITE PLAN. APPROVAL OF THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATION TO OR DEVIATION FROM THE APPROVED SITE PLAN, INCLUDING, WITHOUT LIMITATION: TOPOGRAPHY, DRAINAGE, LANDSCAPING, RETENTION OF WOODED OR LAWN AREAS, ACCESS, SIZE, LOCATION, AND SURFACING OF PARKING AREAS, AND LOCATION AND SIZE OF BUILDINGS.
5. EXISTING UTILITIES SHOWN ON THESE PLANS WERE COMPILED FROM A FIELD SURVEY PERFORMED BY SEBAGO TECHNICS. THESE PLANS DO NOT NECESSARILY DEPICT THE EXACT LOCATIONS OF ALL UTILITIES, WHICH MAY EXIST AT THIS TIME WITHIN THE SURVEY LIMITS. THERE MAY BE EXISTING LINES OTHER THAN THOSE INDICATED. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY UTILITY CONNECTIONS OR CROSSINGS OF PROPOSED OR EXISTING UTILITIES. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER IN WRITING. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES RELATIVE TO THE LOCATIONS AND ELEVATIONS OF THESE LINES. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND ACTUAL FIELD CONDITIONS ENCOUNTERED. THE CONTRACTOR IS RESPONSIBLE FOR HIS/HER OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE EXISTING UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE AND TO FACILITATE THE PROPOSED CONNECTION(S).
6. THE CONTRACTOR SHALL CALL "DIG SAFE. MAINE" AT 888-344-7233 AT LEAST 72 HOURS PRIOR TO EXCAVATION IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL SAFETY CODES.
7. RESTORE ALL AREAS DISTURBED BY CONTRACTOR'S OPERATIONS TO ORIGINAL FINISH (GRAVEL, PAVEMENT, GRASS, ETC.). RESTORATION OF PAVED SURFACES, GRAVEL SURFACES, DRIVEWAYS, AND LAWNS DAMAGED BY CONSTRUCTION ACTIVITIES OUTSIDE OF LIMITS OF WORK INDICATED ON THE PLANS SHALL BE PERFORMED AT NO ADDITIONAL COST TO OWNER. ANY CURB DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN KIND AND SHALL CONFORM TO CITY OF PORTLAND SPECIFICATIONS AT NO ADDITIONAL COST TO OWNER.
8. PROPERLY PROTECT AND DO NOT DISTURB PROPERTY IRONS AND MONUMENTS. IF DISTURBED, THE PROPERTY MONUMENT SHALL BE RESET AT THE CONTRACTOR'S EXPENSE BY A LICENSED LAND SURVEYOR ACCEPTABLE TO THE CITY.
9. EXISTING FACILITIES (I.E. TREES, POLES, LIGHT POSTS, CATCH BASINS, ETC.) SHALL BE REMOVED AND PROTECTED DURING CONSTRUCTION. OWNER AND/OR CITY RETAINS RIGHT TO KEEP ANY AND ALL REMOVED FACILITIES FOR WORK WITHIN RIGHT-OF-WAY. CONTRACTOR TO DISPOSE OF ANY REMOVED FACILITY AT THE REQUEST OF OWNER AT CONTRACTOR'S EXPENSE.
10. ALL WORK WITHIN THE RIGHT OF WAY OF CITY STREETS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY TRAFFIC ENGINEER. THE CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN TO THE TRAFFIC ENGINEER AT LEAST 7 DAYS BEFORE BEGINNING CONSTRUCTION IN ANY STREET. THE PROPOSED TRAFFIC CONTROL PLAN SHALL BE SUBJECT TO APPROVAL BY THE TRAFFIC ENGINEER, WHO MAY ATTACH SPECIAL CONDITIONS TO, OR REQUIRE MODIFICATIONS OF, THE TRAFFIC CONTROL PLAN. WORK SHALL NOT BEGIN UNTIL THE PLAN IS APPROVED BY THE TRAFFIC ENGINEER.
11. DO NOT PARK, IMPEDE ACCESS TO, OR STORE EQUIPMENT ON ADJACENT CITY OR PRIVATELY OWNED LOTS, UNLESS PERMISSION HAS BEEN GRANTED IN WRITING BY CITY AND/OR LAND OWNER.
12. RESTRICT ACCESS TO SITE THROUGH THE USE OF APPROPRIATE SIGNAGE, BARRIERS, FENCES, ETC. SITE SHALL BE LEFT WITH APPROPRIATE SAFETY MEASURES IN PLACE DURING NON-WORKING HOURS. NO TRENCH SHALL BE LEFT OPEN DURING NON-WORKING HOURS. SITE SAFETY IS THE RESPONSIBILITY OF CONTRACTOR, DURING BOTH WORKING AND NON-WORKING HOURS.
13. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS. PERMIT APPLICATIONS SHALL BE SUBMITTED WITH ADEQUATE TIME SO AS NOT TO DELAY CONSTRUCTION.
14. ALL WORK ASSOCIATED WITH THE PROJECT SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLES VI, VII, AND IX OF CHAPTER 25-STREETS, SIDEWALKS, AND OTHER PUBLIC PLACES OF THE CITY OF PORTLAND CODE OF ORDINANCES.
15. THE CITY OF PORTLAND ENGINEERING DIVISION REQUIRES THAT UPON COMPLETION OF CONSTRUCTION, A COMPLETE SET OF "RECORD" DRAWINGS THAT REFLECT ANY AND ALL MODIFICATIONS TO THE SANITARY SEWER SYSTEM, STORM SEWER SYSTEM AND ANY OTHER UTILITY INSTALLATIONS OR ALTERATIONS WITHIN THE PROJECT LIMITS BE SUBMITTED TO THE DIVISION.
16. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING SHALL BE HELD AT THE PROJECT SITE WITH THE CONTRACTOR, DEVELOPMENT REVIEW COORDINATOR, PUBLIC SERVICES REPRESENTATIVE, AND OWNER TO REVIEW THE CONSTRUCTION SCHEDULE AND CRITICAL ASPECTS OF THE SITE WORK. AT THAT TIME, THE SITE/BUILDING CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A DETAILED CONSTRUCTION SCHEDULE TO THE ATTENDING CITY REPRESENTATIVE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A MUTUALLY AGREEABLE TIME FOR THE PRECONSTRUCTION MEETING.
17. EXISTING PAVEMENT SHALL BE SAWCUT AND BUTTED TO THE NEW PAVEMENT. NO FEATHERING OF PAVEMENT WILL BE PERMITTED.

## DEMOLITION NOTES

1. PRIOR TO THE START OF DEMOLITION, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND/OR APPROVALS FROM THE CITY OF PORTLAND, AND ALL OTHER AUTHORITIES HAVING JURISDICTION.
2. CONSTRUCTION/DEMOLITION DEBRIS NOT APPROVED FOR REUSE ON-SITE, SHALL BE REMOVED AND DISPOSED OFF SITE IN ACCORDANCE WITH THE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION. WASTE MANIFEST FORMS DOCUMENTING PROPER OFF-SITE DISPOSAL SHALL BE PROVIDED TO THE SITE/CIVIL ENGINEER AND THE CITY OF PORTLAND. CONTRACTOR SHALL CONTROL DUST AND DEBRIS DURING DEMOLITION OPERATIONS. MATERIALS SHALL NOT BE STOCKPILED OR STORED OUTSIDE THE DESIGNATED CONSTRUCTION LIMITS.
3. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES TO REMAIN. ANY TEMPORARY SHUT DOWNS REQUIRED TO FACILITATE THE PROPOSED CONSTRUCTION, WHICH MAY AFFECT USES ON ADJACENT PROPERTIES SHALL BE COORDINATED BY THE CONTRACTOR WITH THE UTILITY PROVIDER, CITY OF PORTLAND, AND AFFECTED LAND OWNERS.
4. CONTRACTOR SHALL REPAIR OR REPLACE ANY STRUCTURES OR UTILITIES DAMAGED DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL PROCEED WITH CAUTION WITHIN THE PROPOSED WORK AREA TO PREVENT ANY INTERRUPTION TO EXISTING UTILITY SERVICE.
6. CONTRACTOR SHALL COVER CONSTRUCTION DUMPSTERS AND ROLL-OFF CONTAINERS, AND STORE ALL CONSTRUCTION CHEMICALS INSIDE THE CONSTRUCTION TRAILER OR UNDER A COVERED AREA DURING PERIODS WHEN CONSTRUCTION CEASES.

## ABBREVIATIONS*

| | |
|---|---|
| & | AND |
| AASHTO | AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS |
| ADA | AMERICANS WITH DISABILITIES ACT |
| APPROX. ± | APPROXIMATELY |
| ASTM | AMERICAN SOCIETY FOR TESTING AND MATERIALS |
| B-# | BORING NUMBER |
| BOC | BOTTOM OF CURB |
| BCC | BITUMINOUS CONCRETE CURB |
| BIT | BITUMINOUS |
| BLDG | BUILDING |
| B.M. | BENCH MARK |
| B.O.A. | BOTTOM OF FOOTING |
| B.O.S. | BOTTOM OF SILL |
| BOT | BOTTOM |
| B.S. | BOTTOM OF STEPS |
| B.W. | BOTTOM OF WALL |
| B/W | BETWEEN |
| ℄ | CENTERLINE |
| CB | CATCH BASIN |
| CC | CONCRETE CURB |
| C.D.F. | CONTROL DENSITY FILL |
| C.I. | CAST IRON |
| C.L. | CLEARING LIMITS |
| C.L.D.I. | CEMENTED LINED DUCTILE IRON |
| C.L.F. | CHAIN LINK FENCE |
| C.M.P. | CORRUGATED METAL PIPE |
| C.M.U. | CONCRETE MASONRY UNIT |
| CO | CLEANOUT |
| CONC | CONCRETE |
| CONT | CONTINUOUS |
| DEMO | DEMOLISH |
| D.I. | DUCTILE IRON |
| DIA, Ø | DIAMETER |
| DMH | DRAINAGE MANHOLE |
| DWL | DOUBLE WHITE LINE |
| DYL | DOUBLE YELLOW LINE |
| EA | EACH |
| ECC | ECCENTRIC |
| EL. ELEV | ELEVATION |
| ELEC | ELECTRICAL |
| E.O.P. | EDGE OF PAVEMENT/EDGE OF PIPE |
| EXIST, EX, EXG | EXISTING |
| EXP | EXPANSION |
| EXT | EXTERIOR |
| F.D. | FLOOR DRAIN |
| FDN | FOUNDATION |
| F.F., FIN. FLR. | FINISH FLOOR |
| FL. FLR | FLOOR |
| FT | FOOT/ FEET |
| GAL | GALLON |
| G.G. | GAS GATE VALVE |
| GRAN | GRANITE |
| GRND | GROUND |
| H.A.T. | HIGHEST ANNUAL TIDE |
| HDPE | HIGH DENSITY POLYETHYLENE |
| HH | HANDHOLE |
| HMA | HOT MIX ASPHALT |
| HT | HEIGHT |
| HWY | HIGHWAY |
| H:V | HORIZONTAL TO VERTICAL |
| HYD | HYDRANT |
| I.A. | INSIDE DIAMETER |
| IN | INCHES |
| INF | INFLUENT |
| INT | INTERIOR |
| INV | INVERT |
| I.P. | IRON PIPE |
| L | LENGTH |
| LB | POUND |
| L.D. | LINEAR FEET |
| LW, L.O.W. | LIMIT OF WORK |
| MAX | MAXIMUM |
| MECH | MECHANICAL |
| MFG | MANUFACTURER |
| MH | MANHOLE |
| M.H.W. | MEAN HIGH WATER |
| MIL | MILLIMETER |
| MIN | MINIMUM |
| M.J. | MECHANICAL JOINT |
| M.L.W. | MEAN LOW WATER |
| MON | MONUMENT |
| M.P.H. | MILES PER HOUR |
| M.S.L. | MEAN SEA LEVEL |
| N/A | NOT APPLICABLE |
| NAD | NORTH AMERICAN DATUM |
| NAVD | NORTH AMERICAN VERTICAL DATUM |
| N/F | NOW OR FORMERLY |
| N.I.C. | NOT IN CONTRACT |
| NO. | NUMBER |
| N.T.S. | NOT TO SCALE |
| O.R. | ON CENTER |
| O.S. | OUTSIDE DIAMETER |
| O.T. | OVERHEAD ELECTRIC |
| OH | OVERHEAD |
| PCC | PRECAST CONCRETE CURB |
| PE | POLYETHYLENE |
| P.L.S. | PROFESSIONAL LAND SURVEYOR |
| PROP | PROPOSED |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| P.T. | PRESSURE TREATED/POINT |
| PVC | POLYVINYL CHLORIDE |
| R=/RIM | RIM ELEVATION |
| R | RADIUS |
| RCP | REINFORCED CONCRETE PIPE |
| R.D. | ROOF DRAIN |
| RED | REDUCER |
| RET | RETAINING WALL |
| REQ'D | REQUIRED |
| R.O.W., R/W | RIGHT-OF-WAY |
| RT, RTE | ROUTE |
| S | SLOPE (FT./FT.) |
| SCH | SCHEDULE |
| SD | STORM DRAIN |
| S.D.R. | STANDARD DIMENSION RATIO |
| SECT | SECTION |
| SGC | SLOPED GRANITE CURB |
| S.H.G.W.T. | SEASONAL HIGH GROUND WATER TABLE |
| SHT | SHEET |
| SMH | SEWER MANHOLE |
| SS | SANITARY SEWER |
| S.S./SST | STAINLESS STEEL |
| STA | STATION |
| STD | STANDARD |
| SQ. FT. | SQUARE FEET |
| SWL | SINGLE WHITE LINE |
| SYL | SINGLE YELLOW LINE |
| TOC | TOP OF CURB |
| T.O.F. | TOP OF FOOTING |
| T.O.W., T.W. | TOP OF WALL |
| TP-# | TEST PIT |
| T.S. | TOP OF STEPS |
| TYP | TYPICAL |
| U.N.O. | UNLESS NOTED OTHERWISE |
| U.P. | UTILITY POLE |
| VGC | VERTICAL GRANITE CURB |
| VERT | VERTICAL |
| V.T.A. | VENT TO ATMOSPHERE |
| W/ | WITH |
| W | WEST/WATER/WATERMAIN |
| W.G. | WATER GATE VALVE |
| W.S. | WATER SERVICE/WATER STOP/WATER SURFACE |
| W.V. | WATER VALVE |

## LINETYPE LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| 122 | CONTOUR (1' OR 2' INTERVAL) | 122 |
| 120 | CONTOUR (10' INTERVAL) | 120 |
| S | SANITARY SEWER | S |
| FM | FORCE MAIN | FM |
| SD | STORM DRAIN | SD |
| UD | UNDERDRAIN | UD |
| FD | FOUNDATION DRAIN | FD |
| RD | ROOF DRAIN | RD |
| W | WATER MAIN | W |
| E | UNDERGROUND ELECTRIC | E |
| T | UNDERGROUND TELEPHONE | T |
| COMM | UNDERGROUND COMMUNICATIONS | COMM |
| G | GAS LINE | G |
| OE | OVERHEAD ELECTRIC | OE |
| | PROPERTY LINE | |
| | PROJECT SITE PROPERTY LINE | |
| | RIGHT OF WAY LINE | |
| | TEMPORARY EASEMENT | |
| | PERMANENT EASEMENT | |
| | CENTERLINE | |
| | EDGE OF VEGETATION | |
| | CHAIN LINK FENCE | |
| | WOOD FENCE | |
| | GRANITE CURB | |
| | EDGE OF PAVEMENT | |
| | GUARDRAIL | |
| | BUILDING OVERHANG | |
| | EROSION CONTROL SEDIMENT BARRIER | |
| | LIMIT OF WORK | LW |
| | ABANDON IN PLACE | |
| | UTILITY REMOVE AND DISPOSE | XXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| | REMOVE AND DISPOSE PAVEMENT | |
| | REMOVE AND DISPOSE SIDEWALK | |
| | BITUMINOUS PAVEMENT | |
| | BRICK SIDEWALK | |
| | CONCRETE | |
| | RIPRAP | |
| | GRAVEL | |
| | CRUSHED STONE | |
| | LAWN | |
| | BUILDING | |

**MATCHLINE STA. X+XX — — — SEE SHEET ####**

## SYMBOLS LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| XXX.XX | SPOT ELEVATION | XXX.XX |
| SCD | STONE CHECK DAM | SCD |
| S / CO | SANITARY SEWER MANHOLE | S / CO |
| CO | CLEANOUT | CO |
| | GREASE INTERCEPTOR | |
| D | DRAINAGE MANHOLE | D |
| | CATCH BASIN | |
| | INLET PROTECTION | |
| RD | ROOF DRAIN | RD |
| | ACCESS COVER HATCH | |
| T | TELEPHONE MANHOLE | T |
| T | TELEPHONE STAND BOX | T |
| | TRANSFORMER | |
| E | ELECTRICAL MANHOLE | |
| | ELECTRICAL VAULT | |
| EM | ELECTRICAL METER BOX | |
| | UTILITY POLE | |
| | UTILITY POLE WITH GUY | |
| | LIGHT POST/LIGHT POLE | |
| GM | GAS METER | G |
| | GAS GATE VALVE | |
| | CURB STOP | |
| | HYDRANT | |
| W | WATER WELL | W |
| WM | WATER METER BOX | WM |
| | WATER GATE VALVE | |
| | PROPERTY MONUMENT | MS |
| | IRON PIN | IPS |
| | SURVEY STATION / CONTROL POINT | |
| | TEMPORARY BENCH MARK | |
| | MAILBOX | |
| | BOLLARD | |
| | STREET AND MISCELLANEOUS SIGNS | |
| | ACCESSIBLE PARKING | |
| | BIKE LANE | FP |
| FP | FLAGPOLE | |
| PM | PARKING METER | |
| | DECIDUOUS TREE/SHRUB | |
| | CONIFEROUS TREE/SHRUB | |
| | TREE PROTECTION | |
| | TREE REMOVAL | |
| | TREE PLANTERS | |

**NOTE: THIS IS A GENERAL LIST OF SYMBOLS AND ABBREVIATIONS. NOT ALL ITEMS SHOWN HERE APPEAR ON THE CONTRACT DOCUMENT**

# 45 Union Street

45 Union Street, Portland, Maine

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ISSUED FOR SITE PLAN APPROVAL

SCALE

1"=20'

DRAWING TITLE

EXISTING CONDITIONS

SHEET NUMBER

C-001

3/19/2025 9:54:17 AM

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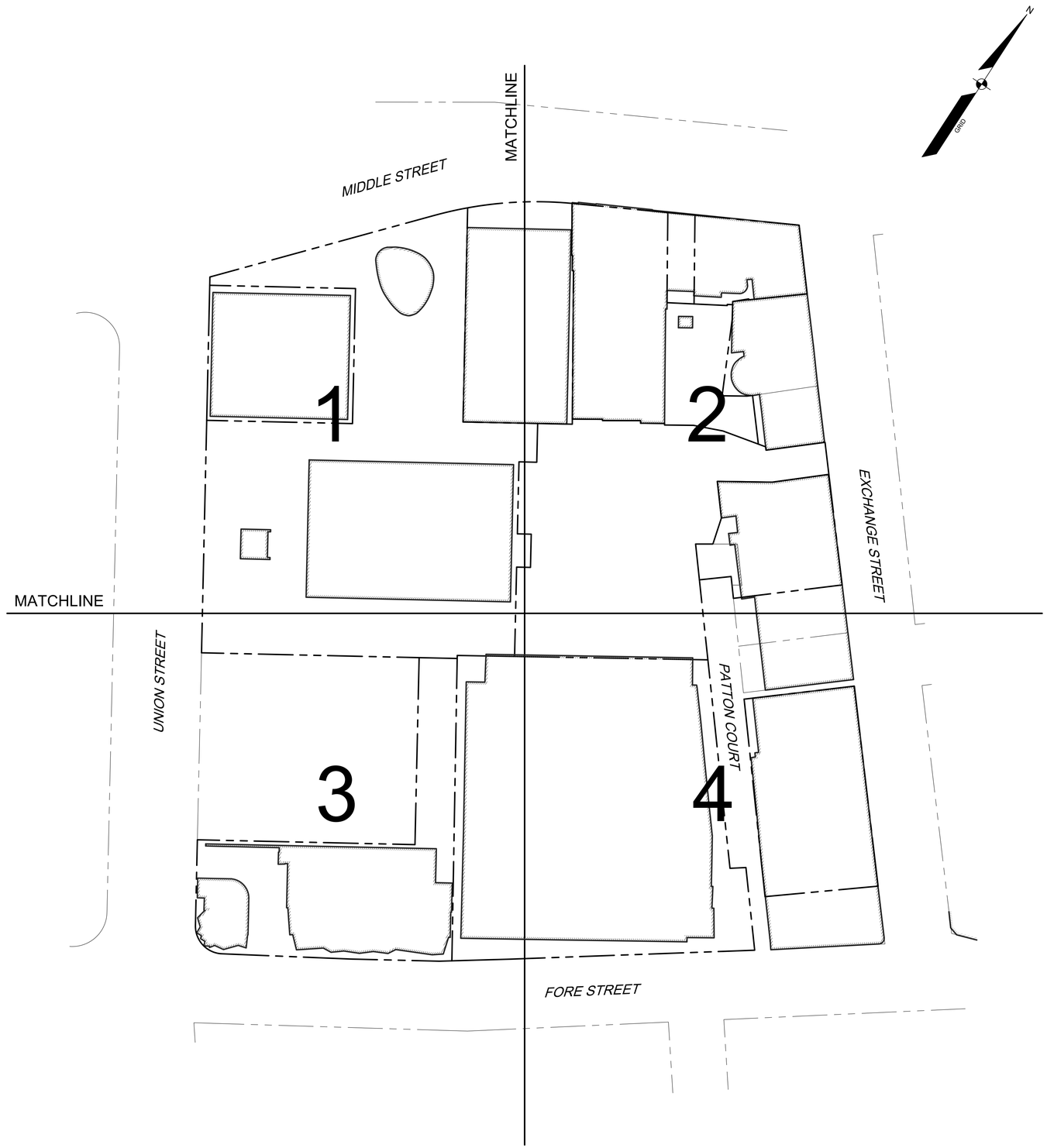

## LEGEND

| EXISTING | DESCRIPTION |
|---|---|
| | PROPERTY LINE/R.O.W. |
| | ABUTTER LINE/R.O.W. |
| | EASEMENT |
| | MONUMENT (FOUND) |
| | IRON MARKER (FOUND) |
| N / F | NOW OR FORMERLY |
| 32(I)-33 | TAX MAP (BLOCK), LOT NUMBER |
| | BUILDING |
| | DECK/STEPS |
| | OVERHANG |
| | LEDGE |
| | EDGE OF PAVEMENT |
| | EDGE OF CONCRETE |
| | EDGE OF BRICK |
| | PAVEMENT PAINT |
| | EDGE GRAVEL |
| | CURB LINE |
| 120 118 | CONTOURS |
| | CHAIN LINK FENCE |
| | STOCKADE FENCE |
| | RETAINING WALL |
| | DECIDUOUS TREE |
| | SHRUB |
| | STUMP |
| | MULCH LINE |
| | BOLLARD |
| | SIGN |
| G | GAS |
| | GAS GATE VALVE |
| GM | GAS METER |
| G | GAS MANHOLE |
| W | WATER |
| | WATER GATE VALVE |
| | WATER SHUT OFF |
| | HYDRANT |
| W | WATER MANHOLE |
| | IRRIGATION BOX |
| | IRRIGATION VALVE |
| | YARD DRAIN (YD) |
| | FIRE SPIGGOT |
| MW | MONITORING WELL |
| MH | MANHOLE |
| S | SANITARY SEWER |
| S | SANITARY MANHOLE |
| | SANITARY CLEAN OUT |
| SD | STORM DRAIN |
| D | DRAINAGE MANHOLE |
| | CATCH BASIN |
| | DRAINAGE CLEAN OUT |
| OHU | OVERHEAD UTILITY |
| UGT | UNDERGROUND COMMUNICATIONS |
| UGE | UNDERGROUND ELECTRIC |
| UGU | UNKNOWN UNDERGROUND UTILITY |
| T | TRANSFORMER PAD |
| C | COMMUNICATIONS BOX |
| E | ELECTRICAL MANHOLE |
| EM | ELECTRIC METER |
| H | HVAC UNIT |
| C | COMMUNICATIONS MANHOLE |
| | HANDHOLE |
| | LIGHT POLE |
| | MAILBOX |
| | PARKING METER |

GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
1 INCH = 40 FT.




## GENERAL NOTES:

1. BOOK AND PAGE NUMBERS ARE REFERENCED TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS UNLESS NOTED OTHERWISE. VAULT AND VOLUME NUMBERS ARE REFERENCED TO THE CITY OF PORTLAND ENGINEERING DIVISION ARCHIVES.
2. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, GEOID18, IN U.S. SURVEY FEET, BASED ON DUAL FREQUENCY GNSS OBSERVATIONS. ELEVATIONS DEPICTED HEREON ARE CITY OF PORTLAND VERTICAL DATUM, BASED UPON A LEVEL RUN FROM THE CITY OF PORTLAND BENCHMARK AT CITY HALL BUILDING, CARD REFERENCE L.B. 786/188.
3. AREA AS NOTED WITHIN EACH PROPERTY (SHOWN ON THE BOUNDARY SHEETS).
4. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN MARCH AND APRIL OF 2025.
5. PLAN REFERENCES:
   A. ALTA/ASCM LAND TITLE SURVEY MADE FOR COW PLAZA 1, LLC BY NORTHEAST CIVIL SOLUTIONS, DATED NOVEMBER 30, 2009, VAULT #1018-011.
   B. PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR CITY OF PORTLAND, MAINE "SITE PLAN" BY H.I. & E.C. JORDAN, DATED MAY 22, 1979, VAULT #738-003.
   C. STREET LINE RETRACEMENT PLAN "SPRING / MIDDLE ARTERIAL" MADE BY THE CITY OF PORTLAND, DATED FEBRUARY 10, 2014, VAULT #882-037A.
   D. PLAN OF PATTON COURT MADE BY THE CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS, DATED THROUGH JANUARY 9, 1939, VAULT #598-009.
   E. PLAN OF PROPOSED FORE STREET PARKING GARAGE SITE MADE FOR THE CITY OF PORTLAND BY OWEN HASKELL, INC. DATED NOVEMBER 5, 1979, VAULT #500-006.
   F. STREET LINE DRAWING OF EXCHANGE STREET DATED NOVEMBER 1925, VOLUME 2, PAGE 117.
   G. STREET LINE DRAWING OF FORE STREET DATED JULY 1925, VOLUME 1, PAGE 27.
   H. STREET LINE DRAWING OF UNION STREET DATED NOVEMBER 1925, VOLUME 2, PAGE 121.
   I. PLAN OF EXCHANGE STREET DATED NOVEMBER 1855, VAULT #363-003.
   J. RIGHT OF WAY PLAN OF SPRING-MIDDLE ARTERIAL MADE FOR THE CITY OF PORTLAND BY OWEN HASKELL, INC. DATED OCTOBER 18, 1977, VAULT #595-010.
   K. EXISTING CONDITIONS PLAN ON UNION STREET MADE FOR CENTRAL MAINE POWER COMPANY BY TRC, DATED THROUGH JUNE 10, 2013, VAULT #1018-011A.
   L. PLAN OF CANAL PLAZA MADE FOR CANAL NATIONAL BANK-PLAZA REALTY TRUST BY H.I. & E.C. JORDAN, DATED AUGUST 1972, RECORDED IN PLAN BOOK 109, PAGE 108.
   M. ALTA/NSPS LAND TITLE SURVEY MADE FOR COW PLAZA HOTEL LLC BY NORTHEAST CIVIL SOLUTIONS DATED DECEMBER 9, 2016.
   N. DESIGN PLANS AND DRAWINGS OF CANAL PLAZA SHOWING PROPOSED UTILITIES PROVIDED BY WOODARD AND CURRAN.
6. EASEMENT/ENCUMBRANCES:
   A. SUBJECT TO A RECIPROCAL EASEMENT AGREEMENT BETWEEN COW PLAZA 1 LLC, COW PLAZA 2 LLC, COW PLAZA 3 LLC, COW PLAZA GARAGE LLC, COW PLAZA HOTEL LLC, AND KOWTOWER LLC RECORDED IN BOOK 27481, PAGE 1 AND AMENDED IN BOOK 35559, PAGE 70.
   B. SUBJECT TO A DRAINAGE AND STORMWATER RUNOFF EASEMENT RECORDED IN BOOK 30060, PAGE 87.
   C. SUBJECT TO A DECLARATION OF RESTRICTIONS RECORDED IN BOOK 30361, PAGE 242.
   D. SUBJECT TO A PARKING AGREEMENT RECORDED IN BOOK 37636, PAGE 111.
   E. SUBJECT TO AN ELECTRICAL EASEMENT RECORDED IN BOOK 30282, PAGE 57.
   F. SUBJECT TO AN EASEMENT FOR SEWER PURPOSES OVER THE DISCONTINUED PORTION OF PLUM STREET RESERVED BY THE CITY OF PORTLAND RECORDED IN BOOK 3231, PAGE 337.
   G. SUBJECT TO ACCESS AND MAINTENANCE RIGHTS RECORDED IN BOOK 3495, PAGE 183.
   H. SUBJECT TO AND BENEFITING FROM RIGHTS AND RESERVATIONS RECORDED IN BOOK 3519, PAGE 165.
   I. SUBJECT TO AND BENEFITING FROM RIGHTS AND RESERVATIONS RECORDED IN BOOK 3344, PAGE 45.
   J. SUBJECT TO A RIGHT OF WAY TO ACCESS THE PARKING GARAGE RECORDED IN BOOK 30060. PAGE 82.
   K. SUBJECT TO AN EASEMENT AGREEMENT AND BUILDING RESTRICTIONS RECORDED IN BOOK 30438, PAGE 253.
   L. BENEFITS FROM A LICENSE AGREEMENT WITH THE CITY OF PORTLAND OVER PORTIONS OF UNION STREET AND FORE STREET RECORDED IN BOOK 30393, PAGE 133.
   M. SUBJECT TO BUILDING RESTRICTIONS RECORDED IN BOOK 2074, PAGE 269.
   N. SUBJECT TO A DECLARATION OF 10 EXCHANGE STREET CONDOMINIUM RECORDED IN BOOK 33536, PAGE 85 AS AMENDED IN BOOK 34266, PAGE 17; BOOK 34289, PAGE 325; BOOK 34493, PAGE 255; AND BOOK 37244, PAGE 295.
   O. SUBJECT TO A PARTY WALL AND RECIPROCAL EASEMENT AGREEMENT RECORDED IN BOOK 37715, PAGE 80.
7. BENCHMARKS:
   BM-1: PAINT BOX ON CONCRETE TRAFFIC SIGNAL BASE
   ELEVATION: 49.96 (CITY OF PORTLAND VERTICAL DATUM)
   BM-2: HYDRANT FLANGE BOLT FACING FORE & UNION INTERSECTION
   ELEVATION: 27.13 (CITY OF PORTLAND VERTICAL DATUM)
   BM-3: HYDRANT FLANGE BOLT FACING FACING FORE ST
   ELEVATION: 21.19 (CITY OF PORTLAND VERTICAL DATUM)
8. UTILITY NOTES:
   A. INFORMATION DEPICTED HEREON IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CI/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION. PROMARK UTILITY LOCATING, INC. MARKED THE UNDERGROUND UTILITIES SHOWN HEREON IN MARCH OF 2025, AND WERE FIELD-LOCATED BY SEBAGO TECHNICS, INC.
   B. UTILITIES SHOWN IN BROWN ON UTILITY PLANS 1-4 ARE BASED ON PLAN REFERENCE N AND HAVE NOT BEEN FIELD VERIFIED.
   C. SEWER STUBS SHOWN ON UTILITY PLANS 1-4 ARE BASED ON CCTV REPORTS PROVIDED BY THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.
9. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, PANEL NUMBER 23005C0692F, HAVING AN EFFECTIVE DATE OF 06/20/2024 . THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE "X", AREAS OF MINIMAL FLOODING.
10. AREAS ADJACENT TO COW PLAZA 4 LLC AND KOWTOWER LLC (INDICATED AS SHADED AREAS WITHIN THIS PLAN SET) WERE UNDER CONSTRUCTION AT THE DATE OF THIS SURVEY. SOME FEATURES MAY HAVE BEEN OBSCURED AND NOT SHOWN ON THIS PLAN SET.

## OWNERS OF RECORD:

COW PLAZA 1 LLC
TAX MAP 32(I), LOTS 7, 36 AND 43
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 27480, PAGE 310

COW PLAZA HOTEL LLC
TAX MAP 32(I), LOT 42
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 29745, PAGE 82

ABATSOBE LLC
TAX MAP 32(I), LOT 22
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 38454, PAGE 17

COW PLAZA 2 LLC
TAX MAP 32(I), LOT 33
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 27480, PAGE 330

COW PLAZA GARAGE LLC
TAX MAP 32(I), LOT 41
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 27480, PAGE 325

FRESNELL LLC
TAX MAP 32(I), LOT 1
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 37832, PAGE 239

COW PLAZA 3 LLC
TAX MAP 32(I), LOT 23
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 27480, PAGE 335

KOWTOWER LLC
TAX MAP 32(I), LOT 40
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 35559, PAGE 67

10 EXCHANGE PROPERTIES, LLC
TAX MAP 32(I), LOTS 12, 13 AND 17
P.O. BOX 4894
PORTLAND, ME 04112
BOOK 18001, PAGE 336

COW PLAZA 4 LLC
TAX MAP 32(I), LOT 21
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 37832, PAGE 235

COW EXCHANGE LLC
TAX MAP 32(I), LOTS 8 AND 9
100 COMMERCIAL STREET
PORTLAND, ME 04101
BOOK 39725, PAGE 172

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE: | STATUS |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1 | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |

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SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

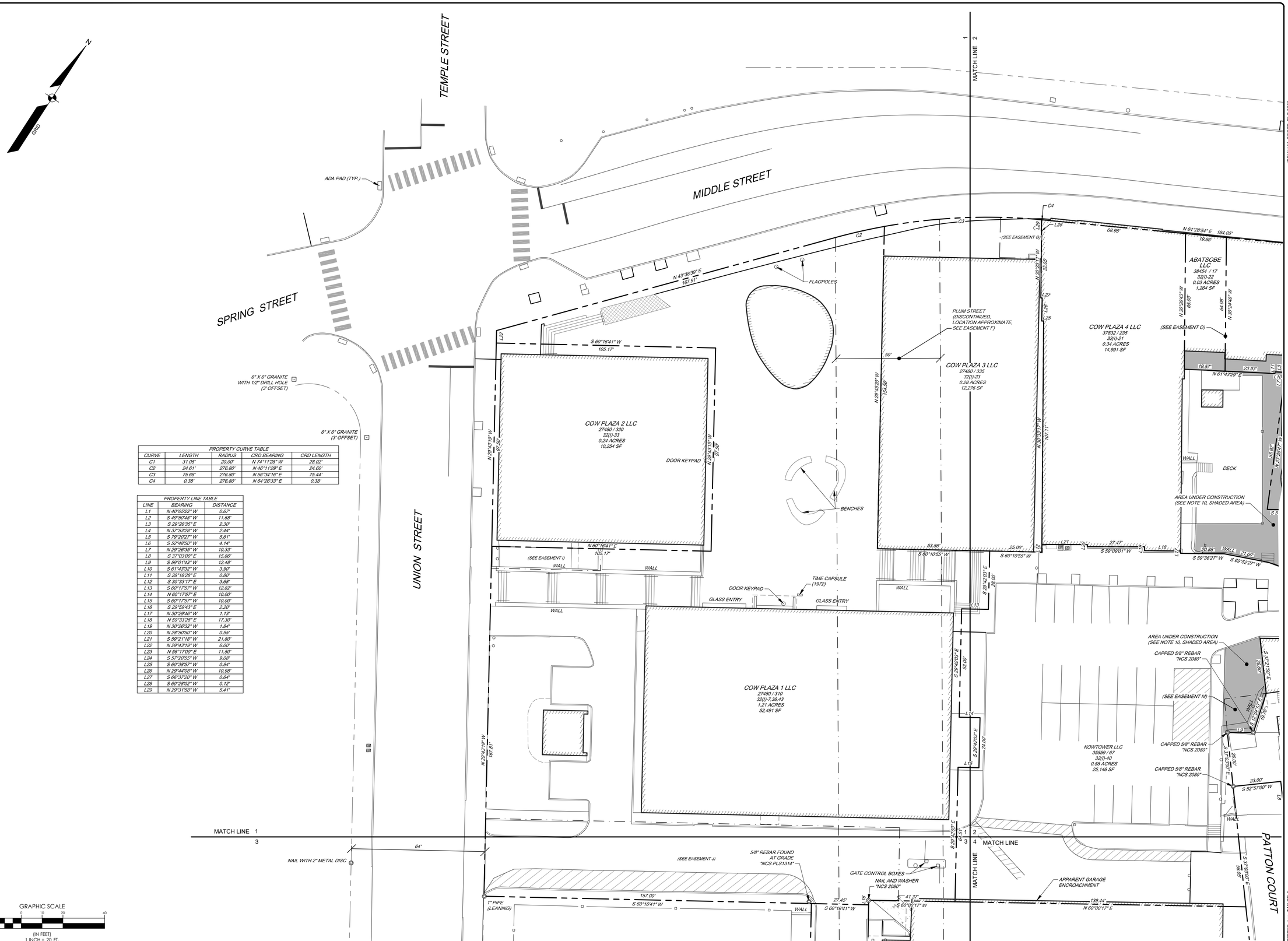

COVER SHEET & NOTES
OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 40' |
| PROJECT | 240988 |

SHEET 1 OF 14

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240988EC.dwg - TAB:Cover Sheet




PROPERTY CURVE TABLE

| CURVE | LENGTH | RADIUS | CRD BEARING | CRD LENGTH |
|---|---|---|---|---|
| C1 | 31.05' | 20.00' | N 74°11'28" W | 28.02' |
| C2 | 24.61' | 276.80' | N 46°11'29" E | 24.60' |
| C3 | 75.68' | 276.80' | N 56°34'16" E | 75.44' |
| C4 | 0.38' | 276.80' | N 64°26'33" E | 0.38' |

PROPERTY LINE TABLE

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N 40°05'22" W | 0.67' |
| L2 | S 49°50'48" W | 11.68' |
| L3 | S 29°26'35" E | 2.30' |
| L4 | N 37°53'29" W | 2.44' |
| L5 | S 79°20'27" W | 5.61' |
| L6 | S 52°48'50" W | 4.14' |
| L7 | N 29°26'35" W | 10.33' |
| L8 | S 37°03'00" E | 15.86' |
| L9 | S 59°01'43" W | 12.48' |
| L10 | S 61°43'32" W | 3.90' |
| L11 | S 28°16'28" E | 0.80' |
| L12 | S 30°33'17" E | 3.68' |
| L13 | S 60°17'57" W | 12.82' |
| L14 | N 60°17'57" E | 10.00' |
| L15 | S 60°17'57" W | 10.00' |
| L16 | S 29°59'43" E | 2.20' |
| L17 | N 30°29'46" W | 1.13' |
| L18 | N 59°33'28" E | 17.30' |
| L19 | N 30°26'32" W | 1.84' |
| L20 | N 28°50'50" W | 0.95' |
| L21 | S 59°21'18" W | 21.80' |
| L22 | N 29°43'19" W | 6.00' |
| L23 | N 56°17'00" E | 11.50' |
| L24 | S 57°20'55" W | 9.08' |
| L25 | S 60°38'57" W | 0.94' |
| L26 | N 29°44'08" W | 10.98' |
| L27 | S 66°37'20" W | 0.64' |
| L28 | S 60°28'02" W | 0.12' |
| L29 | N 29°31'58" W | 5.41' |

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE: | STATUS |
|---|---|---|---|
| 2. | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1. | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |

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SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

BOUNDARY SURVEY - 1
OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST., & UNION ST.
PORTLAND, MAINE
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 2 OF 14

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240988EC.dwg, TAB:BD-1

MIDDLE STREET

MATCH LINE 1 2

N 43°38'39" E 167.91'

FLAGPOLES

PLUM STREET (DISCONTINUED, LOCATION APPROXIMATE, SEE EASEMENT F)

50'

COW PLAZA 3 LLC
37480 / 335
32(I)-23
0.28 ACRES
12,276 SF

N 29°43'20" W 154.56'

DOOR KEYPAD

N 29°43'19" W 91.80'

BENCHES

C4 C3 C2 C1

L28 L27 L26 L25

(SEE EASEMENT G)

N 64°28'54" E 164.05'

68.95' 19.66' 75.44'

6" X 6" GRANITE (3' OFFSET)

6" X 6" GRANITE WITH 1/2" DRILL HOLE (3' OFFSET)

N 30°27'21" W 32.05'

N 30°26'43" W 65.03'

N 30°24'48" W 64.08'

ABATSOBE LLC
38454 / 17
32(I)-22
0.03 ACRES
1,264 SF

FRESNELL LLC
37832 / 239
32(I)-1
0.10 ACRES
4,518 SF

S 26°43'37" E 20.68'

COW PLAZA 4 LLC
37832 / 235
32(I)-21
0.34 ACRES
14,991 SF

(SEE EASEMENT O)

42.27'

S 53°07'48" W

L1 L2 L3

19.57' 23.93'

N 61°43'29" E

L10 L11

N/F
OLD PORT ARMS LLC
36468 / 120
32(I)-2

EXCHANGE STREET

WALL

DECK

AREA UNDER CONSTRUCTION (SEE NOTE 10, SHADED AREA)

17.86'

S 59°42'19" W L6

N 27°46'22" W 35.53'

N/F
SANTANA LLC
37242 / 298
32(I)-6

20.88' WALL 21.60'

S 59°36'27" W S 69°52'27" W

27.27'

S 79°20'27" W L5

N 51°24'14" E 42.91'

S 51°24'46" E 23.34'

(SEE EASEMENT G)

53.86'

S 60°10'55" W

25.00'

S 60°10'55" W

L20 L21 L22 L23 L24

27.47'

S 59°09'01" W

L18 L17

S 3°04'03" E 28.60'

TIME CAPSULE (1972)

DOOR KEYPAD

GLASS ENTRY GLASS ENTRY

WALL

L13

S 29°43'03" E 42.80'

L14

S 29°43'03" E 24.00'

L15

S 29°43'03" E 64.51'

COW PLAZA 1 LLC
27480 / 310
32(I)-7,36,43
1.21 ACRES
52,491 SF

AREA UNDER CONSTRUCTION (SEE NOTE 10, SHADED AREA)

39.63'

S 59°48'04" W

41.22'

S 51°10'47" W

CAPPED 5/8" REBAR "NCS 2080"

S 37°21'50" E 25.80'

(SEE EASEMENT M)

WALL

S 37°54'05" E 19.60'

COW EXCHANGE LLC
39725 / 172
32(I)-8.9
0.16 ACRES
7,125 SF

S 37°18'47" E 28.37'

KOWTOWER LLC
35559 / 67
32(I)-40
0.58 ACRES
25,146 SF

CAPPED 5/8" REBAR "NCS 2080"

S 37°54'05" E 30.00'

CAPPED 5/8" REBAR "NCS 2080"

DISCONTINUED PORTION OF PATTON COURT (1958 & 1981)

23.00'

S 52°57'00" W L8

CAPPED 5/8" REBAR "NCS 2080"

78.97'

S 51°57'54" W

WALL

2 MATCH LINE 4

3 4 MATCH LINE 1 2

MATCH LINE

PATTON COURT

S 37°21'00" E 56.35'

N/F
SION PALACCI
JOSEPH PALACCI
24073 / 314
32(I)-10

6" X 6" GRANITE WITH 1/4" DRILL HOLE (3' OFFSET, UNDER LID)

MILK STREET

N/F
30 EXCHANGE STREET LLC
39483 / 200
32(I)-11

(SEE EASEMENT J)

5/8" REBAR FOUND AT GRADE "NCS PLS1314"

GATE CONTROL BOXES

NAIL AND WASHER "NCS 2080"

APPARENT GARAGE ENCROACHMENT

27.45'

S 60°16'41" W

L16

41.37'

S 60°00'17" W

139.44'

N 60°00'17" E

WALL

N

GRID

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 INCH = 20 FT.

PROPERTY CURVE TABLE

| CURVE | LENGTH | RADIUS | CRD BEARING | CRD LENGTH |
|---|---|---|---|---|
| C1 | 31.05' | 20.00' | N 74°11'28" W | 28.02' |
| C2 | 24.61' | 276.80' | N 46°11'29" E | 24.60' |
| C3 | 75.68' | 276.80' | N 56°34'16" E | 75.44' |
| C4 | 0.38' | 276.80' | N 64°26'33" E | 0.38' |

PROPERTY LINE TABLE

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N 40°05'22" W | 0.67' |
| L2 | S 49°50'48" W | 11.68' |
| L3 | S 29°26'35" E | 2.30' |
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| L5 | S 79°20'27" W | 5.61' |
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| L23 | N 56°17'00" E | 11.50' |
| L24 | S 57°20'55" W | 9.08' |
| L25 | S 60°38'57" W | 0.94' |
| L26 | N 29°44'08" W | 10.98' |
| L27 | S 66°37'20" W | 0.64' |
| L28 | S 60°28'02" W | 0.12' |
| L29 | N 29°31'58" W | 5.41' |


JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL
LAND SURVEYOR


| REV. | BY | DATE | STATUS |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1 | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |


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SEBAGO TECHNICS
TECHNICS, INC.
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100

South Portland, Bridgton, and Sanford


# BOUNDARY SURVEY - 2

OF:
## COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST., & UNION ST.
PORTLAND, MAINE

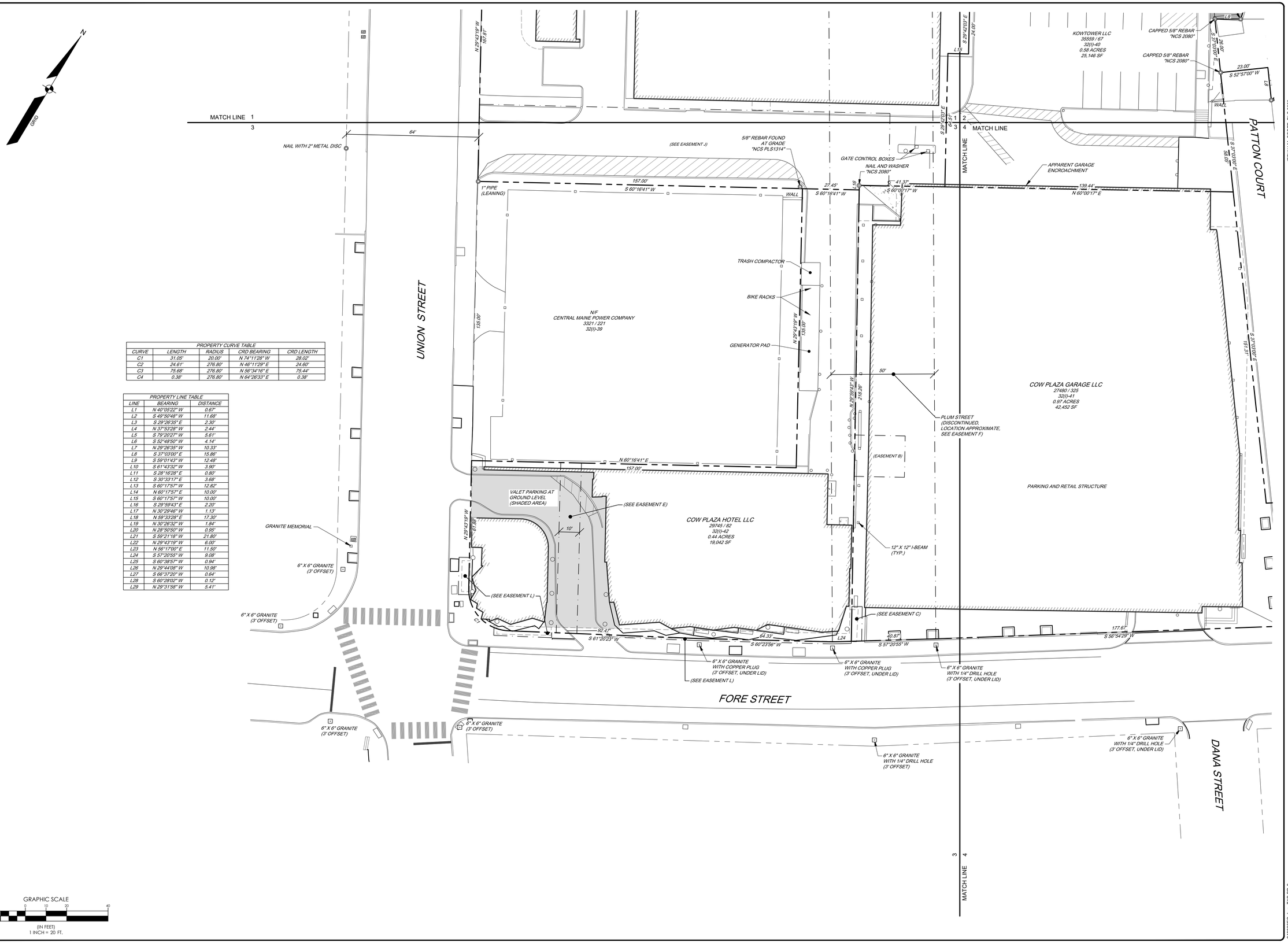
FOR:
## EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 3 OF 14

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| PROPERTY CURVE TABLE | | | | |
|---|---|---|---|---|
| CURVE | LENGTH | RADIUS | CRD BEARING | CRD LENGTH |
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| PROPERTY LINE TABLE | | |
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| L1 | N 40°05'22" W | 0.67' |
| L2 | S 49°50'48" W | 11.68' |
| L3 | S 29°26'35" E | 2.30' |
| L4 | N 37°53'28" W | 2.44' |
| L5 | S 79°20'27" W | 5.61' |
| L6 | S 52°48'50" W | 4.14' |
| L7 | N 29°26'35" W | 10.33' |
| L8 | S 37°03'00" E | 15.86' |
| L9 | S 89°01'43" W | 12.48' |
| L10 | S 61°43'32" W | 3.90' |
| L11 | S 28°16'28" E | 0.80' |
| L12 | S 30°33'17" E | 3.68' |
| L13 | S 60°17'57" W | 12.82' |
| L14 | N 60°17'57" E | 10.00' |
| L15 | S 60°17'57" W | 10.00' |
| L16 | S 29°59'43" E | 2.20' |
| L17 | N 30°29'46" W | 1.13' |
| L18 | N 59°33'28" E | 17.30' |
| L19 | N 30°26'32" W | 1.84' |
| L20 | N 28°50'50" W | 0.95' |
| L21 | S 59°21'18" W | 21.80' |
| L22 | N 29°43'19" W | 6.00' |
| L23 | N 56°17'00" E | 11.50' |
| L24 | S 57°20'55" W | 9.08' |
| L25 | S 60°38'57" W | 0.94' |
| L26 | N 29°44'08" W | 10.98' |
| L27 | S 66°37'26" W | 0.64' |
| L28 | S 60°28'02" W | 0.12' |
| L29 | N 29°31'58" W | 5.41' |

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

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JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE | STATUS |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1 | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |

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SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

BOUNDARY SURVEY - 3
OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| - | - |
|---|---|
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

240988EC.dwg, TAB:BD-3

SHEET 4 OF 14

KOWTOWER LLC
35559 / 67
32(I)-40
0.59 ACRES
25,146 SF

CAPPED 5/8" REBAR "NCS 2080"

DISCONTINUED PORTION OF PATTON COURT (1958 & 1981)

CAPPED 5/8" REBAR "NCS 2080"

23.00'
S 52°57'00" W

CAPPED 5/8" REBAR "NCS 2080"

78.97'
S 51°57'54" W

WALL

2 MATCH LINE
4

MATCH LINE
1 2
3 4

PATTON COURT

N/F
SION PALACCI
JOSEPH PALACCI
24073 / 314
32(I)-10

6" X 6" GRANITE
WITH 1/4" DRILL HOLE
(3' OFFSET, UNDER LID)

MILK STREET

5/8" REBAR FOUND
AT GRADE
"NCS PLS1314"
(SEE EASEMENT J)

GATE CONTROL BOXES

NAIL AND WASHER
"NCS 2080"

APPARENT GARAGE
ENCROACHMENT

27.45'
S 60°16'41" W

41.37'
S 60°07'17" W

138.44'
N 60°00'17" E

WALL

N/F
30 EXCHANGE STREET LLC
39483 / 200
32(I)-11

6" X 6" GRANITE
WITH 1/4" DRILL HOLE
(3' OFFSET)

FOX ALLEY

N 52°15'30" E
79.94'

TRASH COMPACTOR

BIKE RACKS

GENERATOR PAD

N 29°43'46" W
125.00'

50'

N 29°43'46" W
216.38'

PLUM STREET
(DISCONTINUED,
LOCATION APPROXIMATE,
SEE EASEMENT F)

(EASEMENT B)

COW PLAZA GARAGE LLC
27480 / 325
32(I)-41
0.97 ACRES
42,452 SF

PARKING AND RETAIL STRUCTURE

10 EXCHANGE PROPERTIES LLC
18001 / 336
32(I)-12,13,17
0.27 ACRES
11,677 SF

CONDOMINIUM DECLARATION
(SEE EASEMENT N)

S 37°10'00" E
151.37'

N 37°10'00" W
143.33'

S 37°47'25" E
145.37'

EXCHANGE STREET

COW PLAZA HOTEL LLC
29745 / 82
32(I)-42
0.44 ACRES
19,042 SF

12" X 12" I-BEAM
(TYP.)

PATTON COURT
S 37°10'00" E
69.01'

81.87'
S 53°41'44" W

N/F
385 FORE STREET, LLC
21888 / 126
32(I)-18

12.07'

6" X 6" GRANITE
(3' OFFSET)

(SEE EASEMENT C)

64.33'
S 60°23'56" W

L24

40.87'
S 57°20'55" W

177.67'
S 55°54'29" W

6" X 6" GRANITE
(3' OFFSET)

6" X 6" GRANITE
WITH COPPER PLUG
(3' OFFSET, UNDER LID)
(SEE EASEMENT L)

6" X 6" GRANITE
WITH COPPER PLUG
(3' OFFSET, UNDER LID)

6" X 6" GRANITE
WITH 1/4" DRILL HOLE
(3' OFFSET, UNDER LID)

6" X 6" GRANITE
WITH 1/4" DRILL HOLE
(3' OFFSET)

6" X 6" GRANITE
WITH 1/4" DRILL HOLE
(3' OFFSET)

FORE STREET

6" X 6" GRANITE
WITH 1/4" DRILL HOLE
(3' OFFSET)

6" X 6" GRANITE
WITH 1/4" DRILL HOLE
(3' OFFSET, UNDER LID)

DANA STREET

3 MATCH LINE 4

GRID N

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

PROPERTY CURVE TABLE

| CURVE | LENGTH | RADIUS | CRD BEARING | CRD LENGTH |
|---|---|---|---|---|
| C1 | 31.05' | 20.00' | N 74°11'28" W | 28.03' |
| C2 | 24.61' | 276.80' | N 46°11'29" E | 24.60' |
| C3 | 75.68' | 276.80' | N 56°34'16" E | 75.44' |
| C4 | 0.38' | 276.80' | N 64°26'33" E | 0.38' |

PROPERTY LINE TABLE

| LINE | BEARING | DISTANCE |
|---|---|---|
| L1 | N 40°05'22" W | 0.67' |
| L2 | S 49°50'48" W | 11.68' |
| L3 | S 29°26'35" E | 2.30' |
| L4 | N 37°53'28" W | 2.44' |
| L5 | S 79°20'27" W | 5.61' |
| L6 | S 52°48'50" W | 4.14' |
| L7 | N 29°26'35" W | 10.33' |
| L8 | S 37°03'00" E | 15.86' |
| L9 | S 59°01'43" W | 12.48' |
| L10 | S 61°43'32" W | 3.90' |
| L11 | S 28°16'28" E | 0.80' |
| L12 | S 30°33'17" E | 3.68' |
| L13 | S 60°17'57" W | 12.82' |
| L14 | N 60°17'57" E | 10.00' |
| L15 | S 60°17'57" W | 10.00' |
| L16 | S 29°59'43" E | 2.20' |
| L17 | N 30°29'46" W | 1.13' |
| L18 | N 59°33'28" E | 17.30' |
| L19 | N 30°26'32" W | 1.84' |
| L20 | N 28°50'50" W | 0.95' |
| L21 | S 59°21'18" W | 21.80' |
| L22 | N 29°43'19" W | 8.00' |
| L23 | N 56°17'00" E | 11.50' |
| L24 | S 57°20'55" W | 9.08' |
| L25 | S 60°38'57" W | 0.94' |
| L26 | N 29°44'08" W | 10.98' |
| L27 | S 66°37'20" W | 0.64' |
| L28 | S 60°28'02" W | 0.12' |
| L29 | N 29°31'58" W | 5.41' |

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE: | STATUS: |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
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SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

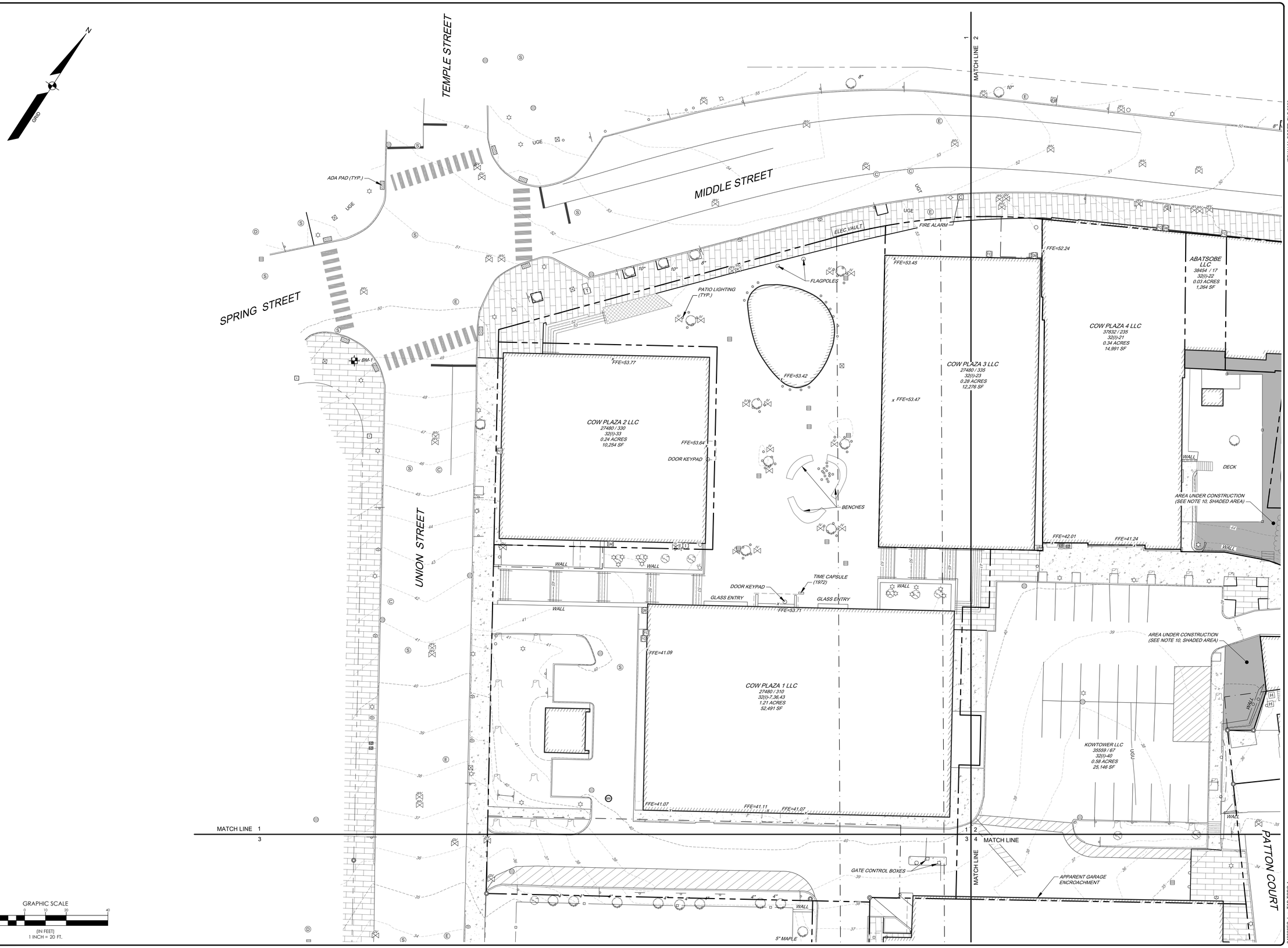
BOUNDARY SURVEY - 4
OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| - | - |
|---|---|
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 5 OF 14

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240988EC.dwg - TAB:BD-4




| REV. | BY | DATE: | STATUS |
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JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

TOPOGRAPHY PLAN - 1

OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE

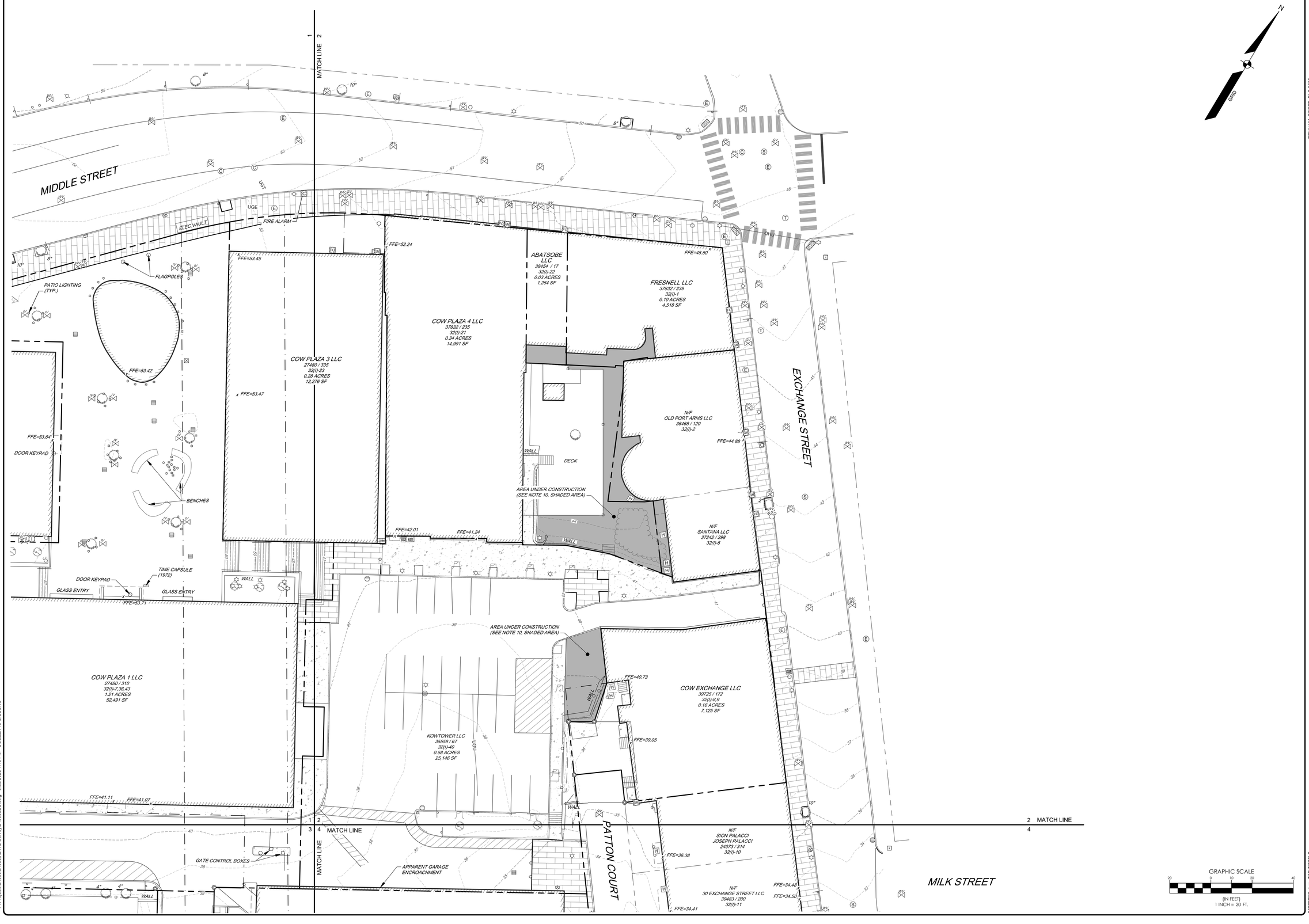
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 6 OF 14

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240988EC.dwg, TAB:TOPO-1




JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE | STATUS |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
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SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

# TOPOGRAPHY PLAN - 2

OF:
## COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE

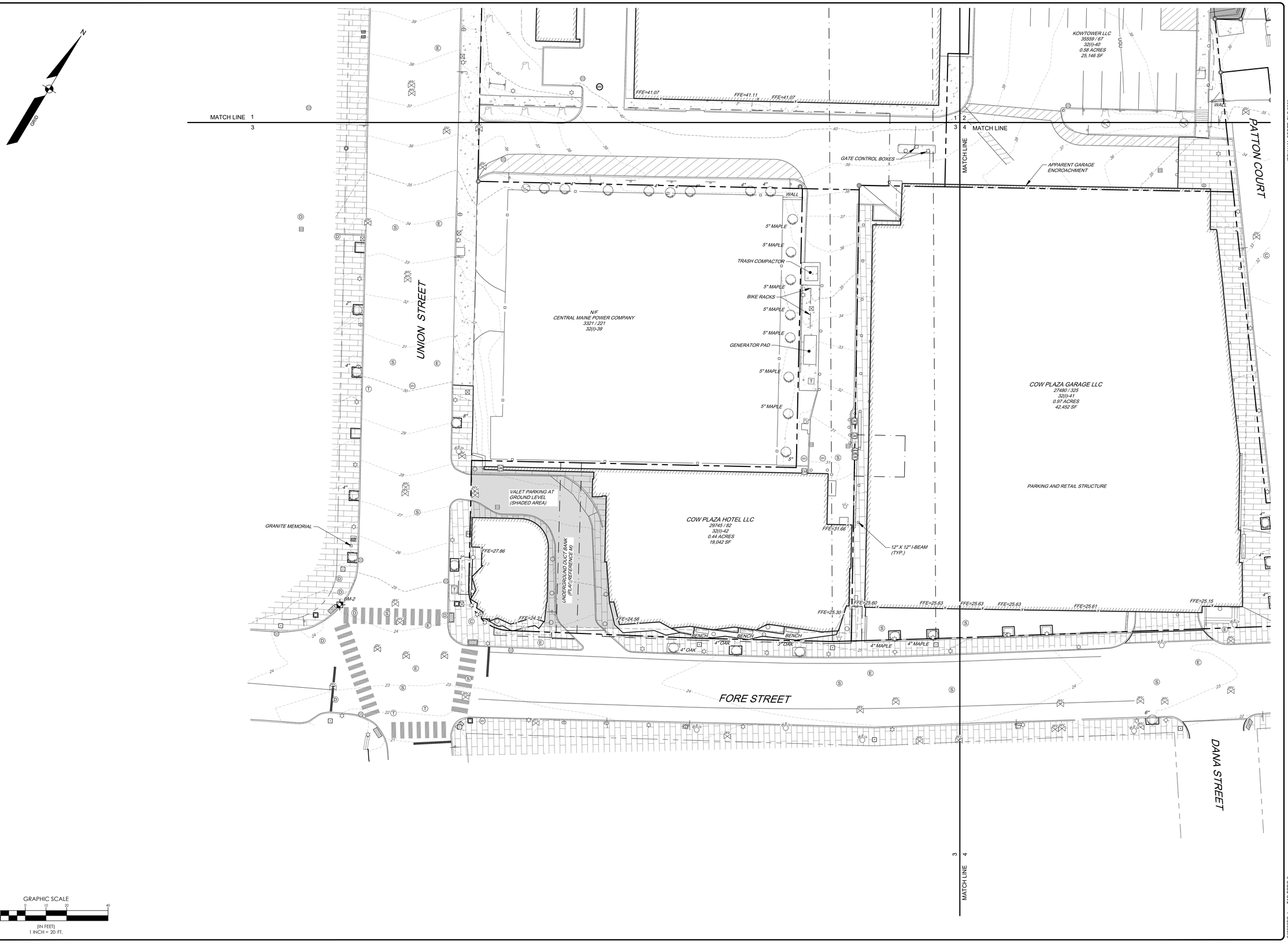
FOR:
## EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 7 OF 14

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240988EC dwg, TAB:TOPO-2




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JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY: | DATE: | STATUS |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
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SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

# TOPOGRAPHY PLAN - 3

OF:
## COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE

FOR:
## EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| - | - |
|---|---|
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

240988EC.dwg - TAB:TOPO-3

SHEET 8 OF 14

KOWTOWER LLC
35559 / 67
32(I)-40
0.58 ACRES
25,146 SF

FFE=41.11
FFE=41.07
FFE=39.05
WALL
MATCH LINE
1 2
3 4
2 MATCH LINE 4
PATTON COURT
N/F
SION PALACCI
JOSEPH PALACCI
24073 / 314
32(I)-10
FFE=36.38
GATE CONTROL BOXES
APPARENT GARAGE ENCROACHMENT
N/F
30 EXCHANGE STREET LLC
39483 / 200
32(I)-11
FFE=34.48
FFE=34.50
FFE=34.41
MILK STREET
FOX ALLEY
ELECTRICAL VAULT
4" WALL
5" MAPLE
5" MAPLE
TRASH COMPACTOR
5" MAPLE
BIKE RACKS
5" MAPLE
5" MAPLE
GENERATOR PAD
5" MAPLE
5" MAPLE
COW PLAZA GARAGE LLC
27480 / 325
32(I)-41
0.97 ACRES
42,452 SF
FFE=30.59
10 EXCHANGE PROPERTIES LLC
18001 / 336
32(I)-12,13,17
0.27 ACRES
11,677 SF
FFE=29.44
FFE=28.40
FFE=27.14
FFE=27.13
PARKING AND RETAIL STRUCTURE
EXCHANGE STREET
ELECTRICAL VAULT
12"
PATTON COURT
FFE=25.84
4"
OHU
FFE=24.88
N/F
395 FORE STREET, LLC
21888 / 126
32(I)-18
COW PLAZA HOTEL LLC
29745 / 82
32(I)-42
0.44 ACRES
19,042 SF
FFE=31.68
12" X 12" I-BEAM (TYP.)
FFE=25.60
FFE=25.63
FFE=25.63
FFE=25.63
FFE=25.61
FFE=25.15
FFE=25.30
BENCH
BENCH
BENCH
4" OAK
4" OAK
3" OAK
4" MAPLE
4" MAPLE
BM-3
FORE STREET
6"
DANA STREET
MATCH LINE
3 4

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

N
GRID

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

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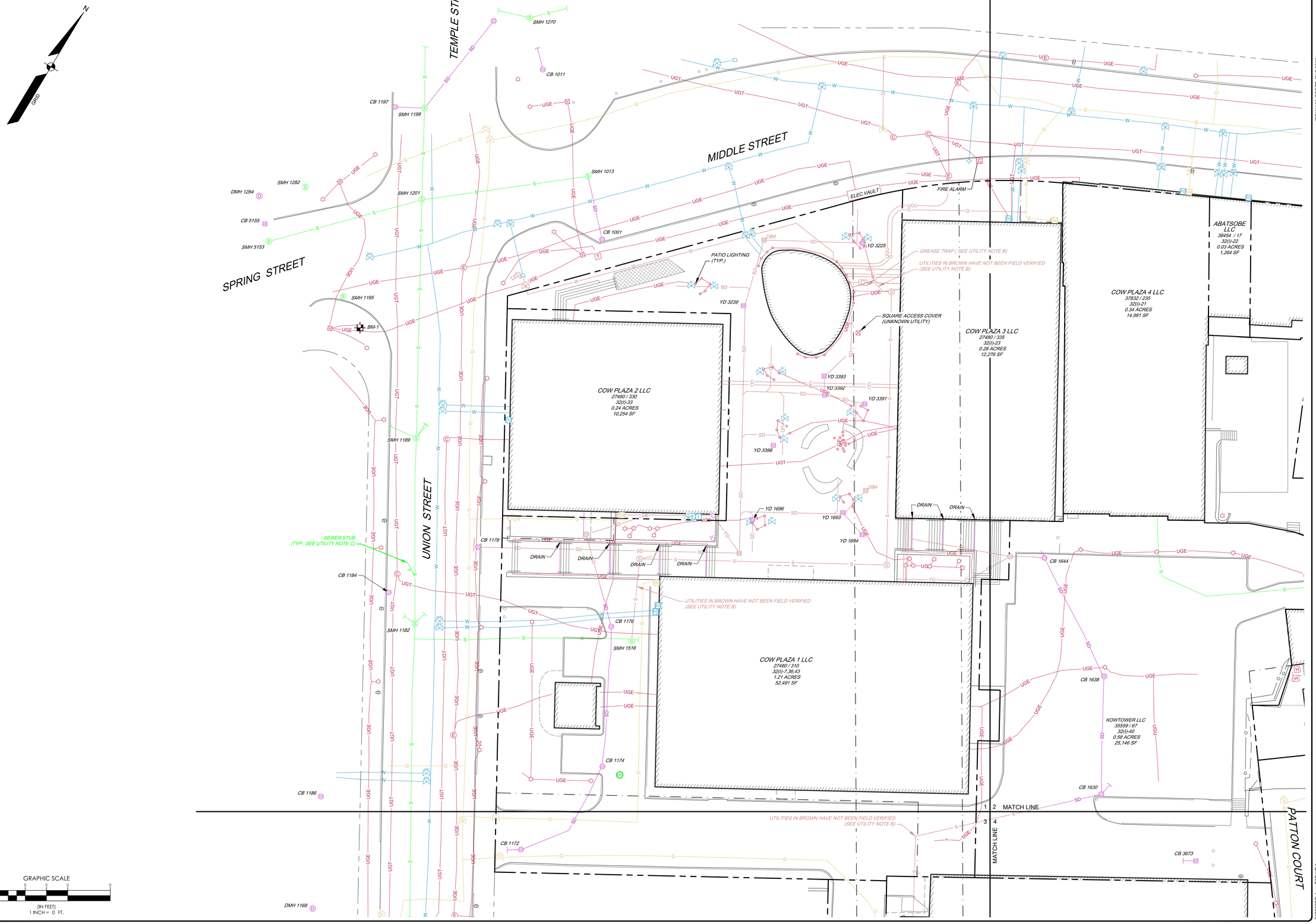
TOPOGRAPHY PLAN - 4
OF:
COW PROPERTIES
MIDDLE ST, EXCHANGE ST, FORE ST, & UNION ST.
PORTLAND, MAINE
FOR:
EAST BROWN COW MANAGEMENT, INC.
100 COMMERCIAL STREET, SUITE 300
PORTLAND, MAINE 04101

| - | - |
|---|---|
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 9 OF 14

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240988EC.dwg, TAB:TOPO-4




GRAPHIC SCALE
(IN FEET)
1 INCH = 0 FT.

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JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT #2660
PROFESSIONAL LAND SURVEYOR

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SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 JOHN ROBERTS ROAD, SUITE 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

UTILITY PLAN - 1
OF:
CANAL PLAZA
UNION, FORE, MIDDLE, EXCHANGE STREETS
FOR:
EAST BROWN COW
100 COMMERCIAL ST, SUITE 300
PORTLAND, ME 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 10 OF 14

240988EC.dwg, TAB:UT-1

MIDDLE STREET

EXCHANGE STREET

PATTON COURT

MILK STREET

MATCH LINE

1 2 MATCH LINE 3 4

ELEC VAULT

FIRE ALARM

PATIO LIGHTING (TYP.)

SQUARE ACCESS COVER (UNKNOWN UTILITY)

GREASE TRAP ( SEE UTILITY NOTE B)

UTILITIES IN BROWN HAVE NOT BEEN FIELD VERIFIED (SEE UTILITY NOTE B)

SEWER STUB (TYP., SEE UTILITY NOTE C)

DRAIN

CB 1025

CB 1017

SMH 1027

CB 1019 (SEALED)

CB 1644

CB 1638

CB 1630

CB 3673

CB 1041

SMH 1033

SMH 1049

MH 1051

YD 3225

YD 3239

YD 3393

YD 3392

YD 3391

YD 3398

YD 1696

YD 1693

YD 1694

DB9

DB4

ABATSOBE LLC
38454 / 17
32(I)-22
0.03 ACRES
1,264 SF

FRESNELL LLC
37832 / 239
32(I)-1
0.10 ACRES
4,518 SF

COW PLAZA 4 LLC
37832 / 235
32(I)-21
0.34 ACRES
14,991 SF

COW PLAZA 3 LLC
27480 / 335
32(I)-23
0.28 ACRES
12,276 SF

N/F
OLD PORT ARMS LLC
36468 / 120
32(I)-2

N/F
SANTANA LLC
37242 / 298
32(I)-6

COW EXCHANGE LLC
39725 / 172
32(I)-8,9
0.16 ACRES
7,125 SF

KOWTOWER LLC
35559 / 87
32(I)-40
0.58 ACRES
25,146 SF

COW PLAZA 1 LLC
27480 / 310
32(I)-7,36,43
1.21 ACRES
52,491 SF

N/F
SION PALACCI
JOSEPH PALACCI
24073 / 314
32(I)-10

N/F
30 EXCHANGE STREET LLC
39483 / 200
32(I)-11

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

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207-200-2100
South Portland, Bridgton, and Sanford

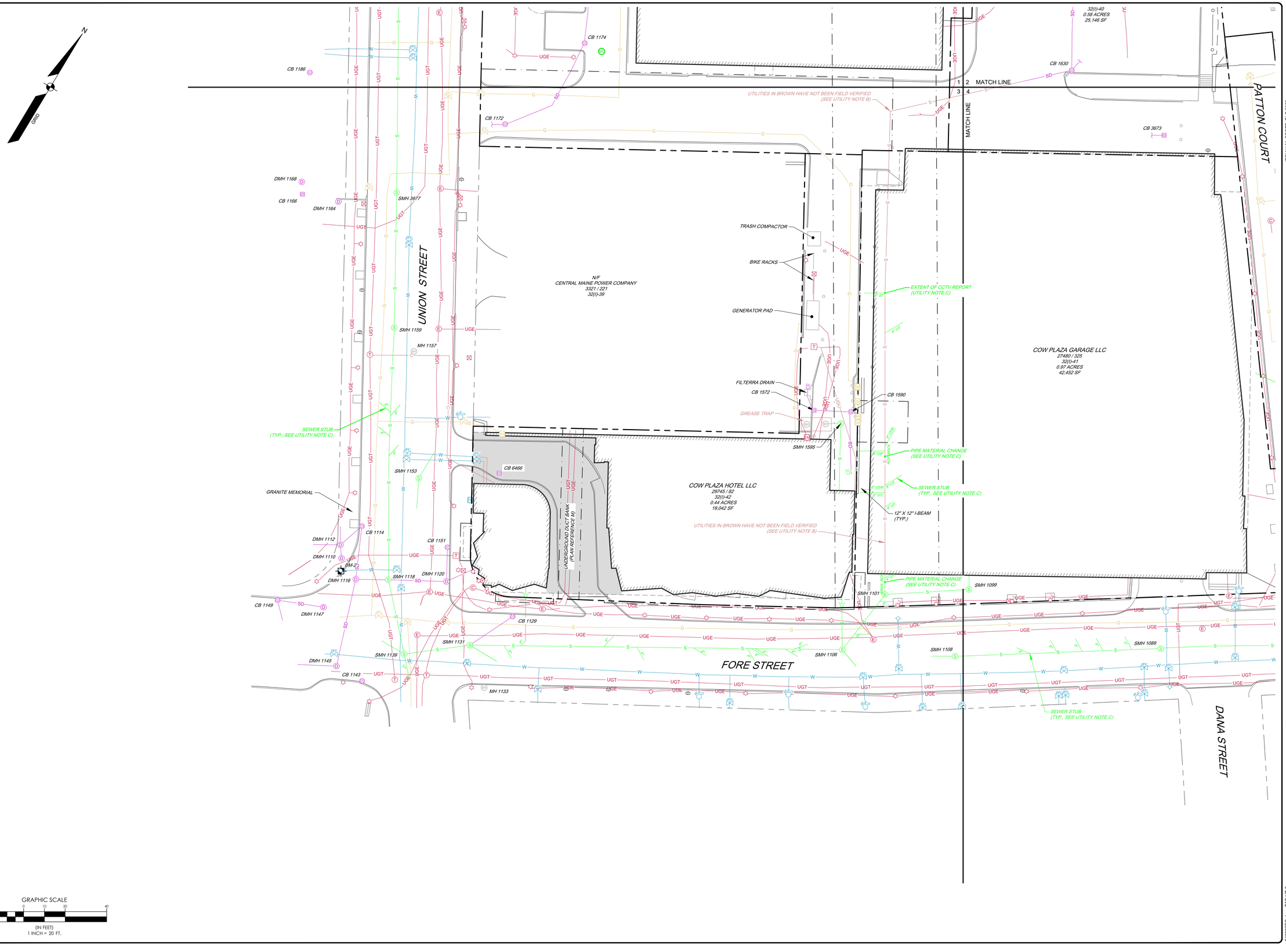
UTILITY PLAN - 2
OF:
CANAL PLAZA
UNION, FORE, MIDDLE, EXCHANGE STREETS
FOR:
EAST BROWN COW
100 COMMERCIAL ST, SUITE 300
PORTLAND, ME 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 11 OF 14

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240988EC.dwg, TAB:UT-2




GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

| REV. | BY | DATE: | STATUS |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1 | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |

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JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT #2660
PROFESSIONAL LAND SURVEYOR

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

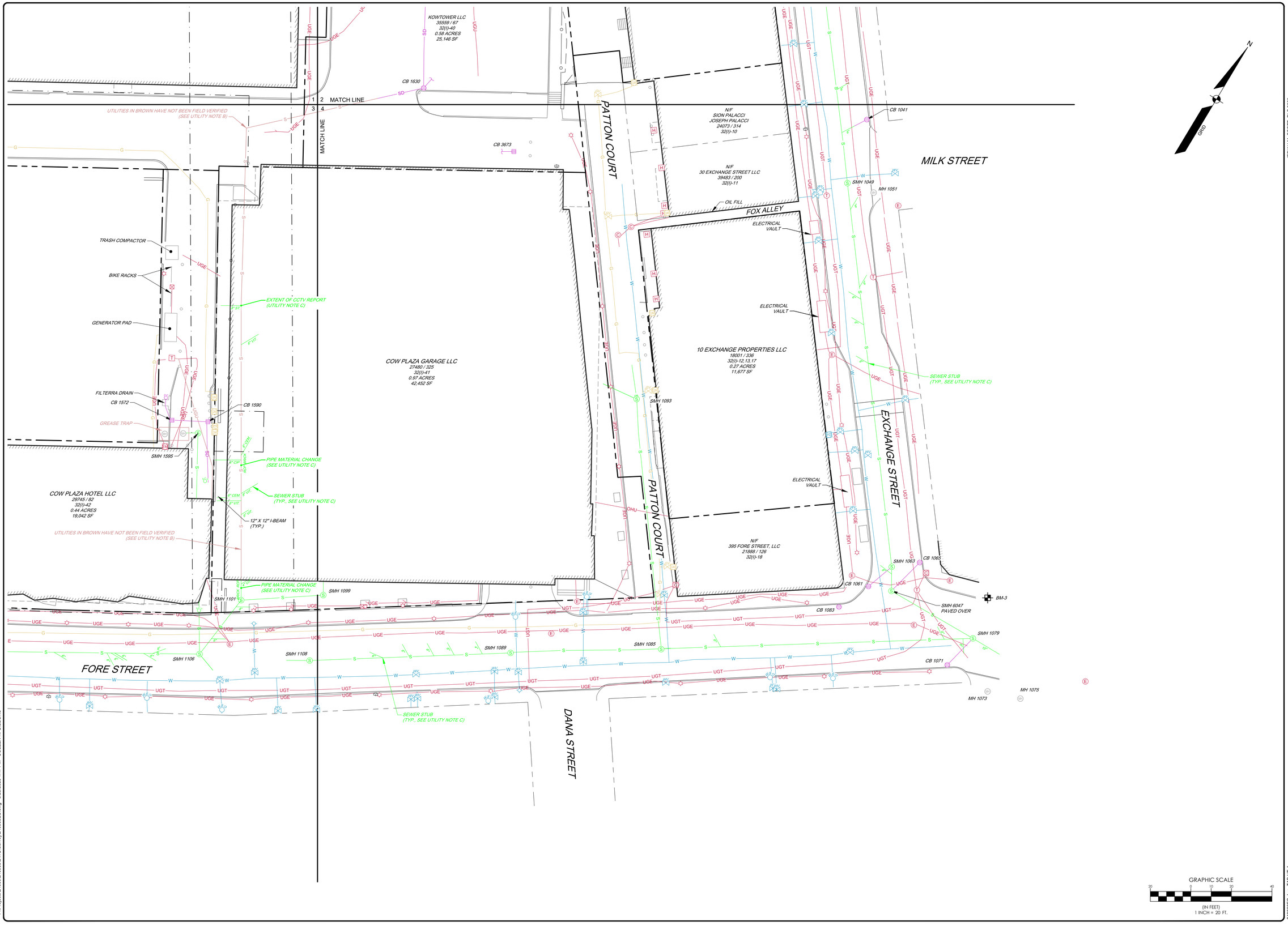
UTILITY PLAN - 3
OF:
CANAL PLAZA
UNION, FORE, MIDDLE, EXCHANGE STREETS
FOR:
EAST BROWN COW
100 COMMERCIAL ST, SUITE 300
PORTLAND, ME 04101

| - | - |
|---|---|
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET 12 OF 14

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240988EC-.dwg, TAB:UT-3




JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

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|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1 | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |

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SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

# UTILITY PLAN - 4

OF:
CANAL PLAZA
UNION, FORE, MIDDLE, EXCHANGE STREETS

FOR:
EAST BROWN COW
100 COMMERCIAL ST, SUITE 300
PORTLAND, ME 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | 1" = 20' |
| PROJECT | 240988 |

SHEET13 OF 14

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240988EC.dwg, TAB:UT-4

| POINT # | STRUCTURE TYPE | RIM EL. | INV. | INV. EL. | SIZE | TYPE | LOCATION (N=12) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 1001 | CBR | 51.11 | OUT | 47.07 | 12" | UNKNOWN | 11 | |
| | | | | | | | | |
| 1011 | CBR | 54.16 | IN | 49.61 | UNKNOWN | CACSO TRAP | 11 | TOP OF CASCO TRAP |
| | | | SUMP | 48.16 | | | | |
| | | | | | | | | |
| 1013 | SMH | 52.70 | IN | 46.12 | 12" | UNKNOWN | 4 | |
| | | | OUT | 46.91 | UNKNOWN | CASCO TRAP | 8 | TOP OF CASCO TRAP |
| | | | SUMP | 43.50 | | | | |
| | | | | | | | | |
| 1017 | CBR | 48.40 | OUT | 45.75 | 6" | PVC | 1 | TOP OF ELBOW |
| | | | SUMP | 42.90 | | | | |
| | | | | | | | | |
| 1025 | CBR | 47.82 | OUT | 44.92 | UNKNOWN | CASCO TRAP | 6 | TOP OF CASCO TRAP |
| | | | SUMP | 41.42 | | | | |
| | | | | | | | | |
| 1027 | SMH | 48.30 | IN | 34.85 | 24" | VIT CLAY | 10 | UP EXCHANGE |
| | | | OUT | 34.71 | 24" | VIT CLAY | 4 | |
| | | | SHELF | 36.05 | | | | |
| | | | | | | | | |
| 1033 | SMH | 43.37 | IN | 29.82 | 24" | VIT CLAY | 10 | |
| | | | OUT | 29.77 | 24" | VIT CLAY | 4 | |
| | | | SHELF | 31.02 | | | | |
| | | | | | | | | |
| 1041 | CBR | 33.65 | OUT | 28.01 | UNKNOWN | CASCO TRAP | 6 | TOP OF CASCO TRAP |
| | | | SUMP | 25.80 | | | | |
| | | | | | | | | |
| 1049 | SMH | 32.92 | IN | 19.67 | 24" | VIT CLAY | 10 | |
| | | | OUT | 19.64 | 24" | VIT CLAY | 4 | |
| | | | SHELF | 20.67 | | | | |
| | | | | | | | | |
| 1061 | CBR | 20.59 | OUT | 18.81 | UNKNOWN | CASCO TRAP | 1 | TOP CASCO TRAP |
| | | | SUMP | 15.89 | | | | |
| | | | | | | | | |
| 1063 | SMH | 21.32 | IN | 14.07 | 24" | VIT CLAY | 10 | |
| | | | IN | 17.73 | 12" | UNKNOWN | 8 | |
| | | | OUT | 13.93 | 24" | VIT CLAY | 4 | |
| | | | SHELF | 15.12 | | | | |
| | | | | | | | | |
| 1065 | CBR | 20.33 | OUT | 17.14 | UNKNOWN | CASCO TRAP | 7 | TOP OF CASCO TRAP |
| | | | SUMP | 12.63 | | | | |
| | | | | | | | | |
| 1071 | CBR | 17.35 | OUT | 14.73 | UNKNOWN | CASCO TRAP | 1 | TOP OF CASCO TRAP |
| | | | SUMP | 10.15 | | | | |
| | | | | | | | | |
| 1079 | SMH | 19.03 | IN | 11.00 | 24" | VIT CLAY | 9 | |
| | | | IN | 11.01 | 8" | PVC | 8 | |
| | | | OUT | 10.61 | 24" | VIT CLAY | 3 | |
| | | | SHELF | 11.77 | | | | |
| | | | | | | | | |
| 1083 | CBR | 20.71 | OUT | 16.48 | 8" | UNKNOWN | 3 | |
| | | | SUMP | 13.11 | | | | |
| | | | | | | | | |
| 1085 | SMH | 22.35 | IN | 12.23 | 10" | PVC | 8 | |
| | | | IN | 13.07 | 8" | PVC | 11 | |
| | | | OUT | 12.23 | 10" | PVC | 2 | |
| | | | SHELF | 12.76 | | | | |
| | | | | | | | | |
| 1089 | SMH | 23.58 | IN | 12.94 | 10" | PVC | 8 | |
| | | | OUT | 12.93 | 10" | PVC | 2 | |
| | | | SHELF | 13.63 | | | | |
| | | | | | | | | |
| 1093 | SMH | 28.35 | IN | 21.23 | 8" | PVC | 11 | |
| | | | IN | 22.95 | 6" | PVC | 9 | |
| | | | OUT | 21.11 | 8" | PVC | 5 | |
| | | | SHELF | 21.60 | | | | |
| | | | | | | | | |
| 1099 | SMH | 25.46 | IN | 18.48 | 12" | METAL | 11 | |
| | | | OUT | 18.93 | UNKNOWN | UNKNOWN | 8 | TOP OF PIPE, OBSTRUCTED |
| | | | SUMP | 15.01 | | | | |
| | | | | | | | | |
| 1101 | SMH | 25.49 | IN | 15.28 | 15 | BRICK | 11 | |
| | | | IN | 18.36 | 12" | METAL | 2 | |
| | | | OUT | 14.80 | 12" | VIT CLAY | 5 | |
| | | | SHELF | 16.39 | | | | |
| | | | | | | | | |
| 1106 | SMH | 24.62 | IN | 14.34 | 12" | VIT CLAY | 12 | |
| | | | IN | 14.70 | 12" | UNKNOWN | 4 | |
| | | | IN | 18.07 | 8" | PVC | 11 | |
| | | | OUT | 14.44 | 15" | VIT CLAY | 8 | |
| | | | SHELF | 15.32 | | | | |
| | | | | | | | | |
| 1108 | SMH | 24.54 | OUT | 13.49 | 10" | PVC | 8 | |
| | | | IN | 13.44 | 10" | PVC | 2 | |
| | | | SHELF | 14.34 | | | | |
| | | | | | | | | |
| 1112 | DMH | 25.65 | IN | 20.35 | 10" | PVC | 9 | |
| | | | IN | 20.45 | 15" | PVC | 11 | |
| | | | IN | 20.95 | 12" | PVC | 12 | |
| | | | OUT | 20.45 | 15" | PVC | 4 | |
| | | | SUMP | 20.35 | | | | HEAVY SEDIMENT |

| POINT # | STRUCTURE TYPE | RIM EL. | INV. | INV. EL. | SIZE | TYPE | LOCATION (N=12) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 1114 | CBR | 25.26 | OUT | 21.07 | 12" | PVC | 7 | |
| | | | IN | 20.20 | 10" | PVC | 5 | CAPPED |
| | | | SUMP | 21.16 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1116 | DMH | 24.09 | IN | 19.70 | 15" | PVC | 10 | |
| | | | IN | 20.70 | 10" | PVC | 12 | |
| | | | IN | 18.92 | 12 | UNKNOWN | 2 | CAPPED |
| | | | OUT | 18.89 | 15" | PVC | 4 | |
| | | | SUMP | 18.44 | | | | |
| | | | | | | | | |
| 1118 | SMH | 24.29 | IN | 15.19 | 18" | ASBESTOS | 10 | |
| | | | IN | 19.53 | 12" | UNKNOWN | 2 | |
| | | | IN | 17.68 | 12" | UNKNOWN | 8 | |
| | | | OUT | 15.07 | 18" | ASBESTOS | 4 | |
| | | | SHELF | 16.39 | | | | |
| | | | | | | | | |
| 1120 | DMH | 24.22 | IN | 20.02 | 12" | CONCRETE | 2 | |
| | | | IN | 20.72 | 10" | PVC | 10 | |
| | | | OUT | 21.12 | UNKNOWN | CASCO TRAP | 9 | TOP OF CASCO TRAP |
| | | | SUMP | 17.22 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1129 | CBR | 23.19 | OUT | 19.91 | UNKNOWN | CASCO TRAP | 7 | |
| | | | SUMP | 17.14 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1131 | SMH | 23.20 | IN | 11.64 | 15" | VIT CLAY | 2 | |
| | | | IN | 17.41 | 8" | PVC | 12 | |
| | | | OUT | 11.63 | 15" | UNKNOWN | 8 | |
| | | | SHELF | 12.76 | | | | |
| | | | IN | 15.52 | 8" | PVC | 4 | |
| | | | | | | | | |
| 1139 | SMH | 22.83 | IN | 11.52 | 15" | VIT CLAY | 2 | |
| | | | IN | 13.30 | 18" | VIT CLAY | 8 | STACKED ABOVE OTHER 8 OCLOCK |
| | | | IN | 10.75 | 18" | VIT CLAY | 8 | |
| | | | IN | 10.61 | 18" | VIT CLAY | 10 | |
| | | | IN | 13.31 | 18" | UNKNOWN | 10 | STACKED |
| | | | OUT | 10.57 | 24" | UNKNOWN | 4 | |
| | | | SHELF | 12.27 | | | | |
| | | | | | | | | |
| 1143 | CBR | 21.79 | IN | 17.19 | 8" | UNKNOWN | 10 | |
| | | | OUT | 17.09 | 12" | PVC | 9 | |
| | | | SUMP | 13.19 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1145 | DMH | 22.65 | IN | 15.35 | 12" | PVC | 3 | |
| | | | IN | 15.32 | 15" | PVC | 11 | |
| | | | OUT | 15.21 | 15" | PVC | 8 | |
| | | | SHELF | 16.05 | | | | |
| | | | | | | | | |
| 1147 | MH | 23.93 | OUT | 20.74 | 10" | PVC | 8 | CAPPED |
| | | | SUMP | --------- | | | | FULL OF SEDIMENT |
| | | | | | | | | |
| 1149 | CBR | 23.76 | IN | 20.36 | 10" | PVC | 2 | CAPPED |
| | | | OUT | 20.02 | 12" | PVC | 4 | PERP. TO SEWER |
| | | | SUMP | 19.36 | | | | HEAVY SED. APROX. |
| | | | | | | | | |
| 1151 | CBR | 24.79 | OUT | 21.50 | 10" | PVC | 4 | |
| | | | SUMP | 21.49 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1153 | SMH | 27.06 | IN | 22.41 | 10" | PVC | 2 | |
| | | | OUT | 21.30 | 10" | PVC | 6 | |
| | | | SHELF | 21.86 | | | | |
| | | | | | | | | |
| 1159 | SMH | 30.54 | IN | 22.76 | 18" | ASBESTOS | 10 | STACKED |
| | | | IN | 20.82 | 18" | UNKNOWN | 10 | |
| | | | OUT | 20.44 | 18" | ASBESTOS | 4 | |
| | | | SHELF | 21.34 | | | | |
| | | | | | | | | |
| 1164 | DMH | 34.39 | IN | 28.21 | 12" | PVC | 8 | |
| | | | OUT | 27.63 | 15" | PVC | 4 | |
| | | | SHELF | 28.69 | | | | |
| | | | | | | | | |
| 1166 | CB | 34.93 | IN | 29.91 | 6" | PVC | 8 | |
| | | | IN | 28.60 | 12" | PVC | 11 | |
| | | | OUT | 28.53 | 12" | PVC | 2 | |
| | | | SUMP | 25.43 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1168 | DMH | 35.44 | IN | 29.09 | 12" | PVC | 8 | |
| | | | IN | 29.04 | 12" | PVC | 11 | |
| | | | IN | 27.17 | 12" | PVC | 2 | CAPPED |
| | | | OUT | 28.85 | 12" | PVC | 4 | |
| | | | SUMP | 24.94 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1172 | CBR | 35.57 | IN | 30.17 | 12" | PVC | 2 | |
| | | | OUT | 29.78 | 12" | UNKNOWN | 9 | |
| | | | SUMP | 28.97 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1174 | CBR | 40.10 | IN | 33.70 | 12" | UNK | 11 | |
| | | | OUT | 33.60 | 12" | PVC | 5 | |
| | | | SUMP | 32.10 | | | | |
| | | | | | | | | |

| POINT # | STRUCTURE TYPE | RIM EL. | INV. | INV. EL. | SIZE | TYPE | LOCATION (N=12) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 1176 | CBR | 39.70 | IN | 34.82 | 8" | UNKNOWN | 10 | |
| | | | OUT | 34.68 | 12" | UNKNOWN | 5 | |
| | | | SUMP | 33.30 | | | | |
| | | | | | | | | |
| 1182 | SMH | 40.69 | IN | 28.83 | 18" | ASBESTOS | 10 | |
| | | | IN | 34.67 | 12" | UNKNOWN | 9 | |
| | | | OUT | 28.96 | 18" | ASBESTOS | 4 | |
| | | | SHELF | 29.69 | | | | |
| | | | | | | | | |
| 1186 | CBR | 38.32 | IN | 31.03 | 6" | PVC | 1 | |
| | | | OUT | 32.02 | 12" | PVC | 5 | |
| | | | SUMP | 29.07 | | | | |
| | | | | | | | | |
| 1189 | SMH | 45.76 | IN | 32.17 | 18" | ASBESTOS | 10 | |
| | | | IN | 32.51 | 6" | UNKNOWN | 2 | |
| | | | IN | 32.22 | 8" | UNKNOWN | 2 | |
| | | | IN | 40.06 | 8" | UNKNOWN | 2 | |
| | | | IN | 40.69 | 6" | UNKNOWN | 9 | |
| | | | OUT | 32.04 | 18" | ASBESTOS | 4 | |
| | | | SHELF | 33.56 | | | | |
| | | | | | | | | |
| 1197 | CBR | 51.66 | OUT | 47.33 | UNKNOWN | CASCO TRAP | 2 | TOP OF CASCO TRAP |
| | | | SUMP | 45.96 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1199 | SMH | 52.05 | IN | 43.12 | 18" | ASBESTOS | 10 | |
| | | | IN | 46.69 | 12" | UNKNOWN | 12 | |
| | | | IN | 45.72 | 12" | UNKNOWN | 8 | |
| | | | OUT | 42.95 | 18" | ASBESTOS | 4 | |
| | | | SHELF | 44.22 | | | | |
| | | | | | | | | |
| 1201 | SMH | 50.90 | IN | 39.00 | 12" | UNKNOWN | 2 | |
| | | | IN | 39.22 | 12" | UNKNOWN | 8 | |
| | | | OUT | 38.33 | 18" | ASBESTOS | 4 | |
| | | | SHELF | 39.71 | | | | |
| | | | | | | | | |
| 1270 | SMH | 54.94 | IN | 46.55 | 18" | UNKNOWN | 8 | |
| | | | OUT | 46.33 | 18" | UNKNOWN | 2 | |
| | | | SHELF | 47.34 | | | | |
| | | | | | | | | |
| 1272 | CBR | 54.03 | OUT | 50.12 | UNKNOWN | CASCO TRAP | 6 | TOP OF CASCO TRAP |
| | | | SUMP | 46.53 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1516 | SMH | 40.46 | IN | 31.05 | 10" | UNKNOWN | 11 | |
| | | | IN | 31.10 | 10" | UNKNOWN | 2 | |
| | | | OUT | 31.00 | 12" | UNKNOWN | 8 | |
| | | | SHELF | 32.16 | | | | |
| | | | | | | | | |
| 1572 | CB | 30.94 | IN | 27.76 | 4" | PVC | 10 | |
| | | | OUT | 26.94 | 8" | PVC | 3 | |
| | | | SUMP | 23.94 | | | | |
| | | | | | | | | |
| 1595 | SMH - GREASE TRAP | 30.98 | IN | 20.45 | 4" | PVC | 9 | |
| | | | OUT | 20.46 | 4" | PVC | 5 | |
| | | | SHELF | 21.23 | | | | |
| | | | | | | | | |
| 1630 | CBR | 36.99 | IN | 31.98 | 12" | PVC | 11 | |
| | | | IN | 31.72 | 10" | HDPE | 12 | |
| | | | OUT | 31.55 | 12" | PVC | 8 | |
| | | | SUMP | 29.99 | | | | |
| | | | | | | | | |
| 1638 | CBR | 38.06 | IN | 32.75 | 12" | PVC | 10 | |
| | | | OUT | 32.69 | 12" | PVC | 5 | |
| | | | SUMP | 31.91 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 1644 | CBR | 39.92 | IN | 34.22 | 8" | PVC | 10 | |
| | | | IN | 35.62 | 12" | PVC | 8 | |
| | | | IN | 35.73 | 3" | PVC | 9 | |
| | | | OUT | 34.16 | 12" | PVC | 4 | |
| | | | SUMP | 34.42 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 3673 | CB | 34.26 | OUT | 32.21 | 10" | HDPE | 7 | |
| | | | SUMP | 31.26 | | | | HEAVY SEDIMENT |
| | | | | | | | | |
| 3977 | SMH | 33.84 | IN | 24.46 | 18" | ASBESTOS | 10 | |
| | | | IN | 25.05 | 12" | PVC | 8 | |
| | | | OUT | 24.53 | 18" | ASBESTOS | 4 | |
| | | | SHELF | 25.34 | | | | |
| | | | | | | | | |
| 6466 | CB | 27.43 | IN | 22.78 | 8 | PVC | 6 | |
| | | | OUT | 23.67 | UNKNOWN | CASCO TRAP | 9 | TOP OF CASCO TAP |
| | | | SUMP | 19.83 | | | | |

JEDIAH M. SCOTT, PLS 2660

STATE OF MAINE
JEDIAH M. SCOTT
#2660
PROFESSIONAL LAND SURVEYOR

| REV. | BY | DATE | STATUS |
|---|---|---|---|
| 2 | JMS | 05/28/2025 | ADDITIONAL UTILITY AND BOUNDARY INFORMATION |
| 1 | JMS | 05/02/2025 | RELEASED FOR CLIENT COMMENTS |

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SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Rd., Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, and Sanford

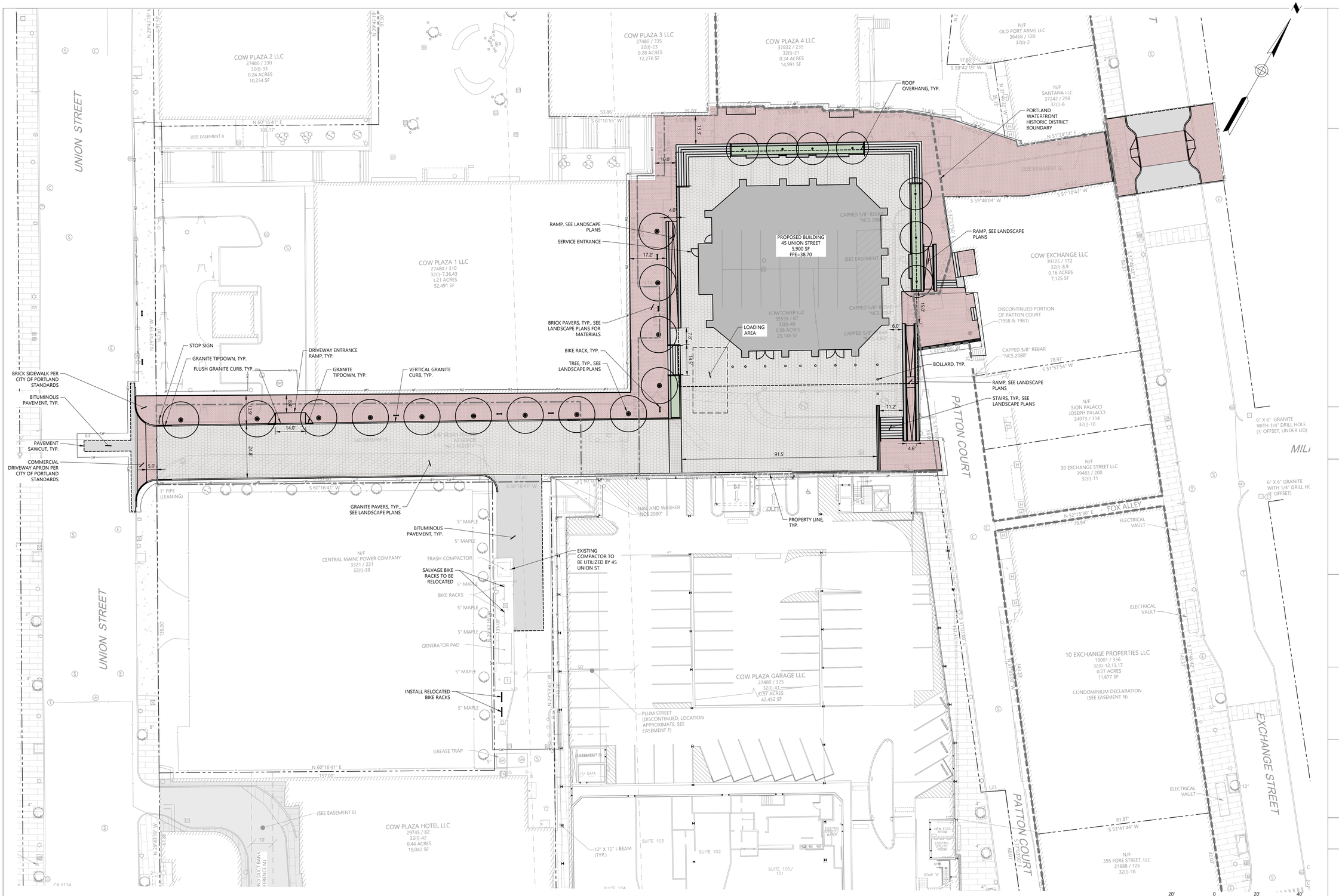
STRUCTURE TABLE
OF:
CANAL PLAZA
UNION, FORE, MIDDLE, EXCHANGE STREETS
FOR:
EAST BROWN COW
100 COMMERCIAL ST, SUITE 300
PORTLAND, ME 04101

| | |
|---|---|
| - | - |
| DRAWN | CNV |
| CHECKED | JMS |
| DATE | 04/22/2025 |
| SCALE | - |
| PROJECT | 240988 |

SHEET14 OF 14

240988EC-dwg_TAB-STRUCTURE TABLE

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# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®


CLIENT
East Brown Cow - Kowtower LLC
100 Commercial Street, Suite 300, Portland, Maine, 04101

DESIGN ARCHITECT
Safdie Architects, LLC
100 Properzi Way
Somerville, MA 02143-3740 USA
T 617.629.2100 F 617.629.2406

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Michael Boucher Landscape Architecture
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MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION
Cosentini
101 Federal Street, 6th Floor
Boston, MA 02110 USA
T 617.748.7800



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ISSUE

| NO. | DESCRIPTION | DATE |
|---|---|---|

KEY PLAN

NOTES

NOT FOR CONSTRUCTION

| PROJECT NUMBER | DRAWN BY |
|---|---|
| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

PHASE

ISSUED FOR SITE PLAN APPROVAL

SCALE

1"=20'

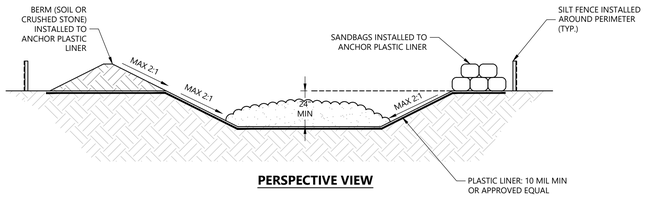
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SITE LAYOUT PLAN

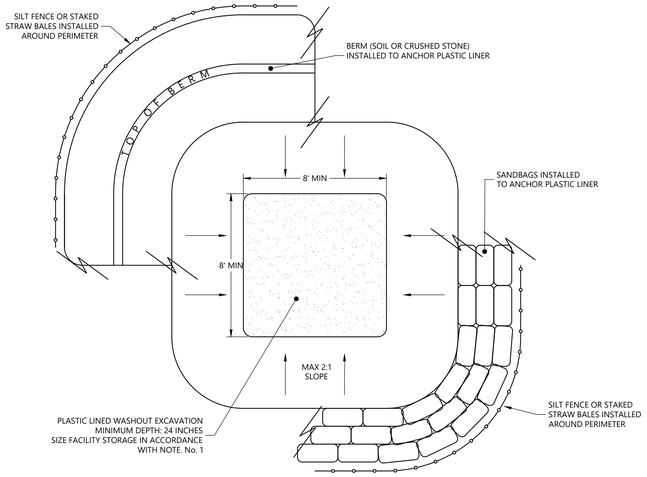
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**PERSPECTIVE VIEW**




**PLAN VIEW**

NOTES:

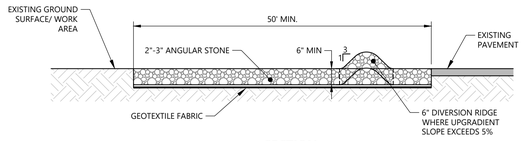
1. SIZE WASHOUT FACILITY TO PROVIDE REQUIRED CAPACITY TO ALLOW FOR PLANNED CONCRETE POUR ACTIVITIES BETWEEN FACILITY MAINTENANCE AS DESCRIBED IN NOTE 9. THE FOLLOWING RELATIONSHIPS CAN BE USED TO ESTIMATE REQUIRED CAPACITY. MINIMUM FACILITY DIMENSIONS SHALL BE CONSTRUCTED AS NOTED ON DETAIL.

| REQUIRED WASH WATER | |
|---|---|
| TRUCK CHUTE | 7 GAL |
| HOPPER | 50 GAL |

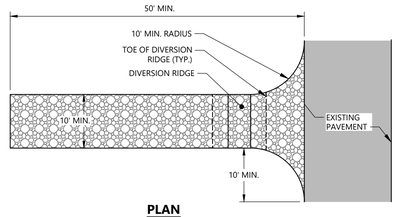
2. CONCRETE WASHOUT FACILITY SHALL BE CONSTRUCTED, INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE STATE STANDARDS & SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION.
3. LOCATE WASHOUT FACILITY MINIMUM OF 100 FEET AWAY FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS.
4. WASHOUT FACILITY SHALL BE LINED WITH MINIMUM 10 MIL THICKNESS PLASTIC SHEETING OR EQUIVALENT WATERTIGHT BARRIER APPROVED BY THE DIRECTOR'S REPRESENTATIVE.
5. LINER SHALL BE MAINTAINED FREE OF TEARS AND PUNCTURES AT ALL TIMES.
6. ANCHOR LINER AT TOP OF EXCAVATION WITH EARTHEN BERM, SANDBAGS OR STONE AS SHOWN ON THE DETAIL.
7. SURROUND WASHOUT FACILITY WITH SILT FENCE OR STAKED STRAW BALES.
8. ALL WASHOUT FACILITIES SHALL BE INSPECTED DAILY.
9. ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75 PERCENT OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO AN ACCEPTABLE CONTAINMENT VESSEL AND DISPOSED OFFSITE IN ACCORDANCE WITH LOCAL REGULATIONS.
10. PLASTIC LINER SHALL BE REPLACED WITH REMOVAL OF ACCUMULATED HARDENED MATERIAL.
11. LOCATION TO BE APPROVED BY DIRECTOR'S REPRESENTATIVE.

## 1 CONCRETE WASHOUT FACILITY

SCALE: NTS




**SECTION**




**PLAN**

NOTES:

1. GRADE TOWARDS SEDIMENT BARRIER WHEN NECESSARY TO MANAGE FLOW.
2. INCREASE MINIMUM LENGTH TO 100' WHERE TRACKED SEDIMENTS CONTAIN LESS THAN 80% SAND OR AS NECESSARY FOR HEAVY CONSTRUCTION.

## 2 STABILIZED CONSTRUCTION ENTRANCE-EXIT

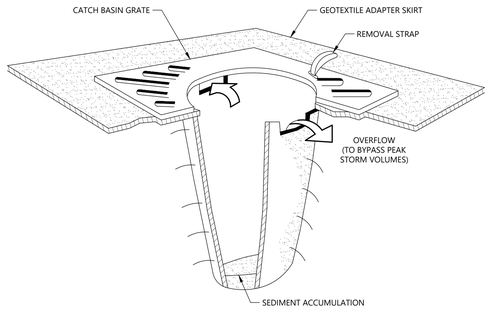
SCALE: NTS

# EROSION AND SEDIMENTATION CONTROL NOTES

| TEMPORARY EROSION CONTROL | | |
|---|---|---|
| CONTRACTOR SHALL PREPARE AND SUBMIT A SOIL EROSION AND WATER POLLUTION CONTROL PLAN TO ENGINEER. | | |
| MEASURE | DATES FOR USE | TIMING, ACTIVITY, AND LOCATION |
| SEDIMENTATION BARRIER | ALL | BEFORE SOIL DISTURBANCE, INSTALL DOWNHILL OF AREAS TO BE DISTURBED AND AROUND MATERIAL STOCKPILES. |
| UP-SLOPE DIVERSION | ALL | BEFORE SOIL DISTURBANCE, INSTALL UPHILL OF AREAS TO BE DISTURBED AND AROUND MATERIAL STOCKPILES. |
| CATCH BASIN PROTECTION | ALL | BEFORE SOIL OR PAVEMENT DISTURBANCE, INSTALL ACF ENVIRONMENTAL, INC. HIGH FLOW SILTSACK, SILTSAVER INLET FILTER, OR EQUAL, INSTALLED PER MANUFACTURER'S REQUIREMENTS. |
| DUST CONTROL | ALL | DURING DRY WEATHER, APPLY WATER AND CALCIUM CHLORIDE TO CONTROL DUST. |
| TEMPORARY SEEDING | APRIL 15 TO OCT. 1 | SOIL STOCKPILES THAT ARE NOT COVERED AND DISTURBED AREAS THAT WILL NOT BE DISTURBED AGAIN WITHIN 14 DAYS. IF GRASS GROWTH PROVIDES LESS THAN 95% SOIL COVERAGE BY NOV. 1, APPLY MULCH AND ANCHOR WITH EROSION CONTROL BLANKET. |
| MULCH | APRIL 15 TO SEPT. 15 | ON ALL AREAS OF EXPOSED SOIL PRIOR TO RAIN EVENTS OR EVERY 7 DAYS, APPLY 100-150 LBS (2.5 BALES) PER 1,000 SQ FT BY MECHANICAL BLOWER. |
| WINTER MULCH | SEPT. 16 TO OCT. 31 | ON ALL AREAS OF EXPOSED SOIL PRIOR TO PRECIPITATION OR EVERY 7 DAYS, APPLY 150 TO 170 LBS. MULCH (4 BALES) PER 1,000 SQ. FT. BY MECHANICAL BLOWER. EROSION CONTROL BLANKET MAY BE USED AS A SUBSTITUTE FOR WINTER MULCH. |
| | NOV. 1 TO APRIL 14 | ON ALL AREAS OF EXPOSED SOIL, APPLY 150 TO 170 LBS. MULCH (4 BALES) PER 1,000 SQ. FT. AND ANCHOR WITH NETTING AT THE END OF EACH WORKING DAY. EROSION CONTROL BLANKET MAY BE USED AS A SUBSTITUTE FOR WINTER MULCH. |
| INSPECTIONS | UNTIL SITE IS PERMANENTLY STABILIZED | INSPECT THE EROSION AND SEDIMENTATION CONTROL MEASURES PER INSPECTIONS TABLE BELOW, AND MAINTAIN AND REPAIR AS NECESSARY. |

| PERMANENT EROSION CONTROL | | |
|---|---|---|
| MEASURE | DATES FOR USE | TIMING, ACTIVITY, AND LOCATION |
| PAVEMENT - BASE COURSE FINAL COURSE | WHEN NO FROST IS IN GROUND | INSTALL ONLY IN AREAS SHOWN ON THE PLAN, SHORTLY AFTER PAVEMENT BASE IS BROUGHT TO FINAL GRADE. INSTALL NEAR COMPLETION OF PROJECT. |
| PERMANENT SEEDING | APRIL 15 TO SEPT. 15 | ON FINAL GRADE AREAS, WITHIN 7 DAYS OF GRADE PREPARATION. PREPARE TOPSOIL, FOLLOWED BY SEED AND MULCH APPLICATION. |
| DORMANT SEEDING | SEPT. 16 TO APRIL 15 | ON FINAL GRADE AREAS, WITH PREPARED TOPSOIL. APPLY SEED AT DOUBLE THE SPECIFIED RATE ON BARE SOIL, AND FOLLOW WITH AN APPLICATION OF WINTER MULCH. |
| GROUND COVER, TREES, SHRUBS | APRIL 15 TO NOV. 1 | INSTALL WITH FINAL LANDSCAPING. |
| PERMANENT MULCH | ALL | INSTALL WITH FINAL LANDSCAPING. |

| INSPECTIONS | |
|---|---|
| REGULAR INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE MADE AT LEAST WEEKLY AND PRIOR TO AND FOLLOWING STORM EVENTS. MINIMUM INSPECTIONS SHALL BE MADE AS LISTED IN THE TABLE BELOW. | |
| INSPECTED ITEM | LOOK FOR |
| MULCHED SURFACES | THIN MULCH OR INADEQUATE APPLICATION. WIND MOVEMENT. |
| SEEDED SURFACES | POOR SEED GERMINATION. LOSS OF MULCH. DEVELOPMENT OF RIVULETS. |
| SEDIMENT BARRIER | SEDIMENT BUILD-UP TO ONE HALF THE HEIGHT OF THE BARRIER. UNDERMINING OF THE BARRIER. SUPPORTING STAKES LOOSE, TOPPLED, OR UNMARKED. BREAKS IN BARRIER. |
| PERIMETER DIVERSION | DISCHARGE IS TO STABILIZED AREA. EROSION OR BREAKS IN BARRIER. SUPPORTING STAKES LOOSE, TOPPLED OR UNMARKED. |
| CATCH BASIN PROTECTION | SEDIMENT BUILD-UP AND STRUCTURE BLOCKAGES. SLOW FLOW/PONDING WATER. BREAKS IN FABRIC OR VOIDS IN BARRIER. |
| DEWATERING FILTER | BREAKS IN FABRIC OR SUPPORTING STRUCTURE. SLOW FLOW, INDICATING HIGH SEDIMENT BUILD-UP. |
| CONSTRUCTION ENTRANCE | SEDIMENTATION OF ROADWAYS. OFF-SITE DUST COMPLAINTS. |




NOTES:

1. CATCH BASIN PROTECTION TO BE "SILTSACK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES).
2. INSERT TO BE EMPTIED IN AN APPROVED MANNER WHEN IT IS 1/2 FULL OF SEDIMENT.
3. INSPECT INSERT AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN AS REQUIRED.

## 3 TEMPORARY INLET PROTECTION

SCALE: NTS

EROSION AND SEDIMENT CONTROL NOTES:

TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCES, HYDRAULIC MULCH, HAY AND STRAW MULCH, EROSION CONTROL BLANKET, TURF REINFORCED MATTING, RIPRAP AND TEMPORARY SEEDING. TEMPORARY SEDIMENT CONTROL MEASURES INCLUDE THE USE OF SILT FENCE, EROSION CONTROL MIX BERMS, PLUNGE POOLS, CHECK DAMS, SEDIMENT TRAPS, CATCHBASIN SEDIMENT COLLECTION BAGS AND GEOTEXTILE FILTER BAGS. PERMANENT MEASURES INCLUDE THE USE OF RIPRAP AT EXPOSED STORMDRAIN AND CULVERT INLETS AND OUTLETS, ARMORED SWALES AND SLOPES AND PERMANENT VEGETATION.

GENERAL

A. THE PROJECT SHALL CONFORM WITH THE STANDARDS OF THE MAINE CONSTRUCTION GENERAL PERMIT, IF APPLICABLE.

B. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK PUBLISHED BY THE MAINE DEP UNLESS OTHERWISE NOTED IN THESE PLANS.

C. ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND/OR MUNICIPAL OFFICIALS SHALL BE INSTALLED BY THE CONTRACTOR.

D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATER BODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.

E. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE SITE WHENEVER POSSIBLE WHILE ALLOWING PROPER SITE DEVELOPMENT.

F. CONSTRUCTION STAGING SHALL BE CONDUCTED IN A WAY TO MINIMIZE THE POTENTIAL FOR STORMWATER RUN-ON TO DISTURBED AREAS.

G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE ABOVE PERSONNEL. DESCRIPTIONS OF PERMANENT STABILIZATION FOR VARIOUS COVER TYPES FOLLOWS:
   I. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS THAT 90% OF THE DISTURBED AREA IS COVERED WITH REASONABLY THICK UNIFORM STAND OF PERMANENT GRASS SPECIES, FREE FROM SIZABLE THIN OR BARE SPOTS.
   II. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THAT COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE OFF.
   III. FOR MULCHED AREAS, PERMANENT STABILIZATION MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL.
   IV. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE. STONE MUST BE SIZED APPROPRIATELY AND IN ACCORDANCE WITH SECTION E-6 OF THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL.
   V. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE ASPHALT BINDER COURSE.
   VI. FOR OPEN CHANNELS, LEVEL SPREADERS, ENGINEERED BUFFERS OR OTHER DESIGNED STORMWATER CONVEYANCE STRUCTURE, PERMANENT STABILIZATION MEANS THE CHANNELIZED AREA(S) IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH APPROVED RIPRAP, OR WITH OTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE SHALL BE NO EVIDENCE OF SLUMPING, UNDERCUTTING OR DOWNCUTTING OF THE DESIGNED CHANNEL.

H. IF THE AREA WILL REMAIN UNWORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, AND WILL NOT BE BUILT ON, THEN IMMEDIATELY PROVIDE PERMANENT STABILIZATION USING VEGETATION THROUGH PLANTING, SEEDING, SOD OR THROUGH THE USE OF PERMANENT MULCH OR RIPRAP. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS. AMEND AREAS OF DISTURBED, OVERLY-COMPACTED SUBSOIL WITH TOPSOIL OR COMPOST AND LIGHTLY TILL 2-3" OF SOIL AMENDMENTS INTO THE TOP 8" OF SOIL.

I. PERMANENT SEEDING SPECIFICATION: IT IS RECOMMENDED THAT PERMANENT SEEDING BE COMPLETED BETWEEN APRIL 15 AND AUGUST 15 OF EACH YEAR. LATE SEASON SEEDING MAY BE DONE BETWEEN AUGUST 15 AND SEPTEMBER 15. AREAS NOT SEEDED OR WHICH DO NOT OBTAIN A SATISFACTORY GROWTH BY OCTOBER 1 SHALL BE SEEDED WITH AROOSTOCK WINTER RYE OR MULCHED AT SPECIFIED RATES. SEE WINTER SEEDING AND MULCHING SPECIFICATIONS FOR STABILIZATION AFTER NOVEMBER 1.
   I. APPLY TOPSOIL TO A DEPTH OF 4 INCHES, IN COMPACTED AREAS TILL 2-3" OF COMPOST INTO UPPER 8" OF DISTURBED SOIL AND THEN APPLY 4 INCHES OF TOPSOIL.
   II. APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS. IN LIEU OF SOIL TESTS, APPLY GROUND LIMESTONE AT A RATE OF 33 LBS PER 1000 SQUARE FEET AND GRANULAR, COMMERCIAL-GRADE FERTILIZER 10-10-10 AT A RATE OF 18 LBS PER 1000 SQUARE FEET.
   III. UNIFORMLY APPLY SEED MIXTURE AT THE RECOMMENDED SEEDING RATES AND DATES, APPLY HAY OR STRAW MULCH AT A RATE OF 2.5 BALES PER 1000 SQUARE FEET AND ANCHOR AS NECESSARY.

J. PROTECT ALL SEEDED AREAS WITH MULCH OR EROSION CONTROL BLANKET IN AREAS OF SHEET OR CONCENTRATED FLOWS. MULCH ALL AREAS SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. SCHEDULE SEEDING OR SODDING TO AVOID FAILURE DUE TO SUMMER DROUGHT AND FALL FROST. NEWLY SEEDED AREAS SHOULD BE PROTECTED FROM VEHICLE TRAFFIC, PEDESTRIAN TRAFFIC AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE OR SURFACE EROSION IS EVIDENT.

K. DITCH LININGS AND RIPRAP INLET AND OUTLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR INSTALLATION OF THE CULVERT.

L. EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL PERMANENT SLOPES STEEPER THAN 3:1, IN THE BASE OF DITCHES AND ANY DISTURBED AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE (WETLANDS AND WATER RESOURCES). EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S150BN OR APPROVED EQUAL. EROSION CONTROL BLANKET SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

M. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURE UPON STABILIZATION OF PROJECT AREA & COST SHALL BE INCIDENTAL TO CONTRACT.

WINTER CONDITIONS:

A. WINTER CONSTRUCTION IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF AREAS WITHIN THE CONSTRUCTION AREA ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 15 THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS.

GOOD HOUSEKEEPING AND POLLUTION PREVENTION:

A. SPILL PREVENTION CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER RUNOFF AND APPROPRIATE SPILL PREVENTION, CONTAINMENT AND RESPONSE PLANNING AND IMPLEMENTATION.

B. DURING CONSTRUCTION, PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUND OR SURFACE WATERS MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO INFILTRATION AREAS. AN "INFILTRATION AREA" IS ANY ARE OF THE SITE THAT BY DESIGN, OR AS A RESULTS OF SOIL AND TOPOGRAPHY, ACCUMULATES RUNOFF THAT INFILTRATES IN THE SOIL. DIKES, BERMS, SUMPS AND OTHER FORMS OF TEMPORARY SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.

C. LOCATE ALL MATERIAL STOCKPILES WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.

D. TAKE ALL REASONABLE MEASURES TO MINIMIZE DUST RESULTING FROM THE PROJECT. OIL MAY NOT BE USED FOR DUST CONTROL.

E. LOCATE ALL LITTER, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.

F. TRENCH OR FOUNDATION DE-WATERING MUST BE SPREAD THROUGH SUFFICIENT NATURAL BUFFERS THAT HAVE CAPACITY TO INFILTRATE THE PUMPED WATER OR SHOULD BE PUMPED TO DESIGNED CONSTRUCTION DEWATERING DEVICES AS DESCRIBED IN THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK.

G. SEDIMENTS AND SOIL MATERIALS SHOULD BE SWEPT FROM PAVED SURFACES AT THE END OF EACH WORKDAY OR PRIOR TO RAIN EVENTS, WHENEVER POSSIBLE.

INSPECTION AND MAINTENANCE:

A. THE APPLICANT/OWNER SHALL RETAIN THE SERVICES OF A PROFESSIONAL QUALIFIED FOR EROSION & SEDIMENTATION CONTROL INSPECTIONS.

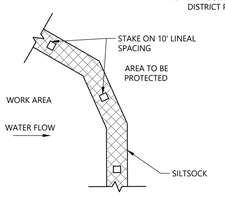
B. ALL AREAS OF DISTURBANCE, IMPERVIOUS AREAS, EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES, MATERIALS STORAGE AREAS EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED:
   a. ONCE BEFORE ANY DISTURBANCE BEGINS AND AFTER ALL EROSION AND SEDIMENTATION CONTROL BMPS SPECIFIED IN THE EROSION AND SEDIMENTATION CONTROL PLAN ARE IN PLACE;
   b. AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL); AND
   c. ONCE AT PROJECT COMPLETION TO ENSURE THE SITE HAS REACHED PERMANENT STABILIZATION AND ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS HAVE BEEN REMOVED.

C. THE INSPECTION IS REQUIRED IN ORDER TO ENSURE THAT ALL CONSTRUCTION AND STABILIZATION ACTIVITIES COMPLY WITH THE APPROVED DRAWINGS AND SPECIFICATIONS; THAT FIELD DECISIONS REGARDING EROSION CONTROL IMPLEMENTATION, STORMWATER SYSTEM INSTALLATION, AND NATURAL RESOURCE PROTECTION ARE BASED ON SOUND ENGINEERING AND ENVIRONMENTAL CONSIDERATIONS; AND THAT ANY CHANGES TO THE DEVELOPMENT'S EROSION CONTROL PLAN, STORMWATER MANAGEMENT PLAN, OR FINAL STABILIZATION PLAN IS COMMUNICATED TO THE CITY OF PORTLAND FOR ADDITIONAL REVIEW AND APPROVAL.

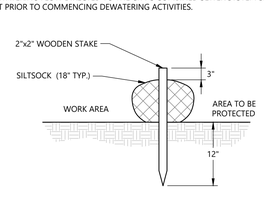
D. THE INSPECTOR WILL SUBMIT WEEKLY WRITTEN REPORTS TO THE STORMWATER COORDINATOR(S) IN THE WATER RESOURCES DIVISION OF PUBLIC WORKS AND THE DEVELOPMENT REVIEW COORDINATOR(S) IN PLANNING. REPORTS MUST INCLUDE: PROJECT ID, PROJECT ADDRESS, THE DATE(S) AND TIME(S) OF INSPECTION(S), SITE PHOTOGRAPHS OF AREAS UNDER CONSTRUCTION, AND THE DATE(S) AND APPROXIMATE DURATION(S) OF ANY RAINFALL EVENTS IN THE PRIOR WEEK. THE REPORT WILL IDENTIFY AND DESCRIBE ANY EROSION PROBLEMS OR DISCHARGE OF POLLUTANTS AND WHAT ACTIONS WILL BE TAKEN TO ADDRESS THESE ISSUES AND REPAIR ANY DAMAGE TO OTHER PROPERTIES OR NATURAL RESOURCES, ACTIONS TO ELIMINATE THE EROSION SOURCE, AND ACTIONS TO PREVENT FUTURE SEDIMENT DISCHARGES FROM THE AREA.

DEWATERING:

A. ANY DEWATERING FLOW DIRECTED TO THE CITY'S COMBINED SEWER SYSTEM SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICES AND/OR THE PORTLAND WATER DISTRICT PRIOR TO COMMENCING DEWATERING ACTIVITIES.




**PLAN VIEW**



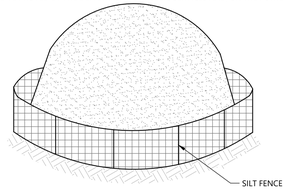

**SECTION**

NOTE:

1. WHEN STAKING IS NOT POSSIBLE, HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SEDIMENT CONTROL TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS.

## 4 SILT SOCK

SCALE: NTS




NOTES:

1. STOCKPILES SHALL BE SURROUNDED BY SILT FENCE.
2. STOCKPILES SHALL HAVE A MAXIMUM 2:1 (H:V) SIDE SLOPE.
3. REPAIR OR REPLACE DAMAGED SILT FENCE DUE TO CONSTRUCTION ACTIVITIES OR STOCKPILE MITIGATION.
4. STOCKPILE SHALL BE LOCATED IN AREAS AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.

## 5 TEMPORARY SOIL STOCKPILE

SCALE: NTS

# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®

CLIENT
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Cosentini
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ISSUE

| NO. | DESCRIPTION | DATE |
|---|---|---|

KEY PLAN



NOTES

NOT FOR CONSTRUCTION

| PROJECT NUMBER | DRAWN BY |
|---|---|
| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

PHASE

ISSUED FOR SITE PLAN APPROVAL

SCALE

AS NOTED

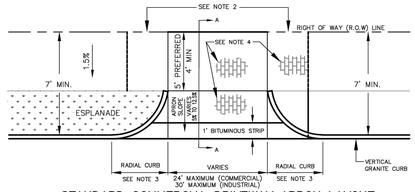
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SHEET NUMBER

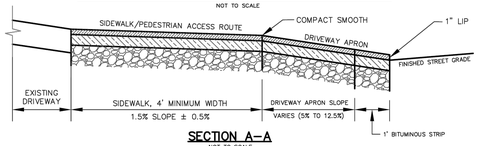
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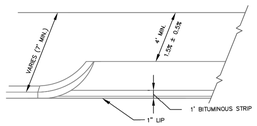

## STANDARD COMMERCIAL DRIVEWAY APRON LAYOUT

NOT TO SCALE




## SECTION A–A

NOT TO SCALE

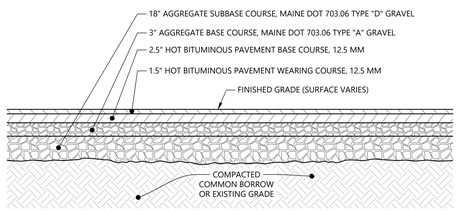



NOTES:

1. MATCH EXISTING GRADE AT R.O.W LINE. WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
2. IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
3. DRIVEWAY CURB RADIUS SHALL NOT BE LARGER THAN REQUIRED BY THE SITE'S DESIGN VEHICLE.
4. ALL MATERIALS IN ROW TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK..

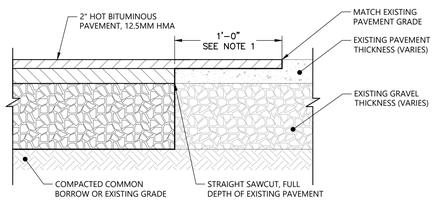
## 1 COMMERCIAL/ INDUSTRIAL DRIVEWAY APRON

SCALE: NTS




## 4 BITUMINOUS PAVEMENT REPAIR

SCALE: NTS




NOTES:

1. GRIND EXISTING PAVEMENT, 2" DEPTH.
2. PROVIDE BITUMINOUS TACK COAT ON VERTICAL AND HORIZONTAL SURFACES PRIOR TO PAVING.
3. DETAIL APPLICABLE TO PAVEMENT BUTT JOINTS AT ROADWAY WORK LIMITS. REFER TO PIPE INSTALLATION DTL. OR PAVED ROAD SECTION DTLS. FOR TRENCH REPAIR REQUIREMENTS.

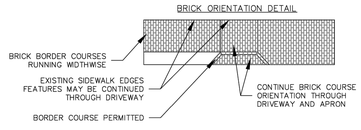
## 7 PAVEMENT BUTT JOINT

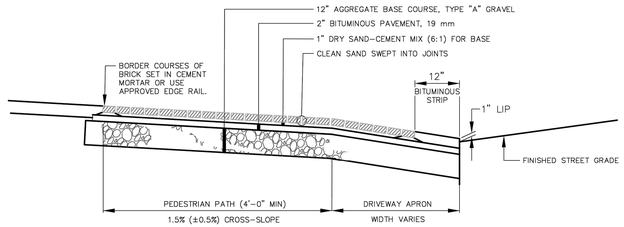
SCALE: NTS

BRICKS TO BE USED:

NEW CONSTRUCTION:
4"x8" PINE HALL PATHWAY PAVER BRICK, MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM # 193623, PINE HALL PATHWAY PAVER BRICK.

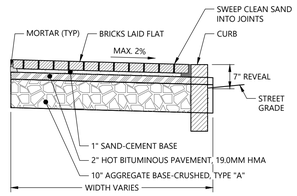
REPAIR /MAINTENANCE TO EXISTING BRICK SIDEWALKS: VERMONT PAVER; SUPPLIED BY GAGNE AND SONS. SPECIFICATION NUMBER: "VERMONT BACKER BRICK", ITEM NUMBER # VBBB




## 2 BRICK DRIVEWAY APRON WITH BITUMINOUS BASE

SCALE: NTS



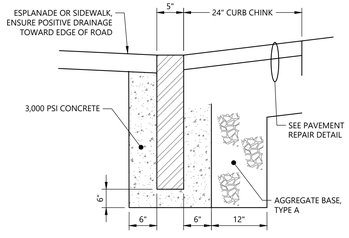

## SECTION VIEW

NOTES:

1. BRICKS SHALL BE VERMONT BACKER BRICK PAVER SUPPLIED BY GAGNE AND SONS OR APPROVED EQUAL.
2. PROVIDE MIN. 48" OF STRUCTURAL FILL BENEATH ANY BRICK SIDEWALK SECTION WITHIN 6 FEET OF AN EXTERIOR DOOR, ALL DIRECTIONS.
3. PROVIDE MIN. 48" OF STRUCTURAL FILL BENEATH ANY BRICK SIDEWALK SECTION WITHIN 6 FEET OF AN EXTERIOR DOOR, ALL DIRECTIONS.

## 5 BRICK SIDEWALK IN CITY RIGHT-OF-WAY

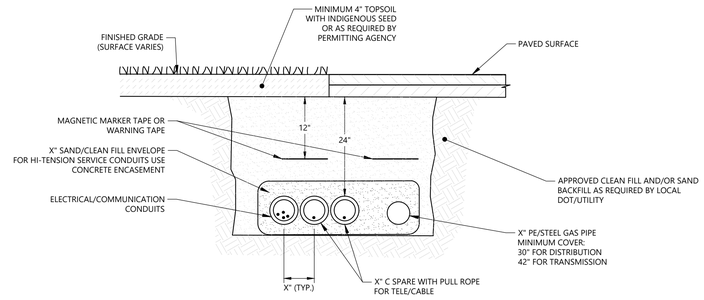
SCALE: NTS




## SECTION VIEW

## 8 FLUSH GRANITE CURB IN CITY RIGHT-OF-WAY

SCALE: NTS

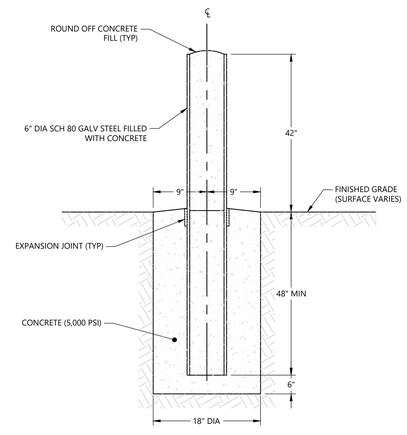



NOTES:

1. MAINTAIN 18" CLEAR BETWEEN ELECTRICAL/COMMUNICATION CONDUITS AND GAS PIPING.
2. EXCAVATE, REMOVE ROCK, BACKFILL, SEED AND RESTORE GRASS OR PAVEMENT TO ORIGINAL CONDITIONS.

## 6 ELECTRICAL, GAS, AND COMMUNICATIONS TRENCH

SCALE: NTS

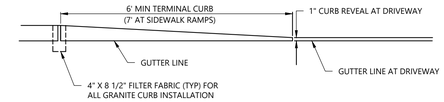



NOTE:

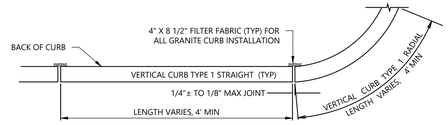
1. ALL BOLLARDS SHALL BE PAINTED. COLOR SELECTED BY OWNER.

## 9 6" DIA. BOLLARD (IN PAVEMENT)

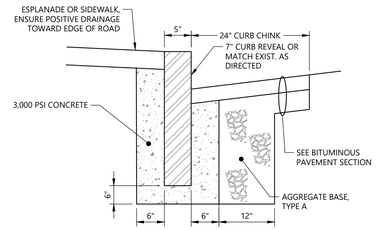
SCALE: NTS




## TERMINAL CURB PROFILE




## VERTICAL GRANITE CURB PLAN VIEW



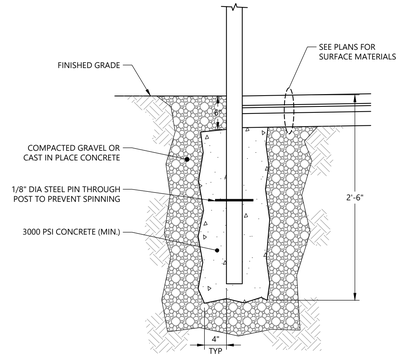

## VERTICAL GRANITE CURB CROSS SECTION

NOTES:

1. PROVIDE 6" TYP CURB REVEAL UNLESS OTHERWISE INDICATED. IF NECESSARY TO MAKE SIDEWALK GRADES ACCESSIBLE, CURB REVEAL BETWEEN 4 AND 7 INCHES IS ACCEPTABLE. CURB REVEALS LARGER THAN 6" ARE ACCEPTABLE WHERE INDICATED ON THE DRAWINGS OR WITH WRITTEN APPROVAL FROM ENGINEER.
2. GRANITE BLOCKS SHALL BE SUFFICIENT SIZE AND DEPTH TO PREVENT OVERTURNING.
3. INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
4. THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10-INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF CURB.
5. CURBING SHALL BE SET IN 6-INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
6. WOODEN SHIMS MAY BE USED TO SET CURB.
7. SUBGRADE TO BE 95% COMPACTED.

## 3 VERTICAL GRANITE CURB IN CITY RIGHT-OF-WAY

SCALE: NTS




| POST SPECIFICATION | | | |
|---|---|---|---|
| TYPE | HEIGHT ABOVE FINISHED GRADE | POST DIAMETER | POST MATERIAL |
| STREET SIGNAGE | 0' TO 60' INCL. | 4" MIN. | GALV. STEEL |

## 10 TYPICAL SIGN POST

SCALE: NTS

# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®

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East Brown Cow - Kowtower LLC
100 Commercial Street, Suite 300, Portland, Maine, 04101

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| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

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SCALE:

AS NOTED

DRAWING TITLE

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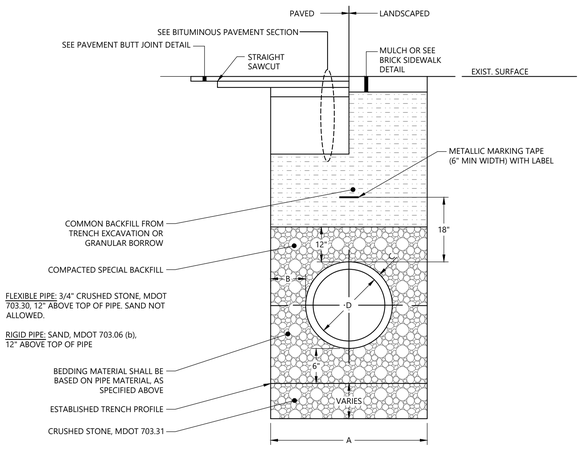
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NOTES:

ANY ALTERNATE TRENCHING SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.



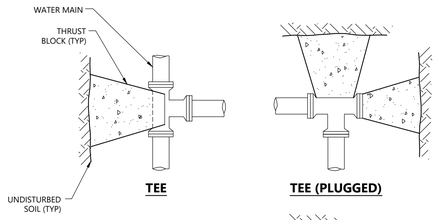

NOTES:

1. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
2. DIMENSION "B" SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES "B" SHALL BE AT LEAST 9".
3. DIMENSION "A" SHALL BE BASED ON PIPE DIAMETER, AS SET FORTH IN THE FOLLOWING TABLE.

| PIPE DIAMETER, "D" (INCHES) | MAX. TRENCH WIDTH, "A" (FEET) |
|---|---|
| 6 | 4.0 |
| 8 | 4.0 |
| 10 | 4.0 |
| 12 | 4.0 |
| 15 | 4.0 |
| 18 | 5.0 |
| 21 | 5.0 |
| 24 | 5.5 |
| 27 | 6.0 |
| 30 | 6.0 |
| 36 | 7.0 |
| 42 | 8.0 |
| 48 | 8.0 |

## 1 PIPE INSTALLATION

SCALE: NTS



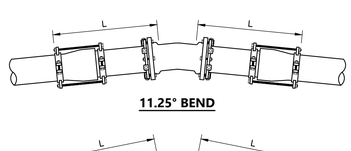

| NOMINAL PIPE SIZE (INCHES) | MAXIMUM PIPE OD (INCHES) | REQUIRED BEARING AREA (SQ FT) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 90 DEG | 60 DEG | 45 DEG | 30 DEG | 22.30 DEG | 11.25 DEG |
| 3 | 3.96 | 2.0 | 1.4 | 1.1 | 0.7 | 0.5 | 0.3 |
| 4 | 4.80 | 2.9 | 2.0 | 1.6 | 1.1 | 0.8 | 0.4 |
| 6 | 6.90 | 6 | 4 | 3 | 2.2 | 1.6 | 0.8 |
| 8 | 9.05 | 10 | 7 | 6 | 4 | 3 | 1.4 |
| 10 | 11.10 | 15 | 11 | 8 | 6 | 4 | 2.1 |
| 12 | 13.20 | 22 | 15 | 12 | 8 | 6 | 3 |
| 14 | 15.30 | 29 | 21 | 16 | 11 | 8 | 4 |
| 16 | 17.40 | 38 | 27 | 20 | 14 | 10 | 5 |
| 18 | 19.50 | 48 | 34 | 26 | 17 | 13 | 7 |
| 20 | 21.60 | 58 | 41 | 32 | 21 | 16 | 8 |
| 24 | 25.80 | 83 | 59 | 45 | 30 | 23 | 12 |
| 30 | 32.00 | 128 | 90 | 69 | 47 | 35 | 18 |
| 36 | 38.30 | 183 | 130 | 99 | 67 | 51 | 25 |

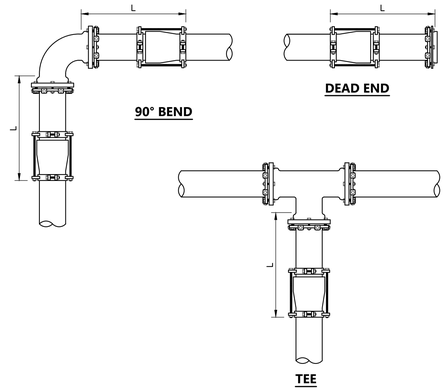
NOTES:

1. MAXIMUM TEST PRESSURE = 1.5x150 PSI.
2. MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF.
3. BEARING AREA = AxB.
4. C SHALL BE GREATER THAN A/2 AND B/2.
5. WRAP FITTINGS WITH POLYETHYLENE PRIOR TO CONSTRUCTING THRUST BLOCKS. NO JOINTS SHALL BE COVERED WITH CONCRETE.

## 2 THRUST BLOCKS FOR HORIZONTAL BENDS AND LOWER VERTICAL BENDS

SCALE: NTS




| DIAMETER | REQUIRED LENGTH OF RESTRAINED JOINT PIPE ON BOTH SIDES OF FITTING | | | | REQUIRED LENGTH OF RESTRAINED JOINT PIPE |
|---|---|---|---|---|---|
| | HORIZONTAL BEND | | | | |
| | 11.25° | 22.5° | 45° | TEE/90° | DEAD END |
| 6" | 2' | 4' | 9' | 21' | 51' |
| 8" | 3' | 6' | 11' | 27' | 67' |
| 10" | 4' | 7' | 14' | 32' | 81' |
| 12" | 4' | 8' | 16' | 38' | 96' |
| 16" | 5' | 10' | 20' | 48' | 123' |

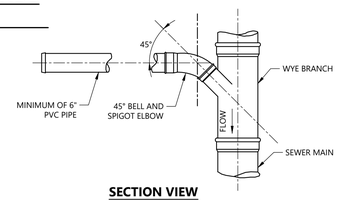
| ASSUMED PARAMETERS: | |
|---|---|
| LAYING CONDITION | TYPE 5 |
| SOIL DESIGNATION | SILT 1 |
| DEPTH COVER | 5 FT |
| DESIGN PRESSURE | 200 PSI |
| SAFETY FACTOR | 1.5 |

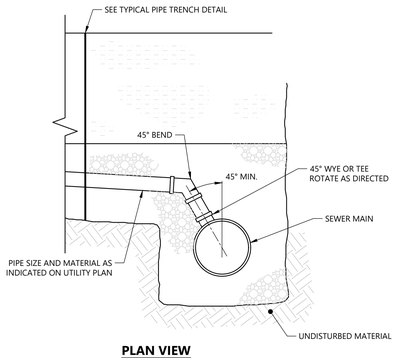
NOTES:

1. RESTRAINED JOINTS SHALL BE MECHANICAL JOINT OR PUSH-ON RESTRAINED JOINT AS SPECIFIED IN SECTION 33 14 11.01.

## 3 THRUST RESTRAINT

SCALE: NTS



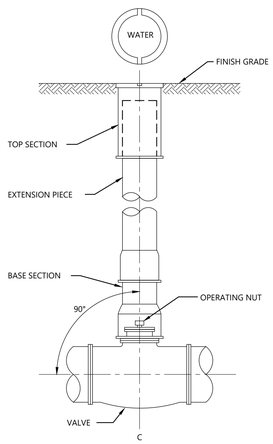




NOTES:

1. A 2" RIGID INSULATION WILL BE REQUIRED IN AREAS WHERE LESS THAN 4'-0" OF COVER OVER TOP OF PIPE OR WHERE REQUIRED BY ENGINEER.
2. MINIMUM SLOPE 1/4" PER FOOT UNLESS OTHERWISE DIRECTED.

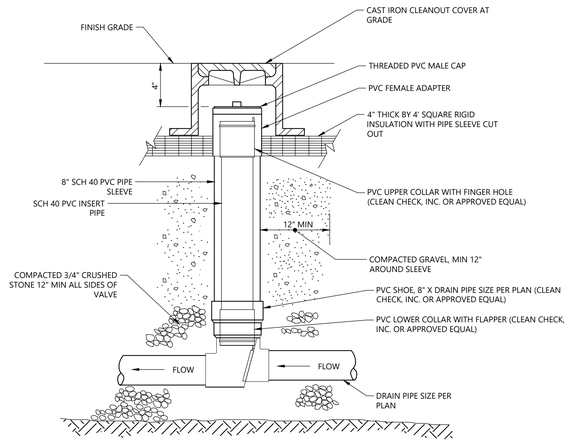
## 6 SANITARY SEWER SERVICE CONNECTION

SCALE: NTS




## 4 VALVE WITH VALVE BOX

SCALE: NTS

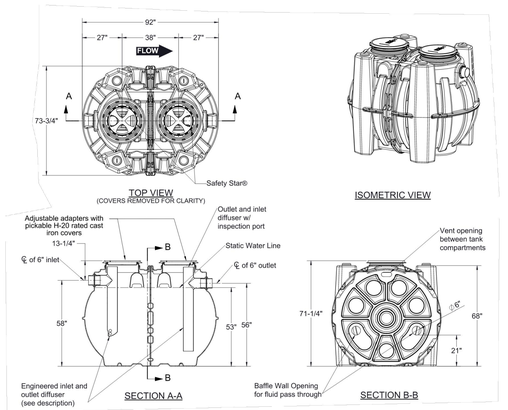



NOTES:

1. MATERIALS AND INSTALLATION PER MANUFACTURER'S INSTRUCTIONS.

## 5 BACKFLOW PREVENTER

SCALE: NTS




NOTES:
1. GREASE TRAP SHALL BE GB-1000 MODEL BY SCHIER, OR APPROVED EQUAL.
2. GREASE TRAP SHALL BE PROVIDED WITH RISERS AS NECESSARY TO ACCOMMODATE DEFINED INVERTS.
3. GREASE TRAP AND ASSOCIATED COVERS AND RISERS SHALL BE PROVIDED FOR H-20 LOADING.

## 7 GREASE INTERCEPTOR

SCALE: NTS

# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®


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East Brown Cow - Kowtower LLC
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|---|---|
| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

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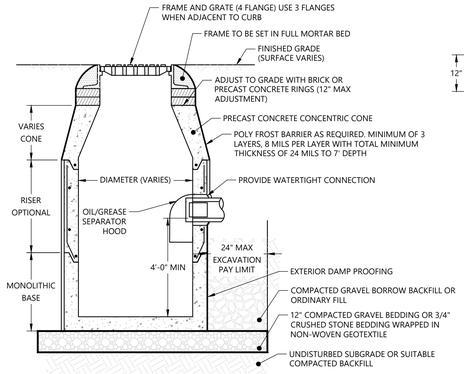
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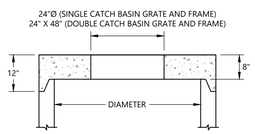
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SHEET NUMBER

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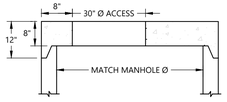

**SHALLOW ALTERNATIVE TOP SLAB**

NOTES:

1. PRECAST CONCRETE STRUCTURES AND CASTINGS SHALL BE SUITABLE FOR HS-20 LOADINGS.
2. PRECAST CONCRETE STRUCTURES SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478.
3. ALTERNATE TOP SLAB MAY BE USED AS DICTATED BY DESIGN AND/OR FIELD CONDITIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
5. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE INSTALLED ON A MINIMUM 5'-0" DIAMETER TOP SLAB.
6. PROVIDE MINIMUM 24" DIAMETER OPENING.
7. PROVIDE ANTIFLOATATION SLAB EXTENSION AS REQUIRED TO SATISFY ANTIFLOATATION REQUIREMENTS.

## 1 4' DIA. PRECAST CONCRETE CATCH BASIN

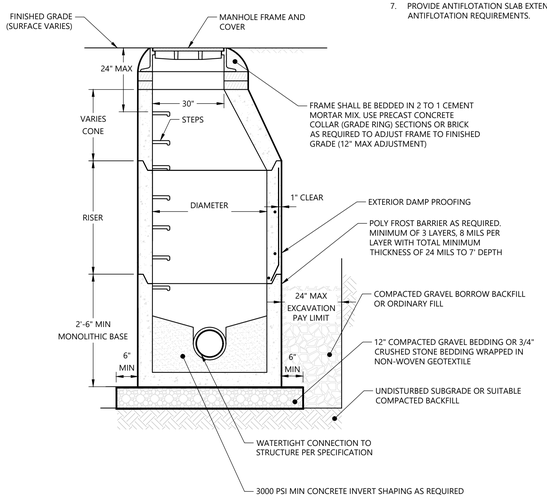
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**SHALLOW ALTERNATE TOP SLAB**

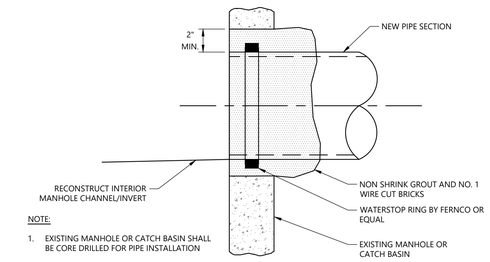
NOTES:

1. PRECAST CONCRETE STRUCTURES AND CASTINGS SHALL BE SUITABLE FOR HS-20 LOADINGS.
2. PRECAST CONCRETE STRUCTURES SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478.
3. ALTERNATE TOP SLAB MAY BE USED AS DICTATED BY DESIGN AND/OR FIELD CONDITIONS.
4. MANHOLE FRAME AND GRATE(S) SHALL MEET MUNICIPAL AND STATE SPECIFICATIONS WHEN APPLICABLE.
5. REFER TO PROJECT SPECIFICATIONS FOR MORE DRAINAGE MANHOLE INFORMATION.
6. JOINT SEALANT BETWEEN SECTIONS SHALL BE BUTYL RUBBER.
7. PROVIDE ANTIFLOTATION SLAB EXTENSION AS REQUIRED TO SATISFY ANTIFLOTATION REQUIREMENTS.




## 5 4' DIA. PRECAST CONCRETE DRAINAGE MANHOLE

SCALE: NTS

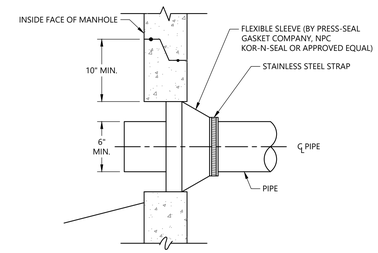



NOTE:

1. EXISTING MANHOLE OR CATCH BASIN SHALL BE CORE DRILLED FOR PIPE INSTALLATION

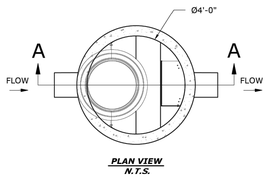
## 2 NEW PIPE TO EXISTING STRUCTURE

SCALE: NTS

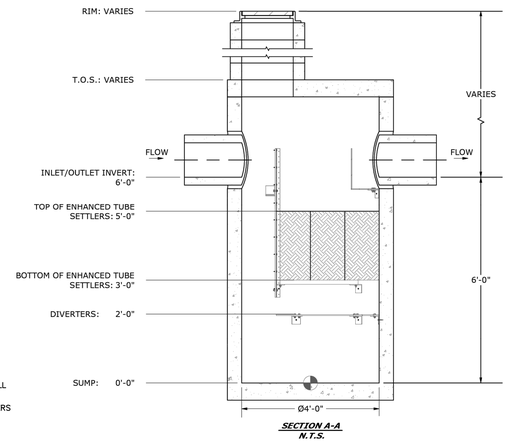



## 3 NEW PIPE TO NEW STRUCTURE CONNECTION

SCALE: NTS




***PLAN VIEW N.T.S.***




***SECTION A-A N.T.S.***

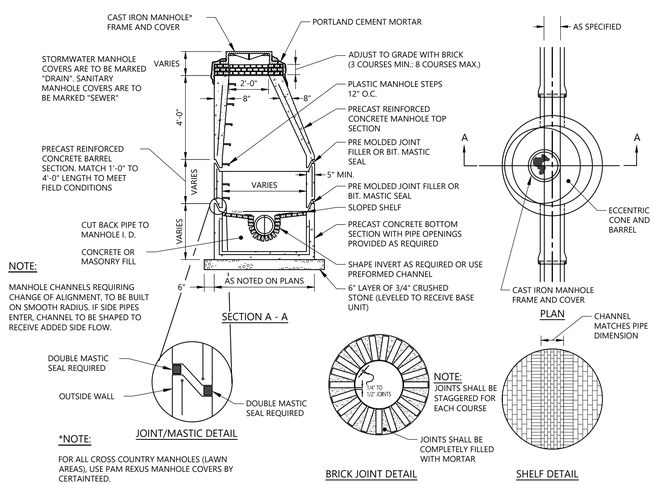
## GENERAL NOTES:

1. CONCRETE COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C478.
2. CONTRACTOR TO INSTALL THE STRUCTURE IN ACCORDANCE WITH ASTM C1821.
3. CONTRACTOR TO PROVIDE ALL LABOR AND EQUIPMENT REQUIRED TO OFFLOAD AND INSTALL UNIT.
4. CONTRACTOR TO PROVIDE AND INSTALL ALL PIPES, FRAMES, COVERS, HATCHES, AND RISERS UNLESS SPECIFIED OTHERWISE.
5. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS.

NOTE: PROVIDE STORMSETTLER BY STORMTRAP OR APPROVED EQUAL.

## 4 HYDRODYNAMIC SEPARATOR

SCALE: NTS



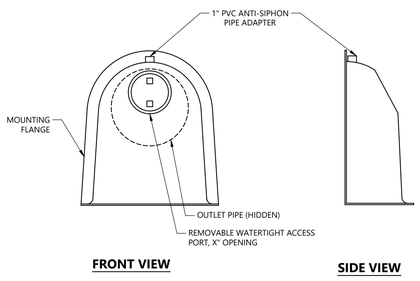

NOTE:
MANHOLE CHANNELS REQUIRING CHANGE OF ALIGNMENT, TO BE BUILT ON SMOOTH RADIUS. IF SIDE PIPES ENTER, CHANNEL TO BE SHAPED TO RECEIVE ADDED SIDE FLOW.

NOTE:
JOINTS SHALL BE STAGGERED FOR EACH COURSE

*NOTE:
FOR ALL CROSS COUNTRY MANHOLES (LAWN AREAS), USE PAM REXUS MANHOLE COVERS BY CERTAINTEED.

## 6 4' DIA. PRECAST CONCRETE MANHOLE

SCALE: NTS




**FRONT VIEW**

**SIDE VIEW**

| CONFIGURATION DETAIL | |
|---|---|
| **PIPE SIZE (I.D.)** | **SNOUT MODEL REQUIRED** |
| 12" | 18R |
| 15" | 18R |
| 18" | 24R |
| 24" | 30R |
| 30" | 54R |
| 36" | 54R |
| 42" | 72F |
| 48" | 72F |
| 54" | 96F |
| 60" | 96F |
| 66" | 96F |

F = SQUARE STRUCTURE
R = CIRCULAR STRUCTURE

NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY COMPANY OR PRE-APPROVED EQUAL.
2. SEE MANUFACTURER SPECIFICATIONS FOR MATERIAL, DIMENSIONS AND OTHER REQUIREMENTS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW.
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
5. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
6. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WIN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
7. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE: INSTALLATION INSTRUCTIONS, PVC ANTI-SIPHON VENT PIPE AND ADAPTER, OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING, 3/8" STAINLESS STEEL BOLTS, AND ANCHOR SHIELDS.

## 7 SNOUT OIL-WATER-DEBRIS SEPARATOR

SCALE: NTS

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KEY PLAN



NOTES

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| PROJECT NUMBER | DRAWN BY |
|---|---|
| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

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ISSUED FOR SITE PLAN APPROVAL

SCALE

AS NOTED

DRAWING TITLE

CIVIL DETAILS - 4

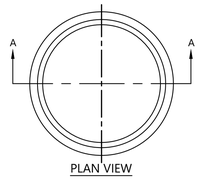
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C-403

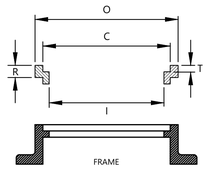
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# GENERAL NOTES FOR MANHOLES AND CATCH BASINS

1. ALL CONCRETE SHALL BE CLASS "A" AND HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
3. ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTED OF BRICK MASONRY, SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
4. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
5. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
6. CONTRACTOR SHALL SUBMIT ANTIFLOATATION CALCULATIONS FOR ALL MANHOLE AND CATCH BASIN STRUCTURES.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION, OFFSET, AND STRUCTURE ID PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED PICK HOLE.
9. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS WITHIN CITY RIGHT-OF-WAY SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
10. WHEN THE FLOW CHANGES DIRECTION IN A MANHOLE, THE CHANNEL ALIGNMENT SHALL FOLLOW A SMOOTH RADIUS. CHANNELS SHALL BE FORMED TO ACCEPT ALL INLET PIPES.
11. ON STORM AND SEWER MANHOLES, THE SHELF AND CHANNEL SHALL BE FORMED BY BRICK SET IN CEMENT MORTAR OR BY FACTORY PRE-CAST CONCRETE. SUCH PRE-CAST CONCRETE SHALL BE EPOXY COATED AND THE SHELF SHALL HAVE A PERMANENT NON-SKID SURFACE.




PLAN VIEW

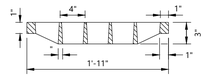



SECTION A-A

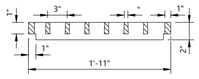
| SIZE | C | R | T | O | I | Wt. |
|---|---|---|---|---|---|---|
| R241 1/2 | 24 | 1 1/2 | 1 1/8 | 26 1/4 | 22 1/2 | 60 |
| R242 | 24 | 2 | 1 1/8 | 26 1/4 | 22 1/2 | 80 |
| R242 1/2 | 24 | 2 1/2 | 1 1/8 | 26 1/4 | 22 | 100 |
| R243 | 24 | 3 | 1 1/8 | 26 1/4 | 22 | 120 |

## 1 MANHOLE RISER RING

SCALE: NTS

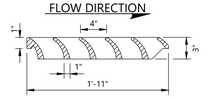



SECTION A-A



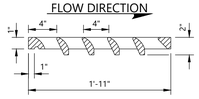

SECTION A-A

FLOW DIRECTION

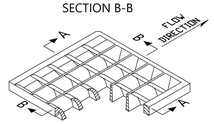


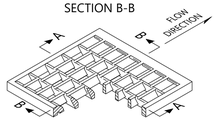

SECTION B-B

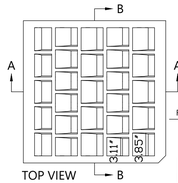
FLOW DIRECTION

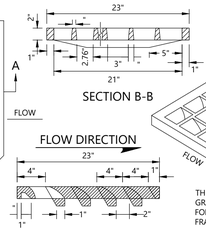



SECTION B-B

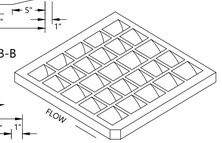



PERSPECTIVE VIEW



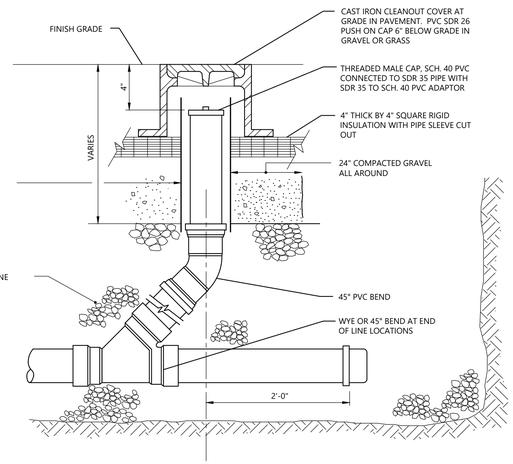

THIS CORNER LEFT OFF FOR "RIGHT" GRATE. DIAGONALLY OPPOSITE CORNER FOR "LEFT" GRATE TO FIT IN KEYED FRAMES.

NOTES:

TO BE USED WHERE PARALLEL BAR GRATES WOULD PRESENT A HAZARD TO BICYCLE TRAFFIC. FOR USE ON CATCH BASIN TYPES: A1-C, A2-C, A5-C, B1-C, B2-C, B5-C, F3-C, F4-C, F5-C, F6-C.

## 2 "CASCADE"-TYPE GRATES

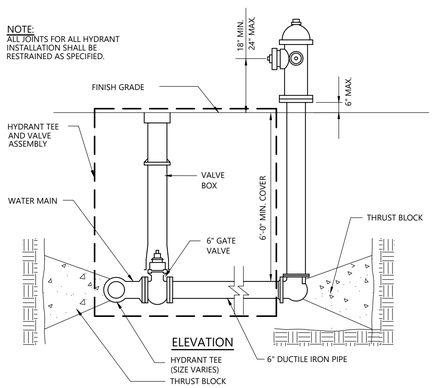
SCALE: NTS




## 5 CLEANOUT

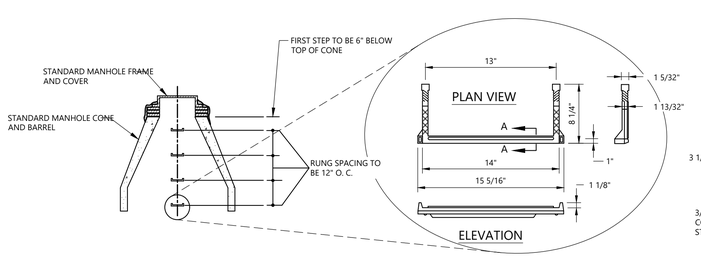
SCALE: NTS

NOTE:
ALL JOINTS FOR ALL HYDRANT INSTALLATION SHALL BE RESTRAINED AS SPECIFIED.



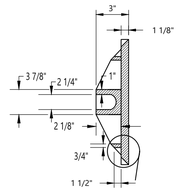

## 6 HYDRANT ASSEMBLY

SCALE: NTS



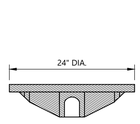

## 3 PLASTIC MANHOLE STEPS

SCALE: NTS



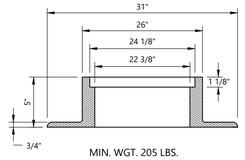

SECTION A - A

COVER




SECTION B - B

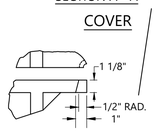
COVER



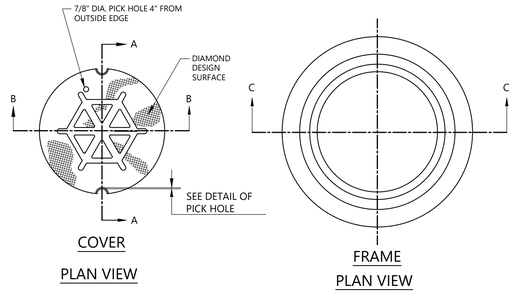

MIN. WGT. 205 LBS.

SECTION C - C

FRAME




PICK HOLE DETAIL




COVER

PLAN VIEW

FRAME

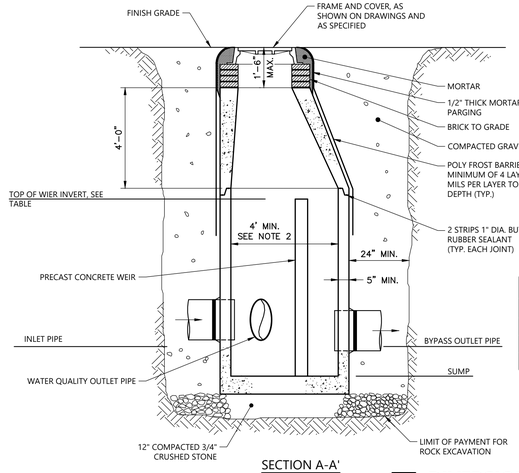
PLAN VIEW

NOTE:

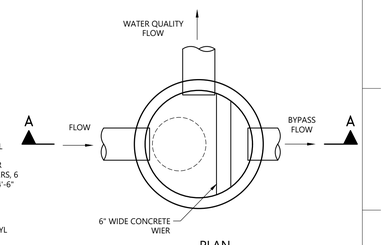
FOR ALL CROSS COUNTRY MANHOLES (LAWN AREAS), USE PAM REXUS MANHOLE COVERS BY CERTAINTEED.

## 4 TYPE "A" CAST IRON MANHOLE COVER AND FRAME

SCALE: NTS




SECTION A-A'




PLAN

| DIVERSION STRUCTURE DIMENSIONS/ ELEVATIONS | |
|---|---|
| LOCATION | TOP OF WEIR B (ELEV) |
| DMH10 (DIV.) | 16.65 |
| DMH28 (DIV.) | 16.45 |
| CB11 (DIV.) | 13.55 |

NOTE:
1. SEE STRUCTURE TABLE FOR DIMENSIONS.
2. CATCH BASINS SHALL BE SIZED SUCH THAT WATER DRAINING THROUGH THE GRATE DRAINS TO WATER QUALITY INVERT AND NOT BYPASS.
3. INLET PIPES SHALL BE ON SAME SIDE OF WEIR AS WATER QUALITY OUTLET PIPE UNLESS OTHERWISE NOTED.

## 7 DIVERSION MANHOLE

SCALE: NTS

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KEY PLAN



NOTES

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| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

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SCALE

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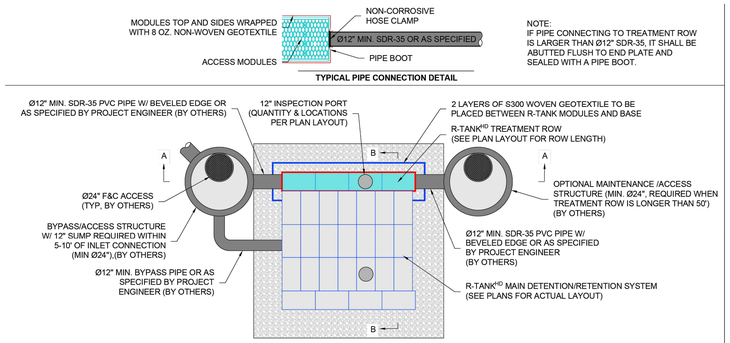
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CIVIL DETAILS -5

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C-404

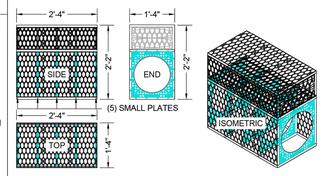
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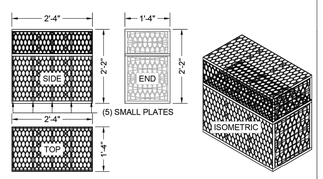



**TYPICAL PIPE CONNECTION DETAIL**

NOTE:
IF PIPE CONNECTING TO TREATMENT ROW IS LARGER THAN Ø12" SDR-35, IT SHALL BE ABUTTED FLUSH TO END PLATE AND SEALED WITH A PIPE BOOT.

**R-TANKHD TREATMENT ROW WITH PRECAST INLET/ACCESS STRUCTURE**



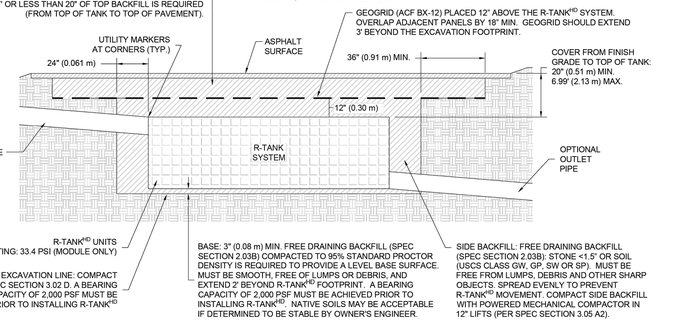




**MODULE DATA**

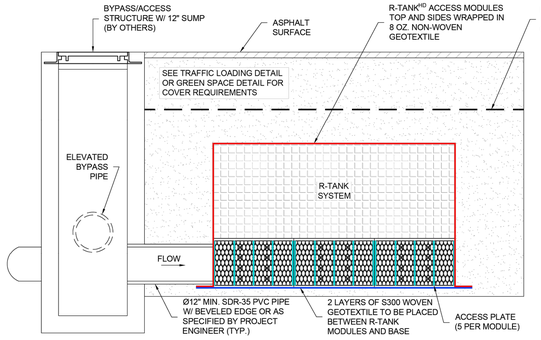
| | |
|---|---|
| **GEOMETRY:** | **LOAD RATING:** |
| LENGTH = 28.15 IN. (715 MM) | 33.4 PSI. (MODULE ONLY) |
| WIDTH = 15.75 IN. (400 MM) | HS20/HS25 - SEE SPEC FOR |
| HEIGHT = 25.98 IN. (660 MM) | COVER REQUIREMENTS |
| TANK VOLUME = 6.67 CF | **MATERIAL:** |
| STORAGE VOLUME = 6.33 CF | 100% RECYCLED POLYPROPYLENE |
| VOID INTERNAL VOLUME: 95% | **SMALL PLATES REQUIRED:** |
| VOID SURFACE AREA: 90% | 5/SEGMENT, 10/MODULE |

TOTAL COVER: 20" MINIMUM AND 84" MAXIMUM. FIRST 12" MUST BE FREE DRAINING BACKFILL (SPEC SECTION 2.03B); STONE <1.5" OR SOIL (USCS CLASS GW, GP, SW OR SP). ADDITIONAL FILL MAY BE STRUCTURAL FILL (SPEC SECTION 2.03C); STONE OR SOIL (USCS CLASS SM, SP, SW, GM, GP OR GW) WITH MAX CLAY CONTENT<10%, MAX 25% PASSING NO. 200 SIEVE, AND MAX PLASTICITY INDEX OF 4. A MIN. 12" COVER MUST BE MAINTAINED BETWEEN BACKFILL EQUIPMENT AND THE TOP OF THE R-TANK™ SYSTEM AT ALL TIMES. TOTAL HEIGHT OF TOP BACKFILL SHOULD NOT EXCEED 7'. CONTACT FERGUSON WATERWORKS IF MORE THAN 7' OR LESS THAN 20" OF TOP BACKFILL IS REQUIRED (FROM TOP OF TANK TO TOP OF PAVEMENT).

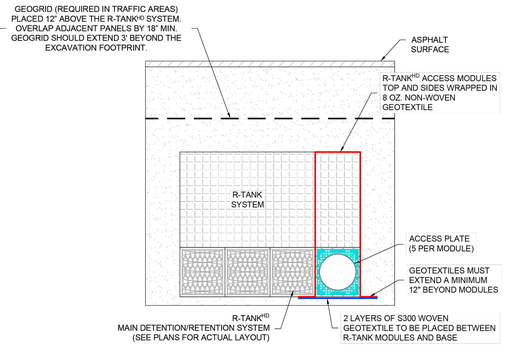
NOTES:
1. FOR COMPLETE MODULE DATA, SEE APPROPRIATE R-TANKHD MODULE SHEET .
2. INSTALLATIONS PER THIS DETAIL MEET GUIDELINES OF HL-93 LOADING PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, CUSTOMARY U.S. UNITS, 7TH EDITION, 2014 WITH 2015 AND 2016 INTERIM REVISIONS.
3. PRE-TREATMENT STRUCTURES NOT SHOWN.
4. FOR INFILTRATION APPLICATIONS, GEOTEXTILE ENVELOPING R-TANK SHALL BE ACF M200 (PER SPEC SECTION 2.02A) AND BASE SHALL BE 4" MIN. UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE. SURFACE MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 2' BEYOND R-TANKHD FOOTPRINT.




**R-TANKHD & HS-20 LOADS - SECTION VIEW**



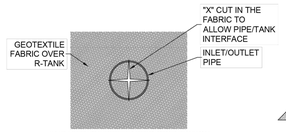

**R-TANKHD TREATMENT ROW SECTION A-A**



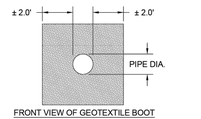

**R-TANKHD TREATMENT ROW SECTION B-B**

NOTE:
- PIPE BOOTS ARE AVAILABLE IN THE FOLLOWING STANDARD SIZES: 8" | 12" | 15" | 18" | 24".
- LARGER SPECIAL ORDER, CUSTOM SIZES ARE AVAILABLE.

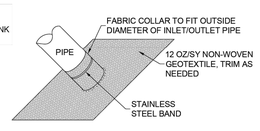
CUT AN "X" IN THE FABRIC ENVELOPE THAT IS SLIGHTLY LARGER THAN THE PIPE. PULL THE FABRIC FLAPS AROUND THE PIPE, AND SEAL WITH A STAINLESS STEEL BAND.




END VIEW OF PIPE/FABRIC CONNECTION

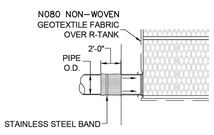



FRONT VIEW OF GEOTEXTILE BOOT

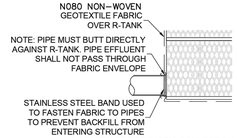



GEOTEXTILE BOOT

AFTER TANK WRAP IS SECURED TO PIPE, SLIDE BOOT AGAINST R-TANK AND SECURE WITH SECOND STAINLESS STEEL BAND, THEN ATTACH BOOT FLAP TO TANK ENVELOPE FABRIC WITH DUCT TAPE OR OTHER ADHESIVE.

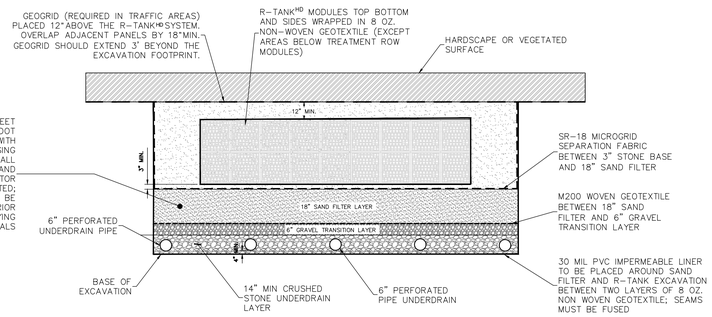



SIDE VIEW OF GEOTEXTILE BOOT




SIDE VIEW OF PIPE/FABRIC CONNECTION

**R-TANK TYPICAL TANK INLET/OUTLET W/ GEOTEXTILE PIPE BOOT DETAIL**



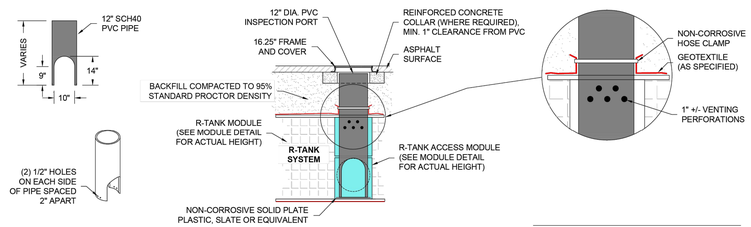

NOTE:

1. SAND FILTER MEDIA SHALL MEET SPECIFICATIONS FOR MEDOT AGGREGATE #703.01, WITH BETWEEN 8-10% FINES PASSING THE #200 SIEVE; MATERIAL SHALL BE INSTALLED IN TWO LIFTS AND COMPACTED TO 92% PROCTOR AND INFILTRATION TESTED; INFILTRATION RATES SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION OF OVERLYING MATERIALS

**1 SUBSURFACE SAND FILTER SECTION**
SCALE: NTS

NOTES

1. THE INSPECTION PORT IS USED IN THE ACCESS MODULE TO INSPECT THE LEVEL OF SEDIMENT ACCUMULATION.
2. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
3. R-TANKHD, R-TANKHD, R-TANKHD AND R-TANKHD MAY BE USED IN TRAFFIC APPLICATIONS.
4. SEE TRAFFIC LOADING DETAIL FOR MINIMUM & MAXIMUM COVER REQUIREMENTS.
5. IF INSPECTION PORT IS LOCATED IN A NON-TRAFFIC AREA, A PLASTIC CAP CAN BE USED IN LIEU OF A FRAME AND COVER WITH CONCRETE COLLAR.




**R-TANK TYPICAL INSPECTION PORT**





# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®

CLIENT
East Brown Cow - Kowtower LLC
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DESIGN ARCHITECT
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100 Properzi Way
Somerville, MA 02143-3740 USA
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ISSUE

| NO. | DESCRIPTION | DATE |
|---|---|---|

KEY PLAN



NOTES

NOT FOR CONSTRUCTION

| PROJECT NUMBER | DRAWN BY |
|---|---|
| 1083.00 | BCM |
| DATE | CHECKED BY |
| AUGUST 2025 | CS |

PHASE

ISSUED FOR SITE PLAN APPROVAL

SCALE

AS NOTED

DRAWING TITLE

CIVIL DETAILS - 6

SHEET NUMBER

C-405

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings, technical specification and general provisions of the Contract as modified herein apply to this section.

1.02 DESCRIPTION OF WORK INCLUDED

A. Provide excavation and base preparation per geotechnical engineer's recommendations and/or as shown on the design drawings, to provide adequate support for project design loads and safety from excavation sidewall collapse. Excavations shall be in accordance with the owner's and OSHA requirements.

B. Provide and install R-TankLID, R-TankHD, R-TankSD, or R-TankUD system (hereafter called R-Tank) and all related products including fill materials, geotextiles, geogrids, inlet and outlet pipe with connections per the manufacturer's installation guidelines provided in this section.

C. Provide and construct the cover of the R-Tank system including; stone backfill, structural fill cover, and pavement section as specified.

D. Protect R-Tank system from construction traffic after installation until completion of all construction activity in the installation area.

1.03 QUALITY CONTROL

A. All materials shall be manufactured in ISO certified facilities.

B. Installation Contractor shall demonstrate the following experience:
1. A minimum of three R-Tank or equivalent projects completed within 2 years; and,
2. A minimum of 25,000 cubic feet of storage volume completed within 2 years.
3. Contractor experience requirement may be waived if the manufacturer's representative provides on-site training and review during construction.

C. Installation Personnel: Performed only by skilled workers with satisfactory record of performance on bulk earthworks, pipe, chamber, or pond/landfill construction projects of comparable size and quality.

D. Contractor must have manufacturer's representative available for site review if requested by Owner.

1.04 SUBMITTALS

A. Submit proposed R-Tank layout drawings. Drawings shall include typical section details as well as the required base elevation of stone and tanks, minimum cover requirements and tank configuration.

B. Submit manufacturer's product data, including compressive strength and unit weight.

C. Submit manufacturer's installation instructions.

D. Submit R-Tank sample for review. Reviewed and accepted samples will be returned to the Contractor.

E. Submit material certificates for geotextile, geogrid, base course and backfill materials.

F. Submit required experience and personnel requirements as specified in Section 1.03.

G. Any proposed equal alternate or product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data that meets or exceeds criteria in Table 2.01 B.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect R-Tank and other materials from damage during delivery, and store UV sensitive materials under tarp to protect from sunlight when time from delivery to installation exceeds two weeks. Storage of materials should be on smooth surfaces, free from dirt, mud and debris.

B. Handling is to be performed with equipment appropriate to the materials and site conditions, and may include hand, handcart, forklifts, extension lifts, etc.

C. Cold weather:
1. Care must be taken when handling plastics when air temperature is 40 degrees or below as plastic becomes brittle.
2. Do not use frozen materials or materials mixed or coated with ice or frost.
3. Do not build on frozen ground or wet, saturated or muddy subgrade.

1.06 PREINSTALLATION CONFERENCE.

A. Prior to the start of the installation, a preinstallation conference shall occur with the representatives from the design team, the general contractor, the excavation contractor, the R-Tank installation contractor, and the manufacturer's representative.

1.07 PROJECT CONDITIONS

A. Coordinate installation for the R-Tank system with other on-site activities to eliminate all non-installation related construction traffic over the completed R-Tank system. No loads heavier than the design loads shall be allowed over the system, and in no case shall loads higher than a standard AASHTO HS20 (or HS25, depending on design criteria) load be allowed on the system at any time.

B. Protect adjacent work from damage during R-Tank system installation.

C. All pre-treatment systems to remove debris and heavy sediments must be in place and functional prior to operation of the R-Tank system. Additional pretreatment measures may be needed if unit is operational during construction due to increased sediment loads.

D. Contractor is responsible for any damage to the system during construction.

PART 2 - PRODUCTS

2.01 R-TANK UNITS

A. R-Tank - Injection molded plastic tank plates assembled to form a 95% void modular structure of predesigned height (custom for each project).

B. R-Tank units shall meet the following Physical & Chemical Characteristics:

| PROPERTY | DESCRIPTION | R-Tank[HD] VALUE | R-Tank[SD] VALUE | R-Tank[HD] VALUE | R-Tank[UD] VALUE |
|---|---|---|---|---|---|
| Void Area | Volume available for water storage | 95% | 95% | 95% | 95% |
| Surface Void Area | Percentage of exterior available for infiltration | 90% | 90% | 90% | 90% |
| Vertical Compressive Strength | ASTM D 2412 / ASTM F 2418 | 30.0 psi | 33.4 psi | 42.9 psi | 134.2 psi |
| Lateral Compressive Strength | ASTM D 2412 / ASTM F 2418 | 20.0 psi | 22.4 psi | 28.9 psi | N/A |
| HS-20 Minimum Cover | Cover required to support HS-20 loads | N/A | 20" | 18" | 12" (STONE BACKFILL) |
| HS-25 Minimum Cover | Cover required to support HS-25 loads | N/A | 24" | 19" | 15" (STONE BACKFILL) |
| Maximum Cover | Maximum allowable cover depth | 3 feet | < 7 feet | < 10 feet | 5 feet |
| Unit Weight | Weight of plastic per cubic foot of tank | 3.29 lbs / cf | 3.62 lbs/cf | 3.96 lbs / cf | 4.33 lbs / cf |
| Rib Thickness | Thickness of load-bearing members | 0.18 inches | 0.18 inches | 0.18 inches | N/A |
| Service Temperature | Safe temperature range for use | -14 – 167° F | -14 – 167° F | -14 – 167° F | -14 – 167° F |

C. Supplier: Ferguson Waterworks 2831 Cardwell Road Richmond, VA 23234 (T): 800-448-3636; (F): 804-743-7779 www.ferguson.com

2.02 GEOSYNTHETICS

A. Geotextile. A geotextile envelope is required to prevent backfill material from entering the R-Tank modules.
1. Standard Application: The standard geotextile shall be an 8 oz per square yard nonwoven geotextile (ACF N080 or equivalent).
2. Infiltration Applications: When water must infiltrate/exfiltrate through the geotextile as a function of the system design, a woven monofilament (ACF M200 or equivalent) shall be used.

B. Geogrid. For installations subject to traffic loads and/or when required by project plans, install geogrid (ACF BX12 or equivalent) to reinforce backfill above the R-Tank system. Geogrid is not always required for R-TankUD installations, and is often not required for non-traffic load applications.

2.03 BACKFILL & COVER MATERIALS

A. Bedding Materials: Stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System) shall be used below the R-Tank system (3" minimum). Material must be free from lumps, debris, and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation. For infiltration applications bedding material shall be free draining.

B. Side and Top Backfill: Material must be free from lumps, debris and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.
1. Traffic Applications - Free draining material shall be used adjacent to (24" minimum) and above (for the first 12") the R-Tank system.
a. For HD, and SD modules, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System).
b. For UD modules with less than 14" of top cover, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter). The use of soil backfill on the sides and top of the UD module is not permitted unless the modules are installed outside of traffic areas or with cover depths of 14" or more. Top backfill material (from top of module to bottom of pavement base or 12" maximum) must be consistent with side backfill.
2. Non-Traffic / Green Space Applications - For all R-Tank modules installed in green spaces and not subjected to vehicular loads, backfill materials may either follow the guidelines for Traffic Applications above, or the top backfill layer (12" minimum) may consist of AASHTO #57 stone blended with 30-40% (by volume) topsoil to aid in establishing vegetation.

C. Additional Cover Materials: Structural Fill shall consist of granular materials meeting the gradational requirements of SM, SP, SW, GM, GP or GW as classified by the Unified Soil Classification System. Structural fill shall have a maximum of 25 percent passing the No. 200 sieve, shall have a maximum clay content of 10 percent and a maximum Plasticity Index of 4. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.

2.04 OTHER MATERIALS

A. Utility Marker: Install metallic tape at corners of R-Tank system to mark the area for future utility detection.

PART 3 - EXECUTION

3.01 ASSEMBLY OF R-TANK UNITS

A. Assembly of modules shall be performed in accordance with the R-Tank Installation Manual, Section 2.

3.02 LAYOUT AND EXCAVATION

A. Installer shall stake out, excavate, and prepare the subgrade area to the required plan grades and dimensions, ensuring that the excavation is at least 2 feet greater than R-Tank dimensions in each direction allowing for installation of geotextile filter fabric, R-Tank modules, and free draining backfill materials.

B. All excavations must be prepared with OSHA approved excavated sides and sufficient working space.

C. Protect partially completed installation against damage from other construction traffic by establishing a perimeter with high visibility construction tape, fencing, barricades, or other means until construction is complete.

D. Base of the excavation shall be uniform, level, and free of lumps or debris and soft or yielding subgrade areas. A minimum 2,000 pounds per square foot bearing capacity is required.
1. Standard Applications: Compact subgrade to a minimum of 95% of Standard Proctor (ASTM D698) density or as required by the Owner's engineer.
2. Infiltration Applications: Subgrade shall be prepared in accordance with the contract documents. Compaction of subgrade should not be performed in infiltration applications.

E. Unsuitable Soils or Conditions: All questions about the base of the excavation shall be directed to the owner's engineer, who will approve the subgrade conditions prior to placement of stone. The owner's engineer shall determine the required bearing capacity of the R-Tank subgrade; however in no case shall a bearing capacity of less than 2,000 pounds per square foot be provided.
1. If unsuitable soils are encountered at the subgrade, or if the subgrade is pumping or appears excessively soft, repair the area in accordance with contract documents and/or as directed by the owner's engineer.
2. If indications of the water table are observed during excavation, the engineer shall be contacted to provide recommendations.
3. Do not start installation of the R-Tank system until unsatisfactory subgrade conditions are corrected and the subgrade conditions are accepted by the owner's engineer.

3.03 PREPARATION OF BASE

A. Place a thin layer (3" unless otherwise specified) of bedding material (Section 2.03 A), over the subgrade to establish a level working platform for the R-Tank modules. Level to within ½" (+/- ¼") or as shown on the plans. Native subgrade soils or other materials may be used if determined to meet the requirements of 2.03 A and are accepted by the owner's engineer.
1. Standard Applications: Static roll or otherwise compact bedding materials until they are firm and unyielding.
2. Infiltration Applications: Bedding materials shall be prepared in accordance with the contract documents.

B. Outline the footprint of the R-Tank system on the excavation floor using spray paint or chalk line to ensure a 2' perimeter is available around the R-Tank system for proper installation and compaction of backfill.

3.04 INSTALLATION OF THE R-TANKS

A. Where a geotextile wrap is specified on the stone base, cut strips to length and install in excavation, removing wrinkles so material lays flat. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags or other ballast to secure overlaps. As geotextiles can be damaged by extreme heat, smoking is not permissible on/near the geotextile, and tools such as a flame to tack the overlaps, such as propane torches, are prohibited.

B. Where an impervious liner (for containment) is specified, install the liner per manufacturer's recommendations and the contract documents. The R-Tank units shall be separated from impervious liner by a non-woven geotextile fabric installed accordance with Section 3.04A.

C. Install R-Tank modules by placing side by side, in accordance with the design drawings. No lateral connections are required. It is advisable to use a string line to form square corners and straight edges along the perimeter of the R-Tank system. The modules are to be oriented as per the design drawing with required depth as shown on plans.
1. For LD, HD, and SD installations, the large side plate of the tank should be placed on the perimeter of the system. This will typically require that the two ends of the tank area will have a row of tanks placed perpendicular to all other tanks. If this is not shown in the construction drawings, it is a simple field adjustment that will have minimal effect on the overall system footprint. Refer to R-Tank Installation Guide for more details
2. For UD installations, there is no perpendicular end row required.

D. Wrap the R-Tank top and sides in specified geotextile. Cut strips of geotextile so that it will cover the sides and top, encapsulating the entire system to prevent backfill entry into the system. Overlap geotextile 12" or as recommended by manufacturer. Take great care to avoid damage to geotextile (and, if specified, impervious liner) during placement.

E. Identify locations of inlet, outlet and any other penetrations of the geotextile (and optional liner). These connections should be installed flush (butted up to the R-Tank) and the geotextile fabric shall be cut to enable hydraulic continuity between the connections and the R-Tank units. These connections shall be secured using pipe boots with stainless steel pipe clamps. Support pipe in trenches during backfill operations to prevent pipe from settling and damaging the geotextile, impervious liner (if specified) or pipe. Connecting pipes at 90 degree angles facilitates construction, unless otherwise specified. Ensure end of pipe is installed snug against R-Tank system.

F. Install Inspection and Maintenance Ports in locations noted on plans. At a minimum one maintenance port shall be installed within 10' of each inlet & outlet connection, and with a maximum spacing of one maintenance port for every 2,500 square feet. Install all ports as noted in the R-Tank Installation Guide.

G. If required, install ventilation pipes and vents as specified on drawings to provide ventilation for proper hydraulic performance. The number of pipes and vents will depend on the size of the system. Vents are often installed using a 90 degree elbow with PVC pipe into a landscaped area with "U" bend or venting bollard to inhibit the ingress of debris. A ground level concrete or steel cover can be used.

3.05 BACKFILLING OF THE R-TANK UNITS

A. Backfill and fill with recommended materials as follows:
1. Place freely draining backfill materials (Section 2.03 B) around the perimeter in lifts with a maximum thickness of 12". Each lift shall be placed around the entire perimeter such that each lift is no more than 24" higher than the side backfill along any other location on the perimeter of the R-Tank system. No fill shall be placed over top of tanks until the side backfill has been completed.
2. Each lift shall be compacted at the specified moisture content to a minimum of 95% of the Standard Proctor Density until no further densification is observed (for self-compacting stone materials). The side lifts must be compacted with walk behind compaction equipment. Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.
3. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank units.
4. No compaction equipment is permissible to operate directly on the R-Tank modules.
5. Top Backfill: Only low pressure track vehicles shall be operated over the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Heavy equipment should unload in an area adjacent to the R-Tank system and the material should be moved over the system using tracked equipment with an operating weight of less than 10 tons.
a. Typical Applications: Install a 12" (or as shown on plans) lift of freely draining material (Section 2.03 B) over the R-Tank Units, maintaining 12" between equipment tracks and R-Tank System. Lightly compacted using a walk-behind trench roller. Alternately, a roller (maximum gross vehicle weight of 6 tons) may be used. Roller must remain in static mode until a minimum of 24" of cover has been placed over the modules. Sheep foot rollers should not be used.
b. Shallow Applications (< 18" total cover): Install top backfill in accordance with plans.
6. If required, install a geogrid as shown on plans. Geogrid shall extend a minimum of 3 feet beyond the limits of the excavation wall.
7. Following placement and compaction of the initial cover, subsequent lifts of structural fill (Section 2.03 C) shall be placed at the specified moisture content and compacted to a minimum of 95% of the Standard Proctor Density and shall cover the entire footprint of the R-Tank system. During placement of fill above the system, unless otherwise specified, a uniform elevation of fill shall be maintained to within 12" across the footprint of the R-Tank system. Do not exceed maximum cover depths listed in Table 2.01 B.
8. Place additional layers of geotextile and/or geogrid at elevations as specified in the design details. Each layer of geosynthetic reinforcement placed above the R-Tank system shall extend a minimum of 3 feet beyond the limits of the excavation wall.

B. Ensure that all unrelated construction traffic is kept away from the limits of excavation until the project is complete and final surface materials are in place. No non-installation related loading should be allowed over the R-Tank system until the final design section has been constructed (including pavement).

C. Place surfacing materials, such as groundcovers (no large trees), or paving materials over the structure with care to avoid displacement of cover fill and damage to surrounding areas.

D. Backfill depth over R-Tank system must be within the limitations shown in the table in Section 2.01 B. If the total backfill depth does not comply with this table, contact engineer or manufacturer's representative for assistance.

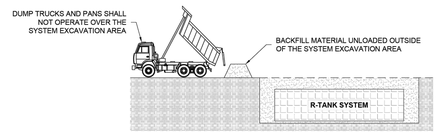
3.06 MAINTENANCE REQUIREMENTS

A. A routine maintenance effort is required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on pretreatment systems. Ensuring these structures are clean and functioning properly will reduce the risk of contamination of the R-Tank system and stormwater released from the site. Pre-treatment systems shall be inspected yearly, or as directed by the regulatory agency and by the manufacturer (for proprietary systems). Maintain as needed using acceptable practices or following manufacturer's guidelines (for proprietary systems).

B. All inlet pipes and Inspection and/or Maintenance Ports in the R-Tank system will need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter.

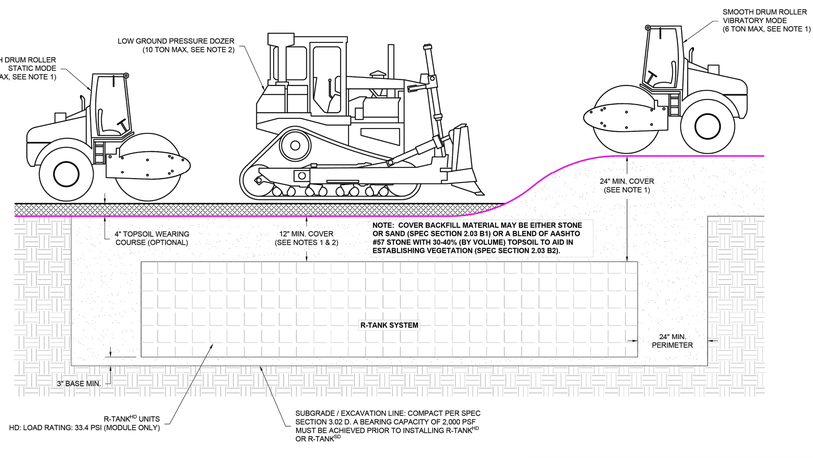
C. If sediment has accumulated to the level noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.

D. All inspection and maintenance activities should be performed in accordance with the R-Tank Operation, Inspection & Maintenance Manual.




DUMP TRUCK DETAIL (SEE NOTE 3)

NOTES:
1. FOLLOWING PLACEMENT OF SIDE BACKFILL, A UNIFORM 12" LIFT OF THE FREELY DRAINING MATERIAL (SPEC SECTION 2.03 B2) SHALL BE PLACED OVER THE R-TANK AND LIGHTLY COMPACTED USING A WALK-BEHIND TRENCH ROLLER. ALTERNATELY, A ROLLER (MAXIMUM GROSS VEHICLE WEIGHT OF 6 TONS) MAY BE USED. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. **SPEC SECTION 3.05 A5**
2. ONLY LOW PRESSURE TIRE OR TRACK VEHICLES (LESS THAN 7 PSI AND OPERATING WEIGHT OF LESS THAN 20,000 LBS) SHALL BE OPERATED OVER THE R-TANK SYSTEM DURING CONSTRUCTION. **SPEC SECTION 3.05 A5**
3. DUMP TRUCKS AND PANS SHALL NOT BE OPERATED WITHIN THE R-TANK SYSTEM AT ANY TIME. WHERE NECESSARY, THE HEAVY EQUIPMENT SHOULD UNLOAD IN AN AREA ADJACENT TO THE R-TANK SYSTEM AND THE MATERIAL SHOULD BE MOVED OVER THE SYSTEM WITH TRACKED EQUIPMENT. **SPEC SECTION 3.05 A5**
4. ENSURE THAT ALL UNRELATED CONSTRUCTION TRAFFIC IS KEPT AWAY FROM THE LIMITS OF EXCAVATION UNTIL THE PROJECT IS COMPLETE AND FINAL SURFACE MATERIALS ARE IN PLACE. NO NON-INSTALLATION RELATED LOADING SHOULD BE ALLOWED OVER THE R-TANK SYSTEM UNTIL THE FINAL DESIGN SECTION HAS BEEN CONSTRUCTED (INCLUDING PAVEMENT). **SPEC SECTION 3.05 B**
5. SEE R-TANK INSTALLATION GUIDE OR CONTACT YOUR LOCAL FERGUSON REPRESENTATIVE FOR ADDITIONAL INFORMATION.




CONSTRUCTION EQUIPMENT COVER DETAIL - GREEN SPACE

# R-TANK SPECIFICATION

# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®

CLIENT
East Brown Cow - Kowtower LLC
100 Commercial Street, Suite 300, Portland, Maine, 04101

DESIGN ARCHITECT
Safdie Architects, LLC
100 Properzi Way
Somerville, MA 02143-3740 USA
T 617.629.2100 F 617.629.2406

CIVIL ENGINEERING
Woodard & Curran
12 Mountfort Street
Portland, ME 04101 USA
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CODE CONSULTANT
ARUP
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Boston, MA 02109 USA
T 617.864.2987

STRUCTURAL ENGINEERING
ARUP
77 Water Street
New York, NY 10005 USA
T 212.896.3000

MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION
Cosentini
101 Federal Street, 6th Floor
Boston, MA 02110 USA
T 617.748.7800

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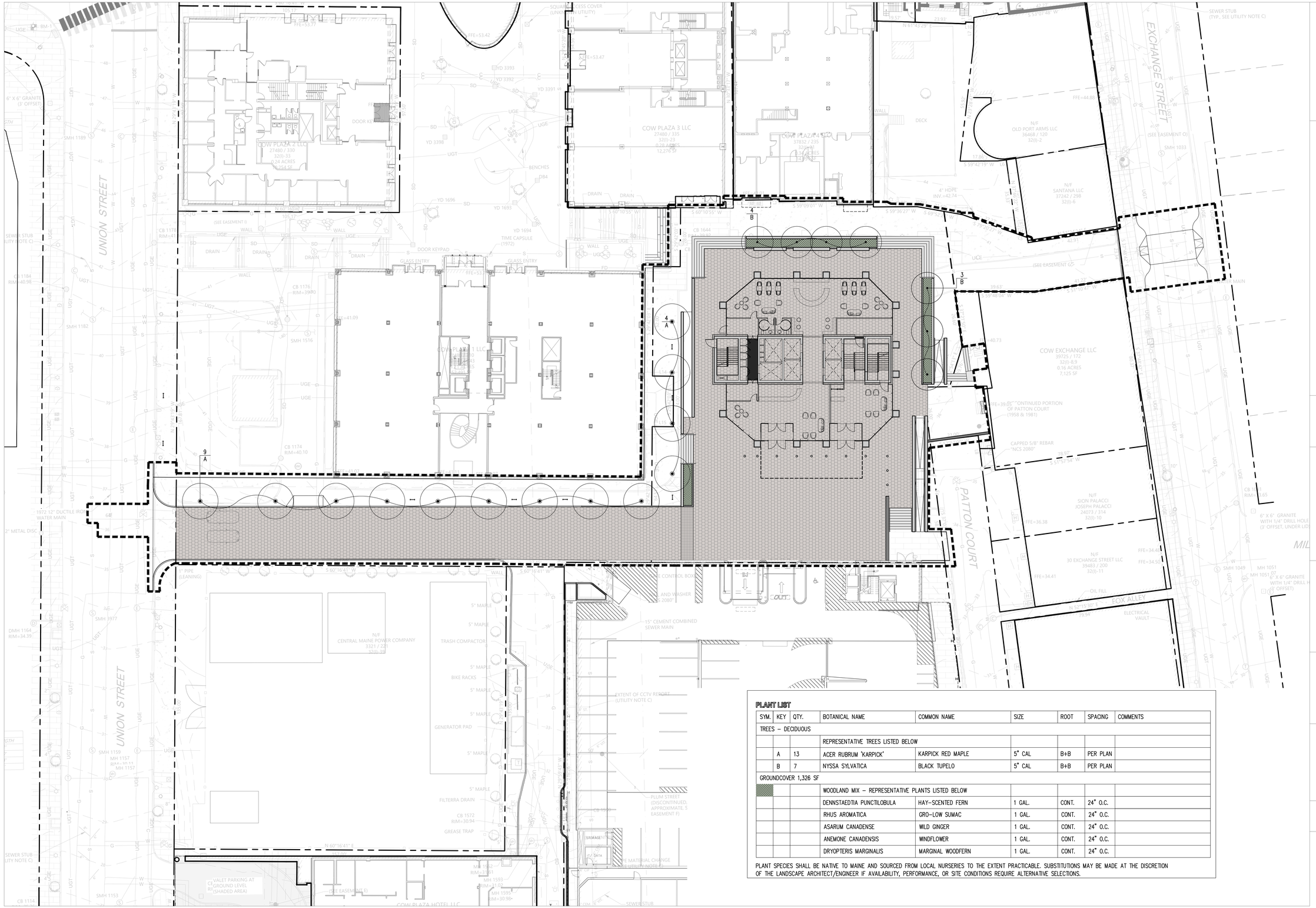


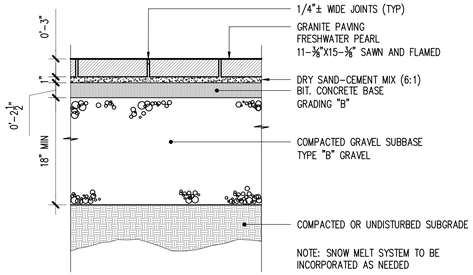
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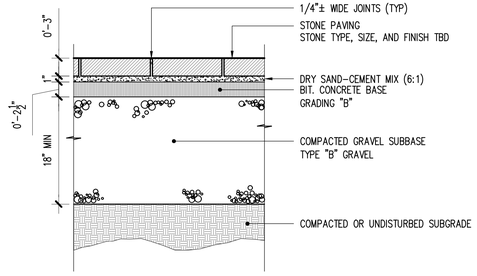
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DATE AUGUST 2025
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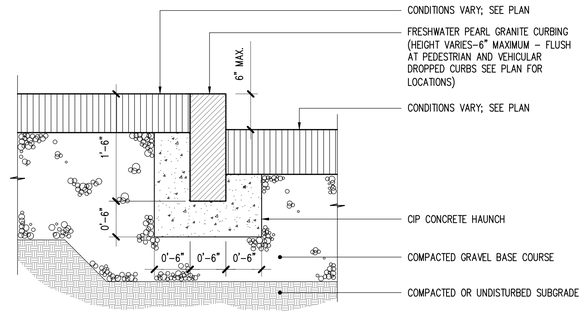

UNION STREET
EXCHANGE STREET
PATTON COURT
FOX ALLEY
COW PLAZA 2 LLC
27480 / 330
320(-33
0.24 ACRES
9,944 SF
COW PLAZA 3 LLC
27480 / 335
320(-23
0.28 ACRES
12,270 SF
COW PLAZA 4 LLC
37832 / 235
320(-1
0.14 ACRES
COW EXCHANGE LLC
39725 / 172
320(-8.9
0.16 ACRES
7,125 SF
N/F
OLD PORT ARMS LLC
36468 / 120
320(-2
N/F
SANTANA LLC
37242 / 298
320(-6
N/F
SION PALACCI
JOSEPH PALACCI
24073 / 314
320(-10
N/F
30 EXCHANGE STREET LLC
39483 / 200
320(-11
N/F
CENTRAL MAINE POWER COMPANY
3321 / 221
320(-33
COW PLAZA HOTEL LLC
VALET PARKING AT GROUND LEVEL (SHADED AREA)
TRASH COMPACTOR
GENERATOR PAD
BIKE RACKS
FILTERRA DRAIN
GREASE TRAP
TIME CAPSULE (1972)
DOOR KEYPAD
GLASS ENTRY
BENCHES
DECK
OIL FILL
ELECTRICAL VAULT
4" HDPE INV.=42.74
15" CEMENT COMBINED SEWER MAIN
EXTENT OF CCTV REPORT (UTILITY NOTE C)
PLUM STREET (DISCONTINUED, APPROXIMATE, SEE EASEMENT F)
CAPPED 5/8" REBAR "NCS 2080"
"CONTINUED PORTION OF PATTON COURT (1958 & 1981)
1972 12" DUCTILE IRON WATER MAIN
SEWER STUB (TYP., SEE UTILITY NOTE C)
SEWER MAIN
6" X 6" GRANITE (3' OFFSET)
6" X 6" GRANITE WITH 1/4" DRILL HOLE (3' OFFSET, UNDER LID)
2" METAL DISC
1" PIPE (LEANING)
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SMH 1182
SMH 1516
SMH 3977
SMH 1159
SMH 1157
SMH 1153
SMH 1033
SMH 1049
MH 1051
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1 GRANITE PAVING
1"=1'



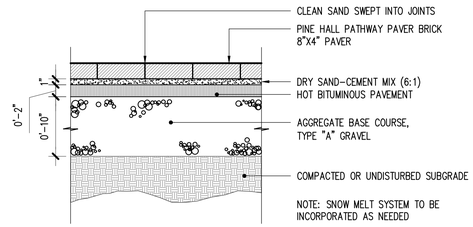

2 STONE PAVING (A AND B)
1"=1'




3 STONE CURB
1"=1'

**MATERIAL SPECIFICATIONS**

| | MATERIAL | PRODUCT | FINISH / PATTERN | |
|---|---|---|---|---|
|  | BRICK | PER CITY OF PORTLAND STANDARDS, 4"X8" PINE HALL PATHWAY PAVER BRICK | COLOR: FULL RANGE | |
|  | GRANITE CURB | PER CITY OF PORTLAND STANDARDS | PER CITY OF PORTLAND STANDARDS | |
|  | GRANITE PAVING, STEPS & WALL VENEER | FRESHWATER PEARL, FRESHWATER STONE | SAWN AND FLAMED | SOLAR REFLECTANCE: 0.45 WHILE THE FABRICATOR DOES NOT HAVE TEST RESULTS FOR THE SPECIFIED GRANITE'S THERMAL EMITTANCE, GRANITE OF A SIMILAR COLOR AND COMPOSITION HAS A THERMAL EMITTANCE OF .90 RESULTING IN SRI OF 49.6 |




4 BRICK PAVING
1"=1'

# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®

CLIENT
East Brown Cow - Kowtower LLC
100 Commercial Street, Suite 300, Portland, Maine, 04101

DESIGN ARCHITECT
Saldie Architects, LLC
100 Properzi Way
Somerville, MA 02143-3740 USA
T 617.629.2100 F 617.629.2406

CIVIL ENGINEERING
Woodard & Curran
12 Mountfort Street
Portland, ME 04101 USA
T 800.426.4262

LANDSCAPE ARCHITECT
M B L A
98 Maine St, Suite 7
Brunswick, ME 04011 USA
T 207.865.1080 x7044

CODE CONSULTANT
ARUP
60 State Street
Boston, MA 02109 USA
T 617.864.2987

STRUCTURAL ENGINEERING
ARUP
77 Water Street
New York, NY 10005 USA
T 212.896.3000

MECHANICAL, ELECTRICAL, PLUMBING,
FIRE PROTECTION
Cosentini
101 Federal Street, 6th Floor
Boston, MA 02110 USA
T 617.748.7800

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ISSUE

| NO. | DESCRIPTION | DATE |
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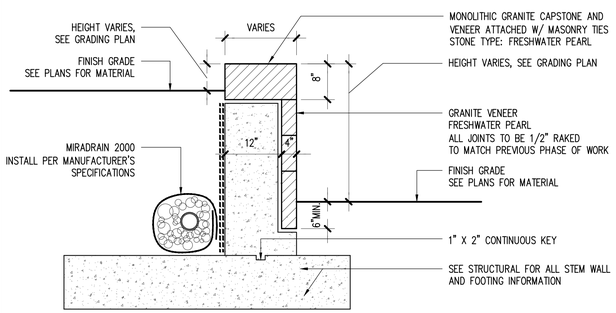
KEY PLAN



NOTES

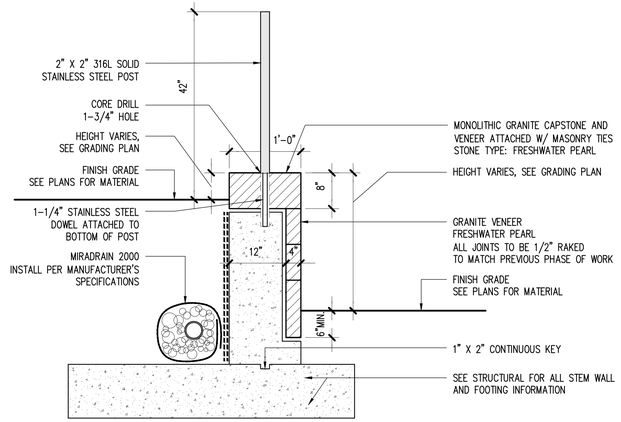
NOT FOR CONSTRUCTION

PROJECT NUMBER 1083.00
DRAWN BY LW
DATE OCTOBER 8, 2025
CHECKED BY JP
PHASE ISSUED FOR SITE PLAN APPROVAL
SCALE SEE DETAIL
DRAWING TITLE PAVING DETAILS
SHEET NUMBER L 5.0



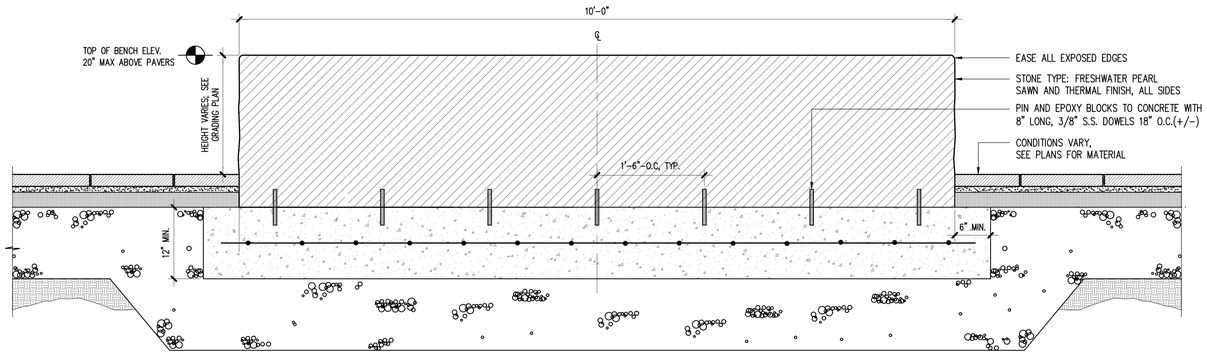

1 STONE VENEER RETAINING WALL

3/4" = 1'

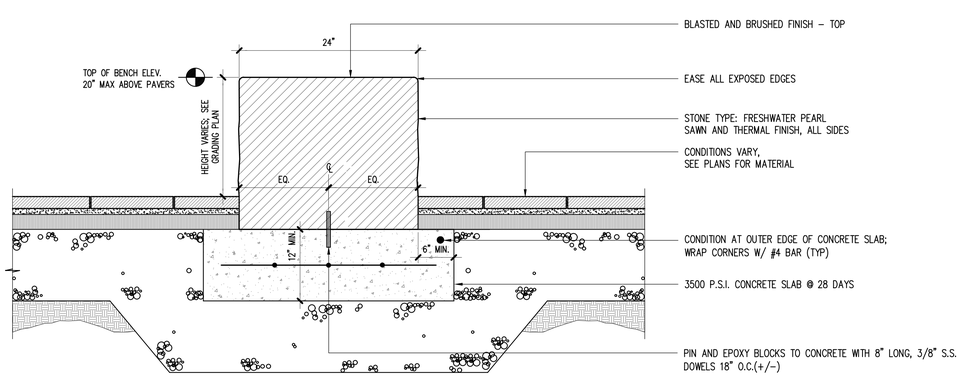



2 STONE VENEER RETAINING WALL WITH HAND RAIL

3/4" = 1'

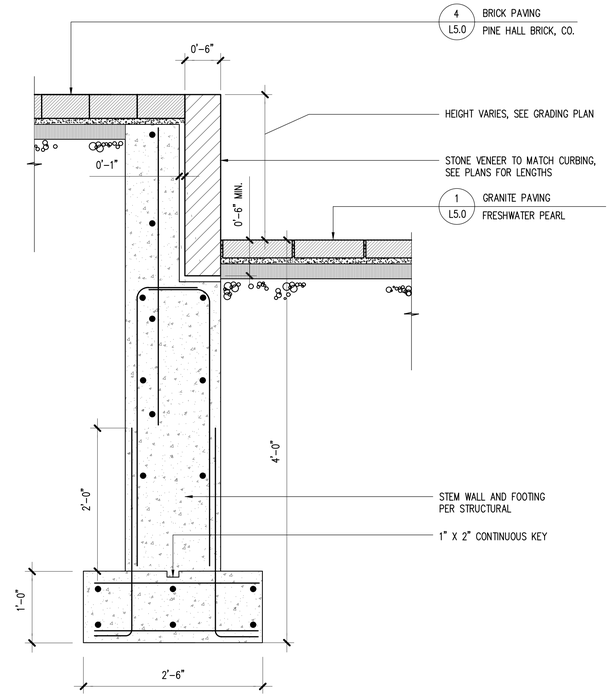



NOTES:
1. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
2. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.




3 STONE BENCH

1"=1'




4 STONE CURB WALL

1"=1'

# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®

CLIENT
East Brown Cow - Kowtower LLC
100 Commercial Street, Suite 300, Portland, Maine, 04101

DESIGN ARCHITECT
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T 617.629.2100 F 617.629.2406

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Woodard & Curran
12 Mountfort Street
Portland, ME 04101 USA
T 800.426.4262

LANDSCAPE ARCHITECT
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Brunswick, ME 04011 USA
T 207.865.1080 x7044

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T 212.896.3000

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Cosentini
101 Federal Street, 6th Floor
Boston, MA 02110 USA
T 617.748.7800

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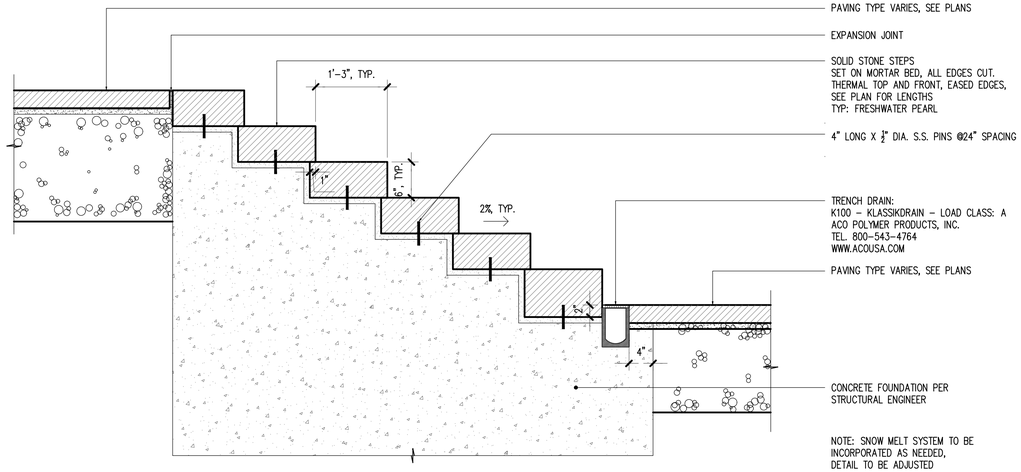
SEE DETAIL

DRAWING TITLE

SITE DETAILS

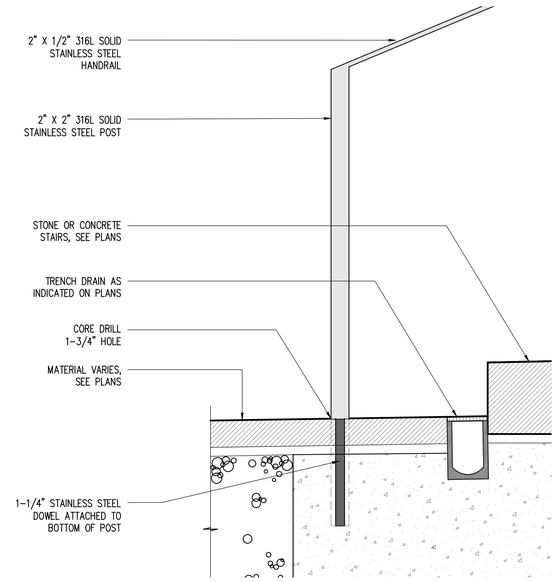
SHEET NUMBER

L 5.1



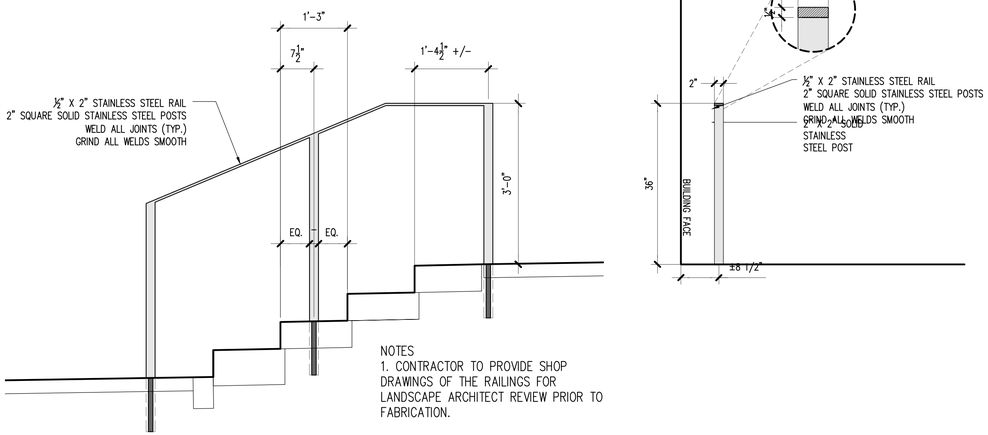

## 1 STONE STEPS

1" = 1'



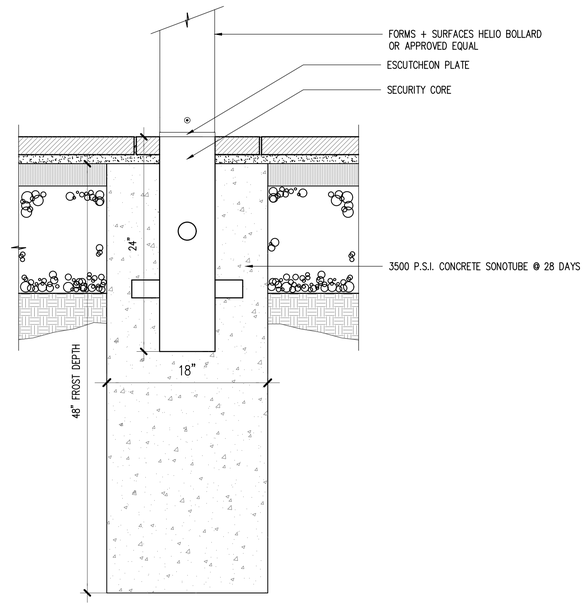

## 2 STEEL HANDRAIL ATTACHMENT

1 1/2" = 1'




## 3 STEEL HANDRAILS

3/4" = 1'




## 4 VEHICULAR SECURITY BOLLARD

1-1/2" = 1'-0"

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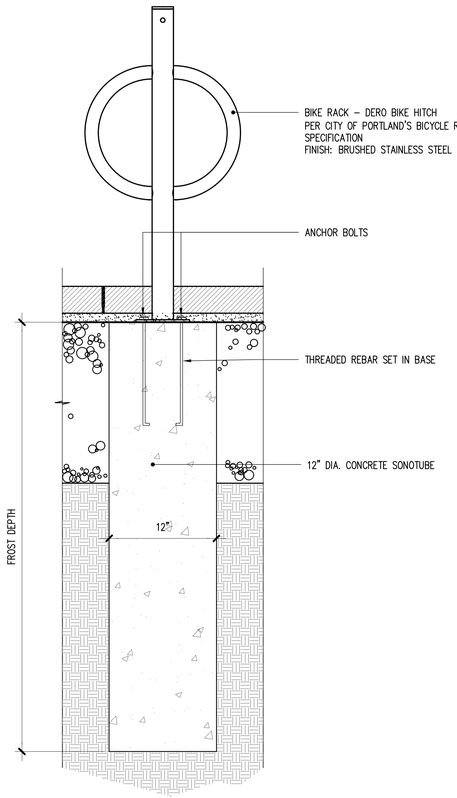
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SITE DETAILS

SHEET NUMBER

L 5.2




2 BIKE RACK

1–1/2" = 1'–0"

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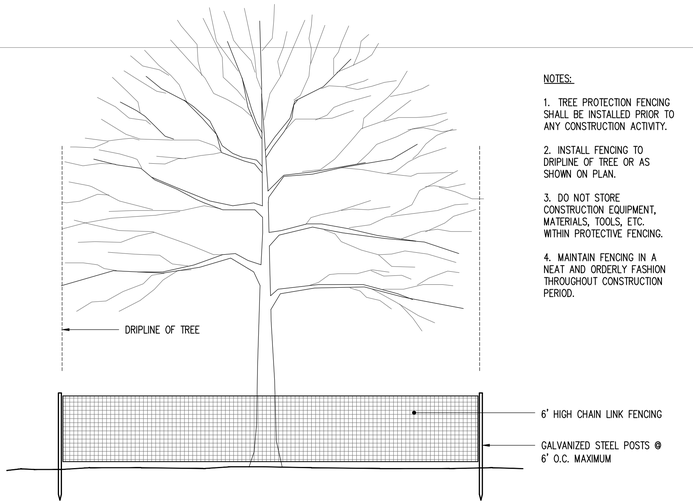
SEE DETAIL

DRAWING TITLE

SITE FURNISHING

SHEET NUMBER

L 5.3

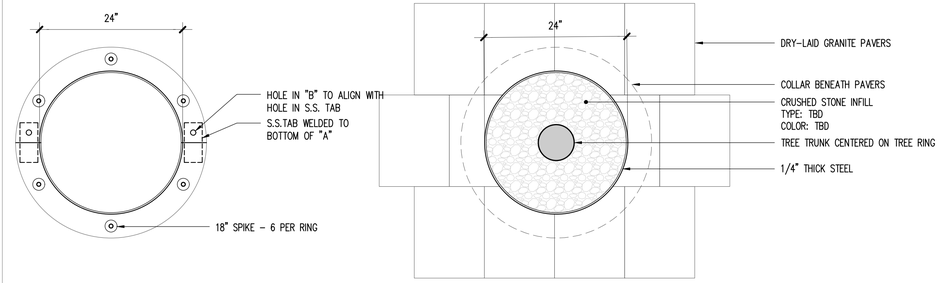


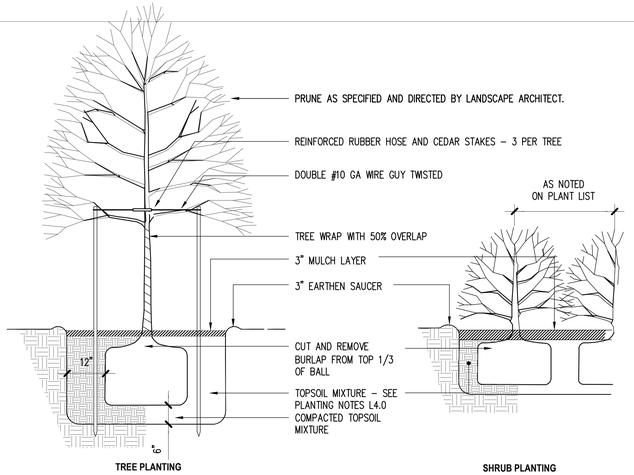

NOTES:

1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
2. INSTALL FENCING TO DRIPLINE OF TREE OR AS SHOWN ON PLAN.
3. DO NOT STORE CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, ETC. WITHIN PROTECTIVE FENCING.
4. MAINTAIN FENCING IN A NEAT AND ORDERLY FASHION THROUGHOUT CONSTRUCTION PERIOD.

## 1 TREE PROTECTION

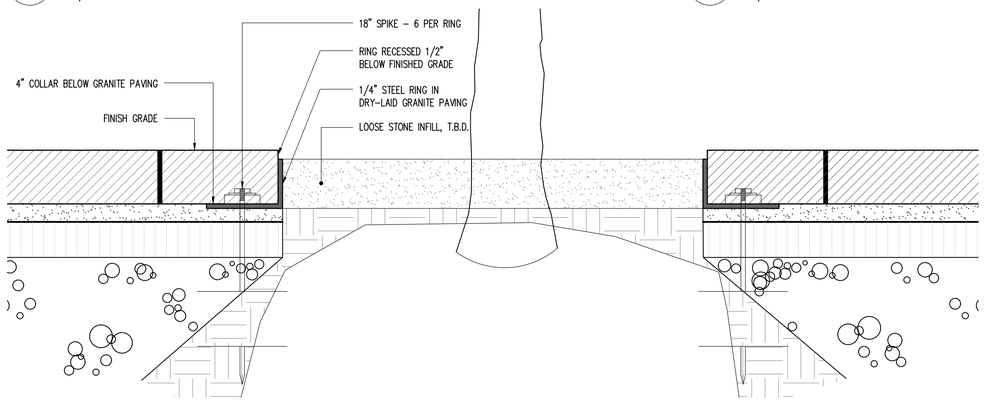
3/4"=1'

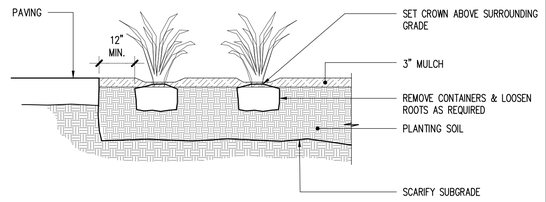



## 2 TREE AND SHRUB PLANTING IN PLANTER

3/4"=1'



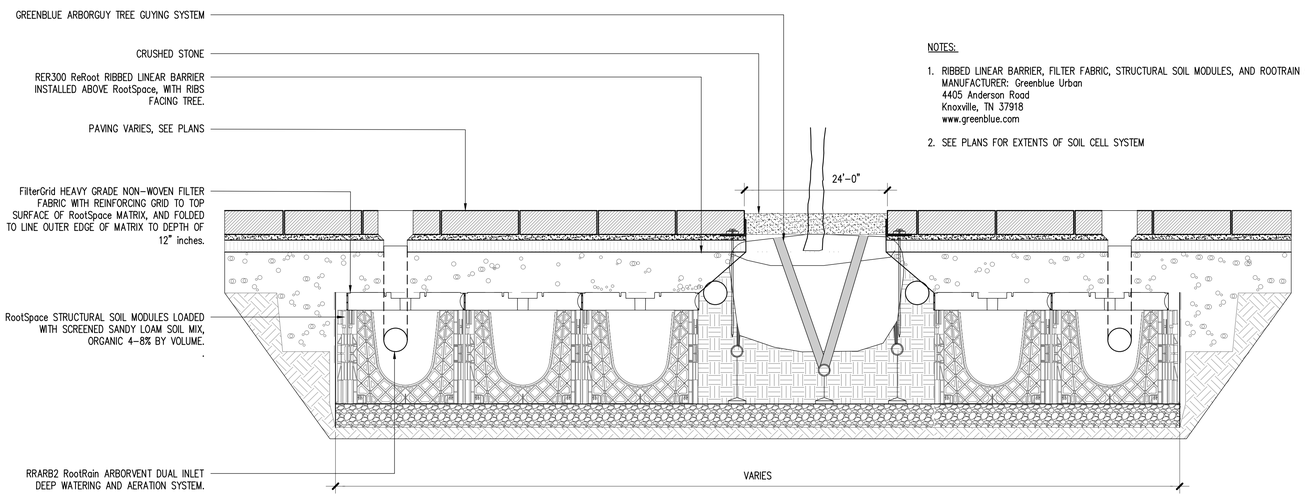




## 3 GROUNDCOVER PLANTING

1/2" = 1'

## 4 TREE RING ALIGNMENT

3" = 1'




NOTES:

1. RIBBED LINEAR BARRIER, FILTER FABRIC, STRUCTURAL SOIL MODULES, AND ROOTRAIN ARBORVENT:
   MANUFACTURER: Greenblue Urban
   4405 Anderson Road
   Knoxville, TN 37918
   www.greenblue.com
2. SEE PLANS FOR EXTENTS OF SOIL CELL SYSTEM

## 5 TREE RING INSTALLATION

3" = 1'

## 6 SOIL CELL SYSTEM

1"=1'

# 45 Union Street

45 Union Street, Portland, Maine

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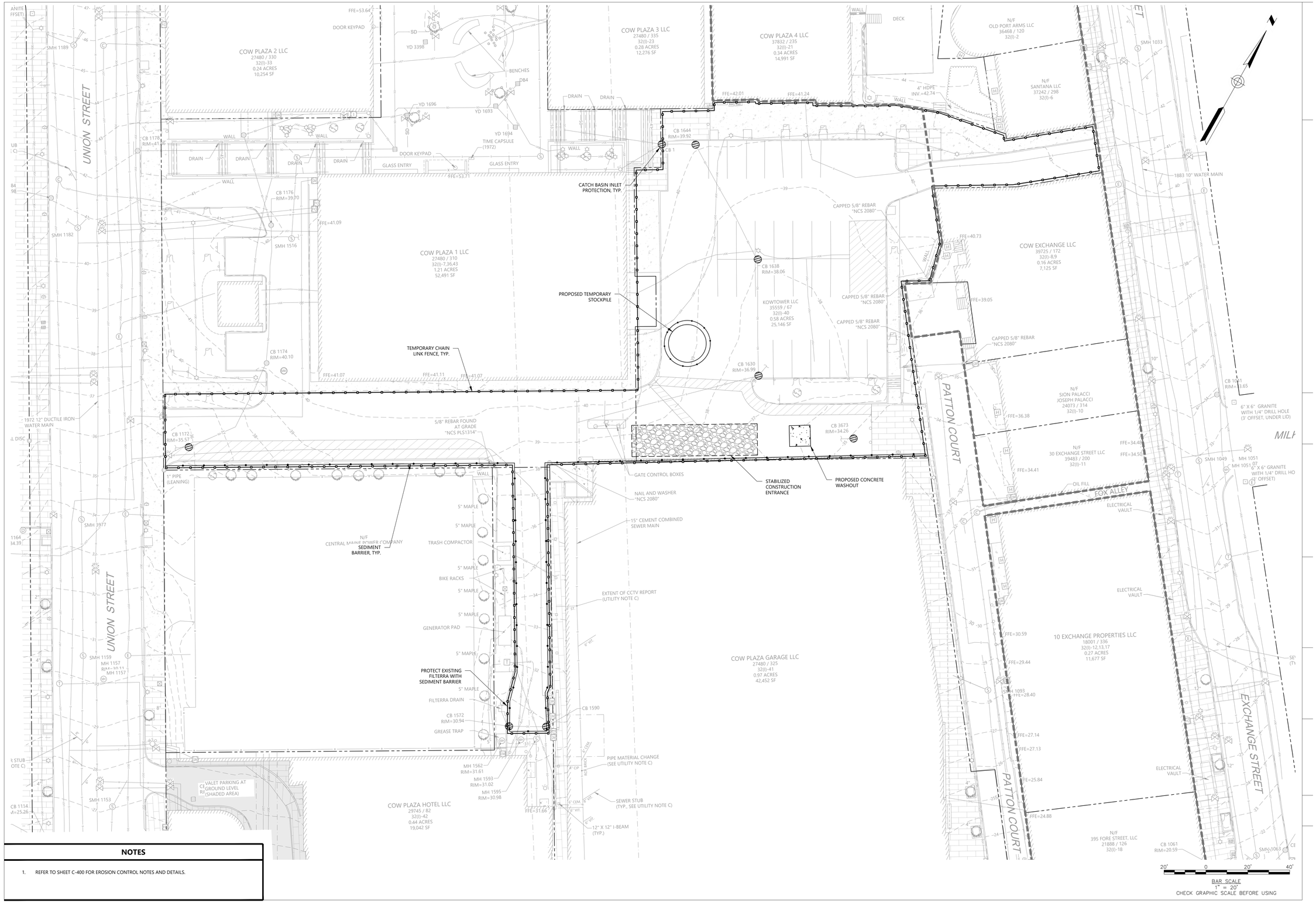
SEE DETAIL

DRAWING TITLE

PLANTING DETAILS

SHEET NUMBER

L 5.4




## NOTES

1. REFER TO SHEET C-400 FOR EROSION CONTROL NOTES AND DETAILS.

3/13/2025 9:54:17 AM

# 45 Union Street

45 Union Street, Portland, Maine

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SCALE

1" = 20'

DRAWING TITLE

EROSION & SEDIMENTATION CONTROL PLAN

SHEET NUMBER

C-002


UNION STREET
FORE STREET
EXCHANGE STREET
PATTON COURT
FOX ALLEY
COW PLAZA 2 LLC
27480 / 330
32()-33
0.24 ACRES
10,254 SF
COW PLAZA 3 LLC
27480 / 335
32()-23
0.28 ACRES
12,276 SF
COW PLAZA 4 LLC
37832 / 235
32()-21
0.34 ACRES
14,991 SF
COW PLAZA 1 LLC
27480 / 310
32()-7,36,43
1.21 ACRES
52,491 SF
COW PLAZA GARAGE LLC
27480 / 325
32()-41
0.97 ACRES
42,452 SF
COW PLAZA HOTEL LLC
29745 / 82
32()-42
0.44 ACRES
19,042 SF
COW EXCHANGE LLC
39725 / 172
32()-8,9
0.16 ACRES
7,125 SF
KOWTOWER LLC
35559 / 67
32()-40
0.58 ACRES
25,146 SF
10 EXCHANGE PROPERTIES LLC
18001 / 336
32()-12,13,17
0.27 ACRES
11,677 SF
PROPOSED BUILDING
45 UNION STREET
5,900 SF
FFE=38.70
4" PVC SANITARY SEWER (KITCHEN WASTE)
INV OUT: 32.00
6" PVC SANITARY SEWER SERVICE
INV OUT: 32.00
CONNECTION TO FIRSTLIGHT THROUGH THREE CANAL PLAZA BUILDING; COORDINATED WORK WITH UTILITY
SUBSURFACE TRANSFORMER VAULT, SEE NOTE 4
ELECTRICAL DUCT BANK AND ASSOCIATED SIDEWALK REPAIR N.I.C., SEE NOTE 4
PUBLIC HYDRANT AT DRIVEWAY ENTRANCE, LOCATION TO BE COORDINATED WITH CITY FIRE DEPARTMENT AND PWD
ELECTRIC MANHOLE #1000.3, SEE NOTE 4; WORK TO BE COORDINATED WITH CMP
SECONDARY ELECTRICAL VAULT, SEE NOTE 4
ELECTRIC MANHOLE #1000.2, SEE NOTE 4; WORK TO BE COORDINATED WITH CMP
WYE INTO EXISTING COMBINED SEWER MAIN INV: 29.50 SEE NOTE 5
GAS METER; COORDINATE METER LOCATION AND WORK WITH UNTIL
SMH RIM: 38.40 6" INV IN: 30.20 6" INV OUT: 30.10
SMH RIM: 40.85 SEE NOTE 6
SMH RIM: 40.80 SEE NOTE 6 CONNECT EXISTING SERVICE TO MANHOLE
TELECOMM. MANHOLE
SMH RIM: 40.85 SEE NOTE 6 CONNECT EXISTING SERVICE TO MANHOLE
CONNECT TO EXISTING 10" WATER MAIN; COORDINATE WORK WITH PWD
CONSOLIDATED COMMUNICATIONS SERVICE CONNECTION; COORDINATE WORK WITH UTILITY
GREASE INTERCEPTOR 1,000 GALLON (SHIER GB-1000 OR APPROVED EQUAL) RIM: 38.10 4" INV IN: 31.82 4" INV OUT: 31.65
SMH RIM: 38.10 6" INV IN (N): 31.60 4" INV IN (E): 31.60 6" INV OUT (W): 31.50
STORMWATER TREATMENT SYSTEM, SEE SHEET C-300
ELECTRIC MANHOLE #1000.1, SEE NOTE 4
TRANSFORMERS FOR PROPOSED BUILDING
GENERATOR PAD
GATE CONTROL BOXES
15" CEMENT COMBINED SEWER MAIN
EXTENT OF CCTV REPORT (UTILITY NOTE C)
PLUM STREET (DISCONTINUED, LOCATION APPROXIMATE, SEE EASEMENT F)
PIPE MATERIAL CHANGE (SEE UTILITY NOTE C)
SEWER STUB (TYP., SEE UTILITY NOTE C)
12" X 12" I-BEAM (TYP.)
DISCONTINUED PORTION OF PATTON COURT (1958 & 1981)
CONDOMINIUM DECLARATION (SEE EASEMENT N)
1972 12" DUCTILE IRON WATER MAIN
CONNECT TO EXISTING 12" WATER MAIN; COORDINATE WORK WITH PWD
D.I. GATE VALVE, TYP.
N/F CENTRAL MAINE POWER COMPANY 3321 / 221 32()-39
N/F OLD PORT ARMS LLC 36468 / 120 32()-2
N/F SANTANA LLC 37242 / 298 32()-6
N/F SION PALACCI JOSEPH PALACCI 24073 / 314 32()-10
N/F 30 EXCHANGE STREET LLC 39483 / 200 32()-11
SMH 1189
SMH 1182
SMH 1516
SMH 1033
SMH 3977
SMH 1159
MH 1157
MH 1157
SMH 1049
MH 1051
MH 1051
SMH 1093
CB 1178 RIM=41.61
CB 1176 RIM=39.70
CB 1174 RIM=40.10
CB 1177 RIM=36.57
CB 1590
CB 1572 RIM=30.94
CB 1573 RIM=34.26
CB 1061 RIM=35.65
MH 1562 RIM=31.61
MH 1593 RIM=31.02
MH 1595 RIM=30.98
DOOR KEYPAD
BENCHES
TIME CAPSULE (1972)
GLASS ENTRY
TRASH COMPACTOR
BIKE RACKS
FILTERRA DRAIN
GREASE TRAP
5" MAPLE
DECK
WALL
DRAIN
SD
YD 3393
YD 3392
YD 3391
YD 3398
YD 1696
YD 1693
YD 1694
(SEE EASEMENT I)
(SEE EASEMENT G)
(SEE EASEMENT M)
(SEE EASEMENT E)
EASEMENT B
EXISTING UTILITY ROOM
NEW ELEC ROOM
SUITE 103
SUITE 102
OIL FILL
ELECTRICAL VAULT
4" HDPE INV=42.74
6" WATER MAIN
SEWE (TYP.
N 60°10'55" W 105.17'
S 60°10'55" W 53.86'
S 59°09'01" W 27.47'
S 59°36'27" W 27.47'
S 60°16'41" W 157.00'
N 60°16'41" E 157.00'
S 59°42'19" W 17.86'
S 59°48'04" W 39.63'
S 51°10'41" W 41.22'
S 52°32'59" W 33.00'
S 51°57'54" W 78.97'
S 53°41'44" W 81.87'
N 29°45'42" W 32.00'
S 29°45'42" E 32.00'
N 27°27'47" W 55.92'
N 52°15'50" E 79.94'
S 37°00'00" W 143.33'
N 37°00'00" E 143.33'
S 29°45'42" E 88.37'
N 29°45'42" W 88.37'
N 60°16'41" W 135.00'
S 60°16'41" W 135.00'
N 29°45'42" W 135.00'
N 60°16'41" W 135.00'
N 29°45'42" W 135.00'
N 27°27'47" W 59.50'
N 29°45'42" W 59.50'
N 60°16'41




45 Union Street site plan within larger Old Port Square area.
Information outside of site plan boundary included for reference purposes only.

## LEGEND

LIMIT OF WORK

**BIKE RACKS**

EXISTING

43 BIKE RACK CAPACITY

TOTAL

43 EXISTING BIKE PARKING SPOTS

PROPOSED

NOTE: REQUIREMENT OF MINIMUM OF 10% OF TOTAL NUMBER OF BIKE PARKING SPACES BEING NO MORE THAN 50 FEET FROM BUILDING ENTRANCE BEFORE COUNTS

6 BIKE RACK CAPACITY – LESS THAN 50' FROM BUILDING ENTRANCE

6 BIKE RACK CAPACITY – ON SITE OR RELATED–PARTY PROPERTY

48 BIKE RACK CAPACITY – PUBLIC SIDEWALK/RIGHT OF WAY

TOTAL

60 PROPOSED BIKE PARKING SPOTS

# 45 Union Street

45 Union Street, Portland, Maine

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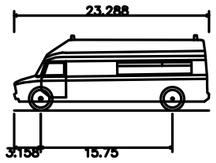
| NO. | DESCRIPTION | DATE |
|---|---|---|

KEY PLAN

NOTES

NOT FOR CONSTRUCTION

PROJECT NUMBER 1083.00
DRAWN BY LW
DATE OCTOBER 8, 2025
CHECKED BY JP
PHASE ISSUED FOR SITE PLAN APPROVAL
SCALE NTS
DRAWING TITLE BIKE RACK LOCATIONS
SHEET NUMBER L 2.0




| Horton 453 Type I Ford E-Series Ambulance | |
|---|---|
| Overall Length | 23.288f |
| Overall Width | 8.021ft |
| Overall Body Height | 9.000ft |
| Min Body Ground Clearance | 1.075ft |
| Track Width | 8.021ft |
| Lock-to-lock time | 5.00s |
| Curb to Curb Turning Radius | 27.400f |




40' 0 40' 80'

BAR SCALE
1" = 40'
CHECK GRAPHIC SCALE BEFORE USING

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PE SEAL:

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CLIENT INFO:

EAST BROWN COW
PORTLAND, MAINE

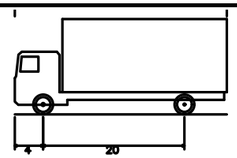
45 UNION STREET

| | |
|---|---|
| JOB NO: | 0232191.08 |
| DATE: | AUGUST 2025 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ANG |
| DRAWN BY: | BCM |
| CHECKED BY: | CS |
| FILENAME: | 0232191.08 VEHICLE*.dwg |

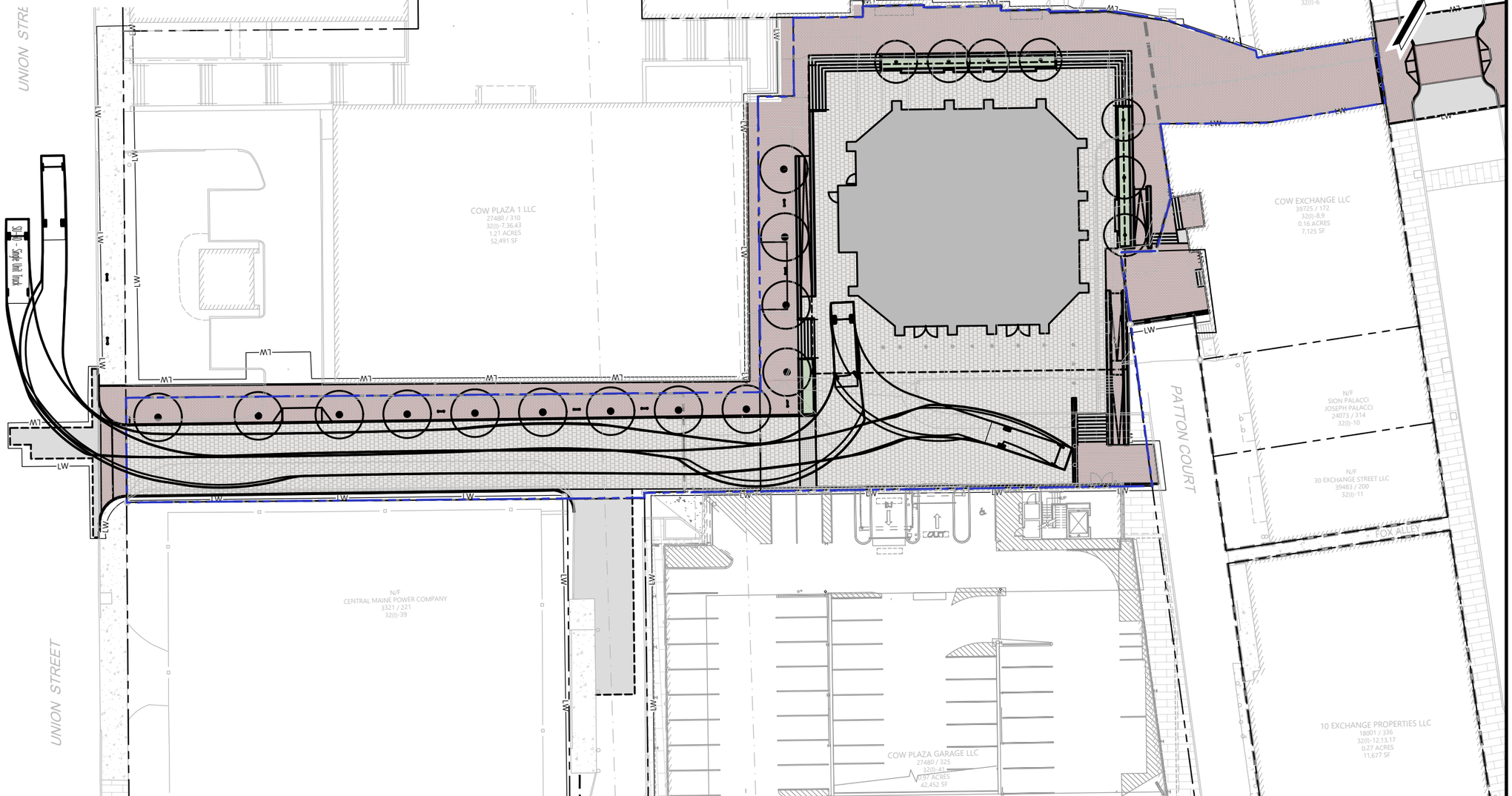
DRAWING TITLE:
**VEHICLE MOVEMENTS AMBULANCE**

DRAWING NO:
**C-3**

\\woodardcurran.net\shared\Projects\0232191.08 Kowtower LLC Kowtower Hotel\wip\Drawings\Civil\0232191.08 Vehicle Figs.dwg, Oct 08, 2025 - 4:18pm BMCDEVITT




| SU-30 – Single Unit Truck | |
|---|---|
| Overall Length | 30.000f |
| Overall Width | 8.000ft |
| Overall Body Height | 13.500fl |
| Min Body Ground Clearance | 1.367ft |
| Track Width | 8.000ft |
| Lock-to-lock time | 5.00s |
| Max Steering Angle (Virtual) | 31.80° |




40' 0 40' 80'

BAR SCALE
1" = 40'
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CLIENT INFO:

EAST BROWN COW - KOWTOWER LLC
PORTLAND, MAINE

45 UNION STREET

| | |
|---|---|
| JOB NO: | 0232191.08 |
| DATE: | AUGUST 2025 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ANG |
| DRAWN BY: | BCM |
| CHECKED BY: | CS |
| FILENAME: | 0232191.08 VEHICLE*.dwg |

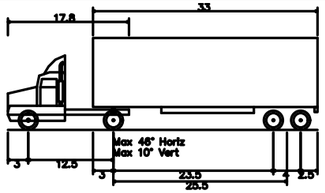
DRAWING TITLE:

**VEHICLE MOVEMENTS SU-30 TURNAROUND BY GARAGE**

DRAWING NO:

**C-4**

\\woodardcurran.net\shared\Projects\0232191.08 Kowtower LLC Kowtower Hotel\wip\Drawings\Civil\0232191.08 Vehicle Figs.dwg, Oct 08, 2025 - 4:19pm BMCDEVITT




WB-40 – Intermediate Semi-Trailer

| | |
|---|---|
| Overall Length | 45.499ft |
| Overall Width | 8.000ft |
| Overall Body Height | 13.500ft |
| Min Body Ground Clearance | 1.334ft |
| Track Width | 8.000ft |
| Lock-to-lock time | 4.00s |
| Max Steering Angle (Virtual) | 20.30° |




BAR SCALE
1" = 40'
CHECK GRAPHIC SCALE BEFORE USING

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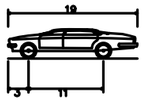
45 UNION STREET

| | |
|---|---|
| JOB NO: | 0232191.08 |
| DATE: | AUGUST 2025 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ANG |
| DRAWN BY: | BCM |
| CHECKED BY: | CS |
| FILENAME: | 0232191.08 VEHICLE*.dwg |

DRAWING TITLE:
**VEHICLE MOVEMENTS**
**WB-40**

DRAWING NO:
**C-5**

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P – Passenger Car

| | |
|---|---|
| Overall Length | 19.000ft |
| Overall Width | 7.000ft |
| Overall Body Height | 4.300ft |
| Min Body Ground Clearance | 1.115ft |
| Track Width | 6.000ft |
| Lock-to-lock time | 4.00s |
| Max Steering Angle (Virtual) | 31.60° |




BAR SCALE
1" = 40'
CHECK GRAPHIC SCALE BEFORE USING

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CLIENT INFO:

EAST BROWN COW - KOWTOWER LLC
PORTLAND, MAINE

45 UNION STREET

| | |
|---|---|
| JOB NO: | 0232191.08 |
| DATE: | AUGUST 2025 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ANG |
| DRAWN BY: | BCM |
| CHECKED BY: | CS |
| FILENAME: | 0232191.08 VEHICLE*.dwg |

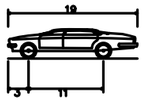
DRAWING TITLE:

**VEHICLE MOVEMENTS PASSENGER VEHICLE - 1A**

DRAWING NO:

**C-1A**

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P – Passenger Car

| | |
|---|---|
| Overall Length | 19.000ft |
| Overall Width | 7.000ft |
| Overall Body Height | 4.300ft |
| Min Body Ground Clearance | 1.115ft |
| Track Width | 6.000ft |
| Lock-to-lock time | 4.00s |
| Max Steering Angle (Virtual) | 31.60° |




BAR SCALE
1" = 40'
CHECK GRAPHIC SCALE BEFORE USING

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PORTLAND, MAINE

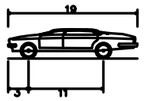
45 UNION STREET

| | |
|---|---|
| JOB NO: | 0232191.08 |
| DATE: | AUGUST 2025 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ANG |
| DRAWN BY: | BCM |
| CHECKED BY: | CS |
| FILENAME: | 0232191.08 VEHICLE*.dwg |

DRAWING TITLE:
**VEHICLE MOVEMENTS PASSENGER VEHICLE - 1B**

DRAWING NO:
**C-1B**

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P – Passenger Car

| | |
|---|---|
| Overall Length | 19.000ft |
| Overall Width | 7.000ft |
| Overall Body Height | 4.300ft |
| Min Body Ground Clearance | 1.115ft |
| Track Width | 6.000ft |
| Lock-to-lock time | 4.00s |
| Max Steering Angle (Virtual) | 31.60° |




BAR SCALE
1" = 40'
CHECK GRAPHIC SCALE BEFORE USING

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PORTLAND, MAINE

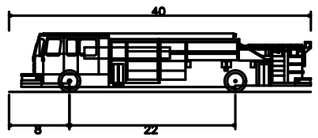
45 UNION STREET

| | |
|---|---|
| JOB NO: | 0232191.08 |
| DATE: | AUGUST 2025 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ANG |
| DRAWN BY: | BCM |
| CHECKED BY: | CS |
| FILENAME: | 0232191.08 VEHICLE*.dwg |

DRAWING TITLE:
**VEHICLE MOVEMENTS PASSENGER VEHICLE - 1C**

DRAWING NO:
**C-1C**

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| Pumper Fire Truck | |
|---|---|
| Overall Length | 40.000ft |
| Overall Width | 8.167ft |
| Overall Body Height | 7.745ft |
| Min Body Ground Clearance | 0.656ft |
| Track Width | 8.167ft |
| Lock-to-lock time | 5.00s |
| Max Wheel Angle | 45.00° |

UNION STREET

COW PLAZA 3 LLC
27480 / 335
32(I)-23
0.28 ACRES
12,276 SF

COW PLAZA 4 LLC
37832 / 235
32(I)-21
0.34 ACRES
14,991 SF

N/F
OLD PORT ARMS LLC
36468 / 120
32(I)-2

N/F
SANTANA LLC
37242 / 298
32(I)-6

EXCHANGE STREET

COW PLAZA 1 LLC
27480 / 310
32(I)-7,36,43
1.21 ACRES
52,491 SF

COW EXCHANGE LLC
39725 / 172
32(I)-8,9
0.16 ACRES
7,125 SF

PATTON COURT

N/F
SION PALACCI
JOSEPH PALACCI
24073 / 314
32(I)-10

N/F
30 EXCHANGE STREET LLC
39483 / 200
32(I)-11

FOX ALLEY

N/F
CENTRAL MAINE POWER COMPANY
3321 / 221
32(I)-39

UNION STREET

COW PLAZA GARAGE LLC
27480 / 325

10 EXCHANGE PROPERTIES LLC
18001 / 336
32(I)-12,13,17
0.27 ACRES
11,677 SF

40' 0 40' 80'

BAR SCALE
1" = 40'
CHECK GRAPHIC SCALE BEFORE USING

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CLIENT INFO:

EAST BROWN COW - KOWTOWER LLC
PORTLAND, MAINE

45 UNION STREET

| | |
|---|---|
| JOB NO: | 0232191.08 |
| DATE: | AUGUST 2025 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ANG |
| DRAWN BY: | BCM |
| CHECKED BY: | CS |
| FILENAME: | 0232191.08 VEHICLE*.dwg |

DRAWING TITLE:
**VEHICLE MOVEMENTS FIRE TRUCK**

DRAWING NO:
**C-2**

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**Material Legend**

| Key Value | Keynote Text | | | | |
|---|---|---|---|---|---|
| 1 | Metallic Equipment Screen | 5 | Glass Railing | 9 | Exterior Wall Panels |
| 2 | Mass Timber Roof Trellis | 6 | Metallic Mechanical Louvers | | |
| 3 | Low Reflectivity Glass with High Performance Coatings | 7 | Concrete Column | | |
| 4 | Metallic Screen | 8 | Canopy with Metallic Finish | | |




1 NORTH-ELEVATION
3/64" = 1'-0"

2 EAST-ELEVATION
3/64" = 1'-0"

3 SOUTH-ELEVATION
3/64" = 1'-0"

4 WEST-ELEVATION
3/64" = 1'-0"

# 45 Union Street

45 Union Street, Portland, Maine

EAST BROWN COW®


CLIENT
**East Brown Cow - Kowtower LLC**
100 Commercial Street, Suite 300, Portland, Maine, 04101

DESIGN ARCHITECT
**Safdie Architects, LLC**
100 Properzi Way
Somerville, MA 02143-3740 USA
T 617.629.2100 F 617.629.2406

CIVIL ENGINEERING
**Woodard & Curran**
12 Mountfort Street
Portland, ME 04101 USA
T 800.426.4262

LANDSCAPE ARCHITECT
**Michael Boucher Landscape Architecture**
457 US Route 1 Suite 2
Freeport, ME 04032 USA
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CODE CONSULTANT
**ARUP**
60 State Street
Boston, MA 02109 USA
T 617.864.2987

STRUCTURAL ENGINEERING
**ARUP**
77 Water Street
New York, NY 10005 USA
T 212.896.3000

MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION
**Cosentini**
101 Federal Street, 6th Floor
Boston, MA 02110 USA
T 617.748.7800



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ISSUE

| NO. | DESCRIPTION | DATE |
|---|---|---|
| | | |

KEY PLAN



NOTES

NOT FOR CONSTRUCTION

| PROJECT NUMBER | DRAWN BY |
|---|---|
| 1083.00 | |
| DATE | CHECKED BY |
| 10/03/25 | |

PHASE
SCHEMATIC DESIGN

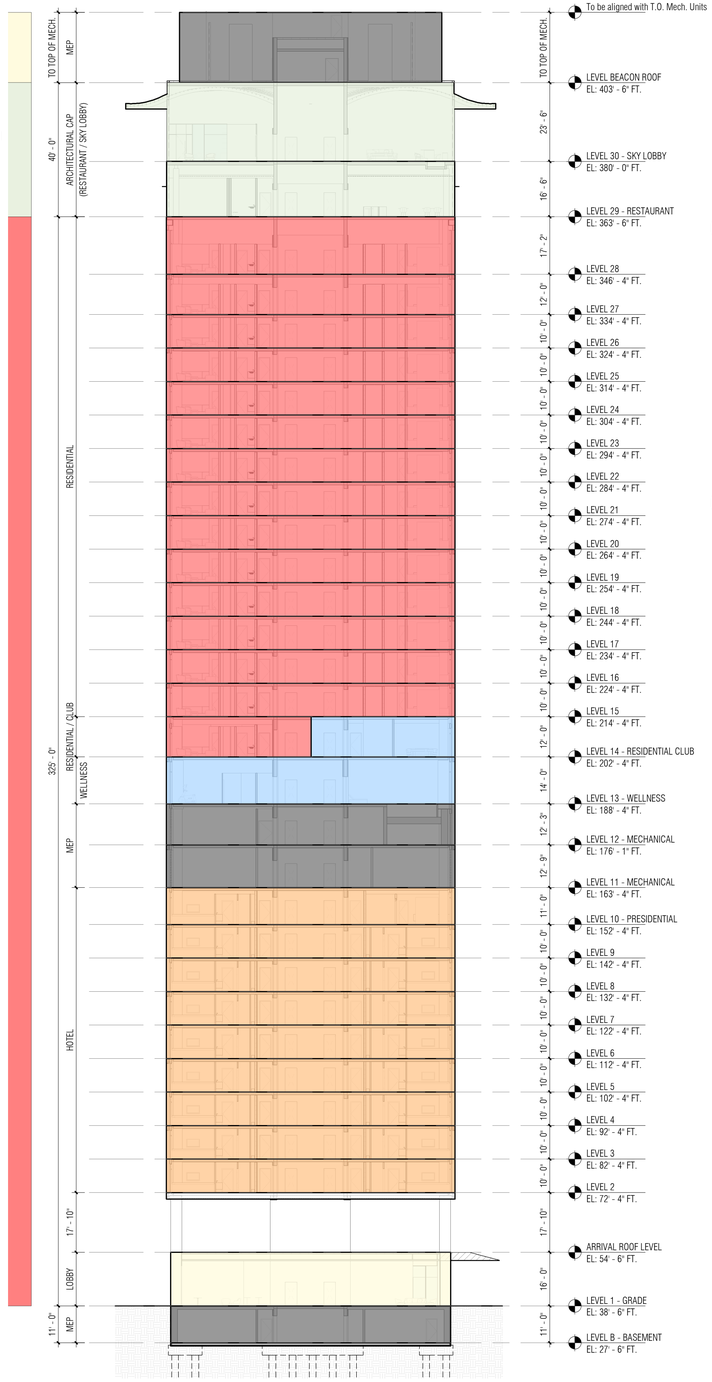
SCALE
As indicated

DRAWING TITLE
OVERALL ELEVATIONS

SHEET NUMBER
A40.03

10/6/2025 2:47:35 PM

# OVERALL PROGRAM AND UNIT CALCULATIONS




6 NS OVERALL SECTION - PROGRAM

3/64" = 1'-0"

| RESIDENTIAL UNIT NET AREA | |
|---|---|
| Name | Area |
| JR RESIDENTIAL UNIT | 7,715 SF |
| 2 BR RESIDENTIAL UNIT | 33,129 SF |
| 1.5 BR RESIDENTIAL UNIT | 12,950 SF |
| 1 BR RESIDENTIAL UNIT | 10,198 SF |
| TOTAL RESIDENTIAL NET AREA | 63,992 SF |

5 RESIDENTIAL UNIT NET AREA

| HOTEL UNIT NET AREA | |
|---|---|
| Name | Area |
| LOCK OFF | 806 SF |
| 2 QUEEN BD ROOM | 10,447 SF |
| 1 KING BD ROOM | 8,362 SF |
| 1 KING BD PRESIDENTIAL SUITE | 1,482 SF |
| 1 KING BD CORNER SUITE | 5,643 SF |
| 1 KING BD CORNER ROOM | 10,761 SF |
| TOTAL HOTEL NET AREA | 37,501 SF |

4 HOTEL UNIT NET AREA

| AMENITY NET AREA | |
|---|---|
| Name | Area |
| LEVEL 30 - SKY LOBBY | |
| RECEPTION / LOUNGE | 1,309 SF |
| RESTROOM | 263 SF |
| SERVICE LOBBY | 109 SF |
| SKY BAR | 3,271 SF |
| LEVEL 29 - RESTAURANT | |
| KITCHEN | 1,292 SF |
| RESTAURANT | 3,401 SF |
| RESTROOM | 235 SF |
| SERVICE LOBBY | 109 SF |
| LEVEL 14 - RESIDENTIAL CLUB | |
| BOH / SERVICES | 145 SF |
| CLUB LOBBY | 291 SF |
| GREAT ROOM | 533 SF |
| OPEN KITCHEN | 525 SF |
| PRIVATE DINNING | 262 SF |
| RESTROOM | 105 SF |
| SECRET GARDEN | 576 SF |
| SERVICE LOBBY | 109 SF |
| LEVEL 13 - WELLNESS | |
| BOH / SERVICES | 287 SF |
| FITNESS | 1,020 SF |
| LOCKER ROOM | 212 SF |
| POOL | 2,307 SF |
| RESTROOM | 403 SF |
| SERVICE LOBBY | 109 SF |
| TREATMENT | 155 SF |
| WELLNESS RECEPTION | 121 SF |
| LEVEL 1 - GRADE | |
| CAFE | 1,495 SF |
| HOTEL LOBBY | 1,194 SF |
| LUGGAGE STORAGE | 115 SF |
| MAIL ROOM | 197 SF |
| RESIDENTIAL LOBBY | 799 SF |
| RESTROOM | 109 SF |
| SERVICE ENTRY | 112 SF |
| SERVICE LOBBY | 109 SF |
| TOTAL AMENITY NET AREA | 21,282 SF |

3 AMENITY NET AREA

| RESIDENTIAL UNIT COUNT | |
|---|---|
| Name | Count |
| LEVEL 28 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 27 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 26 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 25 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 24 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 23 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 22 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 21 | |
| 1 BR RESIDENTIAL UNIT | 1 |

| RESIDENTIAL UNIT COUNT | |
|---|---|
| Name | Count |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 20 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 19 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 18 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 17 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 16 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 15 | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| 2 BR RESIDENTIAL UNIT | 2 |
| JR RESIDENTIAL UNIT | 1 |
| LEVEL 14 - RESIDENTIAL CLUB | |
| 1 BR RESIDENTIAL UNIT | 1 |
| 1.5 BR RESIDENTIAL UNIT | 1 |
| JR RESIDENTIAL UNIT | 1 |
| TOTAL RESIDENTIAL UNITS | 73 |

2 RESIDENTIAL UNIT COUNTS

| HOTEL UNIT COUNT | |
|---|---|
| Name | Count |
| LEVEL 10 - PRESIDENTIAL | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD PRESIDENTIAL SUITE | 1 |
| 1 KING BD ROOM | 2 |
| 2 QUEEN BD ROOM | 2 |
| LEVEL 9 | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD CORNER SUITE | 1 |
| 1 KING BD ROOM | 3 |
| 2 QUEEN BD ROOM | 3 |
| LEVEL 8 | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD CORNER SUITE | 1 |
| 1 KING BD ROOM | 3 |
| 2 QUEEN BD ROOM | 3 |
| LEVEL 7 | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD CORNER SUITE | 1 |
| 1 KING BD ROOM | 3 |
| 2 QUEEN BD ROOM | 3 |
| LEVEL 6 | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD CORNER SUITE | 1 |

| HOTEL UNIT COUNT | |
|---|---|
| Name | Count |
| 1 KING BD ROOM | 3 |
| 2 QUEEN BD ROOM | 3 |
| LEVEL 5 | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD CORNER SUITE | 1 |
| 1 KING BD ROOM | 3 |
| 2 QUEEN BD ROOM | 3 |
| LEVEL 4 | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD CORNER SUITE | 1 |
| 1 KING BD ROOM | 3 |
| 2 QUEEN BD ROOM | 3 |
| LEVEL 3 | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD CORNER SUITE | 1 |
| 1 KING BD ROOM | 3 |
| 2 QUEEN BD ROOM | 3 |
| LEVEL 2 | |
| 1 KING BD CORNER ROOM | 3 |
| 1 KING BD CORNER SUITE | 1 |
| 1 KING BD ROOM | 3 |
| 2 QUEEN BD ROOM | 3 |
| TOTAL RESIDENTIAL UNITS | 88 |

1 HOTEL UNIT COUNTS

# ANNOTATIONS AND SYMBOLS

DETAIL KEY — 1 / A61.01

GRID LINE KEY — 1

PARTITION TYPE KEY — A3

LEVEL LINE

BENCHMARK / FLOOR ELEVATION MARK — EL: 0 m

ELEVATION KEY — 1 / A45.06

BUILDING SECTION KEY — 4 / A55.09

WALL SECTION KEY — 4 / A55.09

INTERIOR ELEVATION KEY — 1 (ELEVATION NUMBER), 2, 3 (DRAWING SHEET SHOWING ELEVATION), 4 / A45.06

DOOR TYPE KEY
FOR MORE INFORMATION, SEE DOOR SCHEDULE — A305

WINDOW TYPE KEY
FOR MORE INFORMATION, SEE WINDOW TYPES DRAWINGS — 1t

GLASS TYPE KEY
FOR MORE INFORMATION, SEE SPECIFICATIONS — 1t

ROOM NAME AND NUMBER — 100 ROOM NAME

PROPERTY LINE

MATCH LINE

OBJECTS OVERHEAD (PLAN)
OR BEHIND (SECTION/ELEVATION)

OBJECTS BEYOND

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45 Union Street, Portland, Maine

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NOTES

NOT FOR CONSTRUCTION

PROJECT NUMBER 1083.00

DRAWN BY

DATE 10/03/25

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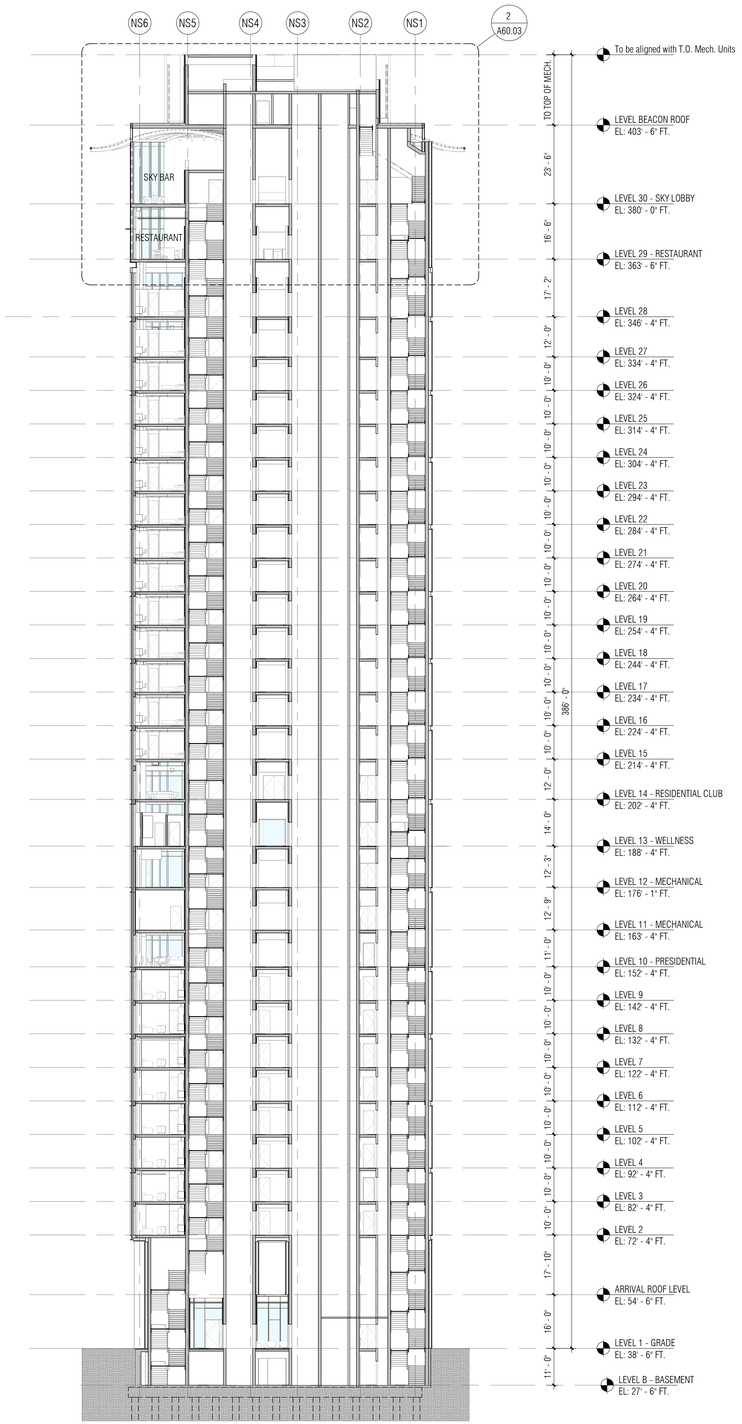
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SCALE As indicated

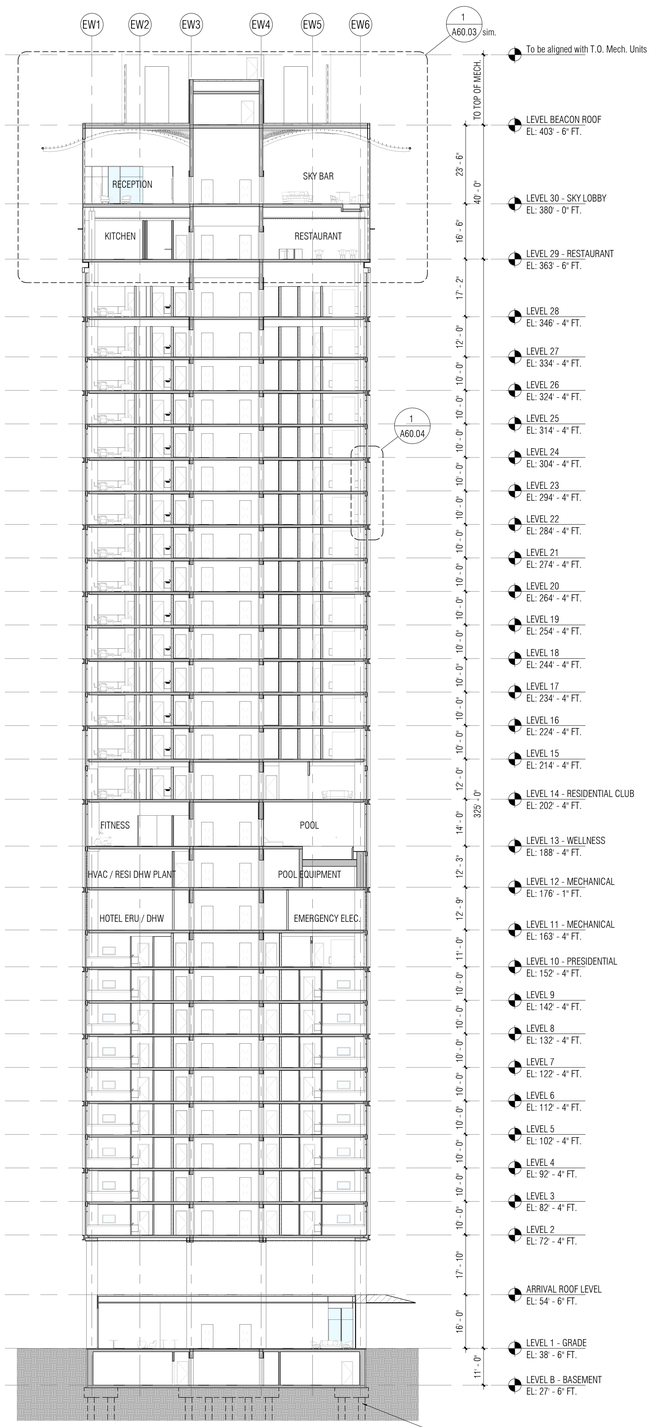
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2 EW OVERALL SECTION




1 NS OVERALL SECTION

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OVERALL BUILDING SECTIONS

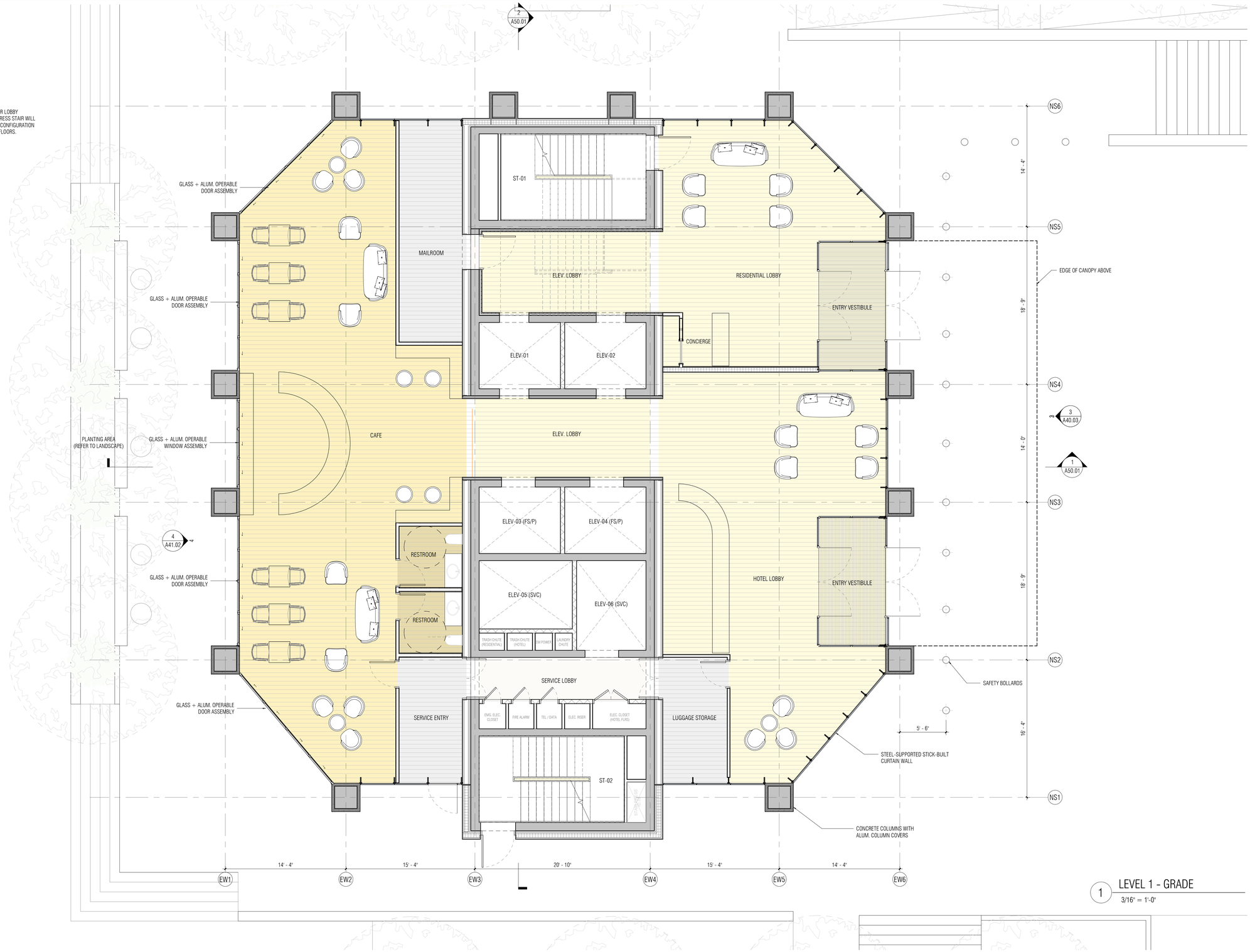
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Department Legend

- CIRCULATION
- PUBLIC
- SERVICES
- SUPPORT
- TOILET

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1 LEVEL 1 - GRADE
3/16" = 1'-0"

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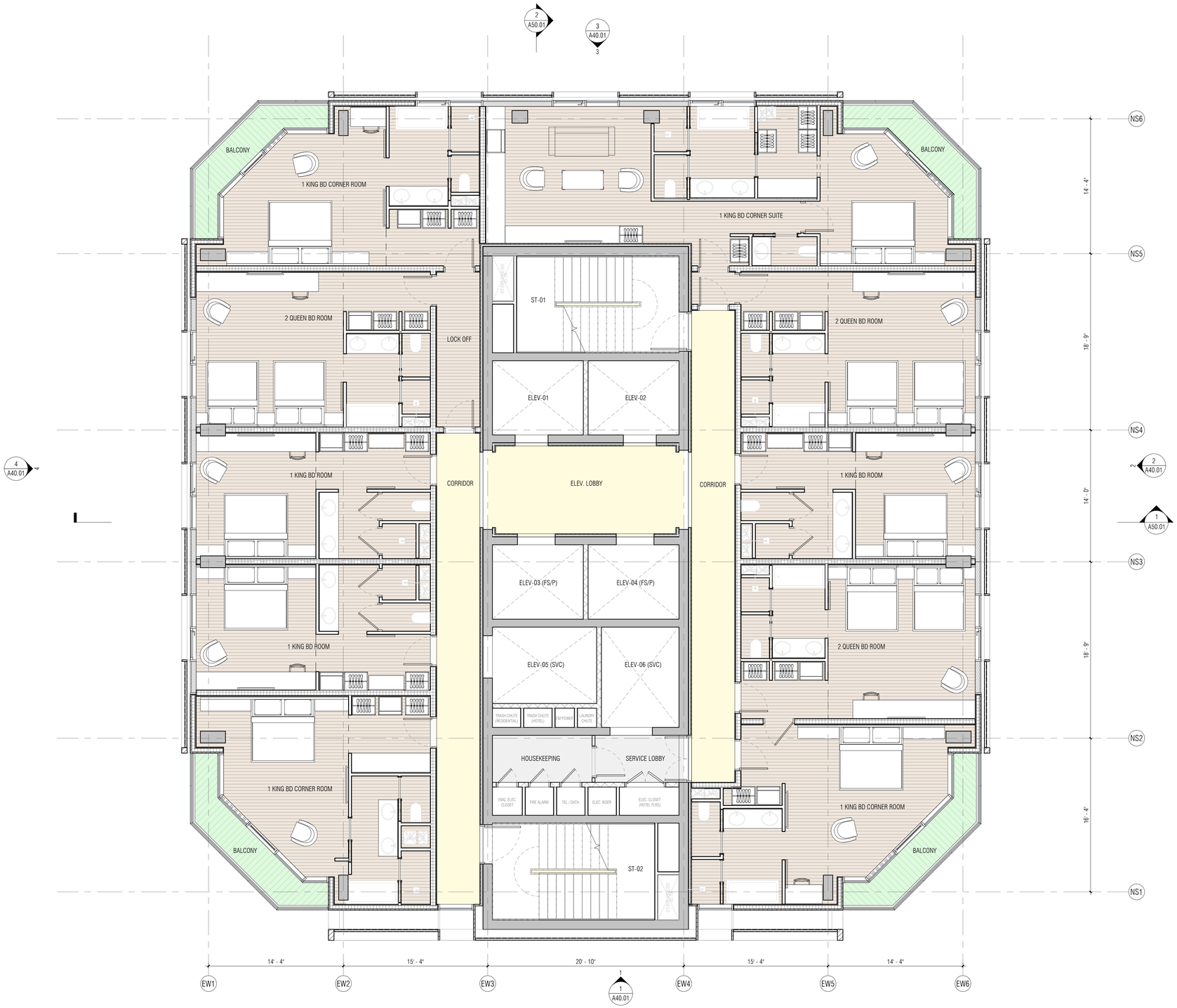
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SCALE
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DRAWING TITLE
FLOOR PLAN - LEVEL 1 GRADE

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Department Legend

- BALCONY
- CIRCULATION
- HOTEL
- SERVICES
- SUPPORT

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1 LEVEL 4 - TYP. HOTEL_BALCONY W/ BALCONY
3/16" = 1'-0"

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| SCHEMATIC DESIGN | |

SCALE
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DRAWING TITLE
FLOOR PLAN - LEVEL 4 TYP. HOTEL

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A20.04

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Department Legend

- BALCONY
- CIRCULATION
- RESIDENTIAL
- SERVICES

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1 LEVEL 18 - TYP. RESIDENTIAL_W/ BALCONY
3/16" = 1'-0"

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45 Union Street, Portland, Maine

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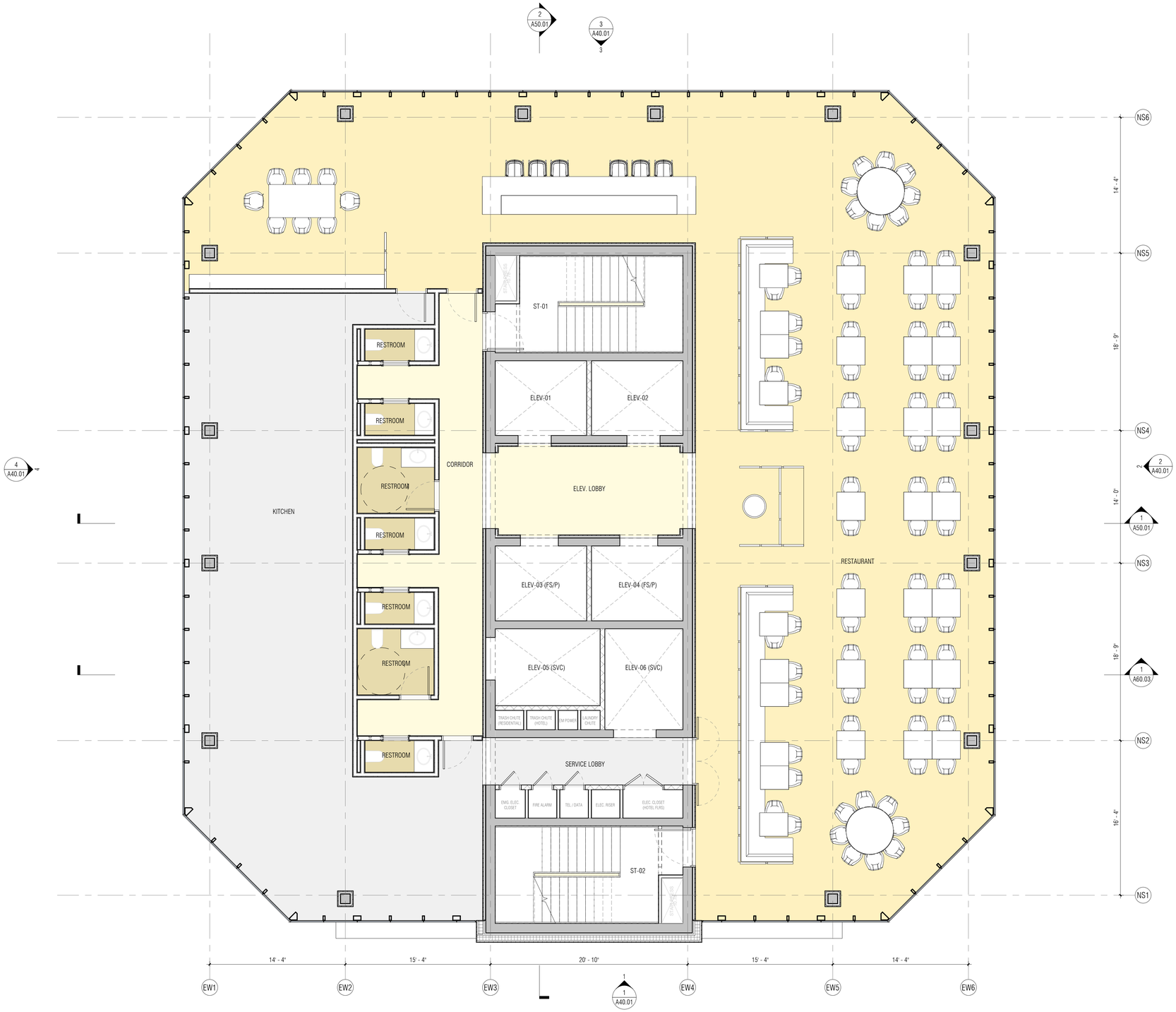
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| PHASE | |
| SCHEMATIC DESIGN | |

SCALE
3/16" = 1'-0"

DRAWING TITLE
FLOOR PLAN - LEVEL 18 TYP. RESIDENTIAL

SHEET NUMBER
A20.18

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Department Legend

- CIRCULATION
- PUBLIC
- SERVICES
- SUPPORT
- TOILET

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1 LEVEL 29 - RESTAURANT
3/16" = 1'-0"

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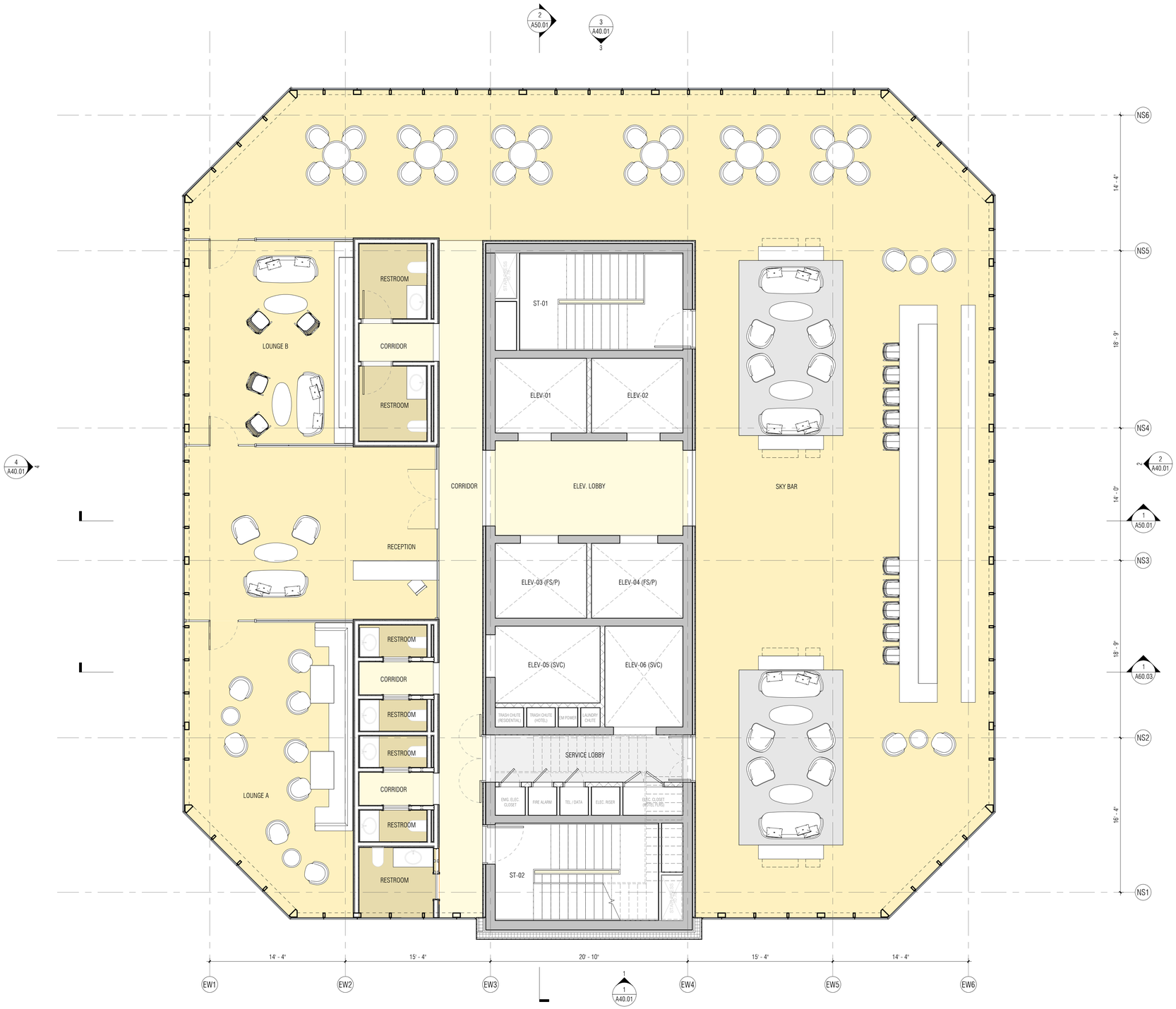
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SCALE
3/16" = 1'-0"

DRAWING TITLE
FLOOR PLAN - LEVEL 29
RESTAURANT

SHEET NUMBER
A20.29

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Department Legend

- CIRCULATION
- PUBLIC
- SERVICES
- TOILET

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1 LEVEL 30 - SKY LOBBY
3/16" = 1'-0"

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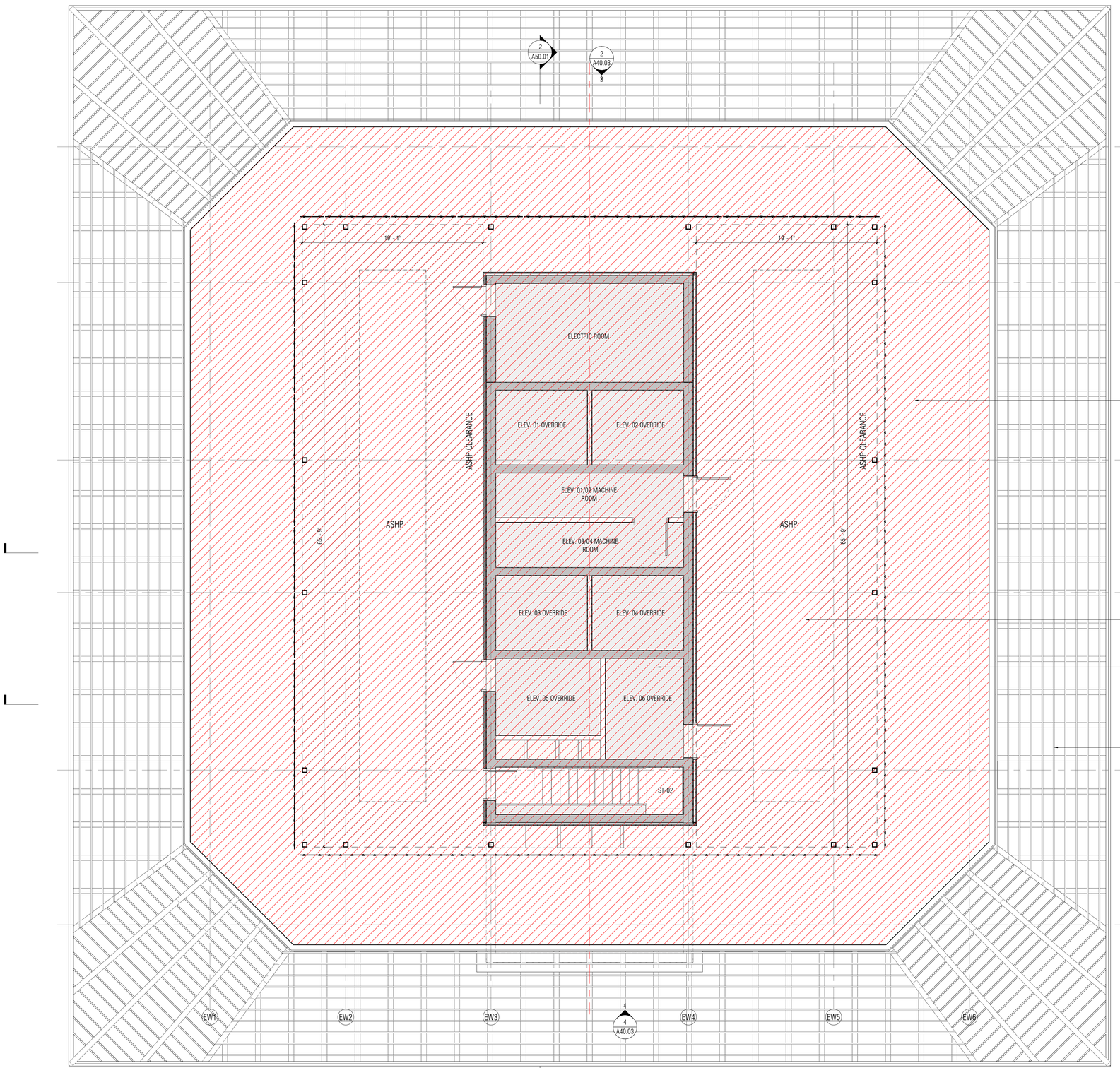
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SCALE
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DRAWING TITLE
FLOOR PLAN - LEVEL 30 SKY LOBBY

SHEET NUMBER
A20.30

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1 LEVEL BEACON ROOF
3/16" = 1'-0"

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| PHASE | |
| SCHEMATIC DESIGN | |

SCALE
3/16" = 1'-0"

DRAWING TITLE
FLOOR PLAN - LEVEL BEACON ROOF

SHEET NUMBER
A20.31

10/2/2025 9:21:29 AM



View from Lobsterman Park




OP
SQ.







View from Portland Harbor - Facing Northwest



View from Portland Harbor - Facing West



View towards Fore River - Facing South



View from Post Office Park

161 York Street
Major Site Plan Application
PL-003412-2025
161 York Street LLC, Applicant

| | | | |
|---|---|---|---|
| **Submitted to:** | Portland Planning Board | **Prepared By:** | Taylor Colbeth |
| **Public Hearing Date:** | October 28, 2025 | **Date:** | October 22, 2025 |

## I. INTRODUCTION

161 York Street LLC has submitted a Major Site Plan application to divide the 0.25-acre lot at 161 York Street into two parcels to facilitate the construction of two three-family buildings one two lots, for a total of six new units. The subject property is located within the RN-4 Residential Neighborhood zone. This application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan standards, Section 13.6.

The Planning and Urban Development Department mailed 228 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the October 16 and 17 editions of the Portland Press Herald.

**Applicant:** 161 York Street LLC
**Applicant Representative(s):** Acorn Engineering, Woodhull



*Figure 1. Lot 1 elevation as seen from proposed autocourt*



*Figure 2. Lot 2 elevation as seen from York Street*

## II. REQUIRED REVIEWS

| *Review* | *Applicable Standards* |
|---|---|
| Site Plan | Section 13.6 |
| RN-4 Design Standards | Design Manual |

| *Waiver Requests* | *Applicable Standards* |
|---|---|
| Drive Aisle Width | **Technical Manual Section 1.10.7**<br>*The minimum two-way drive aisle width is 24 feet for standard, right-angle parking, and is otherwise dependent on parking space orientation, as illustrated in Figure I-16A.*<br><br>Applicant is requesting a drive aisle width of 22-feet. Refer to the Site Plan Standards section of this report for further detail. |

| *Project Data* | |
|---|---|
| Existing Zoning | RN-4 Residential Neighborhood |
| Property Size | 11,046-square-feet |
| Existing Use | Vacant partially forested lot |
| Proposed Development Program | Two new parcels with a total of six residential dwelling units |

## III. EXISTING CONDITIONS AND SURROUNDING AREA

The subject property is located within the West End neighborhood and is bounded by York Street to the south and other residential development on all other boundaries. The northern corner of the property abuts Guilford Court, a private, approximately 14-foot, street. The lot is zoned RN-4 Residential Neighborhood and totals approximately 11,046 square feet. The site is a vacant lot that is partially vegetated.

The area surrounding the subject property is primarily residential in nature, with open space located approximately 600 feet from the site, including Harbor View Memorial Park and Tyng/Tate Playground. The site is also approximately 500 feet from Commercial Street, which offers a variety of uses including gas stations, surface parking, and restaurants.

The property is well served by public transportation, with Greater Portland METRO Routes 21, 24A, and 24B operating within approximately 100 feet from the subject property at the corner of York Street and State Street.



*Figure 3. Subject property as seen from York Street*

## IV. PROPOSED DEVELOPMENT

The proposed Major Site Plan application would split the existing 11,000 square-foot lot into two lots totaling approximately 6,000 square-feet for Lot 1 and 5,000 square-feet for Lot 2. This lot split would facilitate the construction of two, three-family buildings with 10 structured parking spaces beneath units one through five. Additionally, the proposed development would feature a shared driveway and a paved area for circulation located between the two proposed buildings. The development would be accessible via Guilford Court, a private street, which would be extended 20 feet to access the new development.

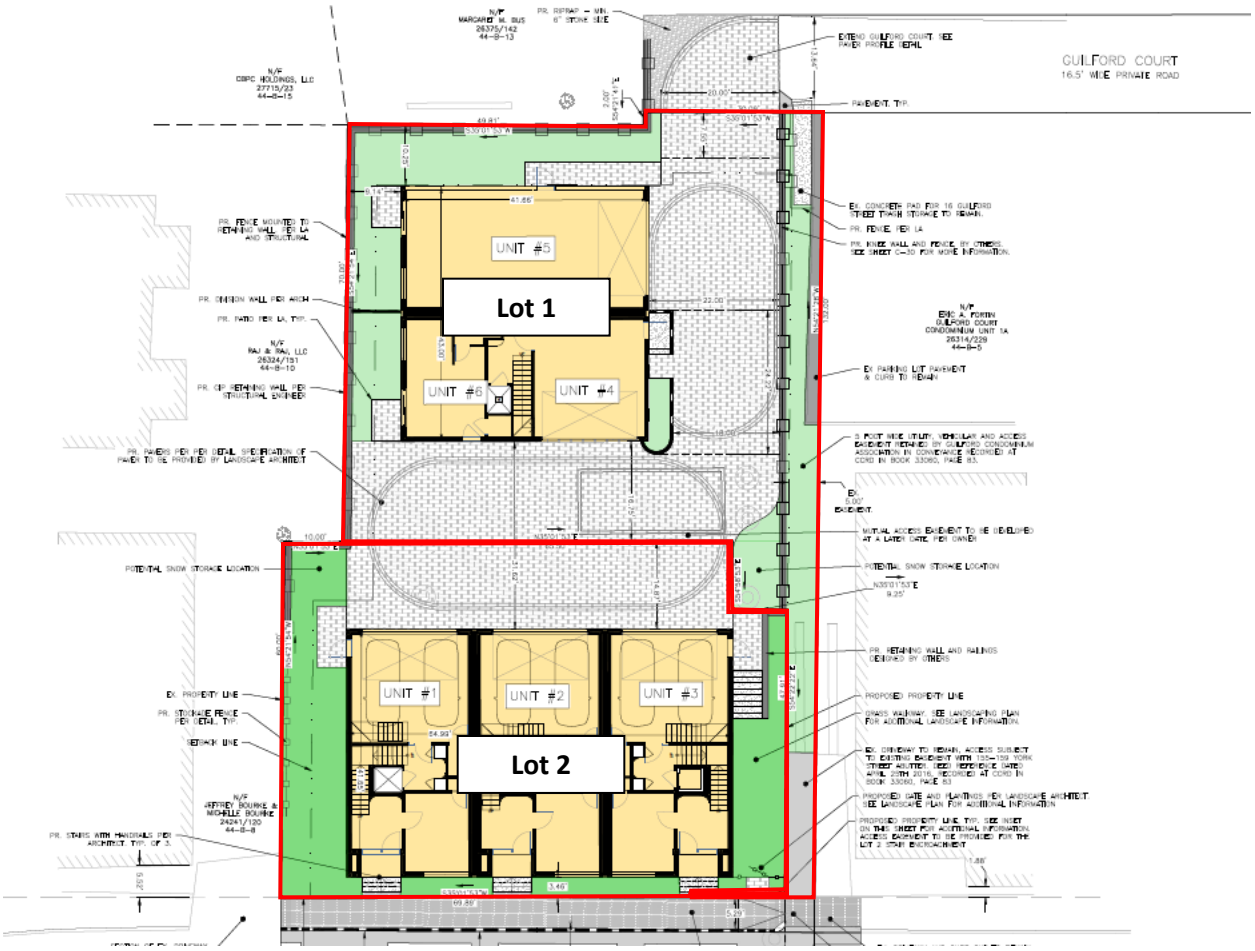



*Figure 4. Site Plan*

## V. RIGHT, TITLE, & INTEREST

The applicant has demonstrated sufficient right, title, and interested to the parcel involved in this application. ME RE Acquisitions, LLC, has a purchase and sale agreement with York Street Redevelopment, LLC, the current owner, for the parcel recorded in the Cumberland County Registry of Deeds in Book 32580, Page 183, Book 32580, Page 186, and Book 33060, Page 83. Full right, title, and interest documentation is included as Attachment C.

The applicant has provided a letter from their attorney outlining their right to access the development via Guilford Court, demonstrating that access to the site has historically occurred from Guilford Court Attachment C.1). The City's Corporation Counsel have reviewed this documentation and are comfortable with what the applicant has provided as demonstration of a legal right to access the property from Guilford Court. Additionally, the applicant has provided a draft Road Maintenance Agreement that is in the process of being executed. The draft agreement is subject to change and can be found as Attachment C.2. Staff have recommended a condition of approval that the final Road Maintenance Agreement be executed prior to issuance of a building permit.

## VI. FINANCIAL & TECHNICAL CAPACITY

The applicant has provided a letter from their financial institution demonstrating good financial standing. The applicant team is comprised of firms that have a proven successful track record of work within Portland, including Acorn Engineering for civil/site plan engineering, Soren DeNiord Design Studio (SDDS) for landscape architecture, and Woodhull for architecture and construction management. Full financial and technical capacity documentation can be found as Attachments D and E.

## VII. ZONING ANALYSIS

The proposed project is located in the RN-4 Residential Neighborhood zone. The purpose of the RN-4 zone is *"To provide areas of the city, on the peninsula and in select off-peninsula locations in alignment with major public transportation routes and near service areas, for a residential neighborhood environment of dwellings on lots of at least 2,000 square feet. Townhouse and multi-family dwellings are also permitted, subject to standards encouraging compatibility and context sensitivity to ensure the stability of established residential neighborhoods."*

| Zoning Dimensional Review (Article 7) | | | | |
|---|---|---|---|---|
| ***Standard*** | ***Requirement 1*** | ***Lot 1*** | ***Lot 2*** | ***Finding*** |
| *Lot area (min)* | ***2,000 SF*** | ***6,069 SF*** | ***4,977 SF*** | Met |
| *Street frontage (min)* | ***20 ft*** | ***20 ft*** | ***69.89 ft*** | Met |
| *Front setback (min)* | ***Average of adjacent front yards minus 5 (0ft)*** | ***> 5 ft*** | ***3.46 ft*** | Met |
| *Rear setback (min)* | ***10 ft*** | ***10.25 ft*** | ***3.21 ft*** | Not Met* |
| *Side setback, interior (min)* | ***5 ft*** | ***> 5 ft*** | ***> 5 ft*** | Met |
| *Structure height (max)* | ***45 ft, except 35 ft within 15 ft of a rear lot line*** | ***42.77 ft*** | ***44.34 ft*** | More Information Required^ |
| *Lot coverage (max)* | ***60%*** | ***29.5%*** | ***59.5%*** | Met |
| *Landscaped open space ratio (min)* | ***20%*** | ***20.1%*** | ***20.9%*** | Met |

*As proposed, the rear setback for Lot 2 is not met due to a jog in the lot line (see figure 5). The applicant team has indicated they will be able to reconfigure this line while maintaining the programming of the site plan. Staff are recommending a condition of approval that this lot line be reconfigured to meet the required rear setback prior to the applicant applying for a building permit.

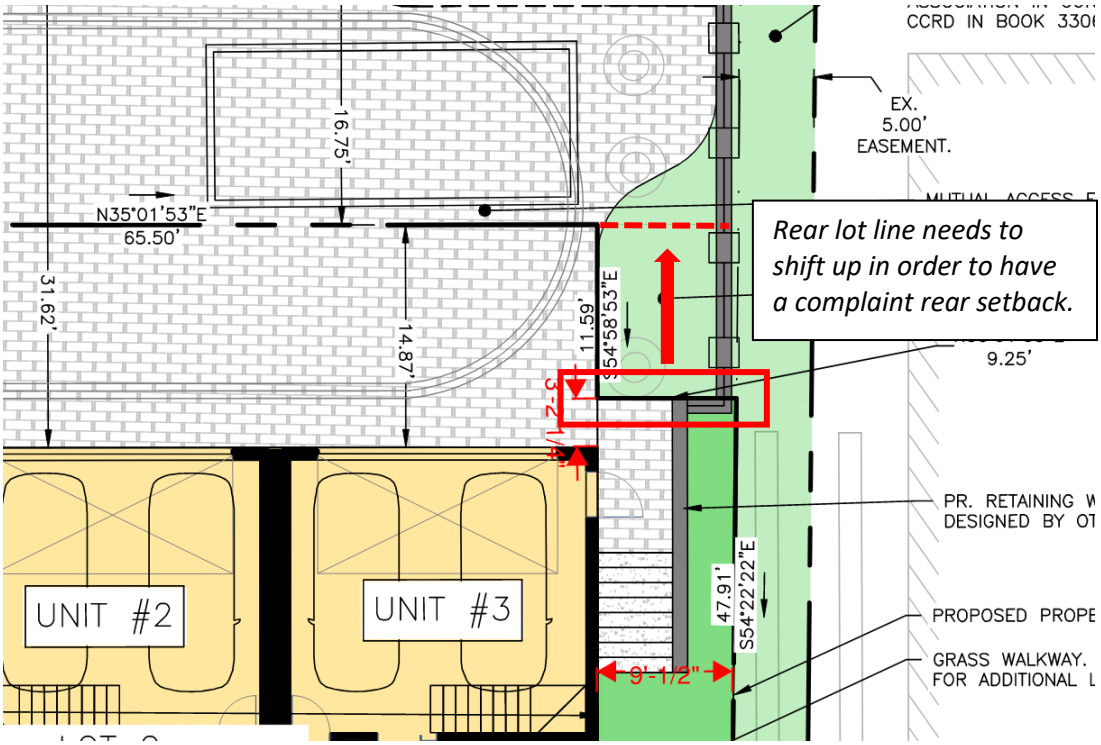



*Figure 5. Rear setback for Lot 2*

## VIII. SITE PLAN STANDARDS (Section 13.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 13.6. Staff comments are below.

**1. Transportation Standards (Section 14.6.1)**

A. Impact on surrounding street systems

The applicant is proposing vehicular access to the development through Guilford Court, a 12-foot private roadway accessible from Park Street. Given the limited traffic volumes generated by this development, it is not anticipated to create any significant hazard to safety on the surrounding street network.

Finding of Fact: Based on the submitted application materials and the project's description of components related to impact on surrounding street systems, this standard is determined to be met.

B. Access and circulation

The applicant proposes shared vehicular access and circulation for the two proposed lots via Guilford Court, with an access easement over the shared circulation areas to facilitate this arrangement. A continuous internal walkway would connect both lots to the existing York Street sidewalk. The applicant is proposing to reconstruct the existing sidewalk along the property frontage on York Street. There is no formal pedestrian access to the site through Guilford Court proposed.

The applicant has provided a letter from their attorney demonstrating sufficient right, title, and interest to access the development via Guilford Court (Attachment C.1). Additionally, the

applicant has provided a draft road maintenance agreement (Attachment C.2) that is to be finalized with the neighboring lots along Guilford Court. Staff are recommending a condition of approval that the road maintenance agreement be finalized prior to issuance of a building permit.

Finding of Fact: Based on the submitted application materials, the project's description of components related to access and circulation, and the associated condition of approval, this standard is determined to be met.

C. Public transit access

The proposed development does not consist of 20 or more dwelling units, therefore this standard is not applicable. Although this standard is not applicable, the proposed development is located within 200 feet from the State Street/York Street METRO bus stop.

Finding of Fact: Based on the submitted application materials, the project's description of components related to access and circulation this standard is determined to be not applicable.

D. Parking

Per Table 18-A, a maximum of two off-street parking spaces is permitted per dwelling unit for a total of 12 permissible spaces for the proposed development. The applicant is proposing a total of 10 covered parking spaces that would be located on the ground floor of Units 1-5. No parking is proposed for Unit 6.

The applicant is requesting a waiver for the drive aisle width. Per Technical Manual Section 1.10.7, a minimum drive aisle width for two-way, 90-degree parking is 24-feet. The applicant is requesting this be reduced to 22 feet. The applicant has provided turning templates to demonstrate that all vehicle maneuvers can be accommodated within the development site. Staff are supportive of this waiver due to the infrequency of vehicle movements and the turning templates provided.

Per Table 18-a, no bicycle parking spaces are required for this proposed development. No bicycle parking spaces have been proposed by the applicant.

The applicant is proposing snow storage be located in the lawn areas. The applicant has also indicated that snow will be hauled off-site as necessary. The identified snow storage locations are not anticipated to hinder pedestrian circulation.

Finding of Fact: Based on the submitted application materials and the project's description of components related to parking, this standard is determined to be met.

E. Transportation demand management (TDM)

The proposed development is not commercial, institutional, or mixed-use in nature, therefore this standard is not applicable.

Finding of Fact: Based on the submitted application materials and the project's description of components related to transportation demand management, this standard is determined to be not applicable.

**2. Environmental Quality Standards (Section 14.6.2)**

A. Preservation of significant natural features

The project area is a partially vegetated urban lot with no existing buildings on site. All vegetation on site is proposed to be removed to facilitate the proposed development, and supplemented with landscaping. The applicant has provided a Low-Impact Development (LID) scorecard, which demonstrates the proposed development's impacts across five categories. The applicant has claimed a total of 80 points on the LID scorecard, which is the minimum required total points awarded. To meet the 80 points, the applicant has indicated they will enter into a winter maintenance agreement with an annual reporting requirement. A finalized winter maintenance agreement has not been provided at this time. Staff are recommending this as a condition of approval.

Finding of Fact: Based on the submitted application materials, the project's description of components related to preservation of significant natural features, and the associated condition of approval, this standard is determined to be met.

B. Site landscaping and buffers

Per standard 13.6.2.B.1, all development subject to site plan review must provide a minimum of one shade tree or six plantings per 5,000 square-feet of lot area. The total development area totals approximately 11,000 square feet, requiring a total of two shade trees or twelve plantings. The applicant is satisfying this requirement by proposing a total of three deciduous trees and a variety of shrubs and perennials across both lots.

The applicant is proposing that the development utilize City trash pickup from the York Street curbline. All trash and recycling storage will be internal to each unit and brought to the York Street curb on the designated trash day, therefore no screening is required. The applicant is not proposing any surface parking, therefore parking and vehicle display lot landscaping standards are not applicable to this project. The applicant has indicated that depending on ownership, visitor parking may be able to occur on the proposed autocourt, but it is anticipated that visitors will likely utilize on-street parking in the vicinity of the project area. Additionally, the applicant has indicated that all uncovered paving for non-vehicular use will have a minimum Solar Reflective Index (SRI) of 33 initially and 28 once aged three years.

Per Standard 13.6.2.B.5, all development shall include one street tree per 25-35 linear feet of frontage along a City right-of-way or private road. Per Standard 13.6.2.A.5.b, the review authority may permit an alternative subject to Section 4 of the Technical Manual. The applicant is not proposing street trees as part of this project due to the width of the existing sidewalk on York Street and the subsurface utilities within the side yard.

Staff are recommending a condition of approval that the applicant make a contribution to the City of Portland Tree Fund at a ratio of $400 per street tree, for a total of $800 for two street trees.

Finding of Fact: Based on the submitted application materials, the project's description of components related to site landscaping and buffers, and the associated condition of approval, this standard is determined to be met.

C. Water quality, stormwater management, and erosion control

The subject property is a currently vacant vegetated parcel of land with potential remnants of a previously demolished building. The parcel is approximately 0.25 acres and the proposed project would create approximately 4,700 SF of new impervious surface area. The applicant has provided a stormwater management report as part of their submission.

The applicant is proposing drainage improvements, including catch basins, roof drains, foundation drains, and roof inlets. Treatment is proposed through a Stormfilter Manhole BPM and storage would be met using a subsurface chamber. This system would outlet to the existing drainage system within York Street. The proposed system is not anticipated to have adverse impacts on abutting properties and would reduce or maintain the peak flow runoff rates when compared to predevelopment conditions.

The applicant has acknowledged the need for a reciprocal utility easement for the shared sewer and drainage infrastructure. Staff are recommending a condition of approval that this easement be executed prior to the issuance of a building permit.

Finding of Fact: Based on the submitted application materials, the project's description of components related to water quality, stormwater management, and erosion control, and the associated condition of approval, this standard is determined to be met.

**3. Public Infrastructure and Community Safety Standards (Section 14.6.3)**

A. Consistency with City Master Plans

The proposed development has been designed to comply with the City's zoning ordinance for RN-4, which has been found to be consistent with the City's comprehensive plan, Portland Plan 2030. The purpose of RN-4 is to provide residential neighborhood environments in areas of the City on peninsula and in select locations off-peninsula in alignment with public transportation routes.

Finding of Fact: Based on the submitted application materials and the project's description of components related to consistency with mater plans, this standard is determined to be met.

B. Public safety and fire prevention

The proposed development offers natural surveillance through defined private entrances with adequate lighting. Additionally, the applicant is proposing that fences be installed around the perimeter of the site, fencing off open space areas for use by the condominium unit owners.

The applicant is proposing emergency vehicle access through Guilford Court. Emergency vehicles would then utilize the proposed auto court for access and turn around. Fire has reviewed the proposed plans and are comfortable with what the applicant has proposed.

Finding of Fact: Based on the submitted application materials and the project's description of components related to public safety and fire prevention, this standard is determined to be met.

C. Public utilities

The applicant has requested the ability-to-serve confirmation from the various utility providers, and has indicated that utility capacity verification will be provided to the City upon receipt.

The applicant is coordinating with Central Maine Power (CMP) on the installation of a new riser pole on York Street and the extension of a single-phase underground electric service across York Street to the development.

The applicant is proposing a new sewer lateral to tie into the existing main within York Street.

Staff are recommending a condition of approval that the applicant provide ability to serve letters from the respective companies prior to issuance of a building permit.

Finding of Fact: Based on the submitted application materials, the project's description of components related to public utilities, and the associated condition of approval, this standard is determined to be met.

**4. Site Design Standards (Section 14.6.4)**

A. Massing, ventilation, and wind impact

The applicant is proposing two three-family structures comprised of six total units. The proposed buildings are proposed to be four-stories in height. The massing of the building is consistent with the surrounding context of the neighborhood, which is comprised primarily of three- and four-story buildings.

Mechanical equipment is proposed to be located on the roof of both proposed buildings. Along York Street, mechanical equipment is proposed to be located towards the rear of the building, away from York Street. For the building located further from York Street, mechanical equipment is proposed to be located towards the west of the building, away from Guilford Court.

Finding of Fact: Based on the submitted application materials and the project's description of components related to massing, ventilation, and wind impact, this standard is determined to be met.

B. Shadows

Neither of the buildings are proposed to be 65-feet in height, therefore this standard is not applicable.

Finding of Fact: Based on the submitted application materials and the project's description of components related to shadows, this standard is determined to be not applicable.

C. Snow and ice loading

The proposed buildings have been designed with primarily flat roofs, with some sloping near the edges, and have been designed to mitigate snow and ice loading or falling onto adjacent properties or proposed rights-of-ways.

Finding of Fact: Based on the submitted application materials and the project's description of components related to snow and ice loading, this standard is determined to be met.

D. View corridors

The proposed project is not located within an existing view corridor, therefore this standard is not applicable.

Finding of Fact: Based on the submitted application materials and the project's description of components related to view corridors, this standard is determined to be not applicable.

E. Historic resources

The proposed project is not located within a historic district nor associated with an existing historic landmark. There are no know archeological resources on site. Therefore, this standard is not applicable.

Finding of Fact: Based on the submitted application materials and the project's description of components related to historic resources, this standard is determined to be not applicable.

F. Exterior lighting

The applicant is not proposing any architectural or street lighting as part of this project. The applicant has submitted a photometric plan and indicated that all lighting will be downlit in accordance with Technical Manual Section 8 standards. Based on the submitted photometric plan, proposed lighting will not negatively impact abutting properties or the public right-of-way and will be contained primarily to the site.

Finding of Fact: Based on the submitted application materials and the project's description of components related to exterior lighting, this standard is determined to be met.

G. Noise and vibration

The proposed HVAC system would meet the applicable state and federal emission requirements. The proposed buildings have been designed strategically to obscure the visibility of mechanical equipment from the ground level, particularly from York Street and abutters. The mechanical equipment would be in the rear of the building on the fourth floor and would be screened in part by roof enclosure mass and partially by the roof parapet surrounding the mechanical space.

Finding of Fact: Based on the submitted application materials and the project's description of components related to noise and vibration, this standard is determined to be met.

H. Signage and wayfinding

The applicant is proposing to replace the “No parking at any time” sign along the York Street frontage. The applicant is not proposing any specialty signage as part of this project.

Finding of Fact: Based on the submitted application materials and the project's description of components related to signage and wayfinding, this standard is determined to be met.

I. Zoning-related design standards

The proposed development is located in the RN-4 Residential Neighborhood zone and is subject to RN-4 design standards. Residential development located in the RN-4 zone shall provide a high degree of architectural quality and compatibility with the surrounding neighborhood as demonstrated by compliance with the principles and standards of the RN-4 Development

Principles and Standards, promulgated by the Planning Board and contained in Appendix 5 of the *Design Manual*.

Staff provided the applicant with a design review memo on August 18, 2025 (Attachment S2). Staff found that the proposed development is consistent with the overall context of the neighborhood, which is comprised of residential structures that vary in height, scale, and architectural features. Additionally, the proposed development on Lot 2 orient three residential units along the property frontage on York Street, which create a consistent relationship to the street. Staff's only comment was requesting façade material precedent within the surrounding residential context for the proposed vertical corrugated metal and translucent glass. The applicant indicated that the proposed exterior materials pull context from the immediate surrounding fabric. The choice of exterior materials is an effort to use visually compatible materials that mature with age and result in an overall consistent aesthetic suitable for a background building in the neighborhood. The full response to comments and commentary on the specific materials can be found as Attachment Z.

Finding of Fact: Based on the submitted application materials and the project's description of components related to zoning-related design standards, this standard is determined to be met.

## IX. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting on August 13, 2025, at the Canopy Portland Waterfront Hotel at 5:30PM. Ten members of the public were in attendance. Public comment centered around the proposed retaining wall, access to the development via Guilford Court, and construction operations. Full neighborhood meeting documentation can be viewed as Attachments V through Y.

## X. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department staff recommends that the Planning Board find that the Major Site Plan application for the proposed development at 161 York Street (PL-003412-2025) meets the applicable standards of Portland's Land Use Code.

## XI. PROPOSED MOTIONS

### A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on October 28, 2025, for application # PL-003412-2025 at 161 York Street relevant to the Site Plan Standards of the Land Use Code and Portland's Technical and Design Standards, and other regulations, and testimony presented at the Planning Board public hearing:

1. Drive Aisle Width
   The Planning Board [**finds/does not find**] based upon the Traffic Engineer's Review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard Section 1.10.7 which requires the minimum two-way drive aisle width be 24-feet, that substantial justice and the public interest are secured with the proposed variation in this standard, and that

variation is consistent with the intent of the ordinance. The Planning Board [**waives/does not waive]** the Technical Manual standard Section 1.10.7 to allow a drive aisle width of 22-feet.

**B. SITE PLAN REVIEW**

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on October 28, 2025, for application # PL-003412-2025 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] that the plan is in conformance with the site plan standards of the land use code subject to the following conditions of approval:

**PRIOR TO APPLYING FOR A BUILDING PERMIT**

1. The applicant shall provide a boundary survey that is in compliance with the standards outlined in the *Technical Manual* and submitted to the Department of Public Works.
2. The applicant shall provide turning templates for large trucks entering the development via Guilford Court to confirm that large construction vehicles will be able to safely maneuver the site.
3. The applicant shall submit a revised site plan to the Planning Authority that shows a complaint rear setback for Lot 2.

**PRIOR TO ISSUANCE OF A BUILDING PERMIT**

4. The applicant shall finalize, execute, and record a private roadway maintenance agreement for the use and maintenance of Guilford Court. The agreement shall address shared responsibilities for maintenance, repair, and access among all affected property owners and shall provide for continued access by the City for emergency and public services. The agreement shall be reviewed and found acceptable to all relevant parties, the Planning Authority, and Corporation Counsel, prior to execution and recording with the Cumberland County Registry of Deeds.
5. The applicant shall submit a draft reciprocal utility easement for the shared sewer and drainage infrastructure being proposed. The easement shall be found to be acceptable by Corporation Counsel and the Public Works Authority, prior to executing and recording with the Cumberland County Registry of Deeds.
6. The applicant shall prepare draft condominium documents, including declarations, bylaws, and plans, for review and approval by the Planning Authority and Corporation Counsel to ensure consistency with the approved site plan prior to recording with the Cumberland County Registry of Deeds.
7. The applicant shall provide ability to serve letters from the Central Maine Power, the Portland Water District, and the Department of Public Works.
8. The applicant shall prepare a draft stormwater maintenance agreement and winter maintenance agreement for review and approval by the Planning Authority, Public Works Authority and Corporation Counsel. The finalized stormwater and winter maintenance agreement shall be recorded at the Cumberland County Registry of Deeds.

**PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY**

9. The applicant shall pay a fee-in-lieu of $400 per street tree into the City's Tree Fund for two street trees, for a total of $800.

### C. PLANNING BOARD DECISION

On the basis of the findings, conclusions and recommendations contained in the Planning Board report for the public hearing on October 28, 2025, related to application # PL-003412-2025 for 161 York Street, which is attached to the draft approval letter and incorporated therein, the Planning Board **[adopts/does not adopt]** the approval letter as drafted as the Planning Board's decision for application # PL-003412-2025 and authorizes the Planning Board Chair to sign the approval letter as drafted.

## ATTACHMENTS

### Public Comment

PC1. Katherine Searles (Rec'd 7-25-2025)
PC2. Katherine Searles (Rec'd 8-17-2025)
PC3. Katherine Searles (Rec'd 10-3-2025) #2
PC3. Katherine Searles (Rec'd 10-3-2025)
PC4. Katherine Searles (Rec'd 10-7-2025)
PC5. Katherine Searles (Rec'd 10-7-2025) #2
PC6. Joseph Smaha (Rec'd 10-8-2025)
PC7. Emily (Rec'd 10-10-2025)
PC8. Katherine Searles (Rec'd 10-12-2025)
PC9. Katherine Searles (Rec'd 10-15-2025)
PC10. Katherine Searles (Rec'd 10-17-2025)
PC11. Katherine Searles (Rec'd 10-18-2025)
PC12. Margaret Busby (Rec'd 10-20-2025) #2
PC13. Margaret Busby (Rec'd 10-20-2025) #3
PC14. Margaret Busby (Rec'd 10-20-2025) #4
PC15. Margaret Busby (Rec'd 10-20-2025)

### Staff Materials

S1. Draft Approval Letter
S2. Design Review Memo

### Applicants Submittal

A. Cover Letter
AA. Comment Response Letter II
B. Site Plan Checklist
C. RTI
C.1 Guilford Court RTI Letter
C.2 Draft Road Maintenance and Reciprocal Easement Agreement (Guilford Court) - Permitting
D. Financial Capacity
E. Technical Capacity
F. Conformity With Land Use Ordinance
G. Site Plan Data Table
H. Waiver Table
I. Easements
J. Construction Management Plan

K. Stormwater Management Report
L. Utilities
M. Solid Waste Disposal
N. Fire Department Letter
O. Architectural Design Narrative
P. LID
Q. Lighting
R. Wastewater Capacity
S. Erosion and Sedimentation Control Report
T. Parking Summary
U. Average Grade Calculation
V. 161 York Street Neighborhood Meeting Certification Letter
W. 161 York Street Neighborhood Meeting Invitation
X. 161 York Street Neighborhood Meeting Sign-in
Y. 161 York Street Neighborhood Meeting Minutes
Z. Comment Response Letter

**Drawings**

1. Cover Sheet & Legend
2. General Notes
3. Existing Conditions Plan
4. Erosion & Sedimentation Control & Construction Management Plan
5. Site Plan
6. Utility Plan
7. Grading Plan
8. Site Detail - 1
9. Utility Details - 1
10. Utility Details - 2
11. Drainage Details - 1
12. Drainage Details - 2
13. Erosion Control Details & Notes
14. Landscape Plan
15. Architectural Site Plan
16. York Street - Floor Plans - 1
17. York Street - Floor Plans - 2
18. York Street - Elevation Plans - 1
19. York Street - Elevation Plans - 2
20. York Street - Elevation Plans - 3
21. Guilford Court - Floor Plans - 1
22. Guilford Court - Floor Plans - 2
23. Guilford Court - Floor Plans - 3
24. Guilford Court - Elevation Plans - 1
25. Guilford Court - Elevation Plans - 2
26. Guilford Court - Elevation Plans - 3
27. Photometric Plan

Brandon Mazer, Chair
David Silk, Vice Chair
Austin Smith
Nicholas Messina
Joseph Zamboni
Kelsey Robertson
Michael Joseph Fox

October 28, 2025

Marieke Thormann
161 York Street LLC
80 Exchange Street
Portland, ME 04101

Zach Stevens
Acorn Engineering
65 Hanover Street
Portland, ME 04101

**Project Address:** 161 York Street
**Applicant:** 161 York Street LLC
**Planner:** Taylor Colbeth

**Project ID:** PL-003412-2025
**CBL(s):** 044 B006001

Dear Marieke Thormann,

On October 28, 2025, the Planning Board approved a Major Site Plan application to facilitate the construction of divide the 0.25-acre lot at 161 York Street into two parcels to facilitate the construction of two three-family buildings one two lots, for a total of six new units, in the RN-4 Residential Neighborhood zone. The decision is based upon the application, documents and plans as submitted. The Planning Board reviewed the proposal for conformance with the standards of the [Site Plan Ordinance, Chapter 13, Section 13.6.

Based on the information provided to the Board in the application, plans, and reports, through testimony and other information submitted by the applicant, as well as the findings, conclusions and recommendations contained in the Planning Board Report for the public hearing held on October 28, 2025, which is attached hereto and incorporated herein by reference, the Planning Board found the application met all relevant standards and voted **[X-X]** to approve the application with the following conditions as presented below.

A. **WAIVERS**

The Planning Board considered and voted **[X-X]** to waive the following waivers requested by the applicant:

1. Drive Aisle Width – The Planning Board voted [X-X]to waive Technical Manual Section 1.10.7, which requires a minimum two-way drive aisle width of 24 feet for standard, right-angle parking.

B. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on October 28, 2025, for application PL-003412-2025 at 161 York Street relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan is in conformance with the site plan standards of the land use code, subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The applicant shall provide a boundary survey that is in compliance with the standards outlined in the Technical Manual and submitted to the Department of Public Works.
2. The applicant shall provide turning templates for large trucks entering the development via Guilford Court to confirm that large construction vehicles will be able to safely maneuver the site.
3. The applicant shall submit a revised site plan to the Planning Authority that shows a complaint rear setback for Lot 2.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

4. The applicant shall finalize, execute, and record a private roadway maintenance agreement for the use and maintenance of Guilford Court. The agreement shall address shared responsibilities for maintenance, repair, and access among all affected property owners and shall provide for continued access by the City for emergency and public services. The agreement shall be reviewed and found acceptable to all relevant parties, the Planning Authority, and Corporation Counsel, prior to execution and recording with the Cumberland County Registry of Deeds.
5. The applicant shall submit a draft reciprocal utility easement for the shared sewer and drainage infrastructure being proposed. The easement shall be found to be acceptable by Corporation Counsel and the Public Works Authority, prior to executing and recording with the Cumberland County Registry of Deeds.
6. The applicant shall prepare draft condominium documents, including declarations, bylaws, and plans, for review and approval by the Planning Authority and Corporation Counsel to ensure consistency with the approved site plan prior to recording with the Cumberland County Registry of Deeds.
7. The applicant shall provide ability to serve letters from the Central Maine Power, the Portland Water District, and the Department of Public Works.
8. The applicant shall prepare a draft stormwater maintenance agreement and winter maintenance agreement for review and approval by the Planning Authority, Public Works Authority and Corporation Counsel. The finalized stormwater and winter maintenance agreement shall be recorded at the Cumberland County Registry of Deeds.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

9. The applicant shall pay a fee-in-lieu of $400 per street tree into the City's Tree Fund for two street trees, for a total of $800.

## Standard Procedures

Note: The following standard procedures and requirements apply to all approved site plans:

1. Site Plan Expiration
   The site plan approval shall expire three (3) years from the date of approval unless development has been undertaken in accordance with the approved site plan and site work or building construction is ongoing. Any lapse in construction for a period in excess of 12 months shall result in an expiration of the site plan.

2. Separate Building Permits Are Required
   This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.

3. Performance Guarantee and Inspection Fees
   A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plan.

4. Construction Management Plans
   The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.

5. Preconstruction Meeting
   Prior to the release of a building permit and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works representative, and owner to

review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre- construction meeting.

6. Department of Public Works Permits

If work or obstructions will occur within the public right- of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

7. Develop Site According to Plan

The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, or of any approved exterior elevations, which were the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.

8. Stormwater Management

The owner/operator of an approved stormwater management system, and all assigns shall comply with the conditions of Chapter 32, Stormwater including Article Ill, Post Construction Stormwater Management, which specifies the annual inspections and reporting requirements. A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form, shall be submitted for review by Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds. The following stormwater management documentation shall be submitted to the Water Resources Division of Public Works and the Planning and Urban Development Department prior to the issuance of a Certificate of Occupancy:

- Final executed and recorded stormwater maintenance agreement including the site's inspection and maintenance plan.
- Certification, based on initial comprehensive inspection from the project Engineer of Record, certifying that the approved stormwater systems were installed properly, are fully operational, and are functioning as intended.
- As-built drawings including grading and drainage and updated details for any stormwater systems on site.
- Department of Public Works Impervious Area Adjustment Form 5A

- Department of Public Works Stormwater Credit Application Form 3

Department of Public Works stormwater program forms can be found at the following link: https://www.portlandmaine.gov/1102/Credit-Manual-and-Applications

9. Third Party Inspections

For all sites with one acre or greater of disturbance, the applicant shall retain the services of a third-party inspector for the duration of construction until final site stabilization is in place. The inspection is required in order to ensure that all construction and stabilization activities comply with the approved drawings and specifications; that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations; and that any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan is communicated to the City of Portland for additional review and approval.

The inspector will submit weekly written reports to the Stormwater Coordinator(s) in the Water Resources Division of Public Works. Reports must include: project ID, project address, the date(s) and time(s) of inspection(s), site photographs of areas under construction, and the date(s) and approximate duration(s) of any rainfall events. The report will identify and describe any erosion problems or discharge of pollutants and what actions will be taken to address these issues and repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.

10. Defect Guarantee

A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

11. As-Built Final Plans

Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department as a PDF. Once the PDF version has been reviewed and accepted, a mylar and a AutoCAD format will need to be submitted to the Department of Public Works Engineering Archive, located at 212 Canco Road, Portland, Maine 04102.

12. Mylar Copies

Mylar copies of the as-built drawings for public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.

13. Impact Fees

New development or changes of use that result in net new residential dwelling units, non- residential building square footage, or water meters, are subject to the City of Portland's impact fee ordinance (Chapter 14, Article XVII). Impact fees are calculated at the time of building permit and must be paid prior to the certificate of occupancy. For more information, visit https://www.portlandmaine.gov/2409/Impact-Fees

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning and Urban Development Department at drc@portlandmaine.gov or (207) 405-4799. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Taylor Colbeth by phone at 207-874-8721 or email at tcolbeth@portlandmaine.gov.

Sincerely,

Brandon Mazer, Planning Board Chair

Attachments:

- Planning Board Report
- Portland City Code: Chapter 32
- Sample Stormwater Maintenance Agreement
- Performance Guarantee Packet

**Design Review**
**Planning and Urban Development Department**

| | |
|---|---|
| **Subject:** | 161 York Street |
| **Zone:** | RN-4 |
| **Date of Review:** | Monday, August 18, 2025 |
| **Reviewer(s):** | Design Review |
| | Sean King (Urban Designer), Neha Sunil Pol (Planner), Taylor Colbeth (Planner) |
| **Project ID:** | PL-003412-2025 |

## I. DESIGN REVIEW CRITERIA

The development project at 161 York Street is subject to the site design standards, Land Use Code section 13.6.4.I Design standards.

## II. APPLICABILITY

RESIDENTIAL LOT DEVELOPMENT LOCATED IN THE RN-4 ZONE
(1) STANDARDS. Residential development located in the RN-4 zone shall provide a high degree of architectural quality and compatibility with the surrounding neighborhood as demonstrated by compliance with the principles and standards of the RN-4 Development Principles and Standards, promulgated by the Planning Board and contained in *Appendix 5*.

## III. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, **red** text denotes standards not met to require resubmission.

*PRINCIPLE A - Overall Context - A building design shall contribute to and be compatible with the predominant character-defining architectural features of the neighborhood.*

*STANDARD A-1 - Scale and Form*
The proposed buildings at 161 York Street are compatible with the scale and form of the surrounding neighborhood, which is composed of residential structures that vary in height, scale and architectural features. The proposed buildings incorporate upper floor stepbacks that Staff finds to reduce the scale of the buildings as perceived from the street and abutting properties. A flat roof form is proposed at each building that Staff finds is compatible with multi-family structures found in the surrounding neighborhood.

*STANDARD A-2 - Composition of Principal Facades*
The composition of the principal facades facing the street incorporate recessed elements at primary building entries and balconies, large ratio of openings to solids and a clear organization of fenestrations that that Staff finds to further reduce the scale of the building.

*STANDARD A-3 - Relationship to Street*
The proposed development on lot 2 orient three residential structures along the property frontage on York Street with recessed building entrances that are accessible from the public sidewalk.

The remaining two residential structures on lot 1 are arranged towards the rear of the property with building entrances facing the proposed “autocourt” and walkways that allow for pedestrian access to

Guilford Court. Staff finds that each residential unit includes a predominant building entrance with a projecting canopy and architectural lighting to meet the intention of this design standard.

*PRINCIPLE B - Massing – The massing of the building reflects and reinforces the traditional building character of the neighborhood through a well composed form, shape and volume.*

*STANDARD B-1 - Massing*
The proposed buildings reduce the massing between each residential unit with a vertical infill band that visually segments the structures into a townhouse style building type that Staff finds is harmonious with the massing of existing buildings in a two-block radius.

*STANDARD B-2 - Roof Forms*
Various roof forms exist within a two-block radius of the site, including flat roof forms for multi-family buildings found in the surrounding neighborhood. Staff finds the flat roof form is compatible with the neighborhood character.

*STANDARD B-3 - Main Roofs and Subsidiary Roofs*
The main roof form and subsidiary roofs at building stepbacks is flat that Staff finds to meet this design standard.

*STANDARD B-5 - Façade Articulation*
The proposed building design provides a variety of façade articulation through recessed entrances and balconies at the front facades along York Street and a projecting canopy at each residential unit located towards the rear of the property that Staff finds appropriate.

*STANDARD B-6 - Garages*
The proposed development integrates a garage door at the rear of each structure and does not include any garage door into the front facade.

*PRINCIPLE C - Orientation to the Street – The building façade shall reinforce a sense of the public realm of the sidewalk while providing a sense of transition into the private realm of the home.*

*STANDARD C-1 – Entrances*
Building entrances are oriented and clearly articulated by a recessed entry at each residential unit along the frontage on York Street. A private stair at each residential unit provides access to the public sidewalk that Staff finds appropriate.

*STANDARD C-2 - Visual Privacy*
The majority of windows are placed with a sill height above 48 inches at the ground-level residential unit above the adjoining sidewalk grade. Staff finds the “translucent glass block or screening for light and privacy” provides further privacy at the first floor, however the introduction of this building material is unique to the surrounding residential context found within a two-block radius.

*STANDARD C-3 - Transition Spaces*
The proposed residential building is setback minimally from the street with a planting strip and private stairs as transition space between the public sidewalk and the building edge that Staff finds appropriate.

*PRINCIPLE D - Proportion and Scale – Building proportions must be harmonious and individual building elements shall be human scaled.*

*STANDARD D-1 – Windows*
*The majority of windows are vertically proportioned with large fenestrations along the front facades that are proportional to the overall massing of the building.*

*STANDARD D-2 – Fenestration*
Doorways, windows and other openings are scaled appropriately and meet at least 12% area of the fenestration of the total façade area.

*PRINCIPLE E – Balance – The building façade elements must create a sense of balance by employing local or overall symmetry and by appropriate alignment of building forms, features and elements.*

*STANDARD E-1 - Window and Door Height*
*The majority of window's and door's head heights align along a common horizontal line to meet this design standard.*

*STANDARD E-2 - Window and Door Alignment*
The majority of windows stack to express a vertical alignment to meet this design standard.

*STANDARD E-3 – Symmetricality*
The primary window composition is arranged symmetrically at each residential unit to meet this design standard.

*PRINCIPLE F – Articulation – The design of the building is articulated to create a visually interesting and well composed residential façade.*

*STANDARD F-1 – Articulation*
The proposed buildings provide surface articulation with minimal window reveal and metal paneling as trim detailing between changes in material and below balconies that Staff finds appropriate.

*STANDARD F-2 - Window Types*
The proposed buildings include a consistent large window opening as a basis for the window type along the street-facing façade. Variation in casement windows with side openings are proposed to maintain a consistent fenestration pattern that Staff finds appropriate.

*STANDARD F-3- Visual Cohesion*
The proposed buildings include brick at the first floor with vertically oriented siding above that Staff finds to meet the intent of this design standard.

*STANDARD F-4- Delineation Between Floors*
The proposed building creates alignment of the windows, change in materiality above first floor and stepbacks at upper floor to clearly delineate between floors that Staff finds appropriate.

*STANDARD F-5 - Porches, etc.*
The proposed development includes recessed entryways with private stairs to access the public sidewalk that Staff finds appropriate.

STANDARD F-6 - Main Entries
Building entrances are oriented and clearly articulated by a recessed entry at each residential unit along the frontage on York Street. Predominant building entrances are articulated on Guilford Court with a projecting canopy and architectural lighting that Staff finds appropriate.

STANDARD F-8 - Articulation
The proposed building design includes articulation on all facades facing and adjacent to the street through offsets in the building massing above the third and fourth floor and a minimal metal trim at changes in material and at the roof line that Staff finds appropriate.

*Principle G - Materials – Building facades shall utilize appropriate building materials that are harmonious with the character defining materials and architectural features of the neighborhood.*

*STANDARD G-1 – Materials*
The proposed building façade materials include brick at the first floor and infill between residential units that Staff finds is contextual to the surrounding residential structures found within a two-block radius. **Other building façade materials include vertical corrugated metal and translucent glass block or screening for light and privacy that is unique to the surrounding context. Staff requests the Applicant provide façade material precedent within the surrounding residential context to illustrate the use of these materials for Staff review.**

*STANDARD G-2 - Material and Façade Design*
Staff finds the façade materials are organized to convey a consistent façade design.

*STANDARD G-4 - Window Types -*
Staff finds that the proposed window types are limited to two with a consistent dimension throughout the building design that Staff finds appropriate.

*STANDARD G-5 - Patios and Plazas -*
The proposed development includes an “autocourt” and walkways as masonry paving and patios as concrete that Staff finds appropriate as permanent surface materials.

ACORN ENGINEERING, INC.

Planning and Urban Development Department
Attn: Andrew Graminski, AICP, Development Review Manager
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

July 10, 2025

Subject: Major Site Plan Application
161 York Street Redevelopment

Mr. Graminski:

On behalf of 161 York Street LLC, we are pleased to submit the accompanying package of submission materials for a Major Site Plan Application to support the proposed redevelopment of 161 York Street (Parcel ID: 044 B006001 & 044 B007001).

The site is located within the RN-4 Zoning District and proposes dividing the 0.25-acre lot into two parcels in order to construct a four-family building on Lot 1 (0.13 ac) and a three-family unit on Lot 2 (0.12 ac) for a total of seven new units. Ten covered parking spaces are proposed on site, connected via Guilford Court, an existing 16.5' private right-of-way located to the rear of the parcel which is accessed off Park Street. This proposed site layout allows for an activated street frontage along York Street with residential entrances and stoops, and avoids implementing a vehicular curb cut from what is a highly traveled roadway with existing neighboring curb cuts in close proximity. The project will also reconstruct the public sidewalk while incorporating underground stormwater treatment and detention techniques.

This application package is intended to meet the City's submission requirements as outlined in the Major Site Plan application procedures. Please see the Table of Contents below for the material submitted as part of this application.

The Applicant and the design team look forward to your review of this project. If you have any questions regarding these materials or the completeness of the application materials, please do not hesitate to contact me.

Sincerely,

Sam Lebel

Sam Lebel, P.E.
Senior Project Manager
Acorn Engineering, Inc.

The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application.

- Section A: Cover Letter
- Section B: Major Site Plan Application & Checklist
- Section C: Right, Title, Interest
- Section D: Financial Capacity
- Section E: Technical Capacity
- Section F: Conformity with Land Use Ordinance
- Section G: Site Plan Data Table
- Section H: Waiver Table
- Section I: Easements
- Section J: Construction Management Report
- Section K: Stormwater Management Report
- Section L: Utility Cover
- Section M: Solid Waste
- Section N: Fire Department Letter
- Section O: Architectural Design Narrative
- Section P: LID Worksheet
- Section Q: Lighting
- Section R: Wastewater Capacity
- Section S: Erosion & Sedimentation Control Report
- Section T: Parking Summary
- Section U: Average Grade Calculation

Drawings:

- Civil Site Plan Set; prepared by Acorn Engineering Inc.
- Landscape Plans; prepared by Soren Deniord Design Studios
- Architectural Plan Set; prepared by Woodhull Architecture

ACORN ENGINEERING, INC.

Taylor Colbeth – City Planner
Department of Planning & Urban Development
City Hall, 389 Congress Street, 4th Floor
Portland, Maine 04101

October 21, 2025

Subject: 161 York Street
Comment Response Letter II

On behalf of 161 York Street, LLC, we are pleased to respond to the second round of comments that we received on October 17th, 2025, related to the proposed redevelopment project located at 161 York Street in Portland, ME.

**Stormwater**

***Comment*** *– The Applicant should review the layout of sewer pipes into the proposed manhole SMH-2. The inverts in from SMH-1 and the Oil Water Separator are at the same elevation, and with a very tight angle the current layout may not fit on the proposed structure.*

**Response –The stormwater pipe inlet downstream from the oil water separator into SMH-2 has been raised to provide a minimum of 6 inches of vertical separation for the pipe connections. See the revised Utility Plan for additional information.**

**Water Resources**

***Comment*** *– The applicant is requesting 6 points for innovative stormwater management or low-impact development (LID) site design. This category is intended to recognize projects that incorporate cutting-edge treatment technologies or demonstrate innovative, holistic low-impact design principles applied throughout the entire site. Based on our review, the proposed subsurface detention system and cartridge filter systems do not appear to meet the intent of this bonus point category in the opinion of the water resources division.*

**Response – Understood. Thank you for your comment. The LID scoresheet has been revised to remove the 6 points for innovative stormwater management design and/or stormwater improvement.**

***Comment*** *– We believe the applicant could recover the six points by claiming two points for the new development providing enhanced non-lawn landscaping on more than 50% of the non-impervious developed area, and four points for establishing a winter maintenance agreement.*

**Response – The LID scoresheet has been revised to include 2 points for non-lawn landscaping on more than 50% of the non-imperious area. The remaining four points will come from providing a detailed winter maintenance agreement with**

**annual reporting in conformance with Section 3 of the Technical Manual regarding Low Impact Development Standards. We request that the winter maintenance agreement can be provided as a condition of approval as part of the stormwater maintenance agreement. Understanding the site is not in an urban impaired stream watershed, salt is still anticipated to be used as needed in the winter, but at an appropriate rate and under proper housekeeping practices.**

***Comment*** *– The proposed 6-inch sewer connection to the 36-inch combined sewer in York Street should utilize an Inserta Tee–style fitting, as a standard wye fitting will not be compatible with the larger mainline pipe.*

**Response – The proposed 6-inch sewer connection to the 36-inch sewer main in York Street has been revised to show an Inserta tee style fitting as suggested. Please refer to the updated Utility Plan for additional information.**

***Comment*** *– The applicant has acknowledged the need for a reciprocal utility easement for the shared sewer and drainage infrastructure. Planning should make execution of this easement a condition of approval.*

**Response – Understood, thank you.**

**Zoning**

***Comment*** *– The elevations provided by Woodhull for the Guilford Court building are lacking in a few areas.*

*1.) They are labeled Concept Review package*
*2.) They need to provide a measurement from the average grade to the roofbeam.*
*3.) The grade on each elevation needs to match the grading plan and the average grade provided by Acorn*
*4.) The elevations show a step down in the building between unit 5 & units 4 & 6 but the average grade sheet does not show this.*
*5.) Rooftop decks. - Need to confirm that the distance from the surface of the roof to the top of the deck floor is no greater than 18"*

**Response – Updated elevations have been provided by Woodhull in response to the city comments above. Please refer to the revised elevations for additional information.**

Please let us know if you have any additional questions or comments.

Sincerely,

Sam Lebel

Sam Lebel, P.E.
Senior Project Manager
Acorn Engineering, Inc.

Sincerely,

Zachary Stevens

Zachary Stevens, P.E.
Associate Project Manager
Acorn Engineering, Inc.

City of portland

## Planning & Urban Development Department

# MAJOR AND MINOR SITE PLAN DOCUMENT CHECKLIST

**Please submit each document as a separate PDF file.**

**Please confirm by electronically checking the boxes in the left-hand column.**

## General Application Documents

| Indicate Below | Required of All Applications |
|---|---|
| ☑ | **Project Description**<br>• Cover letter with detailed project description |
| ☑ | **Completed Checklist** (this document) |
| ☑ | **Evidence of Right, Title, and Interest**<br>• Deeds, leases, or purchase and sale agreements |
| ☑ | **Financial Capacity**<br>• Letter or evidence from a financial institution or third-party verifying financial capacity to undertake the project. |
| ☑ | **Technical Capacity**<br>• Evidence of technical capability of applicant and consultants – resume and/or examples of past projects. |
| ☑ | **Site Plan Standards**<br>• Summary of project compliance with site plan standards of the land use code. |
| ☑ | **Site Plan Data** (the link to the form can be found **here**)<br>• Summary of project data and compliance with use and dimensional standards of land use code. |

| Indicate Below | | Only if Applicable |
|---|---|---|
| Yes | N/A | |
| ☑ | ☐ | **Waiver Requests** (the link to the form can be found **here**)<br>• Written request for waiver describing request and compliance with applicable waiver standards. |
| ☑ | ☐ | Summary of Existing or Proposed Easements or Covenants<br>• Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way. |
| ☐ | ☑ | Evidence of State or Federal Approvals<br>• Permits or letters of non-jurisdiction |

## Additional Documents

| Indicate Below | | Only if Applicable |
|---|---|---|
| Yes | N/A | |
| ☑ | ☐ | Construction Management Plan, including traffic control plan.<br>• Provide construction management narrative in accordance with the City's Construction Management Template. |
| ☐ | ☑ | Traffic Study and/or other Transportation Plans<br>• Detailed in Sec. 2 of the Technical Manual |
| ☐ | ☑ | Significant Natural Features Narrative |

| | | |
|---|---|---|
| | | • Identify significant natural features, wildlife habitats, fisheries habitats, or archaeological sites as detailed Ch. 14, Article 13, located on or near the project site, and describe protection methods during and after construction. |
| ☑ | ☐ | **Stormwater Management Report**<br>• Detailed in Sec. 14 of the Technical Manual |
| ☑ | ☐ | **City Master Plan Narrative**<br>• Detail project's consistency with City adopted Master Plans. |
| ☑ | ☐ | **Evidence of Utility Capacity**<br>• Provide letter from all utility providers demonstrating capacity to service the project. |
| ☑ | ☐ | **Solid Waste Narrative**<br>• Detail the amount of solid waste and recyclable material anticipated to be generated by the development, and information on how waste will be collected and removed. |
| ☑ | ☐ | **Life/Safety Code Analysis Narrative**<br>• Detail how the project complies with NFPA 1 and other Fire Department technical standards. |
| ☑ | ☐ | **Design Narrative**<br>• Detail how the project complies with any applicable design standards contained within the Land Use Code or City of Portland Design Manual. |
| ☑ | ☐ | **HVAC and Manufacturing Equipment Verification**<br>• Provide verification from manufacturer that equipment meets applicable state and federal emissions requirements. |
| ☑ | ☐ | **Low Impact Development (LID) Analysis**<br>• Provide a narrative detailing how the project complies with the low impact development requirements listed in Section 3 of the Technical Manual, along with a completed LID scorecard. |

## MAJOR AND MINOR SITE PLAN DRAWINGS CHECKLIST

**Please upload the following drawings with the listed details into ProjectDox as separate PDFs. All drawings must be submitted in a 24 x 36 inch sheet size.**

**Boundary Survey** (Stamped by a Licensed Surveyor in accordance with Sec. 14 of the Technical Manual)

**Site Plan(s)** (Stamped by a Maine Licensed Professional Engineer)

| Indicate Below | | **All Sheets** – Include a title block with project title and the following information: |
|---|---|---|
| ☑ | | Project street address |
| ☑ | | Name and address of property owner & applicant. |
| ☑ | | Licensed design professional, including firm that produced plans. |
| ☑ | | North arrow |
| ☑ | | Date of preparation and revision history block. |
| ☑ | | Tax parcel (chart, block, and lot) number |
| **Indicate Below** | | **Existing Conditions Plan** |
| Yes | N/A | |
| ☐ | ☑ | Existing structures, with distance from primary building façade(s) to the property line. |
| ☑ | ☐ | Approximate location of structures on abutting properties |
| ☑ | ☐ | All streets and intersections adjacent to the site |
| ☑ | ☐ | Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials |

| | | |
|---|---|---|
| ☐ | ☑ | Existing public transit infrastructure |
| ☑ | ☐ | Existing vehicle & bicycle parking areas |
| ☑ | ☐ | Existing utilities on site and within adjacent rights-of-way |
| ☑ | ☐ | Existing grades (two-foot contours preferred) |
| ☐ | ☑ | Location of water courses, wetlands, and vegetation, or other significant natural features |
| ☐ | ☑ | Existing soil conditions and locations of test pits and borings |
| ☐ | ☑ | Zoning boundary lines, including overlays |
| ☑ | ☐ | Location of all existing easements and rights-of-way. |
| Indicate Below<br>Yes | N/A | **Proposed Site Plan** |
| ☑ | ☐ | Proposed structures, including distance from primary building façade(s) to property lines |
| ☑ | ☐ | Ground floor area, and finished floor elevations for all buildings |
| ☑ | ☐ | Any proposed geometric modifications to streets and intersections adjacent to site |
| ☑ | ☐ | Location, dimensions and materials of all proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines |
| ☑ | ☐ | Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas |
| ☐ | ☑ | Location and dimensions of proposed loading areas, including turning templates |
| ☐ | ☑ | Proposed transit infrastructure with dimensions/ engineering specifications |
| ☑ | ☐ | Location of vehicle and bicycle parking with dimensions and engineering specifications |
| ☑ | ☐ | Location of all snow storage areas |
| ☑ | ☐ | Exterior lighting (please see Technical Manual for photometrics requirements) |
| ☑ | ☐ | Location of fire hydrants |
| ☐ | ☑ | Location of solid waste management receptacles |
| ☑ | ☐ | Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable |
| ☑ | ☐ | Location of proposed easements and rights-of-way, including dimensions |
| ☑ | ☐ | Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed |
| Indicate Below<br>Yes | N/A | **Utility Plan** |
| ☑ | ☐ | Proposed electrical infrastructure |
| ☑ | ☐ | Location, sizing and directional flows of all proposed sewer and stormwater infrastructure |
| ☑ | ☐ | Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to the site |
| Indicate Below<br>Yes | N/A | **Grading and Drainage Plan** |
| ☑ | ☐ | Proposed grades |
| ☑ | ☐ | Proposed stormwater management measures meeting Technical Manual standards |
| ☑ | ☐ | Any proposed alteration of a watercourse or wetlands |
| ☐ | ☑ | Any groundwater protection measures |
| ☐ | ☑ | Proposed buffers and preservation measures for wetlands or significant natural features |
| Indicate Below<br>Yes | N/A | **Landscape Plan** |
| ☐ | ☑ | Existing vegetation to be preserved and preservation measures |

| | | |
|---|---|---|
| ☑ | ☐ | Proposed landscaping, screening, and street trees, including caliper widths for trees |
| ☑ | ☐ | Planting schedule, including street trees detailing species, quantity of plantings, and size at planting. |
| Indicate Below<br>Yes | N/A | **Architectural Plans and Renderings** |
| ☑ | ☐ | Exterior building elevations, color renderings, illustrations of all sides. |
| ☑ | ☐ | Axonometric and street-level views for structures greater than three stories in height. |
| ☑ | ☐ | Context drawings |
| ☑ | ☐ | Floor plans |
| Indicate Below<br>Yes | N/A | **Construction Management Plan** |
| ☑ | ☐ | Specifics on traffic control, sidewalk sheds, and pedestrian rerouting |
| ☑ | ☐ | Construction management plan and narrative based upon site plan in accordance with the City's construction management template. |
| Indicate Below<br>Yes | N/A | **Other** |
| ☐ | ☑ | Details and cross-sections |

# C. Right, Title & Interest

See attached Purchase and Sale Agreements for the project property located at 161 York Street, encompassed by the following parcels: 044 B006001 & 044 B007001.

# PURCHASE AND SALE AGREEMENT

This Agreement made as of 18th day of March, 2025, by and between York Street Redevelopment, LLC, of Portland, Maine ("Seller"), and ME RE Acquisitions, LLC, or assigns.

1. PREMISES. Seller agrees to sell and Buyer agrees to buy a certain lot or parcel of land, with the improvements thereon, consisting of 11,046 square feet, more or less, located on York Street, in the City of Portland, County of Cumberland, and State of Maine, together with all improvements and fixtures thereon and all rights, privileges, easements and appurtenances thereto, including without limitation, all air rights, water rights, rights-of-way or other interests in, on, under or to any land, highway, alley, street or rights-of-way abutting or adjoining said parcel, and more particularly described deeds recorded at the Cumberland County Registry of Deeds in Book 32580, Page 183, Book 32580, Page 186, and Book 33060, Page 83 ("Premises").

2. PURCHASE PRICE. Subject to any adjustments and prorations contained herein [redacted]

(a) [redacted] upon the full execution of this Agreement by both Buyer and Seller (the "Deposit"), to be held by Porta & Co. ("Escrow Agent"). The Deposit shall be held by Escrow Agent in its non-interest bearing trust account. The Deposit shall be credited towards the Purchase Price at the Closing; and

(b) The balance of the Purchase Price minus the Deposit and any Additional Deposits paid to Seller plus or minus the pro-rations, shall be delivered to Seller at Closing by wire transfer to an account designated by Seller.

3. CLOSING. Unless otherwise agreed in writing, the closing of the transaction contemplated by this Agreement (the "Closing") shall take place not later than the earlier of (i) [redacted] from the Effective Date, at the Cumberland County Registry of Deeds or such other place as reasonably designated by Buyer. Buyer shall give Seller at least ten (10) days' advance written notice of the date on which it intends to close (the "Closing Date"). Time is of the essence and a material provision of this Agreement for all of the dates set forth herein.

4. DEED, TITLE. Seller agrees to convey to Buyer good and marketable and insurable title to the Premises by Quitclaim Deed With Covenant delivered at closing, free and clear of encumbrances, except: (i) easements for utilities servicing the Premises, (ii) as waived by Buyer hereunder, (iii) zoning and building laws or ordinances, (iv) any matters of record existing as of the date hereof and not objected to by Buyer in accordance with the terms of this Section 4, and (v) real estate taxes assessed but not due and payable. Buyer shall have ninety (90) days from the Effective Date to examine title to the Premises and give written notice to Seller of any objections to the status of title. The failure of Buyer to timely deliver such notice shall constitute a waiver of objection to any matters of record existing as of the date hereof. If Buyer timely objects to the status of title, then Seller shall have a reasonable period of time (not to exceed thirty (30) days) to cure said objection. Seller agrees to use commercially reasonable

efforts in good faith to cure such defects. If title cannot be cleared of such defects within such a reasonable period, then Buyer shall either elect to close and accept title "as is", without reduction in the Purchase Price, or terminate this Agreement whereupon the Deposit shall be returned to Buyer, and neither party shall have any further obligations hereunder. Seller agrees that it will not further encumber or permit to be encumbered the Premises by any liens, mortgages, attachments, covenants, restrictions, easements or otherwise after the Effective Date of this Agreement.

5. COLLATERAL DOCUMENTS. The parties further agree to execute and deliver to each other at the closing such title insurance affidavits and further documents as are reasonably necessary to effect the conveyance of the Premises, in form and substance acceptable to Buyer's lender and title insurer.

6. RISK OF LOSS, DAMAGE AND INSURANCE. All risk of loss to the Premises prior to the closing shall be borne by Seller.

7. PRORATIONS.

All rents, real estate and personal property taxes, service and supply contracts, fuel and/or gas, shall be prorated at Closing as of Effective Date and the Maine real estate transfer tax shall be paid by Buyer notwithstanding 36 M.R.S.A. § 4641-A, and the recording fee for the deed of conveyance shall be paid by Buyer, meaning and intending that Seller shall receive not less than [redacted] excluding any fees of Seller related to the retention of Seller's counsel or other advisors and real estate taxes owed as of Effective Date.

8. INSPECTIONS; PERMITS; FINANCING; DUE DILIGENCE.

(a) Seller has provided copies of all of the following documents relating to the Property in Seller's possession: (a) title insurance policies; (b) surveys; (c) environmental and/or wetlands scans, studies or reports; and (d) engineering and/or architectural studies, geotechnical studies, water surveys, topographical surveys, utility surveys, sewage disposal surveys, storm water drainage determinations, and such other tests, studies, reports or assessments (collectively, the "Seller's Documents"). The Seller's Documents, as applicable, are being provided for informational purposes only.

(b) The Premises are to be conveyed "as is" and Seller has made no representation or warranty other than as specifically provided in this Agreement. Upon reasonable written notice to Seller and subject always to the rights of any tenants or occupants of the Premises, Seller hereby grants Buyer and its agents the right to enter upon or in any part of the Premises at all reasonable times and from time to time prior to the closing in order to inspect the Premises, conduct surveys, soil tests, engineering and environmental testing and studies and to do such things as are reasonably necessary with respect to its due diligence, acquisition, financing and development of the Premises. Buyer shall indemnify and hold Seller harmless from any claims or loss resulting from such entry, including, without limitation reasonable attorneys' fees. The foregoing indemnification shall survive the Closing and/or any termination of this Agreement.

(c) Buyer's satisfaction, in its sole and unlimited discretion, with its investigation, reviews, and inspections of the Premises, including, without limitation, its satisfaction of the

form, content and terms of any leases and other information provided by Seller pursuant to this Agreement (collectively "Inspections"), is a condition to Buyer's obligation to close hereunder. Supplementing and not limiting the forgoing, in the event Buyer, it his sole discretion, determines it necessary to obtain permits, variances, releases, or other permissions or assurances (collectively "Permits") from any government agency of competent jurisdiction, including but not limited to the City of Portland, the State of Maine, and the United States Army Corps of Engineers, Seller shall reasonably cooperate with Buyer to obtain such Permits. Any costs incurred in the pursuit of such Permits shall be the sole responsibility of the Buyer. Buyer's satisfaction, in its sole and unlimited discretion, with any Permits or lack thereof related to the Premises is a condition to Buyer's obligation to close hereunder.

(d) In the event the Buyer, in his sole discretion, is in any way unsatisfied with the Premises, Buyer may elect to terminate this Agreement by written termination notice to Seller within one hundred and twenty (120) days of the Effective Date hereof ("Due Diligence Period"), and upon such notice this Agreement shall terminate, the Escrow Agent shall promptly send the Deposit to the Buyer and, except as otherwise expressly stated herein, neither party shall have any further obligations hereunder. Buyer may extend the Due Diligence Period by 30 days three consecutive times by written notice to Seller prior to the expiration of the Due Diligence Period, provided Buyer shall provide Seller an Additional Deposit of Five Thousand Dollars ("Additional Deposit") concurrent with each such notice. Any Additional Deposits made shall be refundable to the Buyer, and shall be attributable to the Purchase Price.

(e) Buyer shall apply for a Site Plan Application to the City of Portland within 90 days of the Effective Date of this Agreement "Permit Period". Failure of the Buyer to submit such an application shall cause this Agreement to be void and the Deposit shall be released to Buyer. Buyer may extend the Permit Period by 30 days one time by written notice to Seller prior to the expiration of the Permit Period.

(f) In the event this agreement is terminated for any reason other than Closing or a Default of Seller, Buyer shall provide all materials developed related to its Inspections and Permits for the Premises to the Seller, shall provide whatever further authorizations Seller deems reasonably necessary for its utilization of said materials, and shall indemnify and hold Seller harmless for any liens related to said materials. This section shall survive termination of this Agreement.

(g) The "Permit Date" shall be the date on which an authorized agent of the City of Portland, including but not limited to the Planning Board, takes an affirmative vote on the application of Buyer for the Permits.

9. POSSESSION OF THE PREMISES. The Premises shall be delivered to the Buyer at the time of the closing free and clear of all tenancies or occupancies by any person or entity.

10. REPRESENTATIONS AND WARRANTIES OF SELLER. Seller represents and warrants to Buyer that the following are true as of the date of this Agreement and will be true as of the closing:

(a) Seller is duly organized, validly existing and in good standing under the laws of the State of Maine. Seller has the requisite right, power and authority to sell and convey the Property to Buyer as provided herein, and has taken all action necessary to authorize the execution, delivery and performance of this Agreement. Seller has obtained all consents and approvals necessary for Seller's execution, delivery and performance of this Agreement, and the performance by Seller of Seller's obligations hereunder will not constitute a default under the terms and provisions of any material agreement, document or instrument to which Seller is a party or by which Seller is bound.

(b) Seller has not received any written notice of any pending condemnation, expropriation, eminent domain or similar proceeding affecting all or any portion of the Property and to Seller's Knowledge, no such proceeding is contemplated.

(c) There are no leases, tenancy agreements, tenancies at will, parking space agreements and other contracts, agreements or occupancy arrangements, whether written or oral, to which Seller is a party affecting the Property or any portions thereof in effect with respect to any portion of the Property.

(d) There are no outstanding pending, or to the best of Seller's knowledge, threatened liens, claims, options, rights of first refusal, boundary disputes, or encumbrances against or encroachments by, any portion of the Premises.

(e) There are no litigation, liens, judgments, violations, or proceedings pending, or to the best of Seller's knowledge, threatened against or relating to the Premises nor does Seller know or have reasonable grounds to know of any basis for any such action, or of any governmental investigation relating to the Premises.

11. SELLER'S CLOSING DELIVERIES. On the closing date, Seller shall deliver the following:

(a) The deed;

(b) Seller's executed FIRPTA Affidavit and Maine Residency Affidavit, if applicable;

(c) Seller's executed Title Insurance Affidavit or similar statement, in form and substance acceptable to Buyer and its title insurer, pertaining to mechanics' liens and parties in possession;

(d) Maine Transfer Tax form;

(e) Such other documents, instruments, certifications and confirmations as may be reasonably required and designated by Buyer's title insurer, counsel, or lender to fully effect and consummate the transactions contemplated hereby.

12. BUYER'S CLOSING DELIVERIES. On the closing date, Buyer shall deliver the following:

(a) The balance of the Purchase Price in immediately available funds;

(b) Buyer's executed affidavit or similar statement which may be required by Buyer's title insurer;

(c) Maine Transfer Tax form; and

(d) Such other documents, instruments, certifications and confirmations as may be reasonably required and designated by Seller or Seller's counsel to fully effect and consummate the transactions contemplated hereby.

13. DEFAULT. (a) In the event of a default by Seller hereunder which Seller fails to cure within ten (10) days after receipt of notice describing such default in reasonable detail, Buyer shall be entitled (i) to terminate this Agreement by written notice to Seller, in which event the Deposit and any Additional Deposits shall be returned to Buyer and neither party shall have any further rights, obligations or liabilities hereunder except as explicitly set forth herein, or (ii) to enforce Seller's obligations hereunder by a suit for specific performance

(b) In the event of a default by Buyer hereunder, Seller shall be entitled to terminate this Agreement by written notice to Buyer, in which event the Deposit and all other funds and fees paid to Seller shall be retained as liquidated damages and neither party shall have any further rights, obligations or liabilities hereunder except as explicitly set forth herein. The parties acknowledge and agree that the actual damages in the event of a default by Buyer are uncertain in amount and difficult to ascertain, and that said amount of liquidated damages was reasonably determined.

14. REAL ESTATE BROKER. Seller and Buyer each represent and warrant to the other that it has not dealt with any agents, brokers or finders in connection in this transaction covered by this Agreement, except for MacKenzie Simpson of Porta & Co., an affiliate of Buyer. Seller's liability to Porta & Co. for brokerage commission under this Agreement shall be no less [redacted] Seller harmless for any claims made by said Porta & Co. Each of the parties hereto agrees to indemnify and hold the other harmless from and against any claims, actions, liabilities, costs and expenses (including, without limitation, reasonable attorneys' fees) with respect to any breach of the foregoing representation and warranty. Seller and Buyer hereby acknowledge that the foregoing representation and warranty shall survive the closing.

15. MARKET. Buyer may market to and solicit tenants, subtenants, co-buyers, customers, joint venturers, and the like for any proposed developments of Buyer on the Premises to potential tenants while this Agreement is in effect, including a sign on the Premises. Seller may [redacted]

16. NOTICES. Any notices, elections or exercise of contingencies under this Agreement shall be sufficient if in writing, and if: (a) delivered in hand, (b) sent by certified mail, return receipt requested, (c) sent by FedEx, or similar overnight express mail service, prepaid; or (d) sent by facsimile ("Fax") transmission, each to the addresses and/or Fax numbers listed below:

To Buyer: ME RE Acquisitions, LLC
331 Lower Flying Point Road
Freeport, ME 04032

To Seller: York Street Redevelopment, LLC
42 Market Street
Portland, Maine 04101

All such communication shall be deemed made upon the earlier of (3) business days following deposit with the U.S. Mail or the date of receipt as disclosed on the return receipt (if sent by registered or certified mail), or upon delivery (if hand delivered), or upon delivery as indicated on the proof of delivery (if sent via FedEx or similar overnight express mail service), or upon time of confirmed receipt (if sent via Fax). With respect to any of the above-referenced methods of delivery, rejection or other refusal to accept or the inability to deliver because of a change of address of which no notice was given shall be deemed to be receipt of the notice sent. Either party may change its address or its Fax number for purposes of this subparagraph by giving the other party notice of the new address or Fax number in the manner described herein.

17. MERGER. This Agreement represents the entire contract between Buyer and Seller and shall not be amended except by a writing executed by both the parties.

18. BUYER'S RIGHT TO ASSIGN. Buyer may, by written notice to Seller prior to the Closing Date, designate a nominee to take title to the Property and assign Buyer's interest in this Agreement in connection therewith to an entity in which the principals of Buyer own a membership or other equity interest. The named Buyer under this Agreement shall remain liable under this Agreement notwithstanding any such assignment.

19. SURVIVAL. The representations, warranties and indemnifications set forth herein shall survive the closing or other termination of this Agreement.

20. COUNTERPARTS/FACSIMILE SIGNATURES. This Agreement may be simultaneously executed in any number of counterparts, each of which when so executed and delivered shall be an original, but such counterparts shall constitute one and the same instrument. This Agreement may be transmitted between the parties by facsimile machine and signatures appearing on faxed instruments shall be treated as original signatures.

21. EFFECTIVE DATE. The Effective Date of this Agreement shall be deemed to be the date first set forth above in this Agreement, provided that if no date is filled in, the Effective Date shall be the last date of the signature of either Buyer or Seller.

22. MISCELLANEOUS. All dates mentioned are a material part of this Agreement TIME IS OF THE ESSENCE. Whenever in this Agreement consent or approval of any party is required, such consent or approval shall not be unreasonably withheld or delayed unless specifically otherwise provided for. This Agreement shall be governed by Maine law, and shall be binding upon and inure to the benefit of the parties and their respective heirs, successors and assigns. Buyer may assign his rights and obligations hereunder by written notice to Seller.

23. SECTION 1031 "LIKE KIND" EXCHANGE. Intentionally Omitted.

24. BINDING EFFECT/ASSIGNMENT. This Agreement shall not become a binding contract until signed by both parties and that fact has been communicated to all parties or their agents.

IN WITNESS WHEREOF, Buyer and Seller have executed this Agreement as of the date first above written.

WITNESS:

SELLER – York Street Redevelopment, LLC

By: Michael Cianchette
Its: Manager

WITNESS:

BUYER –. ME RE Acquisitions, LLC

March 18, 2025

By:
Its: Manager

For the sole purpose of acknowledging its capacity as Escrow Agent herein.

Porta & Co.

By:
Name: Vince Ciampi
Title: DB

"Escrow Agent"

Docusign Envelope ID: 8787BFD0-E2B5-45FE-B892-932C08097887

# ASSIGNMENT AND ASSUMPTION OF PURCHASE AND SALE AGREEMENT

This Assignment and Assumption of Purchase and Sale Agreement ("Assignment Agreement") is entered into this 12th day of June, 2025, by and between ME RE Acquisitions, LLC, a Maine limited liability company ("Assignor") and 161 York Street, LLC, a Maine limited liability company ("Assignee").

WHEREAS, Assignor entered into that certain Purchase and Sale Agreement with York Street Redevelopment, LLC ("Seller"), with respect to the acquisition of that certain real property of Seller located at 161-163 York Street, Portland, Maine, dated March 18, 2025, as amended by First Amendment dated June 11, 2025 (collectively, "PSA");

WHEREAS, Assignor desires to assign all of its right, title, and interest as Buyer pursuant to said PSA to Assignee, and Assignee desires to accept and assume said assignment;

WHEREAS, Section 18 of the PSA allows Assignor to assign its right, title, and interest under the PSA to an entity in which the principals of Assignor own a membership interest, and Assignee meets said requirement;

WHEREAS, Assignor has provided written notice of said assignment to Seller;

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

A. Assignment. Assignor hereby assigns the PSA, together with all deposits thereunder, to Assignee. Assignee hereby accepts the within assignment and assumes and agrees to perform the obligations of Assignor under the PSA.

B. Miscellaneous. All capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the PSA. This Assignment Agreement may be executed in counterparts, all of which when delivered shall constitute one and the same instrument. Electronic signatures (DocuSign) or signatures delivered via email (PDF) shall create a binding obligation with the same force and effect as an original. The recitals are incorporated herein as if fully set forth in the body of the Assignment Agreement.

IN WITNESS WHEREOF, the parties have executed this Assignment and Assumption of Purchase and Sale Agreement as of the date first set forth above.

ASSIGNOR:

ME RE Acquisitions, LLC

By DocuSigned by: Mac Simpson EBFC39C3796A4A7... Mackenzie Simpson, Manager

ASSIGNEE:

161 York Street, LLC

By Signed by: Marieke Thormann 9EE0C11F602D417... Marieke Thormann, Manager

DrummondWoodsum
ATTORNEYS AT LAW

**Laura J. Hartz**
Admitted in ME, NH

207.253.0533
lhartz@dwmlaw.com

84 Marginal Way, Suite 600
Portland, Maine 04101-2480
207.772.1941 Main
207.772.3627 Fax

September 29, 2025

Planning and Urban Development Department
Attn: Andrew Graminski, AICP, Development Review Manager
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

RE: Right, Title, Interest over Guilford Court, Portland for 161 York Street, LLC

Dear Mr. Graminski:

I represent 161 York Street, LLC ("Applicant") in their proposed redevelopment of 161-163 York Street in Portland (Parcel ID: 044 B006001 & 044 B007001) (together, the "Property"). This letter supplements the Major Site Plan Application submitted by Acorn Engineering, Inc. on behalf of 161 York Street, dated July 10, 2025, ("Application") and explains the Applicant's right, title, or interest over Guilford Court.

As stated in Section C of the Application, the Applicant has interest in the Property by virtue of the Purchase and Sale Agreement between York Street Redevelopment, LLC, as seller ("Seller"), and ME RE Acquisitions, LLC, as buyer, dated March 18, 2025 ("PSA"). On June 12, 2025, ME RE Acquisitions, LLC assigned its interests in the Property as buyer to the Applicant.

The Applicant received interests in Guilford Court via Section 1 of the PSA, which states that the conveyed property rights include "all rights, privileges, easements and appurtenances thereto, including without limitation, all . . . rights-rights-of-way or other interests in, on, under or to any land, highway, alley, street or rights-of-way abutting or adjoining said parcel." Both lots comprising the Property have frontage on Guilford Court, which is not a public road but is a private street.

This office completed extensive title research on Guilford Court and confirmed that it has been used to access the Property and other properties abutting Guilford Court for at least 140 years, as shown on a tax map for the City of Portland dated 1882 and excerpted below, recorded in Cumberland County Registry of Deeds in Plan Book 5, Page 44. Numerous deeds in the Seller's title chain reference Guilford Court, which has remained the same dimensions and location over time. In fact, one of Seller's vesting deeds for the Property includes the phrase, "also conveying all the right, title and interest in and to Guilford Court . . . of which this Grantor may be possessed." See Warranty Deed of Rosary M. Larochelle, dated September 9, 2015, and recorded in the Cumberland County Registry of Deeds in Book 32580, Page 183. All interests that Seller has pass to the Applicant via the PSA.

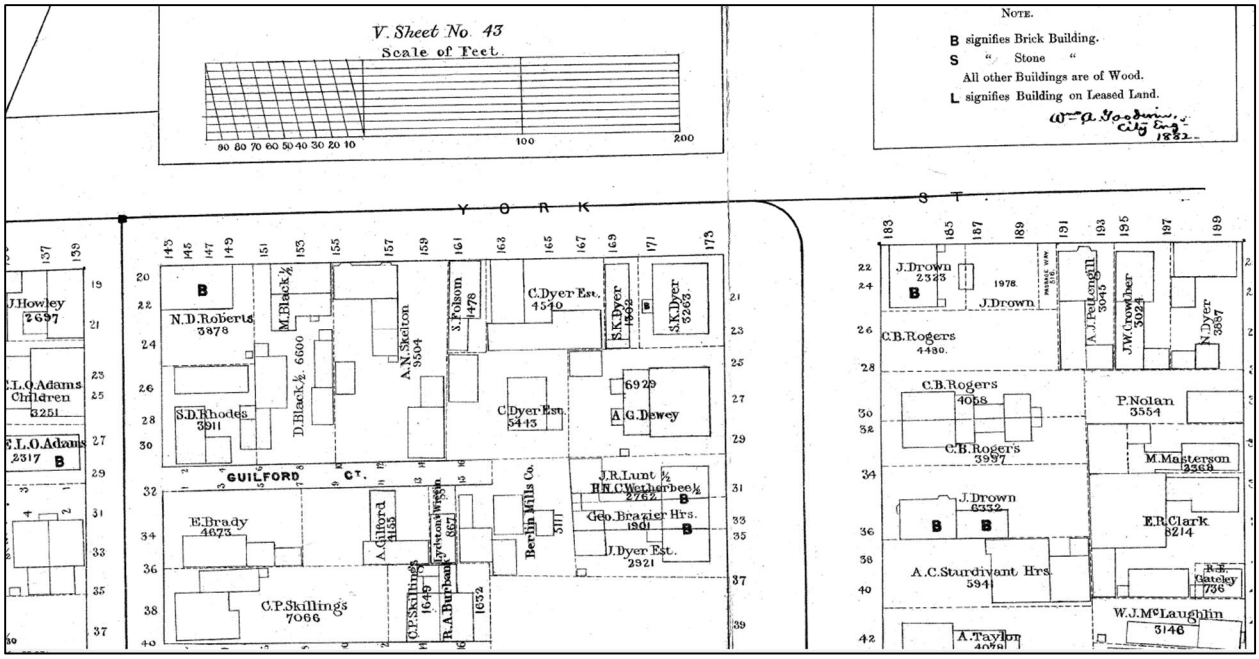


*Figure 1: Excerpt from CCRD Plan Book 5, Page 44, showing Guilford Court in 1882.*

Additionally, to confirm this historic pattern of use and to ratify and confirm all existing rights, the Applicant anticipates submitting a road maintenance agreement and declaration of reciprocal easements ("Road Maintenance Agreement") among all of the owners whose property abut Guilford Court. The Applicant respectfully requests that the Planning Board require this Road Maintenance Agreement as a condition of approval.

On the basis of the historic title research and expected Road Maintenance Agreement, this office has negotiated with a title insurance company, which has agreed to insure the Applicant's right to use Guilford Court to access the Property.

Please let us know if you need additional information with respect to this or any other matter. Thank you for your consideration.

Sincerely,

Laura J. Hartz

Enclosure

EASI FILE CORP. IRVINE, CA EFH 24

EASI FILE CORP. IRVINE, CA EFH 24



V. Sheet No. 41

V. Sheet No. 42

V. Sheet No. 43
Scale of Feet.
80 80 70 60 50 40 30 20 10 100 200

NOTE.
B signifies Brick Building.
S " Stone "
All other Buildings are of Wood.
L signifies Building on Leased Land.
W. A. Goodman, City Engr. 1882.

V. Sheet No. 43
**No 44**

V. Sheet No. 40

V. Sheet No. 40

V. Sheet No. 39

V. Sheet No. 45

V. Sheet No. 45

**ROAD MAINTENANCE AGREEMENT**
**AND DECLARATION OF RECIPROCAL EASEMENTS**
**IN GUILFORD COURT, PORTLAND, MAINE**

This Road Maintenance Agreement and Declaration of Reciprocal Easements ("Agreement and Declaration") is made and entered into among the Lot Owners (as defined below) as of the _____ day of _____, 2025 ("Effective Date").

A. Whereas, Guilford Court is a private way off of Park Avenue in Portland, Cumberland County, Maine, that has been used as a private way for access since at least 1830;
B. Whereas, the Lot Owners (as defined below) own all of the lots abutting Guilford Court;
C. Whereas, historically, the Lot Owners have voluntarily shared the costs of maintenance and repair of Guilford Court on an informal basis; and
D. Whereas, it is in the collective and individual best interests of the Lot Owners to clarify and confirm their rights and responsibilities with respect to the use and maintenance of Guilford Court.

Now therefore, in consideration of the mutual promises, covenants, and agreements set forth herein, the Lot Owners make this Agreement and Declaration (i) to ratify and affirm each abutting lot's access to Guilford Court as an appurtenance to said lot and (ii) to establish a written agreement for the future maintenance and repair of Guilford Court.

**1. Benefitted Lots and Owners.** The following Lot Owners each own a certain lot or parcel of land situated in the City of Portland, Cumberland County, Maine, with frontage on the private way known as Guilford Court (each a "Lot Owner" and collectively the "Lot Owners"):

| Lot Owner | Tax Map / Block / Lot Number | Deed Reference (CCRD) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**2. Reciprocal Grant of Easement.** Each Lot Owner shall have and, by these presents, does hereby grant to each Lot Owner an easement or right of way appurtenant to each benefitted lot for the purposes specified herein over, along and through the private way known as Guilford Court situated in the City of Portland, County of Cumberland and State of Maine. Said Guilford Court extends southerly from Park Street, and is located north of York Street and is **[1 rod wide][will there be a "Plan" to reference here]**. The appurtenant easement or right of way granted herein shall be **[12.5]** feet on either side on the centerline of the existing traveled surface

described in Attachment "A" and shall include the right of ingress and egress to and from each benefitted lot; and the right to install, maintain, repair and replace Utility services pursuant to 33 MRS §458 ("Utilities"), as may be amended, including all associated fixtures; provided however, that the installation of said Utilities shall not interfere with the operation of a right of way over said Guilford Court, and provided further that no such use of Guilford Court or the installation of Utilities shall interfere with any Lot Owner's right of ingress and egress other than on a reasonably temporary basis needed to install said Utilities. This grant of reciprocal easement shall in no way limit the right of future lot development as may be lawfully undertaken.

3. **Maintenance Obligation.** Pursuant to the terms of this Agreement, each Lot Owner agrees to maintain the private way known as Guilford Court [as shown on said Plan] and further agrees not to obstruct or otherwise interfere with the use of said way by other Lot Owners.

A. The term "maintenance" as used herein shall be deemed to include:
   i. Maintaining the width and surface of the private way as currently traveled.
   ii. Maintaining effective drainage systems, culverts and ditches.
   iii. Snowplowing the private way to remove snow accumulation when necessary.
   iv. Grading the surface of the private way when necessary so as to maintain a reasonably smooth and safe surface.
   v. Trimming or cutting vegetation encroaching onto or overhanging the private way to maintain a uniform width of the traveled way.

B. The maintenance of the road shall be limited to that required by ordinary wear and tear to the road condition unless approved by a majority of the Lot Owners in attendance at the annual meeting. Major improvements to the road, such as enlargement or paving, shall require approval of three-quarters of the Lot Owners. Special meetings may be held with reasonable written notice mailed to each Lot Owner if unforeseen circumstances related to road maintenance require action.

C. Each Lot Owner shall be responsible for an equal portion of any maintenance obligation expense, which, as of the date of this Agreement, would be equivalent to one seventh (1/7) of any maintenance obligation. For avoidance of doubt, if a benefitted lot contains multiple units or residents, such units or residents will determine how the cost of that Lot Owner's portion of the maintenance obligations are to be split among themselves.

4. **Use Restrictions**. For the safety of the neighborhood and the protection of the road, the Lot Owner agrees, for him/herself, his/her guests and licensees, to exercise discretion in the use of said roadway, and to observe all reasonable traffic regulations as designated by appropriate signs, including seasonal regulations limiting the weight of, or otherwise restricting or prohibiting, vehicular traffic while the ground is thawing.

5. **Assumption of Risk**. Use of the common easement herein granted shall be at the Lot Owner's sole risk, and the Lot Owner agrees to hold other abutting Lot Owner(s) harmless

from any and all liability arising out of the use of the same by the owner, his/her family, guests or licensees.

6. **Annual Meeting**. The Lot Owner shall attend an annual meeting of all abutting Lot Owners who are also parties to this Agreement to determine annual costs of maintenance. The Lot Owner shall participate in the election (by majority) annually of one owner who shall administer the terms of this Agreement (hereinafter Road Contact Person).

7. **Annual Fee**. The Lot Owner's share for the first year shall be $ _____, computed as set forth in paragraph 3 hereof. The Lot Owner agrees to pay, within thirty days after the same is requested in writing by mail, his/her share of the annual cost of maintaining and improving said roadway as set forth in paragraph 3 hereof.

8. **Administration of Agreement**. The Lot Owner authorizes the Road Contact Person to collect and disburse all monies as authorized by this Agreement and/or by vote of the majority of parties to this Agreement. The Lot Owner also authorizes the Road Contact Person to enforce payment of the Annual Fee in any Maine court of competent jurisdiction. The Road Contact Person for the first year shall be _____.

9. **Violations Deemed Nuisance**. A violation of this Agreement is deemed to be a nuisance and is subject to all the remedies provided for the abatement of the violation. In addition, all public and private remedies allowed by law or in equity against any party in violation of this Agreement shall be available.

10. **Enforcement**. If the Lot Owner does not conform to this Agreement within forty-five days after the written demand is mailed to his/her last known address, then the Lot Owner consents to enforcement by the Road Contact Person or other party to this Agreement in any Maine court of competent jurisdiction. In every such case, the Lot Owner agrees that the party seeking enforcement shall be entitled to recover from the Lot Owner all expenses for abatement and/or enforcement, including reasonable attorney's fees and court costs.

11. **Duration**. All obligations herein shall be binding on and all rights and privileges shall inure to the benefit of, the respective heirs, executors, administrators, successors and assigns of the Lot Owner, and shall be construed as running severally with each lot. Where the Lot Owner is more than one in number or be a corporation, the pronouns and relative words herein used referring to such Lot Owner shall be construed as if written in the plural or neuter as would be appropriate under the circumstances. This Agreement may only be amended in writing signed by all parties and subsequently recorded in the Cumberland County Registry of Deeds.

[Signature pages to follow]

IN WITNESS WHEREOF, the Lot Owners have caused this Agreement to be duly executed as of the date first above written.

# D. Financial Capacity

Please find attached the letter from the Applicant's bank verifying financial capacity to undertake the project.

June 17th, 2025.

Planning and Urban Development Department
City of Portland
389 Congress Street, Portland, Maine, 04101.

To whom it may concern,

This letter is to confirm Mackenzie Simpson, member of 161 York Street, has the financial capability for this project.

This letter should not be construed as commitment to lend.

Please do not hesitate to reach out if you have any questions at 207.221.8461 or nweightman@maine.bank.

Sincerely,

**Nicholas Weightman**
Senior Vice President
Senior Business Development Officer | Maine Community Bank

# E. Technical Capacity

The **161 York Street, LLC** team brings a comprehensive and complementary set of skills to residential real estate development, with deep roots in Portland, Maine. Marieke Thormann offers over a decade of experience in residential development, with expertise across permitting, design, financing, and construction. Curtis Thormann contributes a proven track record in delivering over 1,000 residential units, specializing in complex urban construction projects. MacKenzie Simpson adds legal and transactional expertise, drawing from his background in commercial development and real estate brokerage to support all phases of the project. Mattie Simpson enhances the team with her career in construction-focused product sales and marketing, ensuring strategic product selection and alignment with national market trends. Together, the team delivers well-rounded, locally grounded, and market-responsive residential development capabilities.

**Acorn Engineering, Inc**. has successfully permitted and provided civil/site engineering for dozens of Major Site Plan projects in Portland, many of which have been constructed. Some examples include:

- Munjoy Heights
- 70 Anderson St.
- 89 Anderson St. – East Bayside Lofts
- 667 Congress St – The Hiawatha
- 82 Hanover St – Hanover Works
- 132 Marginal Way – The Linden
- 52 Hanover St – The Armature

**Soren DeNiord Design Studio (SDDS)** is a professional landscape design firm located in Portland, Maine. Their portfolio includes award winning projects ranging in scale from residential to mixed use, commercial and institutional. As stewards of the environment and our clients' resources, we engage in projects with a commitment to sustainability and the intention of artfully responding to each site's unique challenges.

**Woodhull** brings over 20 years of experience in architecture and construction management. Our team includes 88 professionals: 22 architects, 25 construction managers, 9 administrative staff, 9 millworkers, and 23 carpenters. With our experienced team, robust resources, and integrated design-build approach, we are well-equipped to meet regulatory requirements and deliver successful outcomes. Notable projects in the Portland area include

- 50 Exchange Street - Historic Addition (Major Site Plan)
- 94 Portland - Mixed Use Renovation (Major Site Plan)
- 221 Congress Street - Mixed Use New Construction (Major Site Plan)
- 54 York Street - Historic Renovation (Major Site Plan)
- 9 Moody Street - Multifamily New Construction (Major Site Plan)

# I. Conformity With Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use. Specifically, Article 13 Section 6 Site Plan Review Standards.

**OVERVIEW**
The proposed project has been designed to conform to City standards where possible as demonstrated in the following narrative.

## 13.6.1 Transportation Standards

A. Impact on Surrounding Street Systems:

1. Based on the scale of the proposed project a Traffic Movement Permit has not been completed by a licensed traffic engineer. The site is located on York Street with access from Guilford Court and is not anticipated to create any significant hazard to safety on the surrounding street network. Congestion of the intersections is not anticipated.

2. No substantial increase in congestion on any streets is anticipated.

B. Access and Circulation:

1. In General:

This project conforms with the design standards of Section 13.6.1.B as demonstrated in the following narrative:

a) All site access and internal circulation will be designed in accordance with the standards set forth in Section 1 of the Technical Manual.

b) The site features shared access and circulation for the 2 lots. See easements section for additional information.

c) The developments frontage on York Street contains curb and sidewalk. A brick sidewalk exists along York Street and a section will be rebuilt with concrete part of the project as identified in the City's Sidewalk Material Policy

d) The proposed project does not abut or include any existing or proposed publicly accessible trails or trail connections.

e) Egress and access to the site is directly off the Guilford Court. There are no anticipated conflicts with traffic flows or turning movements.

2. Curb and Sidewalks:

a) A sidewalk with curbing exists on York Street.

b) There is an existing sidewalk along York Street. Any curbing or sidewalk disturbed during construction is to be repaired and rebuilt as necessary in conformance with City standards

c) Not applicable.

d) Not applicable.

C. Public Transit Access:

1. The project is located 200 ft from the State Street/ York Street bus stop.

2. Not applicable.

3. Not applicable.

D. Parking:

1. Vehicular parking:

a) Off-street parking for the proposed project will be provided per table 18-A: Off-street parking maximums. See Site Plan (Sheet C-10) for the Parking Summary.

b) Proposed parking spaces are not located within the front and corner side yards of the parcel.

c) Parking spaces are designed to conform to the standards set forth in the City of Portland Technical Manual. A waiver is requested to reduce the drive aisle width.

2. Bicycle parking

a) Please refer to the Site Plan (Sheet C-10) for location and details.

b) Not applicable.

3. Snow Storage:

a) The client will be responsible for the management of snow removal from the site as necessary during larger storm events.

b) Snow storage shall not be located where it interferes with pedestrian walkways or stormwater management systems. Landscaping in designated snow storage areas shall be such that it can withstand the snow pile.

4. Electric Vehicle (EV) charging

    a) All proposed parking spaces are located within private garages and no parking lot of 5 of more parking spaces will be constructed therefore this requirement is not applicable.

E. Transportation Demand Management (TDM):

1. Not applicable.

2. Not applicable.

### 13.6.2 Environmental Quality Standards

A. Preservation of Significant Natural Features:

1. The project will incorporate the principles of Low-Impact Development (LID) in accordance with the LID standards of the Technical Manual. Refer to the attached LID checklist for additional information.

2. Not applicable.

3. Not applicable.

B. Site landscaping and buffers.

1. On-Site Landscaping

    a) The project proposes various shade trees, plantings, and perennials. Refer to the planting schedule on the Landscape Plan for more information.

    b) The project will not preserve any existing vegetation. The development of the site will require most exisitng vegetation to be removed. At a past site visit it was noted that Norway Maple exists on this lot which is an invasive species.

    c) Not Applicable.

2. Buffers and screening

    a) The proposed solid waste containers will be located internally and will not be viewable from public sidewalks and adjacent streets.

    b) Not applicable.

    c) Not applicable

d) The project proposes a planting buffer around the perimeter of the parcel. Please see the Landscape Plan for additional information.

3. Parking and vehicle display lot landscaping.

a) Not applicable.

b) Not applicable.

c) Not applicable.

4. Non-vehicular hardscape

a) All uncovered paving for non-vehicular use shall have a minimum Solar Reflective Index (SRI) of 33 initially and 28 once aged three years.

5. Street trees

a) Due to the width of the existing sidewalk on York Street, street trees are not proposed as part of this project.

b) The project does not propose to remove any existing street trees.

c) It is our understanding that there is no existing heritage or mature trees located on the property. Please confirm.

C. Water Quality, Stormwater Management and Erosion Control:

1. Stormwater

a) All proposed stormwater network improvements will not impede or create adverse impacts on adjacent lots.

b) Stormwater treatment and detention are provided as part of the project. The stormwater system will reduce or maintain the peak flow runoff rates when compared to the predevelopment conditions and will remain connected to the city's municipal combined storm/sewer main. See attached Stormwater Management Report for more information.

c) The stormwater network has been designed to decrease peak flow rates and not overburden the existing downstream capacity.

2. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual. Please refer to the Stormwater Management Report for this information.

3. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.

4. The existing subsurface and adjacent slope conditions are suitable to support the proposed development. The proposed development shall not adversely impact the development site or any abutting property. Refer to section S Erosion and Sedimentation Control Report for more information.

### 13.6.3 Public Infrastructure and Community Safety Standards

A. Consistency with City Master Plans:

1. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.

2. N/A

B. Public Safety and Fire Prevention:

1. Public Safety Design

a) The site proposes site lighting that will increase visibility onsite.

b) Access to the site has been designed to provide adequate emergency vehicle access to the site. Preliminary conversations were held with the Fire Department prior to proposing the project programming.

c) This project will provide new site lighting and will promote natural surveillance and access control. Additionally, fences/walls will be utilized on the side yards to provide safety of tenant users and to deter potential offenders and delineate public and private spaces.

2. Emergency Access

a) Access to the site has been designed to comply with the Section 10 Public Safety standards of the Technical Manual.

C. Public Utilities:

1. Ability to Serve letters have been sent to the respective companies. Refer to section L for ability to serve letters and responses. The project does not anticipate overburdening the sewer, storm, and water utility mains within York Street.

2. It is proposed to install a new riser pole on York Street and run single phase underground electric across York Street to serve the development. The project team is currently coordinating with CMP on the final layout. See the Utility Plan and Section L: Utilities for additional information.

3. A new sewer service lateral is proposed to tie into the existing main within York

Street. See the Utility Plan and Section L: Utilities for additional information.

4. N/A

5. N/A

### 13.6.4 Site Design Standards

A. Massing, Ventilation and Wind Impact:

1. Please refer to Section O, Architectural Design Narrative.

2. Please refer to Section O, Architectural Design Narrative.

3. Please refer to Section O, Architectural Design Narrative.

B. Shadows:

1. Please refer to Section O, Architectural Design Narrative.

C. Snow and Ice Loading:

1. The proposed building will be designed to reduce/prevent significant amounts of accumulated snow and ice from loading or falling into adjacent properties or public ways.

D. View Corridors:

1. Please refer to Section O, Architectural Design Narrative.

E. Historic Resources:

1. The development is not located in a Historic District.

2. There are no known archaeological resources on the site.

3. Not applicable.

F. Exterior Lighting:

1. Site Lighting.

   a) Exterior lighting will be designed to meet the requirements of Section 8 of the Technical Manual. See Section Q: Lighting for additional information.

   b) All lighting shall be downlit and dark sky compliant.

2. Architectural and Specialty Lighting.

a) No architectural or specialty lighting is proposed.

b) No up-lighting is proposed.

3. Street Lighting.

a) No street lights are proposed

G. Noise and Vibration:

1. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.

H. Signage and Wayfinding:

1. Signage shall be designed to complement the building and its immediate context while conforming to the standards set forth in the City of Portland Land Use Code.

2. Signage shall be designed to complement the building and its immediate context while conforming to the standards set forth in the City of Portland Land Use Code.

I. Design Standards:

1. The project has been designed to meet the standards set forth in the RN4 zoning district. The project proposes to redevelop the parcel into two buildings that contain a total of 7 Residential Units. The project also includes utility and landscape improvements. Please refer to the Site Plan and Architectural Drawings for additional information.

2. The development is not located within a Historic District.

# City of Portland Site Plan Form

| Part 1. Project Description & Site Information | | | |
|---|---|---|---|
| Application type: | Major Site Plan | Submission type: | Initial Submission |
| | Address: | CBL number: | Lot area (square feet): |
| Main property: | 161 York Street | 044B006001/044B007001 | 11,046 |
| Additional properties (if applicable): | | | |
| Project description: | The site is located within the RN-4 Zoning District and proposes dividing the 0.25-acre lot into two parcels in order to construct a four-family building on Lot 1 and a three-family unit on Lot 2. | | |

| Type(s) of work: (Select which type(s) of work apply from the dropdown list. If not applicable, select N/A.) | |
|---|---|
| New residential construction or additions | 5 or More Dwelling Units |
| New non-residential construction or additions | N/A |
| Creation of disturbed area | 1,000 square feet - 3 acres |
| Creation of impervious surface | 1,000 square feet - 1 acre |
| Construction or paving of parking | N/A |
| Change of use | N/A |

| | | | |
|---|---|---|---|
| Does this project include State or Federal funding, permits, review, or sponsorship? | ☐ Yes | ☐ No | |
| If yes, list applicable entities: | | | |

| Associated applications: (Check all that apply) | | | | | |
|---|---|---|---|---|---|
| | Army Corps of Engineers General Permit | | Maine DEP - NRPA | | Traffic Movement Permit |
| | Floodplain Development Permit | | Site Location of Development | | Zoning Amendment |
| | Harbor Commission Construction Permit | | Stormwater Quality | | Other: |
| | Maine DEP- GC Permit | ✔ | Subdivision | | |

| Part 2. Use Information | | | | Total Existing | Total Proposed | Net New |
|---|---|---|---|---|---|---|
| Residential | General | Residential floor area (square feet) | | 0 | 15,475 | 15,475 |
| | | For Group Living uses with no dwelling units, list the number of rooming units | | | | |
| | | Dwelling units | | 0 | 7 | 7 |
| | | Ownership units | | | | |
| | | Rental units | | | | |
| | Bedrooms | Studio units | | 0 | 2 | 2 |
| | | 1-bedroom units | | | | |
| | | 2-bedroom units | | | | |
| | | 3-bedroom units | | | | |
| | | 4+ bedroom units | | 0 | 5 | 5 |
| | Affordability | Market-rate units | | | | |
| | | | % AMI | | | |
| | | | % AMI | | | |
| | | | % AMI | | | |
| Non-Residential | | Commercial/Service floor area (square feet) | | 0 | 0 | |
| | | Industrial floor area (square feet) | | 0 | 0 | |
| | | Institutional floor area (square feet) | | 0 | 0 | |
| | | Other floor area (square feet) | | 0 | 0 | |

| Part 3. Inclusionary Zoning | | | Total Existing | Total Proposed | Net New |
|---|---|---|---|---|---|
| Inclusionary Zoning (IZ) dwelling units | | | | | |
| Ownership IZ units | | % AMI | | | |
| Rental IZ units | | % AMI | | | |
| Bedrooms | Studio IZ units | | | | |
| | 1-bedroom IZ units | | | | |
| | 2-bedroom IZ units | | | | |
| | 3-bedroom IZ units | | | | |
| | 4-bedroom IZ units | | | | |
| IZ fee-in-lieu | $ for | of the required IZ dwelling units | | | |

# City of Portland Site Plan Form

| Part 4. Building & Site Metrics | Total Existing | Total Proposed | Net New |
|---|---|---|---|
| Number of buildings | 0 | 1 | 1 |
| Building floor area (square feet) | 0 | 16,195 | 16,195 |
| Building footprint (square feet) | 0 | 4,499 | 4,499 |
| Street trees | 0 | 0 | |
| Automobile parking spaces | 0 | 10 | 10 |
| ADA-accessible parking spaces | 0 | 0 | |
| Compact parking spaces | 0 | 0 | |
| Level 2 Electric Vehicle (EV) charging spaces | 0 | 0 | |
| Level 3 Electric Vehicle (EV) charging spaces | 0 | 0 | |
| Bicycle parking spaces | 0 | 0 | |
| Number of water service connections | 2 | 5 | 3 |
| Number of sewer service connections | 0 | 1 | 1 |
| Impervious area (square feet) | 4,100 | 8,790 | 4,690 |
| New developed area (square feet) | | 6726 | |
| Non-roof redeveloped impervious area (square feet) | | 0 | |
| Limits of disturbance (square feet) | | 12549 | |
| Alteration to wetlands or watercourses (square feet) | | 0 | |

| Part 5. Zoning (You can use this link to view the zoning for your property) | | | | | |
|---|---|---|---|---|---|
| Base Zone | RN-4 | | Base Zone #2 (if applicable) | | |
| Local Historic District? | | Overlay Zone #1 (if applicable) | Select from List | Overlay Zone #2 (if applicable) | |
| **Zoning Standards – Project Site** | RN-4 **Requirements** | LOT 2 | **Requirements** | LOT 1 | |
| Lot area (square feet) | 2,000 | 4977 | | 6068 | |
| Street frontage, Minimum (feet) | 20 | 69.89 | | 20 | |
| Lot coverage, Maximum (%) | 60.0 | 59.5 | | 29.5 | |
| Landscaped open space ratio, Minimum (%) | 20.0 | 20.9 | | 20.1 | |
| Build-to Zone (feet) | | | | | |
| Build-to percentage, Minimum (%) | | | | | |
| Blank wall area, Maximum (feet) | | | | | |
| Additional standard: | | | | | |

| Zoning Standards by Building (Use Extra Sheets if >2 Buildings) | Building #1 Zone Requirements | Proposed | Building #2 Zone Requirements | Proposed |
|---|---|---|---|---|
| Front setback, Minimum/Maximum (feet) | 0 | 3.46 | | 16.75 |
| Rear setback, Minimum (feet) | 10 | 14.87 | | 10.25 |
| Side setback, Minimum (feet) | 5 | 8.76 | | 9.14 |
| Structure height, Maximum (feet) | 45 | 44.34 | | 42.77 |
| Additional standard: | | | | |

| Affordable Housing Density Bonuses (if applicable) | Maximum Allowable with Bonus | Proposed |
|---|---|---|
| Density, Maximum (x base) | 0 | 0 |
| Height, Maximum (feet) | 0 | 0 |
| **If Needed, Explanatory Text Can Be Provided Below** | | |
| | | |

| Standard to be Waived:<br>Cite Ordinance or Technical Manual Standard | Cite Standard Language:<br>Cite specific language of applicable Ordinance or Technical Manual Standard | Waiver Being Sought:<br>Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet. | Justification for Waiver:<br>Address specific waiver criteria, if applicable, and document reasons for the waiver request. |
|---|---|---|---|
| ....<br>Technical Manual 1. Transportation Systems and Street Designs Standards. Figure I-16A Vehicle Parking Dimensions | ....<br>The Minimum Drive Aisle Width for 90 degree parking is 24 feet | ....<br>Requesting a waiver to reduce the drive aisle width to 22 feet | **A 22 foot drive aisle is being proposed for a portion of the project due to urban site constraints. It should be noted that the 22 foot drive aisle is only proposed to access a single residential garage that provides two parking spaces. Additionally vehicle turning templates have been provided that show the reduced width allowing cars to enter the garage unobstructed.** |
| .... | .... | .... | |

# I. Summary of Written Easements

Existing Easements:

Existing easement information as provided on the plan titled "Existing Conditions/Site Plan" prepared and identified by Spurwink Surveying LLC. last revised 2/28/17 and stamped on 3/8/17.

Proposed Easements/Licenses:

- Mutual Access, Utility, and Maintenance Easement to benefit/burden Lots 1 and 2.
- Draft Road Maintenance Agreement for Guilford Court

**ROAD MAINTENANCE AGREEMENT**
**AND DECLARATION OF RECIPROCAL EASEMENTS**
**IN GUILFORD COURT, PORTLAND, MAINE**

This Road Maintenance Agreement and Declaration of Reciprocal Easements ("Agreement and Declaration") is made and entered into among the Lot Owners (as defined below) as of the _____ day of _____, 2025 ("Effective Date").

A. Whereas, Guilford Court is a private way off of Park Avenue in Portland, Cumberland County, Maine, that has been used as a private way for access since at least 1830;
B. Whereas, the Lot Owners (as defined below) own all of the lots abutting Guilford Court;
C. Whereas, historically, the Lot Owners have voluntarily shared the costs of maintenance and repair of Guilford Court on an informal basis; and
D. Whereas, it is in the collective and individual best interests of the Lot Owners to clarify and confirm their rights and responsibilities with respect to the use and maintenance of Guilford Court.

Now therefore, in consideration of the mutual promises, covenants, and agreements set forth herein, the Lot Owners make this Agreement and Declaration (i) to ratify and affirm each abutting lot's access to Guilford Court as an appurtenance to said lot and (ii) to establish a written agreement for the future maintenance and repair of Guilford Court.

**1. Benefitted Lots and Owners.** The following Lot Owners each own a certain lot or parcel of land situated in the City of Portland, Cumberland County, Maine, with frontage on the private way known as Guilford Court (each a "Lot Owner" and collectively the "Lot Owners"):

| Lot Owner | Tax Map / Block / Lot Number | Deed Reference (CCRD) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**2. Reciprocal Grant of Easement.** Each Lot Owner shall have and, by these presents, does hereby grant to each Lot Owner an easement or right of way appurtenant to each benefitted lot for the purposes specified herein over, along and through the private way known as Guilford Court situated in the City of Portland, County of Cumberland and State of Maine. Said Guilford Court extends southerly from Park Street, and is located north of York Street and is **[1 rod wide][will there be a "Plan" to reference here]**. The appurtenant easement or right of way granted herein shall be **[12.5]** feet on either side on the centerline of the existing traveled surface

described in Attachment "A" and shall include the right of ingress and egress to and from each benefitted lot; and the right to install, maintain, repair and replace Utility services pursuant to 33 MRS §458 ("Utilities"), as may be amended, including all associated fixtures; provided however, that the installation of said Utilities shall not interfere with the operation of a right of way over said Guilford Court, and provided further that no such use of Guilford Court or the installation of Utilities shall interfere with any Lot Owner's right of ingress and egress other than on a reasonably temporary basis needed to install said Utilities. This grant of reciprocal easement shall in no way limit the right of future lot development as may be lawfully undertaken.

3. **Maintenance Obligation.** Pursuant to the terms of this Agreement, each Lot Owner agrees to maintain the private way known as Guilford Court [as shown on said Plan] and further agrees not to obstruct or otherwise interfere with the use of said way by other Lot Owners.

A. The term "maintenance" as used herein shall be deemed to include:
   i. Maintaining the width and surface of the private way as currently traveled.
   ii. Maintaining effective drainage systems, culverts and ditches.
   iii. Snowplowing the private way to remove snow accumulation when necessary.
   iv. Grading the surface of the private way when necessary so as to maintain a reasonably smooth and safe surface.
   v. Trimming or cutting vegetation encroaching onto or overhanging the private way to maintain a uniform width of the traveled way.

B. The maintenance of the road shall be limited to that required by ordinary wear and tear to the road condition unless approved by a majority of the Lot Owners in attendance at the annual meeting. Major improvements to the road, such as enlargement or paving, shall require approval of three-quarters of the Lot Owners. Special meetings may be held with reasonable written notice mailed to each Lot Owner if unforeseen circumstances related to road maintenance require action.

C. Each Lot Owner shall be responsible for an equal portion of any maintenance obligation expense, which, as of the date of this Agreement, would be equivalent to one seventh (1/7) of any maintenance obligation. For avoidance of doubt, if a benefitted lot contains multiple units or residents, such units or residents will determine how the cost of that Lot Owner's portion of the maintenance obligations are to be split among themselves.

4. **Use Restrictions**. For the safety of the neighborhood and the protection of the road, the Lot Owner agrees, for him/herself, his/her guests and licensees, to exercise discretion in the use of said roadway, and to observe all reasonable traffic regulations as designated by appropriate signs, including seasonal regulations limiting the weight of, or otherwise restricting or prohibiting, vehicular traffic while the ground is thawing.

5. **Assumption of Risk**. Use of the common easement herein granted shall be at the Lot Owner's sole risk, and the Lot Owner agrees to hold other abutting Lot Owner(s) harmless

from any and all liability arising out of the use of the same by the owner, his/her family, guests or licensees.

6. **Annual Meeting**. The Lot Owner shall attend an annual meeting of all abutting Lot Owners who are also parties to this Agreement to determine annual costs of maintenance. The Lot Owner shall participate in the election (by majority) annually of one owner who shall administer the terms of this Agreement (hereinafter Road Contact Person).

7. **Annual Fee**. The Lot Owner's share for the first year shall be $ _____, computed as set forth in paragraph 3 hereof. The Lot Owner agrees to pay, within thirty days after the same is requested in writing by mail, his/her share of the annual cost of maintaining and improving said roadway as set forth in paragraph 3 hereof.

8. **Administration of Agreement**. The Lot Owner authorizes the Road Contact Person to collect and disburse all monies as authorized by this Agreement and/or by vote of the majority of parties to this Agreement. The Lot Owner also authorizes the Road Contact Person to enforce payment of the Annual Fee in any Maine court of competent jurisdiction. The Road Contact Person for the first year shall be _____.

9. **Violations Deemed Nuisance**. A violation of this Agreement is deemed to be a nuisance and is subject to all the remedies provided for the abatement of the violation. In addition, all public and private remedies allowed by law or in equity against any party in violation of this Agreement shall be available.

10. **Enforcement**. If the Lot Owner does not conform to this Agreement within forty-five days after the written demand is mailed to his/her last known address, then the Lot Owner consents to enforcement by the Road Contact Person or other party to this Agreement in any Maine court of competent jurisdiction. In every such case, the Lot Owner agrees that the party seeking enforcement shall be entitled to recover from the Lot Owner all expenses for abatement and/or enforcement, including reasonable attorney's fees and court costs.

11. **Duration**. All obligations herein shall be binding on and all rights and privileges shall inure to the benefit of, the respective heirs, executors, administrators, successors and assigns of the Lot Owner, and shall be construed as running severally with each lot. Where the Lot Owner is more than one in number or be a corporation, the pronouns and relative words herein used referring to such Lot Owner shall be construed as if written in the plural or neuter as would be appropriate under the circumstances. This Agreement may only be amended in writing signed by all parties and subsequently recorded in the Cumberland County Registry of Deeds.

[Signature pages to follow]

IN WITNESS WHEREOF, the Lot Owners have caused this Agreement to be duly executed as of the date first above written.

Att. J

# 161 York Street Development
# Construction Management Plan




## 161 York St, Portland ME

June 27th, 2025

Prepared for: Portland Department of Planning and Urban Development

Department of Public Works

Applicant: 161 York Street LLC (Owner)

## Construction Management Principles:

The purpose of this document is to provide the details related to the construction of the residential condominium units at 161 York Street. This document will outline how the Owner and selected Construction Manager will reduce/minimize, or in some cases, negate impacts related to construction activity including, but not limited to, truck traffic, noise, vibration, dust, etc. to the surrounding neighborhood. It is also the intent of this document to outline the plan to maintain a safe perimeter around the project site and the means/methods to protect the public from any construction related hazards.

## Development Review of Construction Management Plan

The Owner will work directly with the selected Construction Manager to refine the CM Plan for each phase of the project as the logistics and safety requirements can vary throughout construction. All phases of the CM Plan will be closely coordinated with the Planning Authority and Department of Public Works and communicated to adjacent property owners and the public.

## Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Prior to scheduling a preconstruction meeting and the issuance of any city required permits, the Owner and Construction Manager shall meet all of the requirements contained in Section 14-530. Development review fees and post approval requirements and 14-532. General requirements and enforcement of Portland's Land Use Code.

### Street Opening and Street Occupancy Permits

The design goals for the project are to utilize the existing utilities connections to serve the project minimize impacts to York Street and Park Street, with a specific focus to reduce any utility activities in York Street given the significant impact to the public way and traffic. Temporary sidewalk closures and lane closures will be minimized on York Street to allow for safe access to the site, façade installation and any site work within York Street that may be required. Temporary directional signage and traffic control to be utilized during this work. All temporary closures will be coordinated with the Department of Public Works and any impacted transit groups and comply with Land Use Code Chapters 24 and 32.

### Building Code

The project will employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2015 International Building Code.

## Construction Administration and Communication:

The Owner will maintain a clear line of communication between the work progressing on site with adjacent abutters/business, city officials, and emergency services. The majority of the communication will be through weekly meetings with the Construction Manager who will keep them apprised of upcoming scheduled work, any changes to schedule and upcoming potential impacts with the work. At that time, it will be decided if any of the work requires communication to outside stakeholders/abutters and they will then be notified accordingly. Construction signage will also be posted on the site providing contact information for the site management team.

This communication strategy is intended to ensure that all construction operations are performed in accordance with all agreements, ordinances and special permits applicable to this project. The Construction Manager will work closely with adjacent abutters, businesses, nearby construction sites, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. The following will be provided and/or posted prior to the start of construction:

1. Contact Person and contact information for the [applicant and contractor] and who is available 24 hours

2. Construction Signage posted on the site with Contact Information for Contractor. All construction site signage is temporary and shall be removed at the project completion.

## Construction Schedule:

- Construction is expected to start Q4 2025
- Construction duration is expected to last approximately 12-14 months
- Construction work hours will be in accordance with Section 17-18 and 25-129
- Work hours will be 7AM-7PM Monday through Friday
- Workers will gather at their workplace from 6AM-7AM
- Saturday work will be required periodically with hours from 8AM-5PM

## Security and Public Safety:

A site logistics plan has been included for review (reference Exhibit A). It is the intent of the Owner and Construction Manager to establish a safe work zone perimeter utilizing chain link fence panels, construction entrance gates (with locks), and proper safety signage. The purpose of this work zone perimeter is to protect the public and public vehicle traffic from any hazards associated with the construction. All activity on site will comply with local and federal OSHA regulations.

The Owner has already started direct coordination and communication with the Portland Fire Department and will continue to work with the PFD to ensure any temporary fire protection measures are met. The team will also invite PFD to the project site to review the temporary site conditions once they have been established. There will be temporary fire extinguishers built on stands at each floor/stairwell as required by OSHA. The on-site Construction Manager will also control all trash debris inside/outside of the building through daily cleanup efforts to ensure all flammable debris is disposed of in dumpsters and removed from site in a timely manner to maintain a clean site. On site management teams will organize and train an on-site fire brigade and will develop an emergency response plan that will be communicate to the on-site staff.

While not anticipated, blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.

**Construction Permitting and Traffic Control Plans:**

1. Construction Activity in Public Streets: All construction activity in York Street and Park Street will be minimized to avoid any impacts to the public way, traffic, and pedestrians. All construction activity will be in accordance with Chapter 25 VII of the City Code of Ordinances and coordinated and approved by the Department of Public Works.
2. Sewer and Stormwater: The project is intending to tie into existing utilities if possible and will coordinate with Chapters 24 and 32 of the City Code of Ordinance and the Department of Public Works.
3. Traffic Control Plans: Construction activities that impact the existing public ways will be controlled to protect the safety of the construction workers, pedestrians, and the travelling public. Temporary lane and sidewalk closures on York Street are anticipated during phases of construction to support utility connections.

Per the enclosed site logistics plan, material deliveries will be coordinated to enter the site through the construction gates off Guilford Court (via Park Street) as much as possible. The construction team will work to ensure that no deliveries are staged on adjacent streets that could cause any traffic congestion (reference attached Exhibit B for 'Trucking Route')

**Site Management Controls:**

- Trash will be removed from the building/site via 30-yard dumpsters
- During dust generating activities on site, water trucks or calcium will be used to prevent dust.
- Dust generating tools will either use water or HEPA vacuums to prevent dust
- The site contractor will be contracted to provide street sweeping/dust control in public right of ways as required by the City and DEP. The construction shall

comply with Portland's requirements under Section 25-129 on noise, dust and debris.
- The site contractor will be contracted for all snow removal within the project site fence. On-site labor will also shovel, salt, sand walkways to ensure that the construction workers have a safe means of access/egress into the building.
- Snow will be stockpiled on site and if, necessary, will be trucked off to local snow dumps.

**Erosion Control:**

- The Construction Manager will install all erosion and sediment controls as depicted on the approved erosion and sediment control plan.
- Stabilized entrances will be provided at construction entrances.
- Sediment/erosion control measures will be inspected weekly or after storm events.
- Documentation of these inspections will be maintained by the site contractor and the Construction Manager for review in the event of an inspection/audit.
- If dirt/debris from the project site is tracked into the street it will be cleaned up with a street sweeper.

**Construction Staging Area:**

- As indicated on the site logistics plan, truck deliveries will be brought in to the site through Guilford Court off Park Street.
- Deliveries will be coordinated/scheduled through the on-site construction team so as to prevent multiple deliveries arriving at the same time.
- Subcontractor material storage will be stored inside the project site fence.

**Construction Parking:**

- It is anticipated that between 20 and 25 workers will be on the project site at peak.
- Minimal parking will be on site (within the fence limits) with the balance being off site.
- The Owner and the Construction Manager will encourage the use of carpooling to limit the number of vehicles coming to the site.

**Dewatering:**

- Please see the attached Exhibit C for Site Dewatering Plan

# EXHIBIT A – SITE LOGISTICS PLANS



# EXHIBIT B – TRUCKING ROUTE




**Option #1 – From The North, Utilize Fore River Parkway to Danforth and Park St.**

**Option #2 – From The South, Utilize Veterans Memorial Bridge to Danforth and Park St.**

# EXHIBIT C – DEWATERING PLAN

Dewatering Plan – General Excavation

***INTRODUCTION***

The Owner has prepared the following Dewatering Plan for implementation on the 161 York Street project located at 161 York Street in the City of Portland. The following proposal provides recommendations and requirements for dewatering efforts during general site excavation and more specifically foundation and utility excavation in the event dewatering of ground water and or runoff is required. We intend to strictly adhere to the requirement of the Contract, Maine DEP's Best Management Practices for Erosion and Sediment Control, and all other Federal, State, and Local laws, regulations and permits concerning environmental protection and pollution control during this project.

***PROCEDURAL REQUIRMENTS***

1. Ground water / runoff may be encountered during foundation and or utility excavation. To maintain "in the dry" excavated work area dewatering may be required. A competent person will always be onsite while dewatering and discharge operations take place.

2. Water collected from the excavation will be removed and relocated to either a temporary settlement basin adjacent to the excavation or discharged with a sediment filter bag into a catch basin. If the settlement basin sufficiently maintains dewatering efforts, no further action will be necessary.

3. Treated water being discharged into sewer system shall meet the Portland daily discharge limits.

4. Treated water will be discharged on an as needed basis throughout the duration of the project.

5. The final hose discharging water will be filtered with a silt bag to ensure that any remaining sediment is collected prior to discharge.

6. The offsite catch basin collecting water from the discharge point will be monitored to ensure that future sediment does not enter/build in the basin and if necessary, will be cleaned (via vac truck) to remove sediment collected in the basin.

7. City of Portland Water Resource Division Compliance Coordinator is Ben Pearson (office # 874-8843).

8. Natural rainwater runoff into catch basins with be protected with sediment filter bags and hay bales, if necessary.

9. No unattended pumping to City infrastructure.

***IMPLEMENTATION AND MONITORING***

Implementation and continuing enforcement of the plan to ensure compliance with all regulations will be the responsibility of the Onsite Foreman or Superintendent.

The foreman will also be responsible for monitoring and maintaining the dewatering measures once they are implemented. These measures will be inspected daily and after each storm event. Any deficiencies observed will be promptly reported to the Onsite foreman. Deficiencies should be corrected immediately (if possible).

If site conditions change or are different than anticipated, we are prepared to add or to revise dewatering measures as necessary during the course of the work.

A C O R N
ENGINEERING, INC.

# STORMWATER MANAGEMENT REPORT

**Prepared For:**

**161 York Street, LLC**
**Freeport ME**

**Prepared By:**

**Acorn Engineering, Inc.**
**PO Box 3372**
**Portland, Maine 04104**




**July 2025**
**Rev. September 2025**

## INTRODUCTION

Acorn Engineering, Inc. has been retained by 161 York Street LLC to provide civil engineering services for the proposed work located at 161 York Street, Portland, ME 04101 (044 B006001 & 044 B007001). The site is currently comprised of vacant vegetated land with potential remnants of a previously demolished building. The property consists of approximately 0.25 acres of land. The proposed project anticipated increasing the total impervious area by approximately 4,700 square feet.

A stormwater analysis was prepared to demonstrate that the project will meet the requirements set forth by Maine DEP Chapter 500 Basic and General Standards and the following requirements from the City of Portland (the City):

- City of Portland Land Use Ordinance Article 13.6.2.C.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.
- City of Portland Code of Ordinances Chapter 32 – Post-Construction Stormwater Management
- DPW Specific Standard: Provide a minimum detention volume of 1" of rain times the project's total impervious area with a maximum outflow rate of 0.1 CFS until the storage is maximized.

## EXISTING CONDITIONS

The proposed project site is located at 161 York Street. A Boundary & Topographic Survey has been prepared by Spurwink Surveying LLC, dated March 8th, 2017. Since the survey was completed the two existing buildings that were identified in the survey have since been removed.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting and existing impervious surfaces, a field inventory of significant natural features was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

## PROPOSED DEVELOPMENT

The project proposes redeveloping the vacant lot to provide 6 residential units divided between two buildings. Vehicles can access the site via Guilford Court to the provided covered parking spaces proposed within each townhome unit. The project also includes various parking, utility, and landscape improvements.

Proposed drainage improvements include catch basins, roof drains, foundation drains, and field inlets. Treatment is proposed through a Stormfilter Manhole BMP and storage will be met using the StormBrixx Subsurface Chamber system. Ultimately the proposed storm drain network on site outlets to the existing drainage system within York Street.

The development will be served by the Portland Water District, underground power/cable/communications, natural gas and the municipal sewer system. The project anticipates incorporating Maine DEP approved stormwater Best Management Practices (BMP) to meet the General and Flooding Standards.

For an analysis of water quality, please refer to the following section.

**GENERAL STANDARDS – WATER QUALITY**

The proposed project was designed to provide primary water quality treatment through the use of Stormfilter manhole, provided on site downstream of the detention system. The project has been designed to utilize StormFilter cartridges as a filter meeting the requirements of the General Standards (Section 4.C) of the Chapter 500, as outlined by CONTECH Engineered Solutions LLC, approved by the Maine DEP March 13th, 2015, revised in September 27th, 2024. The system has been designed in accordance with the MDEP Volume III BMPs Technical Design Manual, Chapter 7.3., and the City of Portland Technical Manual (Section 5) Stormwater Management Standards.

The StormFilter system proposed will also provide a slow, metered release of the water quality volume through Stormbrixx subsurface chamber system. The StormFilters are proposed downstream of the detention system, and will receive flows from the Stormbrixx's underdrain system. Treatment is accomplished via the 2 cartridges within the Storm-Filter manhole. The Storm-Filter cartridge filter media is selected depending on the targeted pollutant removal.

Pre-treatment is anticipated to be incorporated into the project by StormBrixx recommendations and requirements.

Please refer to the Post Development Watershed Map in Attachment B for reference on the proposed area to be treated.

*Treatment Area*

The development shall provide water quality treatment in accordance with the City of Portland for no less than 95% of the new impervious area and 80% of the new developed area. Water quality treatment will be provided through the use of a StormFilter Manhole downstream of the proposed subsurface detention system.

Based on the approval letter by the MDEP they recommend using 4.5 cartridges per acre of impervious being treated. The project proposes to treat 0.19 acres of impervious surface area draining to the subsurface detention system further discharged into the StormFilter Manhole to be treated within the Storm Filter Cartridges. See *Table 1* below:

| Table 1 – StormFilter Cartridge Sizing | | | |
|---|---|---|---|
| | 1-Year Peak Flow (cfs) | Required Cartridges | Provided Cartridges |
| StormFilter Cartridges | 0.43 | 2 | 2 |

As represented in *Table 1*, the site is in accordance with Chapter 500, General Standard rules and the MDEP approval letter for StormFilter treatment.

The proposed treatment of impervious and developed areas are as follows:

| Table 2 – Impervious Area | | | | | |
|---|---|---|---|---|---|
| Existing Impervious Area | Proposed Impervious Area | Exempt Impervious Area | Impervious Area Subject to Treatment | 95% Impervious Area Requirement | Impervious Area Treatment Provided Onsite |
| 4,100 SF | 8,790 SF | 267 SF | 8,523 SF | 8,097 SF | 8,277 SF (97.1%) |

| Table 3 – Developed Area | | | | |
|---|---|---|---|---|
| Existing Developed Area | Proposed Developed Area | Developed Area Subject to Treatment | 80% Developed Area Requirement | Developed Area Treatment Provided Onsite |
| 4,100 SF | 10,826 SF | 10,826 SF | 8,260 SF | 9,035 SF (83.4%) |

The project proposes exceeding 95% of the new impervious area and 80% of the new developed area treatment requirements.

**FLOODING STANDARD – WATER QUANTITY**

*Water Quality Volume*

In accordance with the Volume III: BMPs Technical Design Manual, a water quality volume of 1.0 inches times the tributary impervious area plus 0.4 inches times the tributary vegetated area is required to be treated by the StormFilter BMP. The water quality volume is calculated by the following formula:

( Imp. SF x 1.0" ) + ( Veg. SF x 0.4" ) = Treatment Volume (CF)

Sub catchment 1.1 is the area that drains toward the StormFilter and the land coverage breakdown is outlined below:

| Table 5 – Water Quality Volume Table | | | | |
|---|---|---|---|---|
| | Upgradient Landscaped Area (SF) | Upgradient Impervious Area (SF) | Total Treatment Volume Required (CF) | Treatment Volume Provided (CF) |
| Stormfilter | 758 | 8,277 | 715 | 737 |

[(8,277 x 1") + (758 x 0.4")] = 715 CF

The water quality treatment volume was confirmed by using the HydroCAD model. HydroCAD calculations are attached to this report to demonstrate compliance. The storage volume within the crushed stone, chambers, and filter sand is added together to calculate the water quality volume.

Outlined within Section 5 of the city technical manual, the on-site detention volume shall be equal to the 1" of rainfall times the total impervious area within the project's disturbance limits. In addition, stormwater shall have controlled discharge rates not to exceed 0.1 cfs until storage is maximized.

The proposed flows generated for the 161 York Street development are as follows in *Table 6* Below.

| Table 6: Required Detention Volume | |
|---|---|
| 1" of rainfall over the projects impervious area: | 710 cubic-feet |
| **Proposed Storage Volume prior to bypass:** | **737 cubic-feet** |

The proposed development intends to store 737 cubic-feet of stormwater prior to bypassing through the outlet control structure orifice. Detention on site is accomplished utilizing StormBrixx subsurface chambers. The chambers have been sized to provide 1,103 cubic feet of available storage.

The maximum permissible stormwater outflow rate into the City's system during the 1" design storm event is to be less than or equal to 0.1 CFS. The detention system is sized to provide detention for a 0.21 acre watershed. The site has been designed to detain and release stormwater runoff equal to 0.1 CFS for the entire development during the design storm event. Please refer to the attached HydroCAD report for more information.

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.10", 4.60", and 5.80" respectively. Due to the numerous variables, and inherent inaccuracies with the modeling program used to calculate stormwater runoff it is custom at Acorn Engineering to round to the nearest whole number.

*Time of Concentration (Tc)*

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model. When the calculated Tc was less than six minutes (0.1 hours), a direct entry of six minutes was used as advised by the TR-55 model. Consistent with previous submissions and best practices, the sheet flow length for any Tc path was capped at 100 feet.

*Curve Number (CN)*

Within the pre-development model, the vegetated areas were considered fair grass, and impervious areas consisted of either pavement, gravel, or concrete from the adjacent lots.

Pre-Development

- Pavement, Walkways, Roofs – CN 98
- Gravel, Old Foundation – CN 90
- 50%-75% Grass Cover – Fair, HSG A – CN 49
- Woods - Poor, HSG A – CN 57

Post-Development

- Pavement, Walkways, Roofs – CN 98
- Brush, Shrub, Grass Mix Good, HSG A – CN 30

*Pre-development Calculations*

The pre-development model was broken into one sub catchment that contains the entire site.

- Subcatchment 1 – This tributary area includes the entire parcel that drains toward the municipal storm drain network within York Street. Impervious area includes gravel, pavement, upgradient grass and wooded areas.

A pre-development watershed map developed for this project can be viewed in Attachment A and a copy of the HydroCAD calculations is included within Attachment C, of this report. Point of interest flow rates for the sub catchment outlined above are as follows:

**Table 7 – Pre-Development Peak Stormwater Flows**

| | 2-Year Storm Event (cfs) | 10-Year Storm Event (cfs) | 25-Year Storm Event (cfs) |
|---|---|---|---|
| Total Runoff | 0.13 | 0.35 | 0.56 |

*Post-development Calculations*

The post-development model was broken into two separate sub catchments.

- Subcatchment 1.1 – This tributary area includes the roof of both buildings, the internal pavement, and portions of the landscaped area, draining to the system. This subcatchment is to be stored within the StormBrixx detention system and treated by a stormfilter manhole.
- Subcatchment 1.2 - This tributary area includes the remaining area on-site draining towards York Street. The area is comprised of landscaped space, existing impervious parking lots and walls from the abutting property, and the proposed front stoops along the Lot 2 building.

Total Peak flow rates for the post-development storm events are as follows:

| **Table 8 – Post-Development Peak Stormwater Flows** | | | |
|---|---|---|---|
| | 2-Year Storm Event (cfs) | 10-Year Storm Event (cfs) | 25-Year Storm Event (cfs) |
| Total Runoff | 0.09 | 0.35 | 0.56 |

The post-development calculations include changes to the land use and the compensation provided by the stormwater BMPs. As a result, the total peak flow rates in the post development are reduced in comparison to the total predevelopment flow rates for the 2, 10, & 25-year storms.

The following table represents a comparison of pre- development and post-development condition peak runoff rates for the proposed development and tributary area.

| **Table 9 – Comparison of Peak Flows** | | | | | | |
|---|---|---|---|---|---|---|
| POI | 2-Year Storm Event (cfs) | | 10-Year Storm Event (cfs) | | 25-Year Storm Event (cfs) | |
| | Pre | Post | Pre | Post | Pre | Post |
| Total Runoff | 0.13 | **0.09** | 0.35 | **0.35** | 0.56 | **0.56** |

***Detention System (1P); (5 rows, 6 chambers/ row)**
***Total Storage prior to bypass & elevation 51.75': 737 CF**
*** Total Storage:1,103 CF**

A post-development watershed map developed for this project can be viewed in Attachment B, and a copy of the HydroCAD calculations is included within Attachment C of this report.

## SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the minimum requirements set forth in the City of Portland Technical Manual – Section 14.3 – Soil Survey Requirements are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

| Table 10 - "K" Value | | |
|---|---|---|
| **Soils Type** | **Subsurface** | **Substratum** |
| Hinckley Loamy Sand | 0.17 | 0.17 |

The soil "K" value for the soil, listed above, shows a low susceptibility to erosion. The site's susceptibility to erosion is sourced from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County.

## CONCLUSION

The proposed development was designed to meet the requirements implemented by the MDEP Chapter 500 as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is not anticipated to cause flooding or erosion problems within the subject site, abutters' sites, nor within the right-of-way. Overall, the project will provide an improvement to stormwater runoff and overall management.

Please find the following attachments for more information on the stormwater analysis in addition to the proposed construction and maintenance plan for the development.

## ATTACHMENTS

Attachment A: Pre-Development Watershed Map
Attachment B: Post-Development Watershed Map
Attachment C: HydroCAD Calculations
Attachment D: Stormwater Inspection and Maintenance Plan

SUBCATCHMENT LEGEND:

S1 — SUBCATCHMENT NUMBER

SUBCATCHMENT EXTENTS

POI #1 — POINT OF INTEREST (POI)

1 — POND

FLOW PATH ARROWS

HATCH LEGEND:

EXISTING IMPERVIOUS AREA

EXISTING GREEN SPACE / LANDSCAPED AREA

EXISTING IMPERVIOUS AREA BENEFITTING ABUTTING PROPERTIES

EXISTING WOODS




10 0 10 20

SCALE: 1" = 10'

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

| ISSUED FOR | BY DATE |
|---|---|
| CLIENT REVIEW | SJL 11/22/2024 |
| SITE PLAN APPLICATION | SJL 7/8/2025 |

DRAWING NAME: PRE DEVELOPMENT WATERSHED MAP

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

PARCEL ID: 044 B006001 & 044 B007001

CLIENT: 161 YORK STREET, LLC
PORTLAND, MAINE 04101


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P.O. BOX 6373 PORTLAND, MAINE 04104
(207) 775-2655


| | |
|---|---|
| FILE: | AE_CIVIL |
| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

DRAWING NO.
PRE

SUBCATCHMENT LEGEND:

S1 — SUBCATCHMENT NUMBER

SUBCATCHMENT EXTENTS

POI #1 — POINT OF INTEREST (POI)

1 — POND

FLOW PATH ARROWS

HATCH LEGEND:

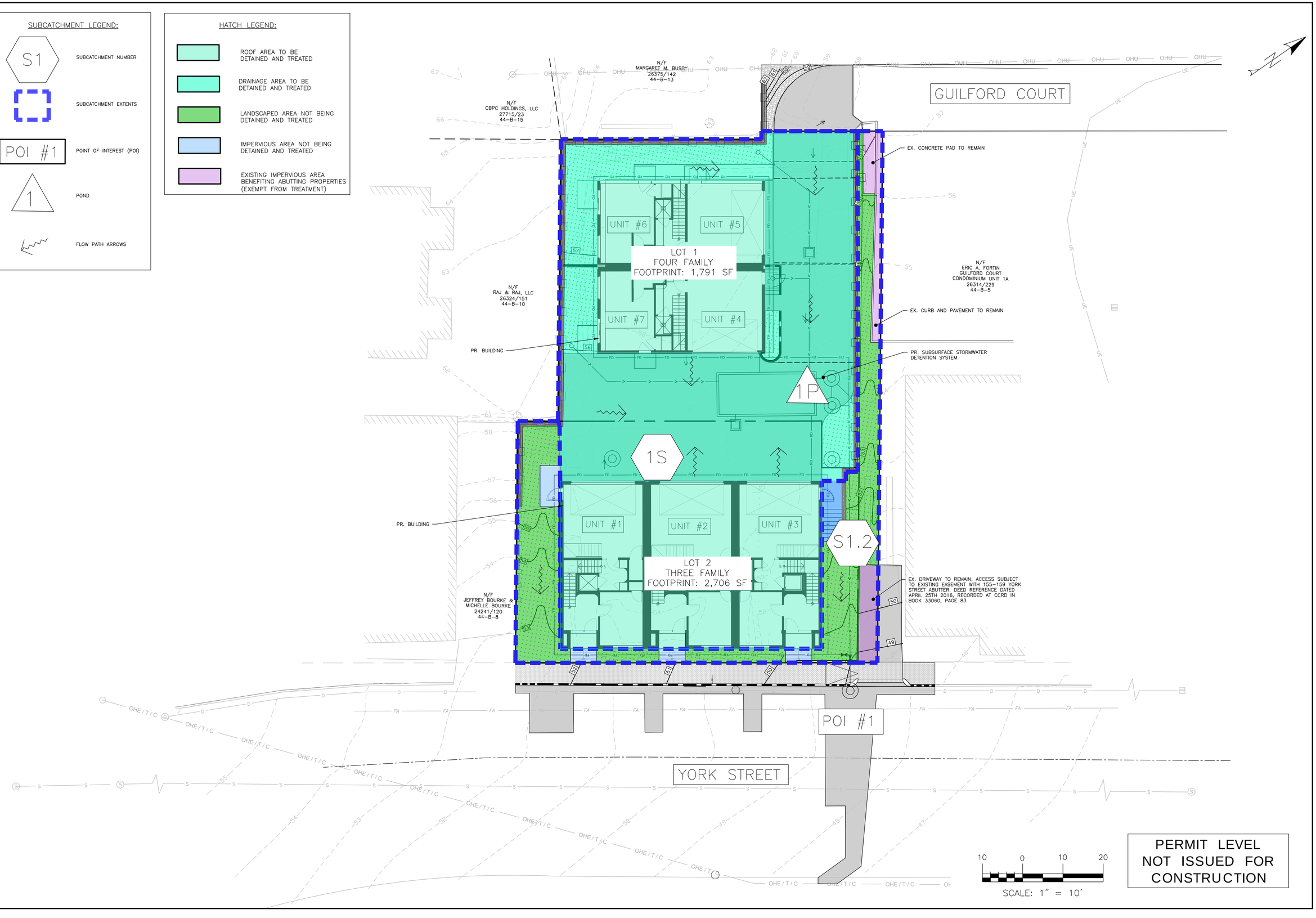
ROOF AREA TO BE DETAINED AND TREATED

DRAINAGE AREA TO BE DETAINED AND TREATED

LANDSCAPED AREA NOT BEING DETAINED AND TREATED

IMPERVIOUS AREA NOT BEING DETAINED AND TREATED

EXISTING IMPERVIOUS AREA BENEFITING ABUTTING PROPERTIES (EXEMPT FROM TREATMENT)




10 0 10 20

SCALE: 1" = 10'

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

| ISSUED FOR | BY DATE |
|---|---|
| CLIENT REVIEW | SJL 14/22/2025 |
| SITE PLAN APPLICATION | SJL 7/16/2025 |
| COMMENT RESPONSE | SJL 9/29/2025 |

DRAWING NAME: **POST DEVELOPMENT WATERSHED MAP**

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

PARCEL ID: 044 B006001 & 044 B007001

CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

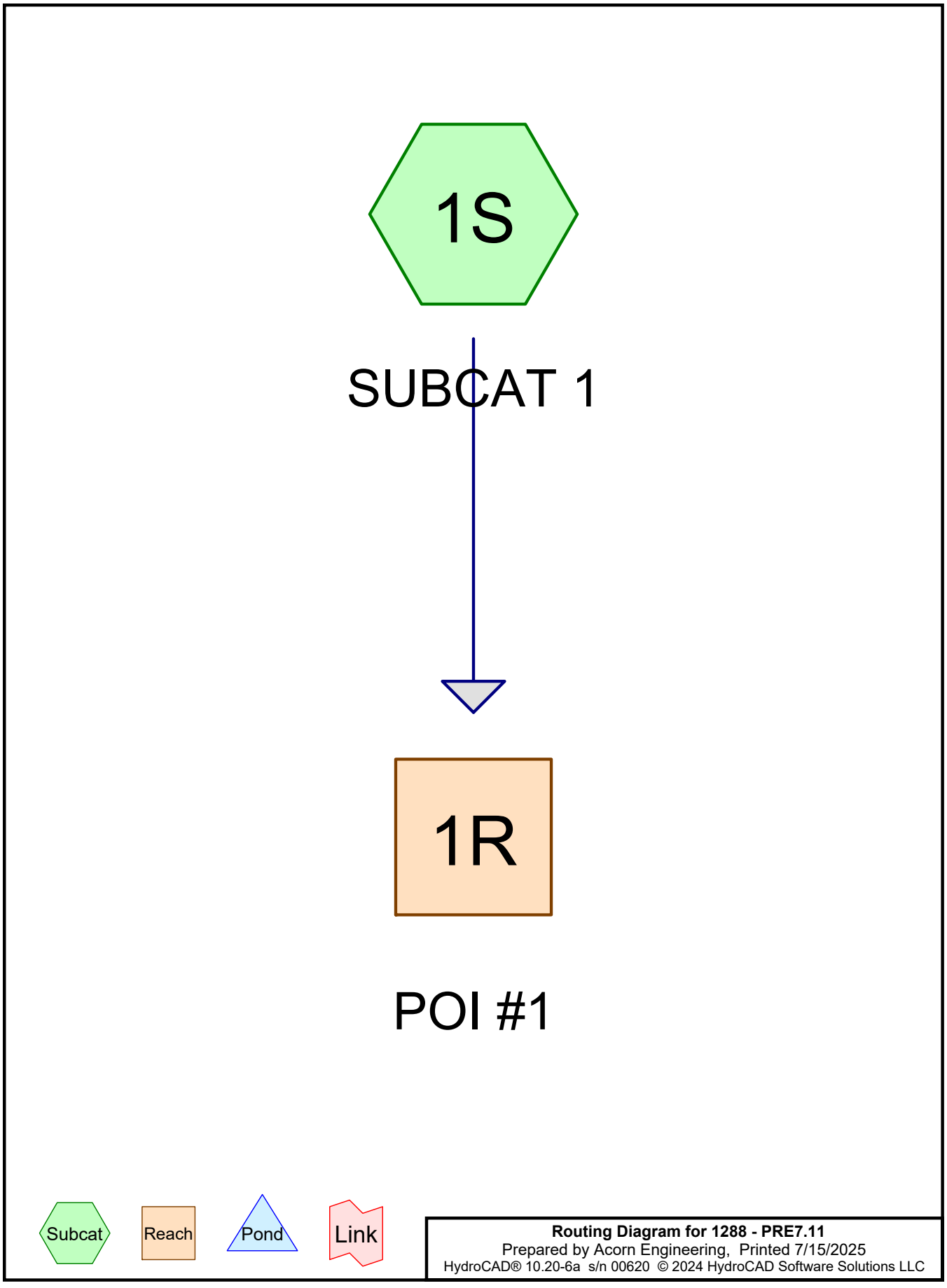
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| | |
|---|---|
| FILE: | AE_CIVIL |
| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

DRAWING NO.
POST


1S
SUBCAT 1
1R
POI #1
Subcat
Reach
Pond
Link
Routing Diagram for 1288 - PRE7.11
Prepared by Acorn Engineering, Printed 7/15/2025
HydroCAD® 10.20-6a s/n 00620 © 2024 HydroCAD Software Solutions LLC

## Rainfall Events Listing

| Event# | Event Name | Storm Type | Curve | Mode | Duration (hours) | B/B | Depth (inches) | AMC |
|---|---|---|---|---|---|---|---|---|
| 1 | 2-YR | Type III 24-hr | | Default | 24.00 | 1 | 3.10 | 2 |
| 2 | 10-YR | Type III 24-hr | | Default | 24.00 | 1 | 4.60 | 2 |
| 3 | 25-YR | Type III 24-hr | | Default | 24.00 | 1 | 5.80 | 2 |

## Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|---|---|---|
| 0.024 | 49 | 50-75% Grass cover, Fair, HSG A (1S) |
| 0.085 | 90 | Gravel/Old foundation (1S) |
| 0.009 | 98 | Unconnected pavement and concrete (1S) |
| 0.135 | 57 | Woods/grass comb., Poor, HSG A (1S) |
| **0.254** | **69** | **TOTAL AREA** |

## Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|---|---|---|
| 0.159 | HSG A | 1S |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 0.000 | HSG D | |
| 0.094 | Other | 1S |
| **0.254** | | **TOTAL AREA** |

## Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchm Numbers |
|---|---|---|---|---|---|---|---|
| 0.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.024 | 50-75% Grass cover, Fair | |
| 0.000 | 0.000 | 0.000 | 0.000 | 0.085 | 0.085 | Gravel/Old foundation | |
| 0.000 | 0.000 | 0.000 | 0.000 | 0.009 | 0.009 | Unconnected pavement and concrete | |
| 0.135 | 0.000 | 0.000 | 0.000 | 0.000 | 0.135 | Woods/grass comb., Poor | |
| **0.159** | **0.000** | **0.000** | **0.000** | **0.094** | **0.254** | **TOTAL AREA** | |

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 1S: SUBCAT 1** Runoff Area=11,045 sf 3.44% Impervious Runoff Depth=0.68"
Flow Length=147' Tc=13.9 min UI Adjusted CN=68 Runoff=0.13 cfs 0.014 af

**Reach 1R: POI #1** Inflow=0.13 cfs 0.014 af
Outflow=0.13 cfs 0.014 af

**Total Runoff Area = 0.254 ac Runoff Volume = 0.014 af Average Runoff Depth = 0.68"**
**96.56% Pervious = 0.245 ac 3.44% Impervious = 0.009 ac**

## Summary for Subcatchment 1S: SUBCAT 1

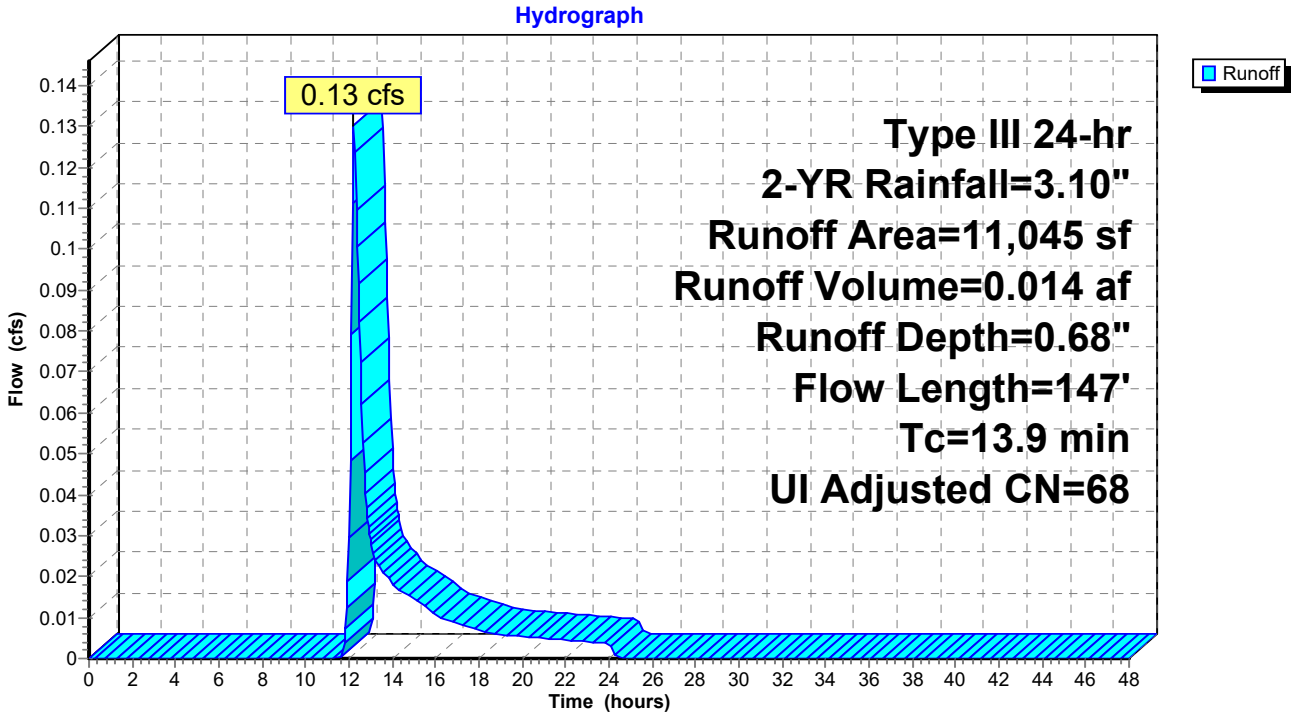
Runoff = 0.13 cfs @ 12.22 hrs, Volume= 0.014 af, Depth= 0.68"
Routed to Reach 1R : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

| | Area (sf) | CN | Adj | Description |
|---|---|---|---|---|
| | 1,060 | 49 | | 50-75% Grass cover, Fair, HSG A |
| * | 380 | 98 | | Unconnected pavement and concrete |
| * | 3,720 | 90 | | Gravel/Old foundation |
| | 5,885 | 57 | | Woods/grass comb., Poor, HSG A |
| | 11,045 | 69 | 68 | Weighted Average, UI Adjusted |
| | 10,665 | | | 96.56% Pervious Area |
| | 380 | | | 3.44% Impervious Area |
| | 380 | | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.3 | 13 | 0.3800 | 0.16 | | **Sheet Flow, A-B Woods** Woods: Light underbrush n= 0.400 P2= 3.10" |
| 12.3 | 71 | 0.0420 | 0.10 | | **Sheet Flow, B-C Woods** Woods: Light underbrush n= 0.400 P2= 3.10" |
| 0.2 | 16 | 0.0625 | 1.48 | | **Sheet Flow, C-D Gravel** Smooth surfaces n= 0.011 P2= 3.10" |
| 0.1 | 47 | 0.1100 | 5.34 | | **Shallow Concentrated Flow, D-E Gravel (shallow concentrated)** Unpaved Kv= 16.1 fps |
| 13.9 | 147 | Total | | | |

## Subcatchment 1S: SUBCAT 1

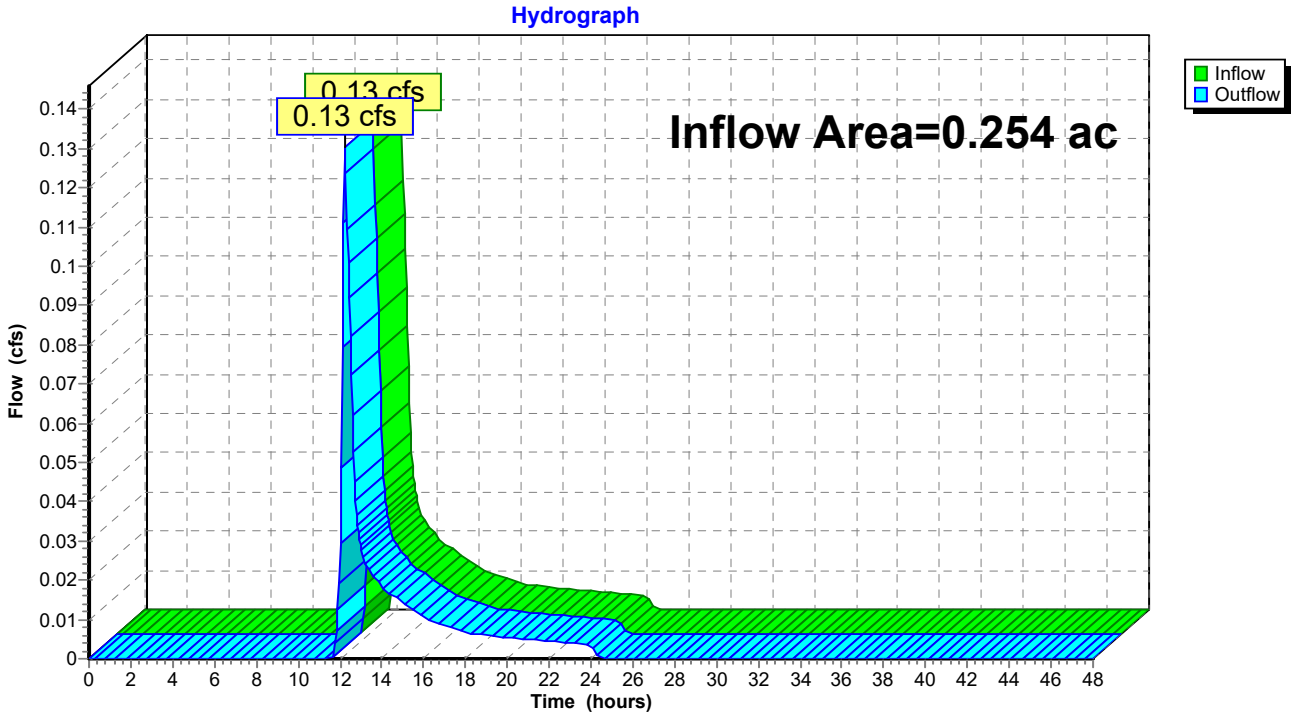


## Summary for Reach 1R: POI #1

Inflow Area = 0.254 ac, 3.44% Impervious, Inflow Depth = 0.68" for 2-YR event
Inflow = 0.13 cfs @ 12.22 hrs, Volume= 0.014 af
Outflow = 0.13 cfs @ 12.22 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

### Reach 1R: POI #1



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 1S: SUBCAT 1** Runoff Area=11,045 sf 3.44% Impervious Runoff Depth=1.60"
Flow Length=147' Tc=13.9 min UI Adjusted CN=68 Runoff=0.35 cfs 0.034 af

**Reach 1R: POI #1** Inflow=0.35 cfs 0.034 af
Outflow=0.35 cfs 0.034 af

**Total Runoff Area = 0.254 ac Runoff Volume = 0.034 af Average Runoff Depth = 1.60"**
**96.56% Pervious = 0.245 ac 3.44% Impervious = 0.009 ac**

## Summary for Subcatchment 1S: SUBCAT 1

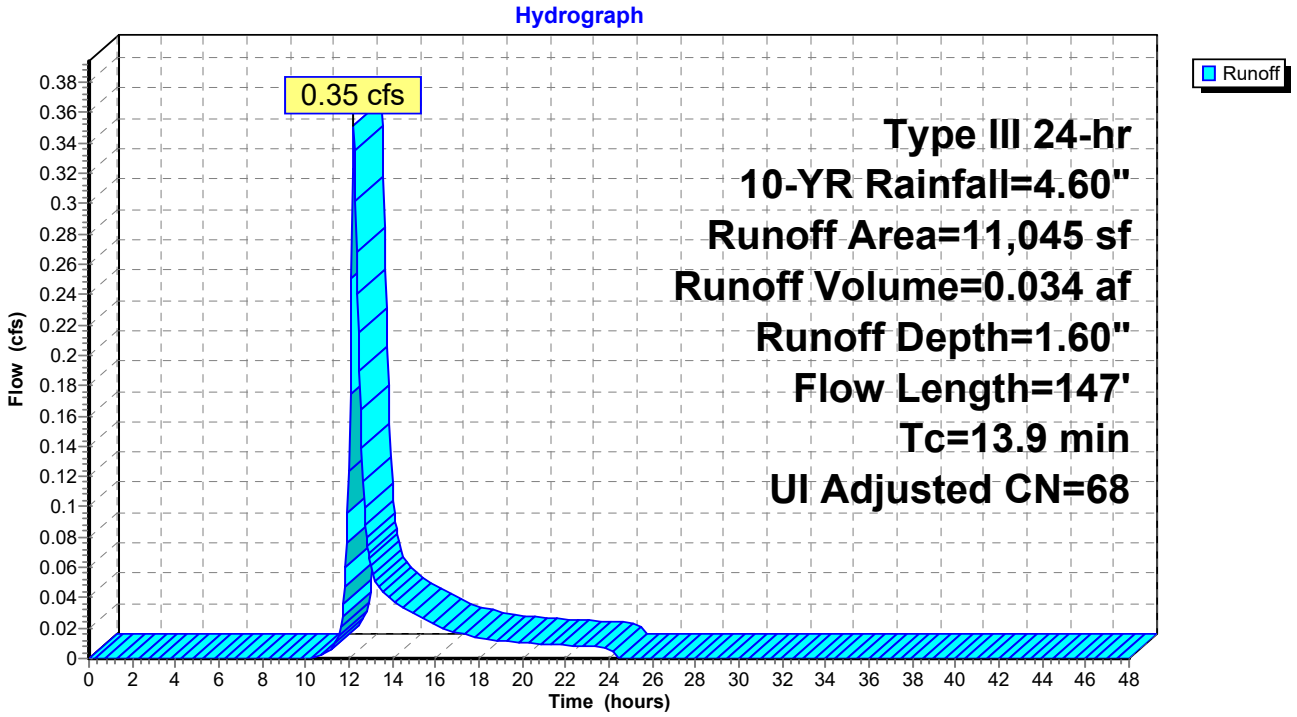
Runoff = 0.35 cfs @ 12.21 hrs, Volume= 0.034 af, Depth= 1.60"
Routed to Reach 1R : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

| | Area (sf) | CN | Adj | Description |
|---|---|---|---|---|
| | 1,060 | 49 | | 50-75% Grass cover, Fair, HSG A |
| * | 380 | 98 | | Unconnected pavement and concrete |
| * | 3,720 | 90 | | Gravel/Old foundation |
| | 5,885 | 57 | | Woods/grass comb., Poor, HSG A |
| | 11,045 | 69 | 68 | Weighted Average, UI Adjusted |
| | 10,665 | | | 96.56% Pervious Area |
| | 380 | | | 3.44% Impervious Area |
| | 380 | | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.3 | 13 | 0.3800 | 0.16 | | **Sheet Flow, A-B Woods** Woods: Light underbrush n= 0.400 P2= 3.10" |
| 12.3 | 71 | 0.0420 | 0.10 | | **Sheet Flow, B-C Woods** Woods: Light underbrush n= 0.400 P2= 3.10" |
| 0.2 | 16 | 0.0625 | 1.48 | | **Sheet Flow, C-D Gravel** Smooth surfaces n= 0.011 P2= 3.10" |
| 0.1 | 47 | 0.1100 | 5.34 | | **Shallow Concentrated Flow, D-E Gravel (shallow concentrated)** Unpaved Kv= 16.1 fps |
| 13.9 | 147 | Total | | | |

## Subcatchment 1S: SUBCAT 1

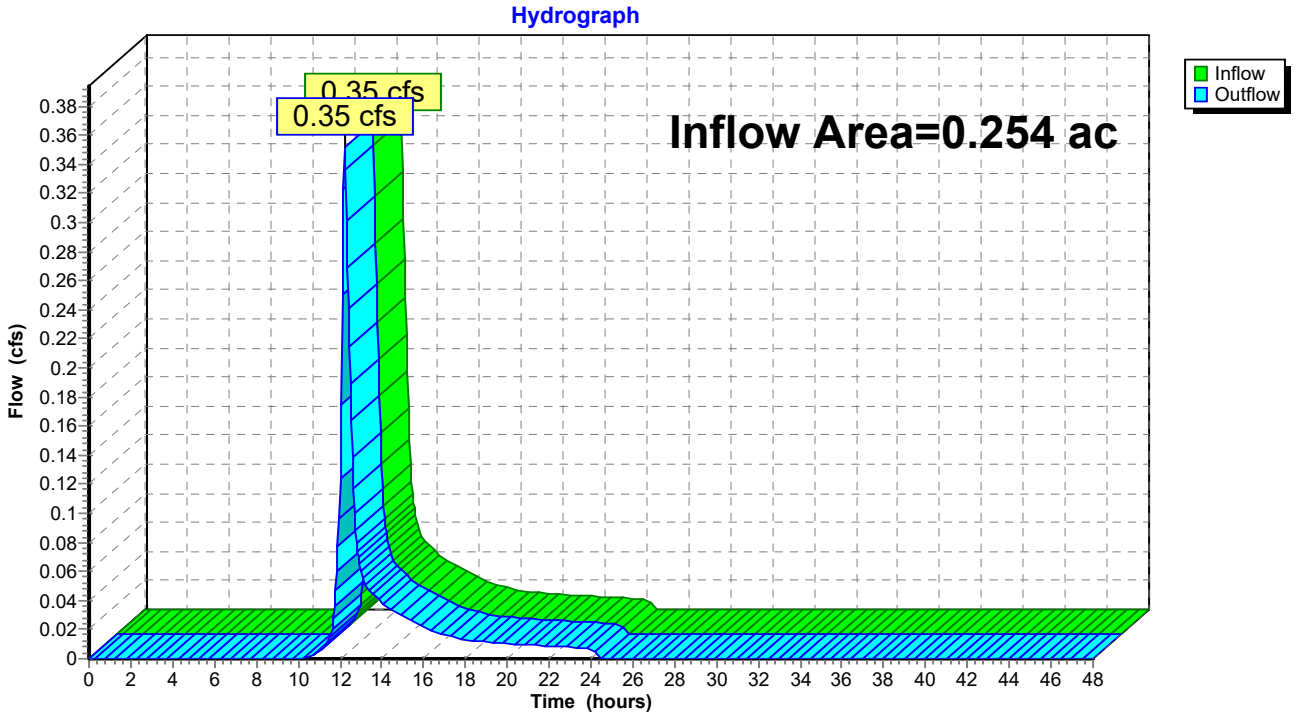


## Summary for Reach 1R: POI #1

Inflow Area = 0.254 ac, 3.44% Impervious, Inflow Depth = 1.60" for 10-YR event
Inflow = 0.35 cfs @ 12.21 hrs, Volume= 0.034 af
Outflow = 0.35 cfs @ 12.21 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

### Reach 1R: POI #1



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 1S: SUBCAT 1** Runoff Area=11,045 sf 3.44% Impervious Runoff Depth=2.47"
Flow Length=147' Tc=13.9 min UI Adjusted CN=68 Runoff=0.56 cfs 0.052 af

**Reach 1R: POI #1** Inflow=0.56 cfs 0.052 af
Outflow=0.56 cfs 0.052 af

**Total Runoff Area = 0.254 ac Runoff Volume = 0.052 af Average Runoff Depth = 2.47"**
**96.56% Pervious = 0.245 ac 3.44% Impervious = 0.009 ac**

## Summary for Subcatchment 1S: SUBCAT 1

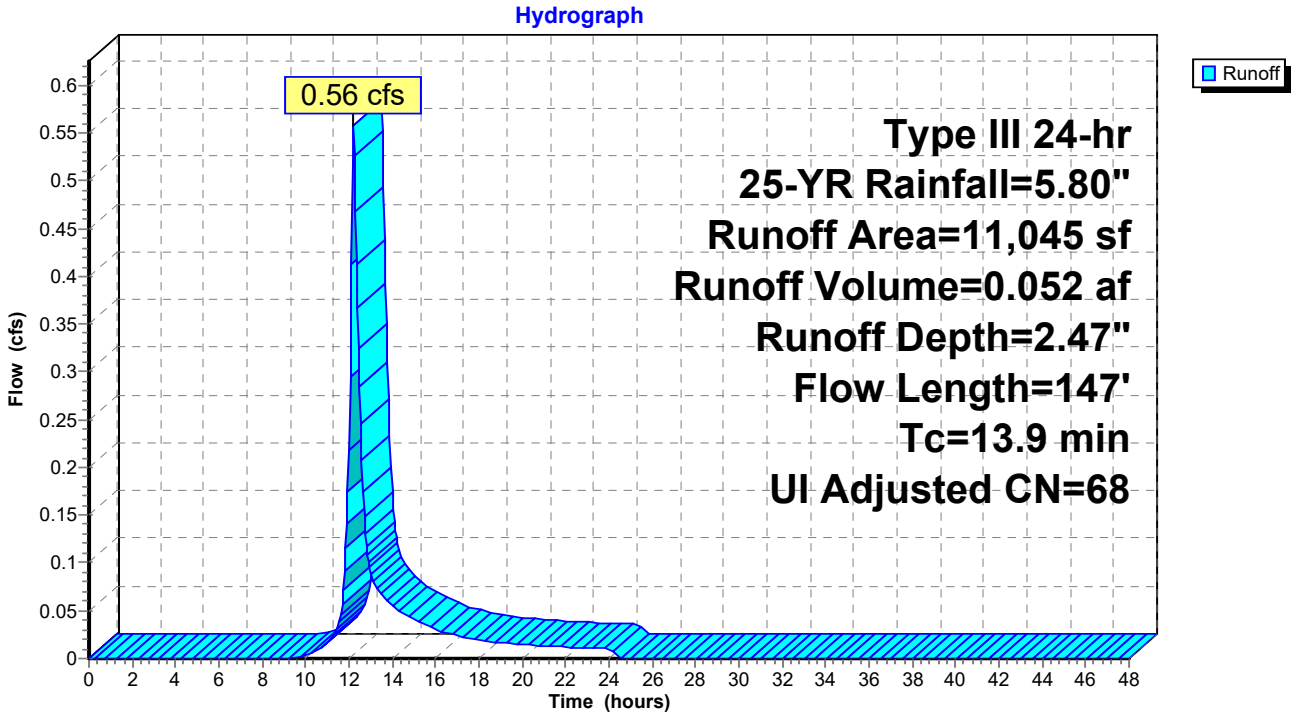
Runoff = 0.56 cfs @ 12.20 hrs, Volume= 0.052 af, Depth= 2.47"
Routed to Reach 1R : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

| | Area (sf) | CN | Adj | Description |
|---|---|---|---|---|
| | 1,060 | 49 | | 50-75% Grass cover, Fair, HSG A |
| * | 380 | 98 | | Unconnected pavement and concrete |
| * | 3,720 | 90 | | Gravel/Old foundation |
| | 5,885 | 57 | | Woods/grass comb., Poor, HSG A |
| | 11,045 | 69 | 68 | Weighted Average, UI Adjusted |
| | 10,665 | | | 96.56% Pervious Area |
| | 380 | | | 3.44% Impervious Area |
| | 380 | | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.3 | 13 | 0.3800 | 0.16 | | **Sheet Flow, A-B Woods** Woods: Light underbrush n= 0.400 P2= 3.10" |
| 12.3 | 71 | 0.0420 | 0.10 | | **Sheet Flow, B-C Woods** Woods: Light underbrush n= 0.400 P2= 3.10" |
| 0.2 | 16 | 0.0625 | 1.48 | | **Sheet Flow, C-D Gravel** Smooth surfaces n= 0.011 P2= 3.10" |
| 0.1 | 47 | 0.1100 | 5.34 | | **Shallow Concentrated Flow, D-E Gravel (shallow concentrated)** Unpaved Kv= 16.1 fps |
| 13.9 | 147 | Total | | | |

## Subcatchment 1S: SUBCAT 1

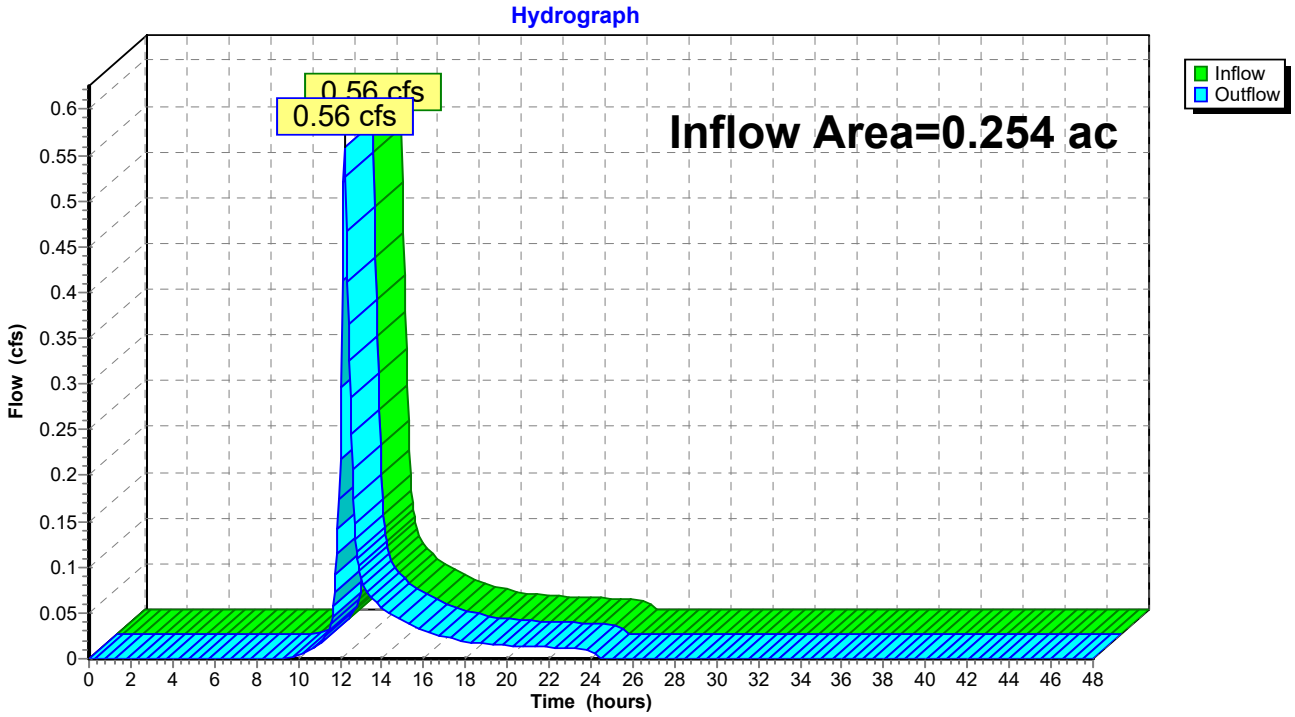


## Summary for Reach 1R: POI #1

Inflow Area = 0.254 ac, 3.44% Impervious, Inflow Depth = 2.47" for 25-YR event
Inflow = 0.56 cfs @ 12.20 hrs, Volume= 0.052 af
Outflow = 0.56 cfs @ 12.20 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

## Reach 1R: POI #1



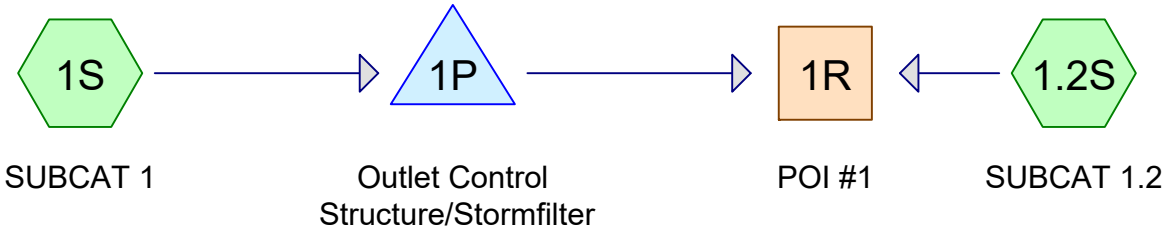
## TABLE OF CONTENTS

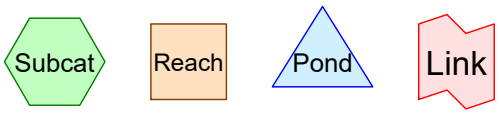
**Project Reports**
1 Routing Diagram
2 Rainfall Events Listing
3 Area Listing (all nodes)
4 Soil Listing (all nodes)
5 Ground Covers (all nodes)

**2-YR Event**
6 Node Listing
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9 Reach 1R: POI #1

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**Routing Diagram for 1288 - POST-zms**
Prepared by Acorn Engineering, Printed 7/15/2025
HydroCAD® 10.20-6a s/n 00620 © 2024 HydroCAD Software Solutions LLC

## Rainfall Events Listing (selected events)

| Event# | Event Name | Storm Type | Curve | Mode | Duration (hours) | B/B | Depth (inches) | AMC |
|---|---|---|---|---|---|---|---|---|
| 1 | 2-YR | Type III 24-hr | | Default | 24.00 | 1 | 3.10 | 2 |
| 2 | 10-YR | Type III 24-hr | | Default | 24.00 | 1 | 4.60 | 2 |
| 3 | 25-YR | Type III 24-hr | | Default | 24.00 | 1 | 5.80 | 2 |

## Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|---|---|---|
| 0.052 | 30 | Brush, Good, HSG A (1.2S, 1S) |
| 0.087 | 98 | Paved parking, HSG A (1S) |
| 0.006 | 98 | Pavement, Steps, and Ret Walls (1.2S) |
| 0.103 | 98 | Roofs, HSG A (1S) |
| 0.006 | 98 | Unconnected pavement, (1.2S) |
| **0.254** | **84** | **TOTAL AREA** |

## Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|---|---|---|
| 0.242 | HSG A | 1.2S, 1S |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 0.000 | HSG D | |
| 0.012 | Other | 1.2S |
| **0.254** | | **TOTAL AREA** |

## Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchment Numbers |
|---|---|---|---|---|---|---|---|
| 0.052 | 0.000 | 0.000 | 0.000 | 0.000 | 0.052 | Brush, Good | 1.2S, 1S |
| 0.087 | 0.000 | 0.000 | 0.000 | 0.000 | 0.087 | Paved parking | 1S |
| 0.000 | 0.000 | 0.000 | 0.000 | 0.006 | 0.006 | Pavement, Steps, and Ret Walls | 1.2S |
| 0.103 | 0.000 | 0.000 | 0.000 | 0.000 | 0.103 | Roofs | 1S |
| 0.000 | 0.000 | 0.000 | 0.000 | 0.006 | 0.006 | Unconnected pavement, | 1.2S |
| **0.242** | **0.000** | **0.000** | **0.000** | **0.012** | **0.254** | **TOTAL AREA** | |

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 1.2S: SUBCAT 1.2** Runoff Area=2,010 sf 25.52% Impervious Runoff Depth=0.01"
Tc=6.0 min UI Adjusted CN=43 Runoff=0.00 cfs 0.000 af

**Subcatchment 1S: SUBCAT 1** Runoff Area=9,035 sf 91.61% Impervious Runoff Depth=2.26"
Tc=6.0 min CN=92 Runoff=0.52 cfs 0.039 af

**Reach 1R: POI #1** Inflow=0.09 cfs 0.039 af
Outflow=0.09 cfs 0.039 af

**Pond 1P: Outlet Control Structure/Stormfilter** Peak Elev=51.23' Storage=607 cf Inflow=0.52 cfs 0.039 af
Outflow=0.09 cfs 0.039 af

**Total Runoff Area = 0.254 ac Runoff Volume = 0.039 af Average Runoff Depth = 1.85"**
**20.42% Pervious = 0.052 ac 79.58% Impervious = 0.202 ac**

## Summary for Subcatchment 1.2S: SUBCAT 1.2

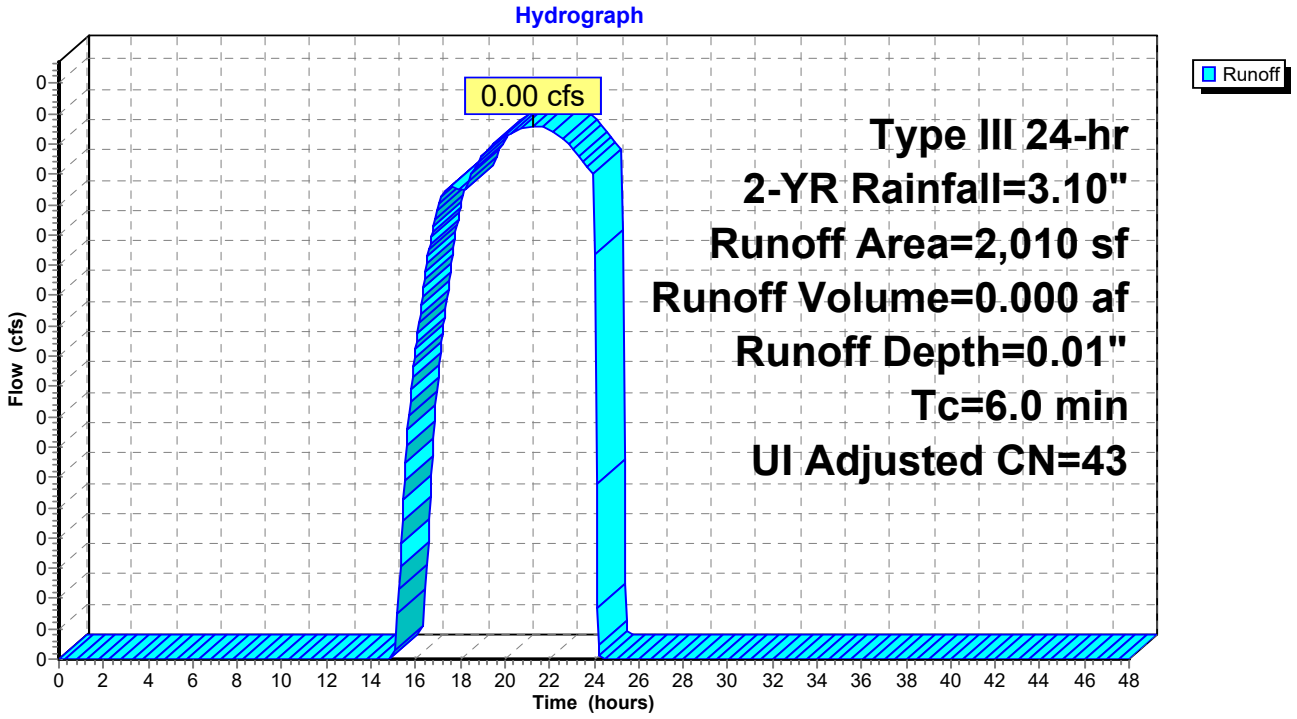
Runoff = 0.00 cfs @ 21.24 hrs, Volume= 0.000 af, Depth= 0.01"
Routed to Reach 1R : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

| | Area (sf) | CN | Adj | Description |
|---|---|---|---|---|
| | 1,497 | 30 | | Brush, Good, HSG A |
| * | 246 | 98 | | Pavement, Steps, and Ret Walls |
| * | 267 | 98 | | Unconnected pavement, |
| | 2,010 | 47 | 43 | Weighted Average, UI Adjusted |
| | 1,497 | | | 74.48% Pervious Area |
| | 513 | | | 25.52% Impervious Area |
| | 267 | | | 52.05% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry,** |

## Subcatchment 1.2S: SUBCAT 1.2



## Summary for Subcatchment 1S: SUBCAT 1

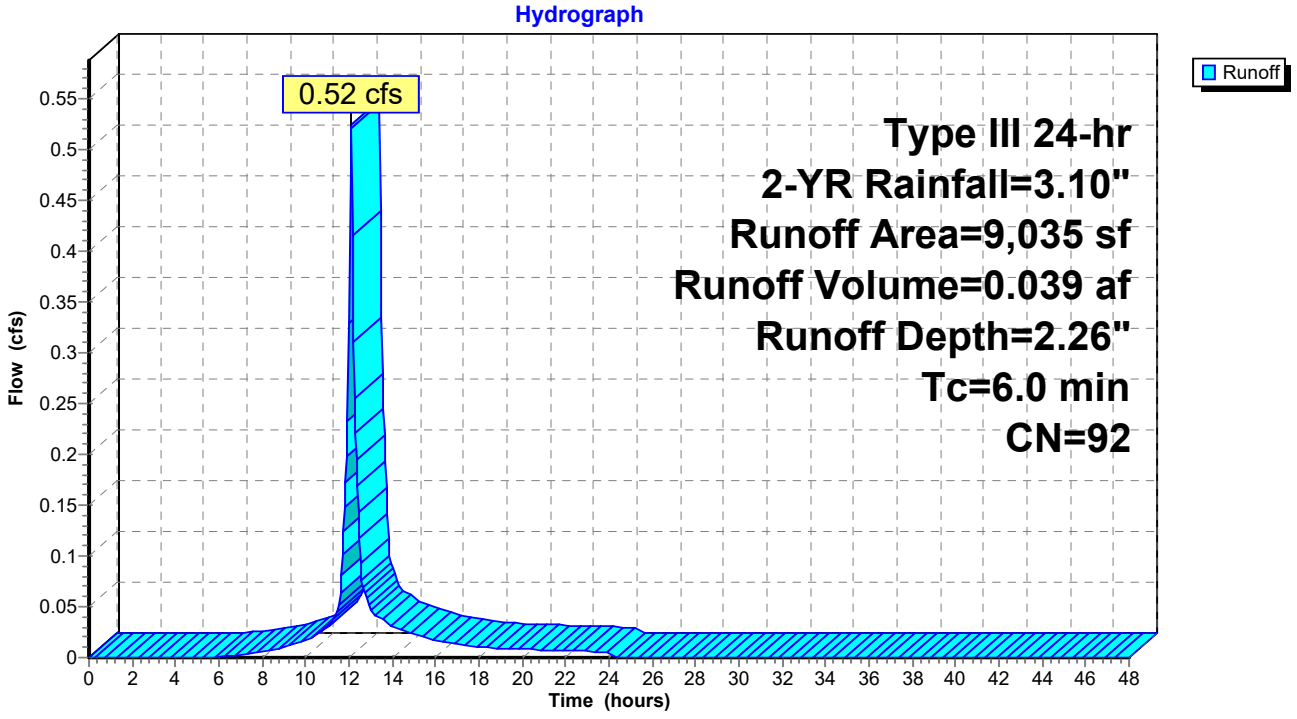
Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 2.26"
Routed to Pond 1P : Outlet Control Structure/Stormfilter

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

| Area (sf) | CN | Description |
|---|---|---|
| 758 | 30 | Brush, Good, HSG A |
| 3,778 | 98 | Paved parking, HSG A |
| 4,499 | 98 | Roofs, HSG A |
| 9,035 | 92 | Weighted Average |
| 758 | | 8.39% Pervious Area |
| 8,277 | | 91.61% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry,** |

## Subcatchment 1S: SUBCAT 1

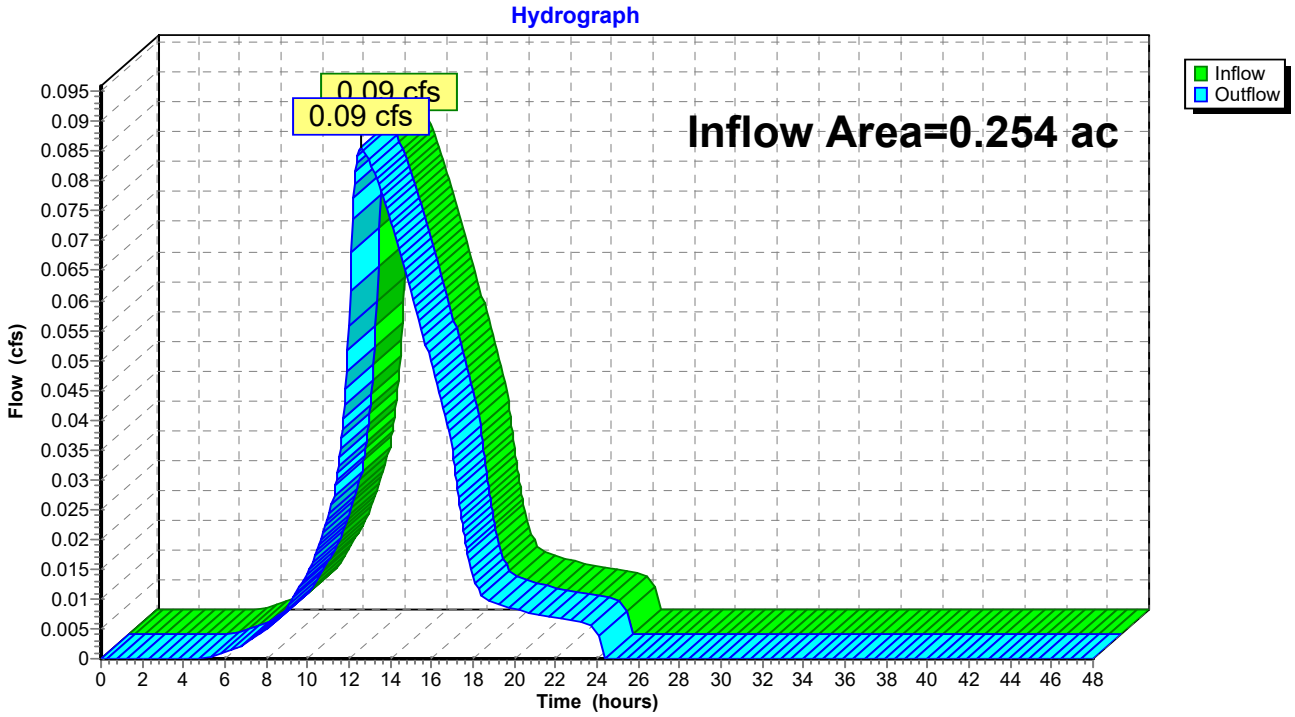


## Summary for Reach 1R: POI #1

Inflow Area = 0.254 ac, 79.58% Impervious, Inflow Depth = 1.85" for 2-YR event
Inflow = 0.09 cfs @ 12.57 hrs, Volume= 0.039 af
Outflow = 0.09 cfs @ 12.57 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

### Reach 1R: POI #1



## Summary for Pond 1P: Outlet Control Structure/Stormfilter

Inflow Area = 0.207 ac, 91.61% Impervious, Inflow Depth = 2.26" for 2-YR event
Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.039 af
Outflow = 0.09 cfs @ 12.57 hrs, Volume= 0.039 af, Atten= 84%, Lag= 29.0 min
Primary = 0.09 cfs @ 12.57 hrs, Volume= 0.039 af
Routed to Reach 1R : POI #1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 51.23' @ 12.57 hrs Surf.Area= 282 sf Storage= 607 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 64.0 min ( 862.9 - 798.9 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1A | 48.46' | 163 cf | **10.88'W x 24.72'L x 5.02'H Field A**<br>1,349 cf Overall - 941 cf Embedded = 408 cf x 40.0% Voids |
| #2A | 48.96' | 894 cf | **ACO StormBrixx HD 2** x 30 Inside #1<br>Inside= 23.7"W x 48.2"H => 7.54 sf x 3.95'L = 29.8 cf<br>Outside= 23.7"W x 48.2"H => 7.94 sf x 3.95'L = 31.4 cf<br>30 Chambers in 5 Rows |
| #3 | 49.90' | 77 cf | **4.00'D x 6.10'H F-BASIN STORAGE** |
| #4 | 55.15' | 176 cf | **F-BASIN OVERFLOW (Prismatic)**Listed below (Recalc) |
| | | 1,310 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|
| 55.15 | 4 | 0 | 0 |
| 55.50 | 1,000 | 176 | 176 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 48.30' | **12.0" Round 12" SD to York St**<br>L= 72.0' CMP, projecting, no headwall, Ke= 0.900<br>Inlet / Outlet Invert= 48.30' / 41.55' S= 0.0938 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf |
| #2 | Device 1 | 48.40' | **1.4" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads |
| #3 | Device 1 | 51.75' | **4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads |
| #4 | Device 1 | 52.90' | **12.0" Vert. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=0.09 cfs @ 12.57 hrs HW=51.23' TW=0.00' (Dynamic Tailwater)
└─**1=12" SD to York St** (Passes 0.09 cfs of 4.65 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 8.01 fps)
  ├─**3=Orifice/Grate** ( Controls 0.00 cfs)
  └─**4=Orifice/Grate** ( Controls 0.00 cfs)

## Pond 1P: Outlet Control Structure/Stormfilter - Chamber Wizard Field A

**Chamber Model = ACO StormBrixx HD 2 (ACO StormBrixx® HD)**
Inside= 23.7"W x 48.2"H => 7.54 sf x 3.95'L = 29.8 cf
Outside= 23.7"W x 48.2"H => 7.94 sf x 3.95'L = 31.4 cf

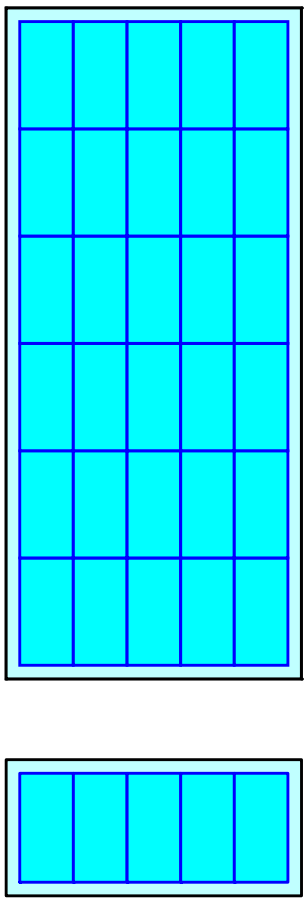
6 Chambers/Row x 3.95' Long = 23.72' Row Length +6.0" End Stone x 2 = 24.72' Base Length
5 Rows x 23.7" Wide + 6.0" Side Stone x 2 = 10.88' Base Width
6.0" Stone Base + 48.2" Chamber Height + 6.0" Stone Cover = 5.02' Field Height

30 Chambers x 29.8 cf = 894.4 cf Chamber Storage
30 Chambers x 31.4 cf = 941.5 cf Displacement

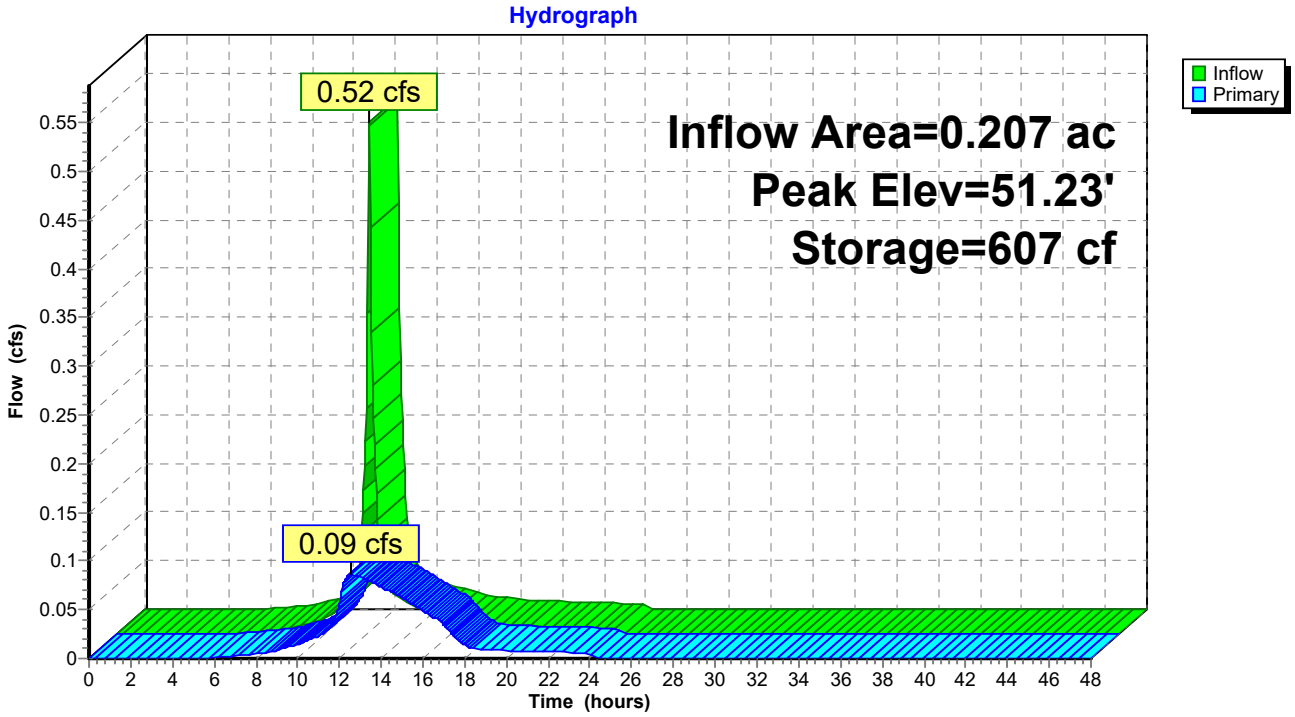
1,349.5 cf Field - 941.5 cf Chambers = 408.0 cf Stone x 40.0% Voids = 163.2 cf Stone Storage

Chamber Storage + Stone Storage = 1,057.6 cf = 0.024 af
Overall Storage Efficiency = 78.4%
Overall System Size = 24.72' x 10.88' x 5.02'

30 Chambers
50.0 cy Field
15.1 cy Stone



## Pond 1P: Outlet Control Structure/Stormfilter



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 1.2S: SUBCAT 1.2** Runoff Area=2,010 sf 25.52% Impervious Runoff Depth=0.25"
Tc=6.0 min UI Adjusted CN=43 Runoff=0.00 cfs 0.001 af

**Subcatchment 1S: SUBCAT 1** Runoff Area=9,035 sf 91.61% Impervious Runoff Depth=3.70"
Tc=6.0 min CN=92 Runoff=0.84 cfs 0.064 af

**Reach 1R: POI #1** Inflow=0.35 cfs 0.065 af
Outflow=0.35 cfs 0.065 af

**Pond 1P: Outlet Control Structure/Stormfilter** Peak Elev=52.25' Storage=863 cf Inflow=0.84 cfs 0.064 af
Outflow=0.34 cfs 0.064 af

**Total Runoff Area = 0.254 ac Runoff Volume = 0.065 af Average Runoff Depth = 3.07"**
**20.42% Pervious = 0.052 ac 79.58% Impervious = 0.202 ac**

## Summary for Subcatchment 1.2S: SUBCAT 1.2

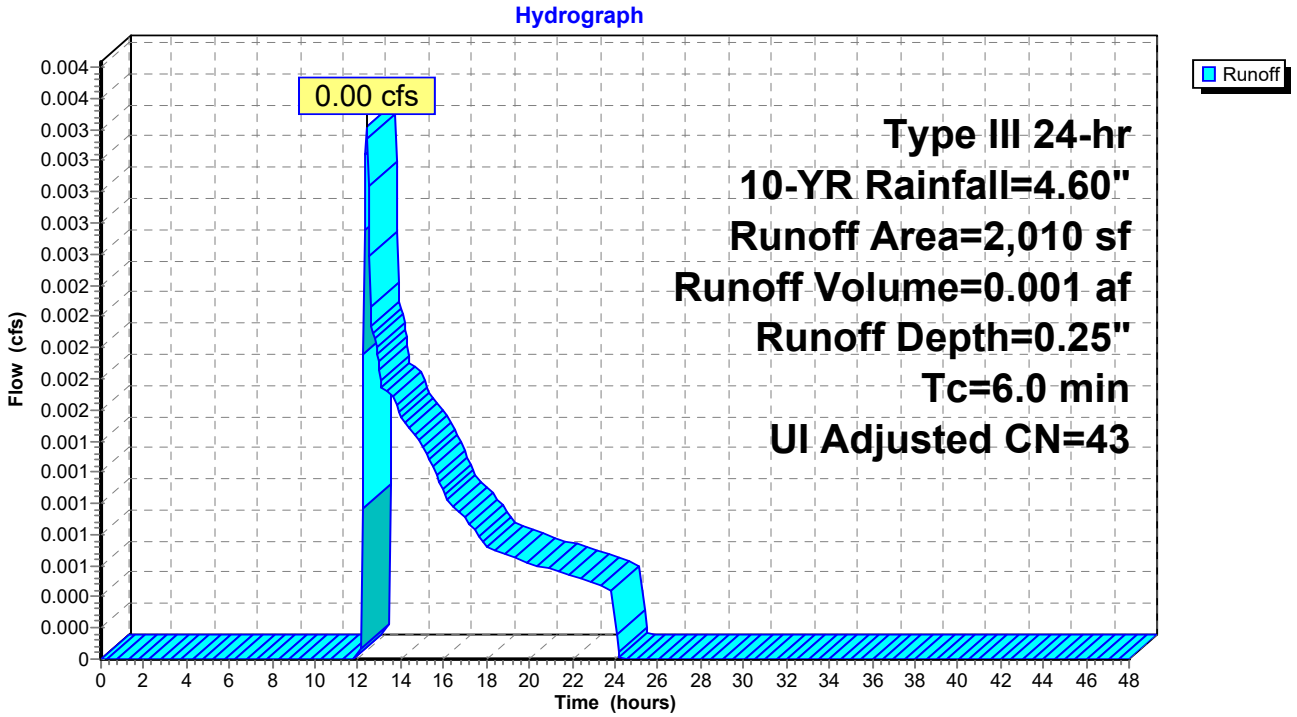
Runoff = 0.00 cfs @ 12.41 hrs, Volume= 0.001 af, Depth= 0.25"
Routed to Reach 1R : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

| | Area (sf) | CN | Adj | Description |
|---|---|---|---|---|
| | 1,497 | 30 | | Brush, Good, HSG A |
| * | 246 | 98 | | Pavement, Steps, and Ret Walls |
| * | 267 | 98 | | Unconnected pavement, |
| | 2,010 | 47 | 43 | Weighted Average, UI Adjusted |
| | 1,497 | | | 74.48% Pervious Area |
| | 513 | | | 25.52% Impervious Area |
| | 267 | | | 52.05% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry,** |

## Subcatchment 1.2S: SUBCAT 1.2



## Summary for Subcatchment 1S: SUBCAT 1

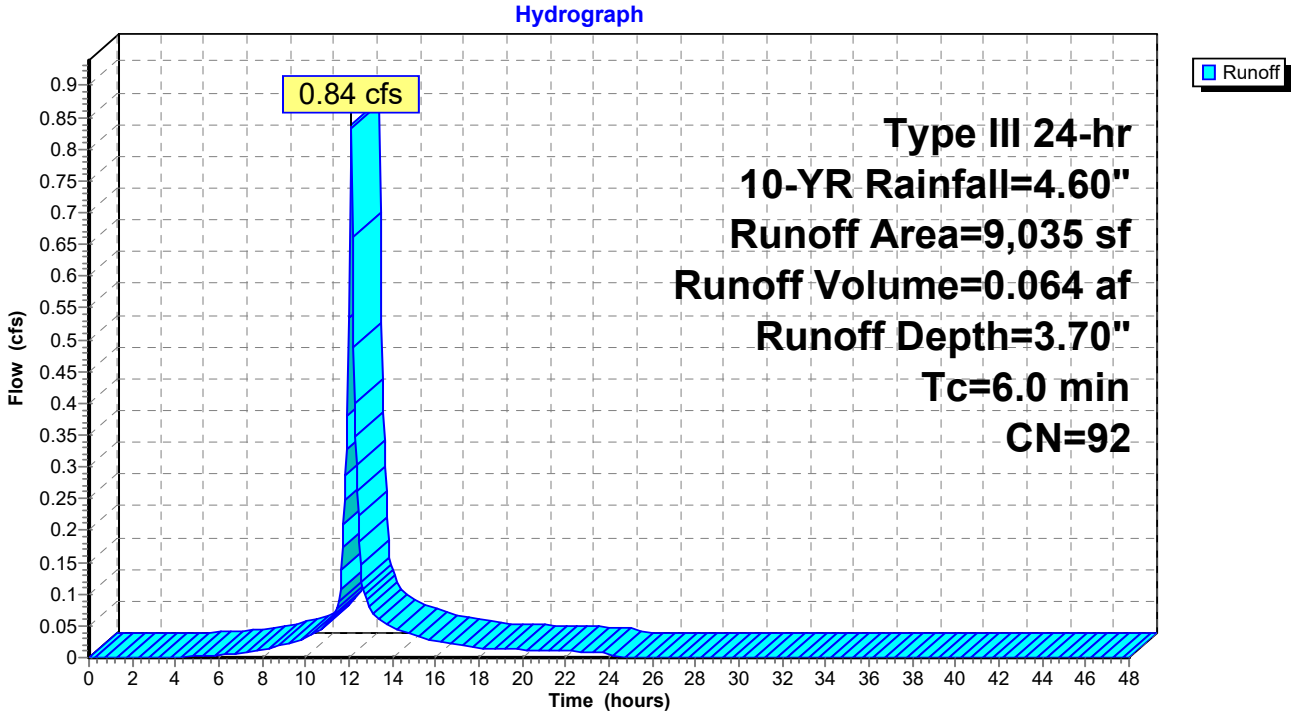
Runoff = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af, Depth= 3.70"
Routed to Pond 1P : Outlet Control Structure/Stormfilter

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

| Area (sf) | CN | Description |
|---|---|---|
| 758 | 30 | Brush, Good, HSG A |
| 3,778 | 98 | Paved parking, HSG A |
| 4,499 | 98 | Roofs, HSG A |
| 9,035 | 92 | Weighted Average |
| 758 | | 8.39% Pervious Area |
| 8,277 | | 91.61% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry,** |

## Subcatchment 1S: SUBCAT 1

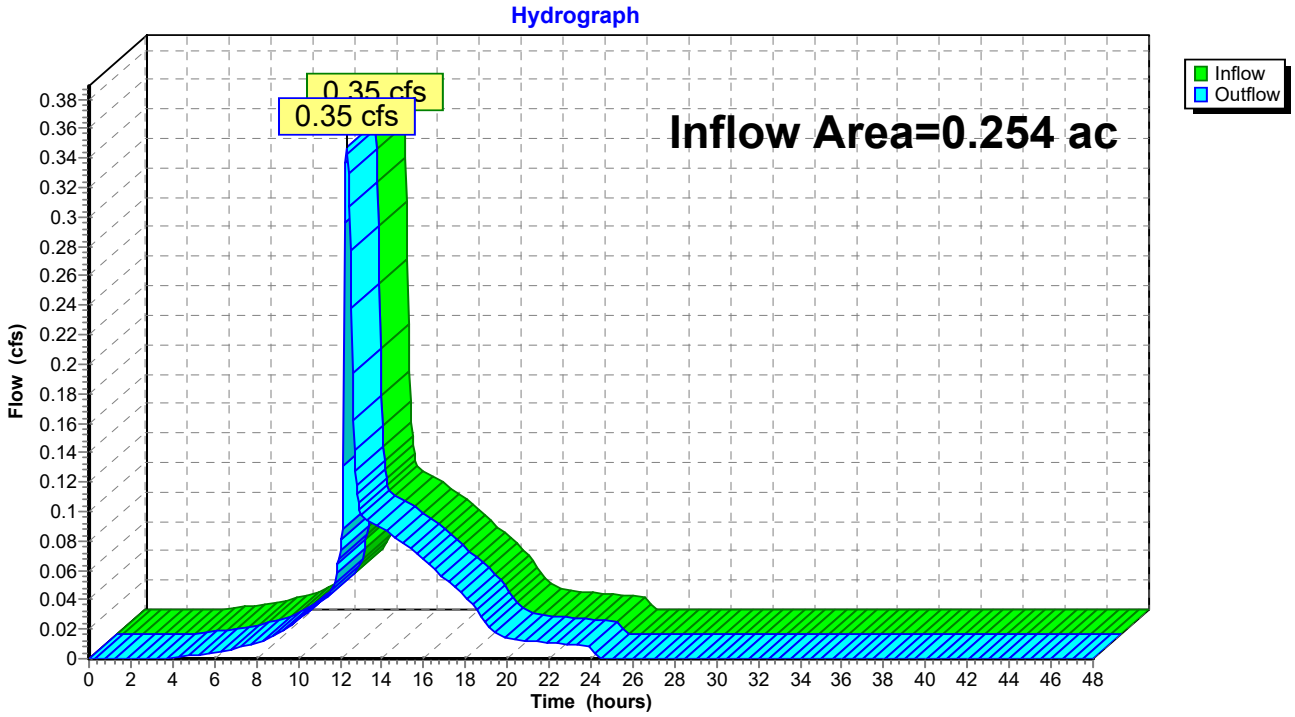


## Summary for Reach 1R: POI #1

Inflow Area = 0.254 ac, 79.58% Impervious, Inflow Depth = 3.07" for 10-YR event
Inflow = 0.35 cfs @ 12.31 hrs, Volume= 0.065 af
Outflow = 0.35 cfs @ 12.31 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

### Reach 1R: POI #1



## Summary for Pond 1P: Outlet Control Structure/Stormfilter

Inflow Area = 0.207 ac, 91.61% Impervious, Inflow Depth = 3.70" for 10-YR event
Inflow = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.34 cfs @ 12.31 hrs, Volume= 0.064 af, Atten= 59%, Lag= 13.2 min
Primary = 0.34 cfs @ 12.31 hrs, Volume= 0.064 af
Routed to Reach 1R : POI #1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 52.25' @ 12.31 hrs Surf.Area= 282 sf Storage= 863 cf

Plug-Flow detention time= 67.2 min calculated for 0.064 af (100% of inflow)
Center-of-Mass det. time= 67.2 min ( 852.6 - 785.4 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1A | 48.46' | 163 cf | **10.88'W x 24.72'L x 5.02'H Field A**<br>1,349 cf Overall - 941 cf Embedded = 408 cf x 40.0% Voids |
| #2A | 48.96' | 894 cf | **ACO StormBrixx HD 2** x 30 Inside #1<br>Inside= 23.7"W x 48.2"H => 7.54 sf x 3.95'L = 29.8 cf<br>Outside= 23.7"W x 48.2"H => 7.94 sf x 3.95'L = 31.4 cf<br>30 Chambers in 5 Rows |
| #3 | 49.90' | 77 cf | **4.00'D x 6.10'H F-BASIN STORAGE** |
| #4 | 55.15' | 176 cf | **F-BASIN OVERFLOW (Prismatic)**Listed below (Recalc) |
| | | 1,310 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|
| 55.15 | 4 | 0 | 0 |
| 55.50 | 1,000 | 176 | 176 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 48.30' | **12.0" Round 12" SD to York St**<br>L= 72.0' CMP, projecting, no headwall, Ke= 0.900<br>Inlet / Outlet Invert= 48.30' / 41.55' S= 0.0938 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf |
| #2 | Device 1 | 48.40' | **1.4" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads |
| #3 | Device 1 | 51.75' | **4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads |
| #4 | Device 1 | 52.90' | **12.0" Vert. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=0.34 cfs @ 12.31 hrs HW=52.25' TW=0.00' (Dynamic Tailwater)
└**1=12" SD to York St** (Passes 0.34 cfs of 5.55 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 9.38 fps)
├**3=Orifice/Grate** (Orifice Controls 0.24 cfs @ 2.79 fps)
└**4=Orifice/Grate** ( Controls 0.00 cfs)

## Pond 1P: Outlet Control Structure/Stormfilter - Chamber Wizard Field A

**Chamber Model = ACO StormBrixx HD 2 (ACO StormBrixx® HD)**
Inside= 23.7"W x 48.2"H => 7.54 sf x 3.95'L = 29.8 cf
Outside= 23.7"W x 48.2"H => 7.94 sf x 3.95'L = 31.4 cf

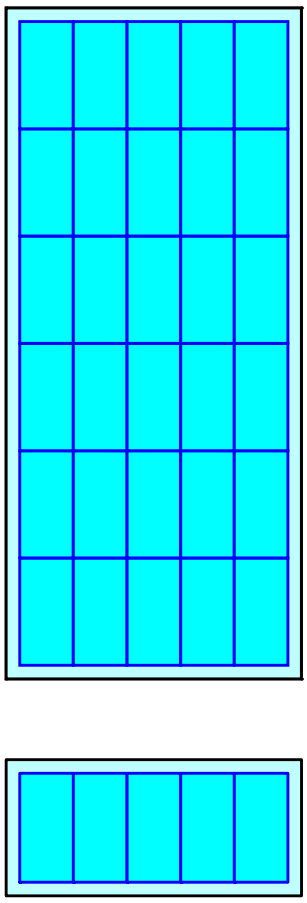
6 Chambers/Row x 3.95' Long = 23.72' Row Length +6.0" End Stone x 2 = 24.72' Base Length
5 Rows x 23.7" Wide + 6.0" Side Stone x 2 = 10.88' Base Width
6.0" Stone Base + 48.2" Chamber Height + 6.0" Stone Cover = 5.02' Field Height

30 Chambers x 29.8 cf = 894.4 cf Chamber Storage
30 Chambers x 31.4 cf = 941.5 cf Displacement

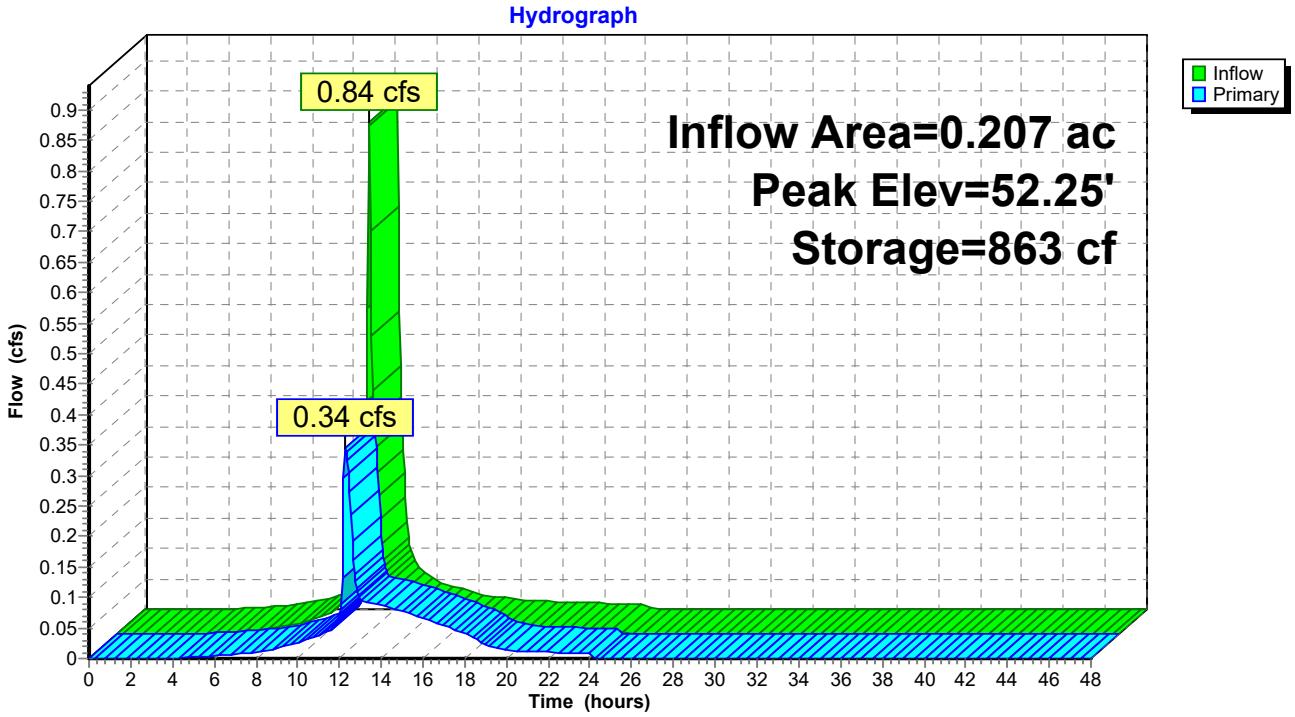
1,349.5 cf Field - 941.5 cf Chambers = 408.0 cf Stone x 40.0% Voids = 163.2 cf Stone Storage

Chamber Storage + Stone Storage = 1,057.6 cf = 0.024 af
Overall Storage Efficiency = 78.4%
Overall System Size = 24.72' x 10.88' x 5.02'

30 Chambers
50.0 cy Field
15.1 cy Stone



## Pond 1P: Outlet Control Structure/Stormfilter



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 1.2S: SUBCAT 1.2** Runoff Area=2,010 sf 25.52% Impervious Runoff Depth=0.60"
Tc=6.0 min UI Adjusted CN=43 Runoff=0.01 cfs 0.002 af

**Subcatchment 1S: SUBCAT 1** Runoff Area=9,035 sf 91.61% Impervious Runoff Depth=4.87"
Tc=6.0 min CN=92 Runoff=1.09 cfs 0.084 af

**Reach 1R: POI #1** Inflow=0.56 cfs 0.087 af
Outflow=0.56 cfs 0.087 af

**Pond 1P: Outlet Control Structure/Stormfilter** Peak Elev=52.94' Storage=1,035 cf Inflow=1.09 cfs 0.084 af
Outflow=0.54 cfs 0.084 af

**Total Runoff Area = 0.254 ac Runoff Volume = 0.087 af Average Runoff Depth = 4.10"**
**20.42% Pervious = 0.052 ac 79.58% Impervious = 0.202 ac**

## Summary for Subcatchment 1.2S: SUBCAT 1.2

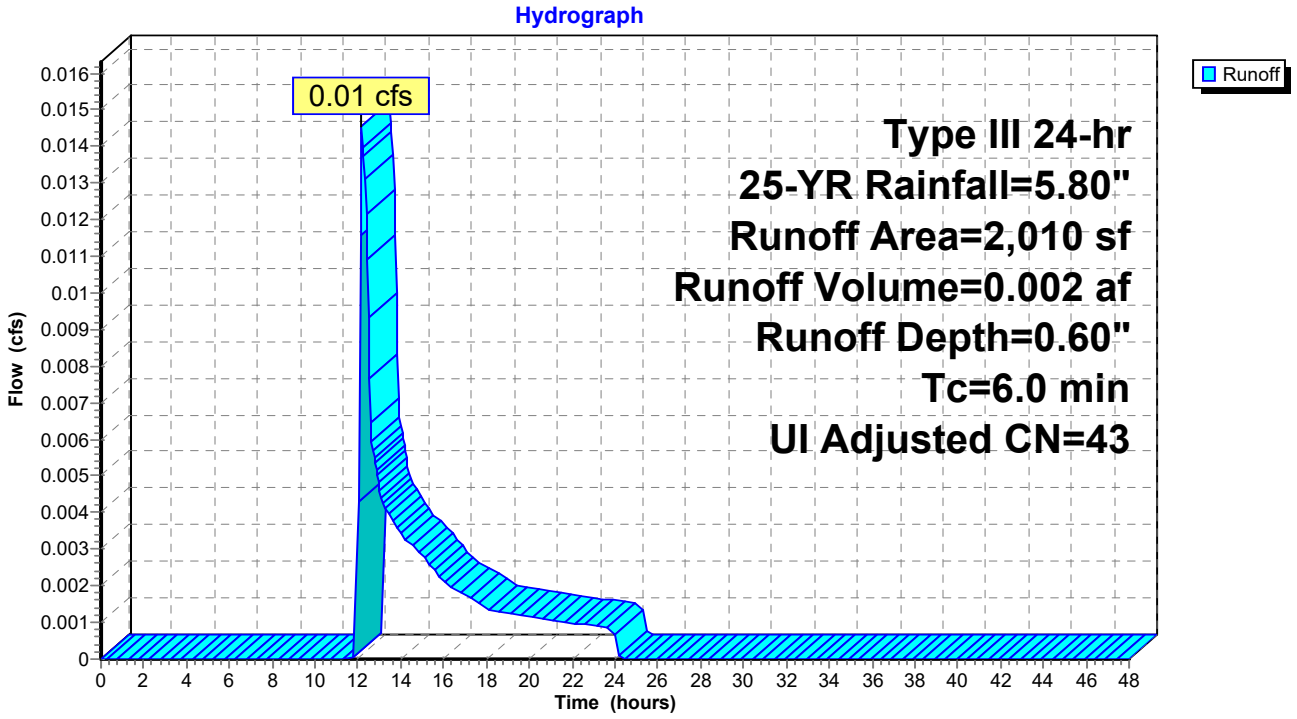
Runoff = 0.01 cfs @ 12.17 hrs, Volume= 0.002 af, Depth= 0.60"
Routed to Reach 1R : POI #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

| | Area (sf) | CN | Adj | Description |
|---|---|---|---|---|
| | 1,497 | 30 | | Brush, Good, HSG A |
| * | 246 | 98 | | Pavement, Steps, and Ret Walls |
| * | 267 | 98 | | Unconnected pavement, |
| | 2,010 | 47 | 43 | Weighted Average, UI Adjusted |
| | 1,497 | | | 74.48% Pervious Area |
| | 513 | | | 25.52% Impervious Area |
| | 267 | | | 52.05% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry,** |

## Subcatchment 1.2S: SUBCAT 1.2



## Summary for Subcatchment 1S: SUBCAT 1

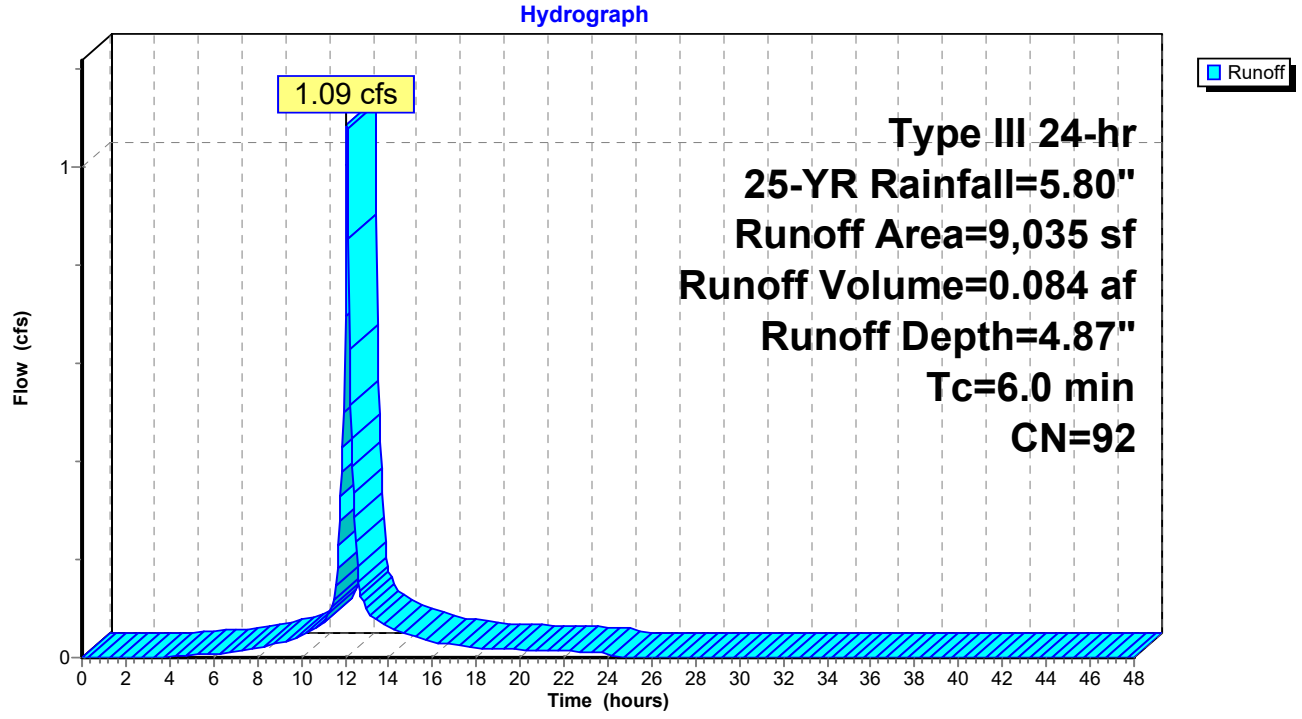
Runoff = 1.09 cfs @ 12.09 hrs, Volume= 0.084 af, Depth= 4.87"
Routed to Pond 1P : Outlet Control Structure/Stormfilter

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

| Area (sf) | CN | Description |
|---|---|---|
| 758 | 30 | Brush, Good, HSG A |
| 3,778 | 98 | Paved parking, HSG A |
| 4,499 | 98 | Roofs, HSG A |
| 9,035 | 92 | Weighted Average |
| 758 | | 8.39% Pervious Area |
| 8,277 | | 91.61% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry,** |

## Subcatchment 1S: SUBCAT 1

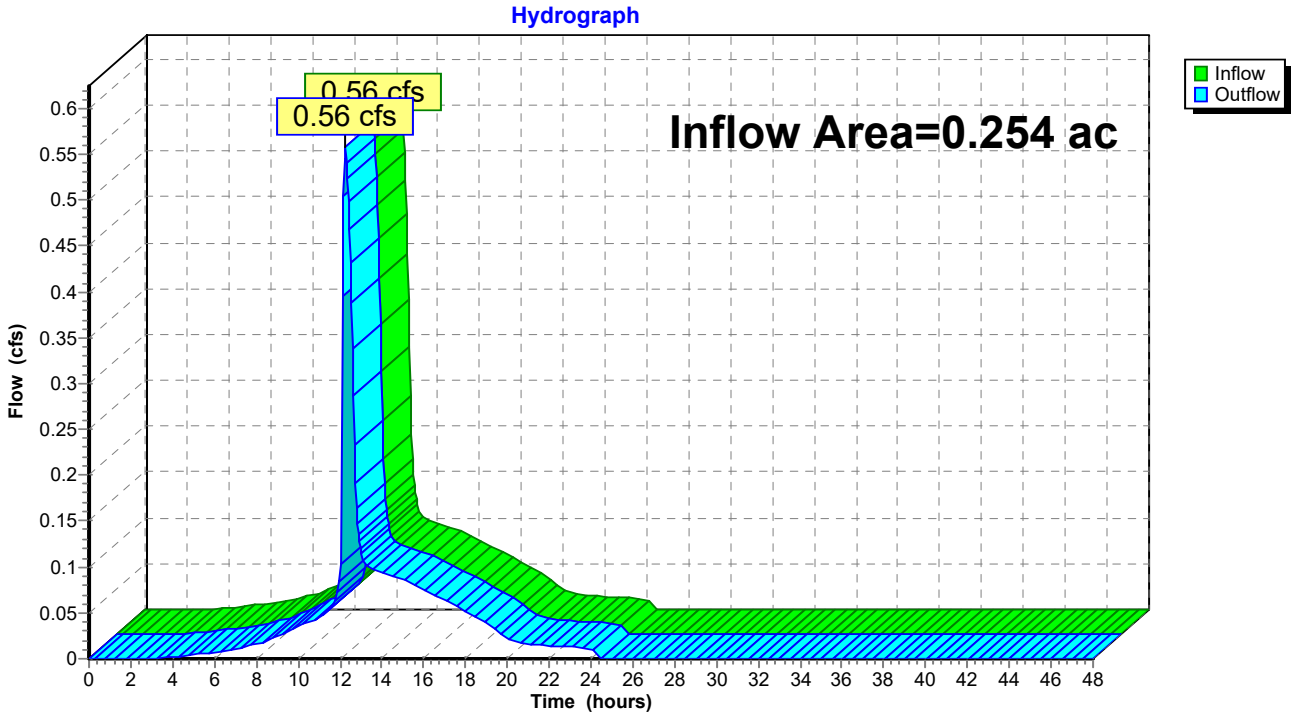


## Summary for Reach 1R: POI #1

Inflow Area = 0.254 ac, 79.58% Impervious, Inflow Depth = 4.10" for 25-YR event
Inflow = 0.56 cfs @ 12.25 hrs, Volume= 0.087 af
Outflow = 0.56 cfs @ 12.25 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

## Reach 1R: POI #1



## Summary for Pond 1P: Outlet Control Structure/Stormfilter

Inflow Area = 0.207 ac, 91.61% Impervious, Inflow Depth = 4.87" for 25-YR event
Inflow = 1.09 cfs @ 12.09 hrs, Volume= 0.084 af
Outflow = 0.54 cfs @ 12.25 hrs, Volume= 0.084 af, Atten= 50%, Lag= 9.5 min
Primary = 0.54 cfs @ 12.25 hrs, Volume= 0.084 af
Routed to Reach 1R : POI #1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 52.94' @ 12.24 hrs Surf.Area= 282 sf Storage= 1,035 cf

Plug-Flow detention time= 62.9 min calculated for 0.084 af (100% of inflow)
Center-of-Mass det. time= 62.9 min ( 841.1 - 778.2 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1A | 48.46' | 163 cf | **10.88'W x 24.72'L x 5.02'H Field A**<br>1,349 cf Overall - 941 cf Embedded = 408 cf x 40.0% Voids |
| #2A | 48.96' | 894 cf | **ACO StormBrixx HD 2** x 30 Inside #1<br>Inside= 23.7"W x 48.2"H => 7.54 sf x 3.95'L = 29.8 cf<br>Outside= 23.7"W x 48.2"H => 7.94 sf x 3.95'L = 31.4 cf<br>30 Chambers in 5 Rows |
| #3 | 49.90' | 77 cf | **4.00'D x 6.10'H F-BASIN STORAGE** |
| #4 | 55.15' | 176 cf | **F-BASIN OVERFLOW (Prismatic)**Listed below (Recalc) |
| | | 1,310 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|
| 55.15 | 4 | 0 | 0 |
| 55.50 | 1,000 | 176 | 176 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 48.30' | **12.0" Round 12" SD to York St**<br>L= 72.0' CMP, projecting, no headwall, Ke= 0.900<br>Inlet / Outlet Invert= 48.30' / 41.55' S= 0.0938 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf |
| #2 | Device 1 | 48.40' | **1.4" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads |
| #3 | Device 1 | 51.75' | **4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads |
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**Primary OutFlow** Max=0.54 cfs @ 12.25 hrs HW=52.94' TW=0.00' (Dynamic Tailwater)
└**1=12" SD to York St** (Passes 0.54 cfs of 6.08 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 0.11 cfs @ 10.20 fps)
├**3=Orifice/Grate** (Orifice Controls 0.43 cfs @ 4.88 fps)
└**4=Orifice/Grate** (Orifice Controls 0.01 cfs @ 0.70 fps)

## Pond 1P: Outlet Control Structure/Stormfilter - Chamber Wizard Field A

**Chamber Model = ACO StormBrixx HD 2 (ACO StormBrixx® HD)**
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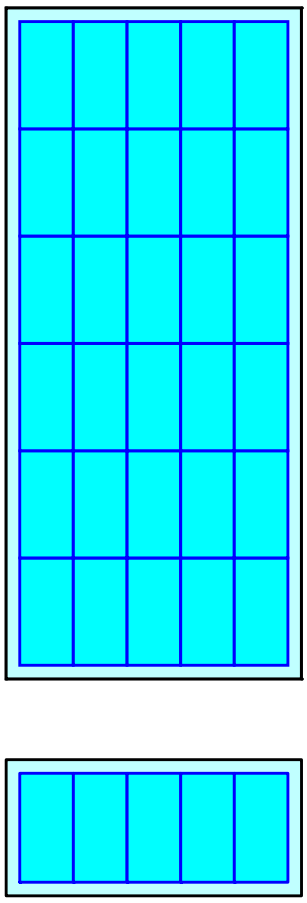
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6.0" Stone Base + 48.2" Chamber Height + 6.0" Stone Cover = 5.02' Field Height

30 Chambers x 29.8 cf = 894.4 cf Chamber Storage
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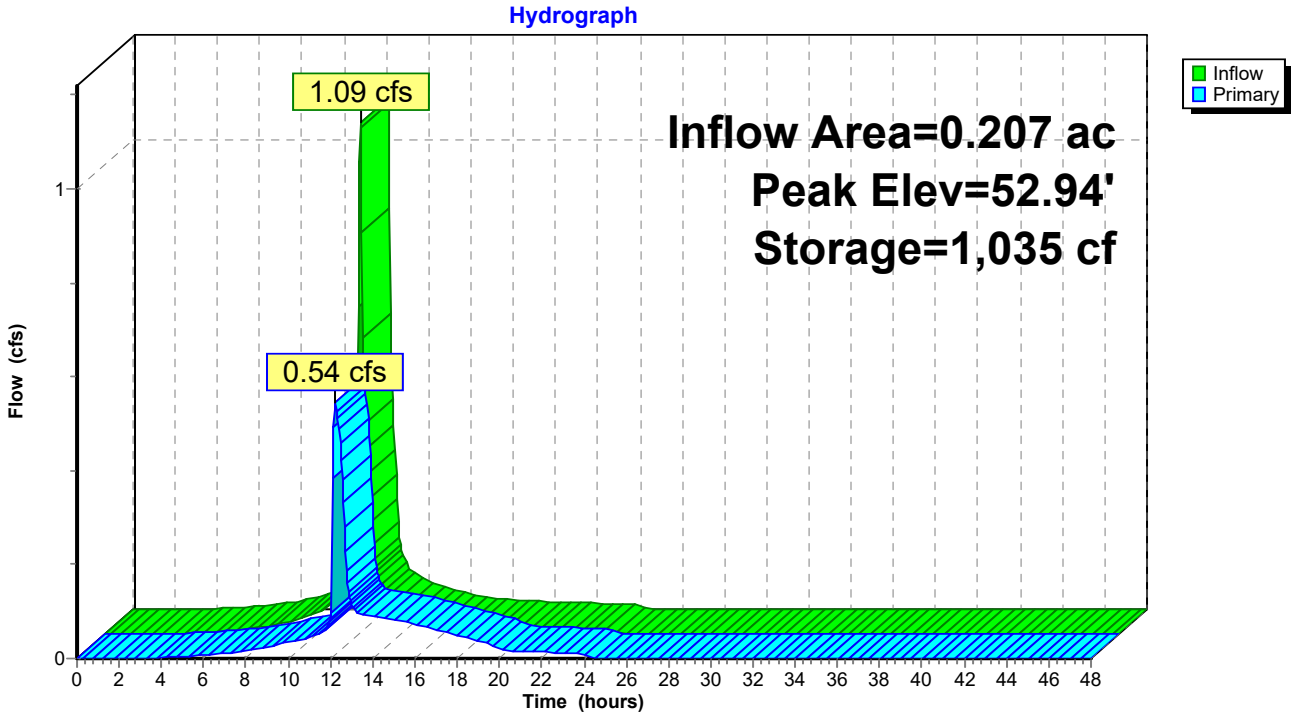
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Chamber Storage + Stone Storage = 1,057.6 cf = 0.024 af
Overall Storage Efficiency = 78.4%
Overall System Size = 24.72' x 10.88' x 5.02'

30 Chambers
50.0 cy Field
15.1 cy Stone



## Pond 1P: Outlet Control Structure/Stormfilter



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# POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

**Prepared For:**

**161 York Street, LLC**
**Freeport ME**

**Prepared By:**

**Acorn Engineering, Inc.**
**PO Box 3372**
**Portland, Maine 04102**




**July 2025**

## RESPONSIBLE PARTY

The owner, 161 York Street, LLC and/or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall annually submit the Stormwater Log to the Engineering Department prior to June 15th.

The following is an example of a qualified stormwater professional that the owner may contract through.

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

The inspection and maintenance criteria are based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMPs

## PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long-term performance and effectiveness of Best Management Practices (BMPs). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules. The applicant shall be responsible for retaining post construction and maintenance documents for at least 5 years.

## OPERATION AND MAINTENANCE ACTIVITY

Catch Basins / Field Inlets:

Catch basins and field inlets shall be inspected to confirm that the structure is operating properly.

- Inspect the presence of accumulated sediment or debris any sediment shall be removed. The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.

- Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- Appropriately dispose of all collected material.

Sweeping:

Annual sweeping of the parking lot following the snow melt, if necessary. Appropriately dispose of all collected material.

Storm Drains:

The storm drain shall be annually inspected for the presence of accumulated sediment or debris. Any sediment shall be removed as required.

- The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Inspect and legally dispose of accumulated sediment and debris within the storm drains between basins. Liquids must be decanted on-site and returned to the catch basin.

StormBrixx:

The maintenance of the Storm Brixxsystem shall be in accordance with the following activities identified below and the Stormwater Drainage System Maintenance Agreement included within Stormwater Report.

- The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the system should be inspected annually.
- Inspect and maintain the StormBrixx in accordance with the attached proprietary Operation and Maintenance Plan.

StormFilter:

The maintenance of the StormFilter system shall be in accordance with the following activities identified below and the Stormwater Drainage System Maintenance Agreement included within Stormwater Report.

- The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the system should be inspected annually.
- Inspect and maintain the StormFilter in accordance with the attached proprietary Operation and Maintenance Plan.

Vegetated Areas and Embankments:

Inspect all landscaped and or vegetated slopes and embankments on an annual basis. Vegetated areas with bare areas or sparse growth (<90% coverage) shall be revegetated. Mulch shall be

applied to landscaped areas, as necessary. Dead or decaying landscaping (ground cover, shrubs, trees etc.) shall be replanted in accordance with the approved Site Plan

**INSPECTION AND MAINTENANCE TABLE**

| **Inspection and Maintenance Frequency** | Spring or Yearly | Summer | Fall | As Necessary |
|---|---|---|---|---|
| Catch Basins | X | | | X |
| Vegetated Areas & Slopes | X | | | X |
| StormBrixx System | X | | | X |
| StormFilter | X | | | X |
| Storm Drains | X | | | X |
| Sweeping | X | | | X |

In the above chart, it is assumed the certified stormwater professional will inspect each item in the spring. Inspections outside of the spring visits can likely be conducted by the property manager.

**ATTACHED**

1. StormBrixx Operation and Maintenance
2. StormFilter Operation and Maintenance

# Housekeeping Notes

1. **Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

   **NOTE**: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at : http://www.maine.gov/dep/spills/emergspillresp/

2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

   See Appendix D for license by rule standards for infiltration of stormwater.

   **NOTE**: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

   **NOTE**: Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

4. **Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

   **NOTE**: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Excavation de-watering.** Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

**NOTE**: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

6. **Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

   (a) Discharges from firefighting activity;

   (b) Fire hydrant flushings;

   (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);

   (d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);

   (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;

   (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;

   (g) Uncontaminated air conditioning or compressor condensate;

   (h) Uncontaminated groundwater or spring water;

   (i) Foundation or footer drain-water where flows are not contaminated;

   (j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));

   (k) Potable water sources including waterline flushings; and

   (l) Landscape irrigation.

7. **Unauthorized non-stormwater discharges .** The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of nonstormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:

   (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;

(b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;

(c) Soaps, solvents, or detergents used in vehicle and equipment washing; and

(d) Toxic or hazardous substances from a spill or other release.

**(8) Additional requirements.** Additional requirements may be applied on a site-specific basis.



# ACO StormBrixx®

Geocellular Stormwater Storage Product Maintenance

Prevention
Inspection
Maintenance
Cleaning

# ACO StormBrixx® SD and HD

ACO StormBrixx® is a unique and patented geocellular stormwater management system for detention and infiltration usage.

Its versatile design allows the system to be used in configurations and applications across all construction environments as a standalone solution or as part of an integrated LID (Low Impact Development) or BMP (Best Management Practices). Systems may or may not include pre-treatment to remove sediment and/or contaminants prior to entering the storage area. Those without pre-treatment require greater attention to system functionality and may require additional maintenance.

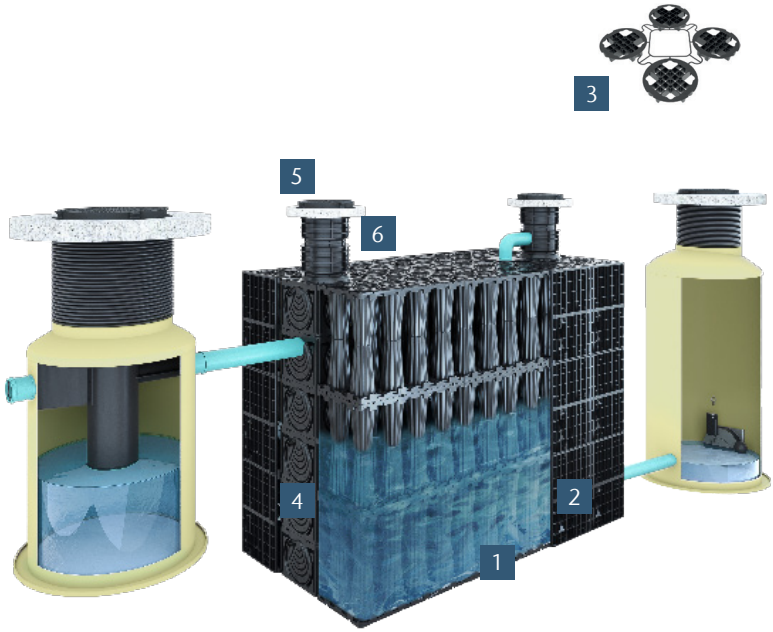
In order to sustain proper system functionality, ACO offers the following general maintenance guidelines for the StormBrixx® product.



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## System Components




1. StormBrixx Tank Bodies*
2. Side Panel*
3. Top Cover*
4. Remote Access Unit*
5. Remote Access Cover - Ductile Iron
6. Extension Shaft*

* Image shown represents a StormBrixx® SD system. The Remote Access Unit may be swapped out with the Remote Access Plate. ACO offers vented and non-vented Remote Access Covers.

# 1 Prevention Measures

## 1.1 PRIOR TO & DURING CONSTRUCTION

**Siltation Prevention of the Stormwater System**
Conform to all local, state, and federal regulations for sediment and erosion control during construction.

Install site erosion and sediment BMP's (Best Management Practices) required to prevent siltation of the stormwater system.

Inspect and maintain erosion and sediment BMP's during construction.

## 1.2 POST CONSTRUCTION

**Prior to Commissioning the ACO StormBrixx® System**
Remove and properly dispose of construction erosion and sediment BMP's per all local, state, and federal regulations.

Care should be taken during removal of the BMP devices to prevent collected sediment or debris falling into the stormwater system.

Flush the ACO StormBrixx® system to remove any sediment or construction debris immediately after the BMP's removal. Follow the maintenance procedure outlined.

*The prevention measures we recommend will increase the efficiency of the installed tank and the life of the entire system.*

*StormBrixx® is built to be used in areas in which protecting the environment is important. The prevention measures allow for the system as well as the locale it is installed to be sustainable.*

*StormBrixx® provides top of the line stormwater management solutions for detention, retention, reuse, and infiltration systems. The long term environmental focuses of StormBrixx® through LID, SuDS, MS4, and BMP will benefit the installer, the land owner, and the nearby environment.*



*Prevention measure*

# 2 Inspections

Follow all local, state, and federal regulations regarding stormwater BMP inspection requirements. The results of the visual inspection, notes and repairs can be recorded in an operating logbook as a recommended best practice. These records will allow decisions to be made about the necessary frequency of future inspection and maintenance measures.

ACO makes the following recommendations:

## 2.1 VISUAL INSPECTION

**Year One**
During the first service year a visual inspection should be completed during and after each major rainfall event, in addition to every 6 month period to monitor and establish what sediment and debris buildup occurs.

Each ACO StormBrixx® system is unique to the application and multiple criteria can affect maintenance frequency as such:

- System Design: pre-treatment/no-treatment, inlet protection, stand-alone device.
- Surface area collecting from: hardscape, gravel, soil, or any other surface.
- Adjacent Area: soil runoff, gravel, trash.

## 2.2 ANNUAL INSPECTION

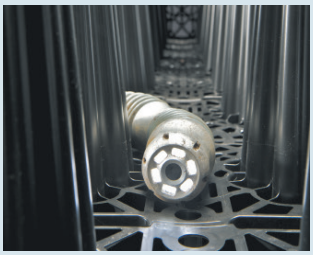
**Year Two**
Establish an annual inspection frequency based on the information collected during the first year. At a minimum an inspection should be performed at 6 month intervals.

## 2.3 ITEMS TO INSPECT

**Components**
- ACO StormBrixx® Remote Access Units/ Plates and inspection ports.
- Inlet and Outlet points.
- Discharge area.

## 2.4 IDENTIFY AND REPORT

**Maintenance required if:**
- Sediment and debris accumulation 6” or more.
- System backing up.
- Make operating logbook notes if needed.



*Inspection camera*

# 3 Maintenance Procedure

### 3.1 SURFACE ACCESS

**Regulations**
Conform to all local, state, and federal regulations.

**Access Cover**
Locate access cover(s) at the surface connected to the tank.

### 3.2 SAFETY

**Access Cover**
Once located, safely open lid and remove.

### 3.3 SYSTEM INSPECTION

**System Debris**
Perform an inspection of the tank to locate any debris. This can be done visually, with or without an inspection camera.

### 3.4 STANDING WATER

**Remove Water**
If the tank has standing water in it, you will need to vacuum the water first before visually inspecting the tank.

### 3.5 HIGH PRESSURE

**System Clearing**
Use the high pressure jet nozzle/wand to loosen and suspend any solid debris that has built up.

*Access to high pressure water and vacuum will be needed to clear the tank of any built up debris.*

*A minimum water pressure of 2,500 PSI is recommended. The maximum pressure depends on the geotextile fabric chosen. Please check with fabric manufacturer for max PSI.*

*To ensure correct insertion angle of the high pressure jet nozzle, we recommend using a pipe elbow.*

*Alternatively, a nearby fire hydrant can be used to suspend debris within the StormBrixx® system before vacuuming up the water.*



*Vacuum removal of debris*



*Wand used to loosen debris*

# 3 Maintenance Procedure

### 3.6 WATER LEVEL

**Optimal Water Depth**
Once the water level has reached 12" or more, shut off and remove high pressure jet nozzle/wand.

### 3.7 VACUUM HOSE

**Remote Access Unit/Plate**
Insert vacuum hose via the remote access unit/plate and begin removing all debris that is now suspended in water. Do this until all water has been removed.

### 3.8 REPEAT

**Water and Debris**
Not all water and debris may be removed in the first round, you may need to add and remove more water.

### 3.9 FINAL INSPECTION

**Cleared Tank**
Once all debris has been removed, inspect tank again to make sure everything has been cleared.

### 3.10 REMOVE EQUIPMENT

**Replace Cover**
Once the tank is clear of debris and water, remove all equipment and place the cover back on the tank. Secure cover accordingly.



*Final inspection*



*Camera view of clean tank*

For further information on ACO products, please visit the ACO USA website. This allows access to technical data, videos, images, specifications, and installation instructions.

**www.acoswm.com/stormbrixx**

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Print #SB701

**ACO. creating the future of drainage**

CONTECH®
ENGINEERED SOLUTIONS

# StormFilter Inspection and Maintenance Procedures



The Stormwater Management StormFilter®

## Maintenance Guidelines

The primary purpose of the Stormwater Management StormFilter® is to filter and prevent pollutants from entering our waterways. Like any effective filtration system, periodically these pollutants must be removed to restore the StormFilter to its full efficiency and effectiveness.

Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site. Maintenance activities may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms. It is a good practice to inspect the system after major storm events.

## Maintenance Procedures

Although there are many effective maintenance options, we believe the following procedure to be efficient, using common equipment and existing maintenance protocols. The following two-step procedure is recommended::

1. **Inspection**
   - Inspection of the vault interior to determine the need for maintenance.
2. **Maintenance**
   - Cartridge replacement
   - Sediment removal

## Inspection and Maintenance Timing

At least one scheduled inspection should take place per year with maintenance following as warranted.

First, an inspection should be done before the winter season. During the inspection the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.

Second, if warranted, a maintenance (replacement of the filter cartridges and removal of accumulated sediments) should be performed during periods of dry weather.



In addition to these two activities, it is important to check the condition of the StormFilter unit after major storms for potential damage caused by high flows and for high sediment accumulation that may be caused by localized erosion in the drainage area. It may be necessary to adjust the inspection/ maintenance schedule depending on the actual operating conditions encountered by the system. In general, inspection activities can be conducted at any time, and maintenance should occur, if warranted, during dryer months in late summer to early fall.

## Maintenance Frequency

The primary factor for determining frequency of maintenance for the StormFilter is sediment loading.

A properly functioning system will remove solids from water by trapping particulates in the porous structure of the filter media inside the cartridges. The flow through the system will naturally decrease as more and more particulates are trapped. Eventually the flow through the cartridges will be low enough to require replacement. It may be possible to extend the usable span of the cartridges by removing sediment from upstream trapping devices on a routine as-needed basis, in order to prevent material from being re-suspended and discharged to the StormFilter treatment system.

The average maintenance lifecycle is approximately 1-5 years. Site conditions greatly influence maintenance requirements. StormFilter units located in areas with erosion or active construction may need to be inspected and maintained more often than those with fully stabilized surface conditions.

Regulatory requirements or a chemical spill can shift maintenance timing as well. The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after major storms. Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system or site. It is recommended that the site owner develop a database to properly manage StormFilter inspection and maintenance programs..



## Inspection Procedures

The primary goal of an inspection is to assess the condition of the cartridges relative to the level of visual sediment loading as it relates to decreased treatment capacity. It may be desirable to conduct this inspection during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.

**Warning**: In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct an inspection:

**Important:** Inspection should be performed by a person who is familiar with the operation and configuration of the StormFilter treatment unit and the unit's role, relative to detention or retention facilities onsite.

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to whether or not maintenance is needed.

## Maintenance Decision Tree

The need for maintenance is typically based on results of the inspection. The following Maintenance Decision Tree should be used as a general guide. (Other factors, such as Regulatory Requirements, may need to be considered).

Please note Stormwater Management StormFilter devices installed downstream of, or integrated within, a stormwater storage facility typically have different operational parameters (i.e. draindown time). In these cases, the inspector must understand the relationship between the retention/detention facility and the treatment system by evaluating site specific civil engineering plans, or contacting the engineer of record, and make adjustments to the below guidance as necessary. Sediment deposition depths and patterns within the StormFilter are likely to be quite different compared to systems without upstream storage and therefore shouldn't be used exclusively to evaluate a need for maintenance.

1. Sediment loading on the vault floor.
   a. If >4" of accumulated sediment, maintenance is required.
2. Sediment loading on top of the cartridge.
   a. If >1/4" of accumulation, maintenance is required.
3. Submerged cartridges.
   a. If >4" of static water above cartridge bottom for more than 24 hours after end of rain event, maintenance is required. (Catch basins have standing water in the cartridge bay.)
4. Plugged media.
   a. While not required in all cases, inspection of the media within the cartridge may provide valuable additional information.
   b. If pore space between media granules is absent, maintenance is required.
5. Bypass condition.
   a. If inspection is conducted during an average rain fall event and StormFilter remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), maintenance is required.
6. Hazardous material release.
   a. If hazardous material release (automotive fluids or other) is reported, maintenance is required.
7. Pronounced scum line.
   a. If pronounced scum line (say ≥ 1/4" thick) is present above top cap, maintenance is required.

## Maintenance

Depending on the configuration of the particular system, maintenance personnel will be required to enter the vault to perform the maintenance.

**Important**: If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flows is occurring.

Replacement cartridges can be delivered to the site or customers facility. Information concerning how to obtain the replacement cartridges is available from Contech Engineered Solutions.

**Warning**: In the case of a spill, the maintenance personnel should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct cartridge replacement and sediment removal maintenance:

1. If applicable, set up safety equipment to protect maintenance personnel and pedestrians from site hazards.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs. each) and set aside.
7. Remove used cartridges from the vault using one of the following methods:

## Method 1:

A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

   Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact Contech Engineered Solutions for suggested attachment devices.

B. Remove the used cartridges (up to 250 lbs. each) from the vault.



**Important:** Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner.

C. Set the used cartridge aside or load onto the hauling truck.

D. Continue steps a through c until all cartridges have been removed.

## Method 2:

A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

B. Unscrew the cartridge cap.

C. Remove the cartridge hood and float.

D. At location under structure access, tip the cartridge on its side.

E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.

F. Set the empty, used cartridge aside or load onto the hauling truck.

G. Continue steps a through e until all cartridges have been removed.

8. Remove accumulated sediment from the floor of the vault and from the forebay. This can most effectively be accomplished by use of a vacuum truck.
9. Once the sediments are removed, assess the condition of the vault and the condition of the connectors.
10. Using the vacuum truck boom, crane, or tripod, lower and install the new cartridges. Once again, take care not to damage connections.
11. Close and fasten the door.
12. Remove safety equipment.
13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used **empty** cartridges to Contech Engineered Solutions.

## Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.

Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

## Related Maintenance Activities - Performed on an as-needed basis

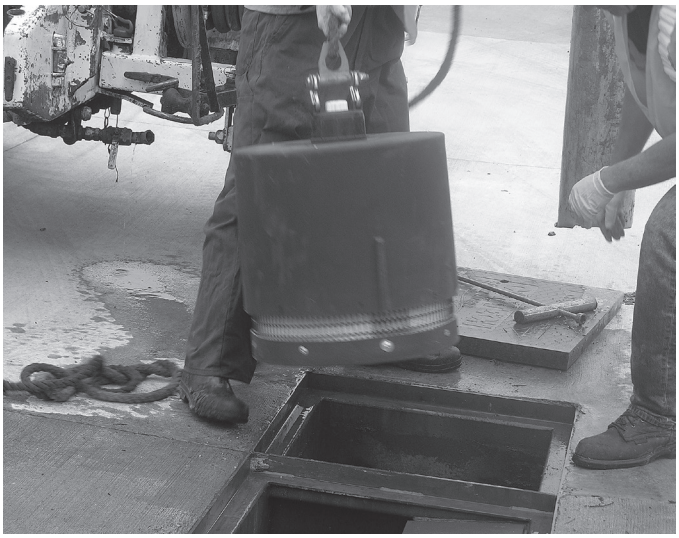
StormFilter units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

In order for maintenance of the StormFilter to be successful, it is imperative that all other components be properly maintained. The maintenance/repair of upstream facilities should be carried out prior to StormFilter maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.







# Inspection Report

Date: _____ Personnel: _____

Location: _____ System Size: _____ Months in Service: _____

System Type: Vault ☐ Cast-In-Place ☐ Linear Catch Basin ☐ Manhole ☐ Other: _____

Sediment Thickness in Forebay: _____ Date: _____

Sediment Depth on Vault Floor: _____

Sediment Depth on Cartridge Top(s): _____

Structural Damage: _____

Estimated Flow from Drainage Pipes (if available): _____

Cartridges Submerged: Yes ☐ No ☐ Depth of Standing Water: _____

StormFilter Maintenance Activities (check off if done and give description)

☐ Trash and Debris Removal: _____

☐ Minor Structural Repairs: _____

☐ Drainage Area Report _____

Excessive Oil Loading: Yes ☐ No ☐ Source: _____

Sediment Accumulation on Pavement: Yes ☐ No ☐ Source: _____

Erosion of Landscaped Areas: Yes ☐ No ☐ Source: _____

Items Needing Further Work: _____

Owners should contact the local public works department and inquire about how the department disposes of their street waste residuals.

Other Comments:

_____

_____

_____

_____

_____

_____

_____

_____

Review the condition reports from the previous inspection visits.

# StormFilter Maintenance Report

Date: _____ Personnel: _____

Location: _____ System Size: _____

System Type: Vault ☐ Cast-In-Place ☐ Linear Catch Basin ☐ Manhole ☐ Other: _____

List Safety Procedures and Equipment Used: _____

_____

_____

## System Observations

Months in Service: _____

Oil in Forebay (if present): Yes ☐ No ☐

Sediment Depth in Forebay (if present): _____

Sediment Depth on Vault Floor: _____

Sediment Depth on Cartridge Top(s): _____

Structural Damage: _____

## Drainage Area Report

Excessive Oil Loading: Yes ☐ No ☐ Source: _____

Sediment Accumulation on Pavement: Yes ☐ No ☐ Source: _____

Erosion of Landscaped Areas: Yes ☐ No ☐ Source: _____

## StormFilter Cartridge Replacement Maintenance Activities

Remove Trash and Debris: Yes ☐ No ☐ Details: _____

Replace Cartridges: Yes ☐ No ☐ Details: _____

Sediment Removed: Yes ☐ No ☐ Details: _____

Quantity of Sediment Removed (estimate?):

Minor Structural Repairs: Yes ☐ No ☐ Details: _____

Residuals (debris, sediment) Disposal Methods: _____

Notes:

_____

_____

_____

_____

_____

_____

_____

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- Site-specific design support is available from our engineers.

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# L. Utilities

The proposed project will include installation of multiple utility services to the proposed buildings as outlined below:

*Water:*

It is our understanding there is an existing 12" (1995) D.I. water main within York Street fronting the property, and a 4" (2004) D.I. water main within Guilford Court.

Option A: The project proposes two 6" fire protection services. One will serve the Building on Lot 1 and another with serve the Building on Lot 2. The project also proposes four individual 2" water service connections to the existing main to provide domestic water to each proposed building.

Option B: Due to correspondence with Portland Water District the project is investigating extending the existing 4" water main within Guilford Court and providing a new 2" domestic and 4" fire suppression service to serve the Building on Lot 1.

The new water service connections will have associated curb stops, gate valves, and shut off valves. Please see the Utility Plan for additional information.

*Sewer:*

An existing 36" sewer main exists within York Street. It is proposed to tee a 6" sewer lateral into the existing main as part of this project. A backflow preventer is proposed within the property before connecting to the existing sewer main.

*Stormwater:*

There is an existing 12" underdrain on north side of York Street that the project team will tie into as part of the proposed project.

Stormwater Treatment and storage is accomplished through the use of a subsurface stormwater detention system. As part of the project the site is required to store stormwater and release stormwater at an attenuated rate to not exceed maximum permissible outflow rate of 0.1 cfs into the city system during a design storm of 1" rainfall over the developed impervious area draining to the system.

*Electric/Communications:*

Currently it is proposed to drop single-phase and telecom underground from a new utility pole on York Street. The project will require a pole mounted transformer to service the development. The design team is still in process of coordinating with CMP and the final design will be incorporated into the plan prior to final approval.

*Gas*:

It is our understanding there is an existing gas main exists within York Street. No gas services are proposed as part of this project at this time.

Ability to serve letters have been sent out to the respective utility companies in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use. Responses from the utility companies are forthcoming.

# M. Solid Waste Disposal

The tenants shall be responsible for locating the solid waste and recyclable material to the York Street curb or Guilford Court ROW for public pickup.

ACORN ENGINEERING, INC.

Chief Chad Johnston
City of Portland Fire Department
380 Congress St.
Portland, ME 04101

September 30, 2025

Subject: 161 York Street Redevelopment– Fire Department Checklist
Section N of Application

On behalf of 161 York Street, LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant

   161 York Street, LLC
   Portland, Maine 04101

2. Name, address, telephone number of architect

   Woodhull Architecture
   93 High Street
   Portland, ME 04101
   (207)-283-8777

3. Proposed uses of any structures [NFPA and IBC classification]

   IBC Uses:
   - Residential (R-3)

   NFPA uses:
   - Residential (Apartment Building)

4. Square footage of all structures, including decks [total and per story]

| Proposed Building Lot 1 | | |
|---|---|---|
| Ground | 1,791 | sf |
| 2nd Floor | 1,791 | sf |
| 3rd Floor | 1,791 | sf |
| 4th Floor | 1,320 | sf |
| Roof | 1,026 | sf |
| **Total** | **7,719 (+-)** | **sf** |
| Proposed Building Lot 2 | | |
| Ground | 2,961 | sf |

| | | |
|---|---|---|
| 2nd Floor | 2,961 | sf |
| 3rd Floor | 2,961 | sf |
| 4th Floor | 1,656 | sf |
| Roof | 1,482 | sf |
| **Total** | **12,021(+-)** | **sf** |

See architectural plans for additional information.

5. Elevation of all structures

   The proposed building height is just under 45' per Portland Planning Code (measured from average grade to top of roof beams), and just under 54' per IBC (measured from average grade to average height of the highest roof surface. See the Site Plan Sheet C-10 for actual building heights.

6. Proposed fire protection of all structures

   The proposed project will be TypeVA construction. This project will be full sprinklered per NFPA 13R. The primary structural frame, exterior bearing walls, and floors will have a 1-hr fire resistance rating.

   The building will be serviced by a 6" sprinkler service with additional protection per code. Fire flows and requirements for system storage or booster pumping are subject to the fire professional design which will be performed prior the request for a building permit.

7. Hydrant locations

   An existing hydrant is located at the corner of York and State Street, approximately 90' away from the property. No new hydrants are proposed as part of this project. Hydrant flow data from the Portland Water District once received may be made available to the Fire Department upon request.

8. Water main size and location

   The existing water main within York Street is a 12" (1995) Ductile Iron. The redevelopment is anticipated to be serviced by the existing water main within York Street. A 6" fire line and 2" domestic line will serve the proposed development. The building is expected to have internal sprinkler risers and a Fire Department pump connection.

9. Access to all structures [min. 2 sides]

   Access to the structure is provided directly on the public right-of-way along York Street, and well as access to via Gulford Street behind the property.

10. Code summaries will be provided by the Architects upon request.

**NFPA 1 – Chapter 18 Fire Department Access and Water Supply**

18.2 Fire Department Access:

The project site is located in a densely developed area and is surrounded by three public streets. The following pavement street width is currently available:

- York Street: A 66-foot-wide ROW, 47 ft wide road
- Gulford Street: A 16.5 foot wide ROW, paved access varies in width.

Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.

**City of Portland Technical Manual – Section 10 Public Safety**

*3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).*

Response: The proposed development layout has contemplated emergency access conditions and has had preliminary coordination with the Portland Fire Department. The Fire Department has approved the building placement on the proposed lots.

*3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.*

Response: The building is accessible from at least 2 sides.

*3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:*

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Response: The proposed development layout has contemplated emergency access conditions and has had preliminary coordination with the Portland Fire Department. Specifically, regarding the rear buildings on Lot 1.

*3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.*

Response: The building will be provided with exterior doors that will be within 50' of a Fire Department access route.

*3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.*

Response: The proposed site maintains the required clearance height of nine feet in all cases.

*3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.*

Response: The proposed elevators within the residential buildings are not sized to accommodate this requirement.

*3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.*

Response: The applicant will coordinate with the City's Public Works Division to assign street addresses and numbering to meet City Standards.

Thank you for your review. Please let me know if you have any additional questions or comments.

Sincerely,

Sam Lebel

Sam Lebel, P.E.
Project Manager
Acorn Engineering, Inc.

**Project Overview:** The proposed development consists of two multi-family dwelling structures comprised of (7) total units. Each building is proposed to be (4) stories tall with a roof enclosure. One 3-unit structure fronts York Street while the second 4-unit structure resides on the interior of the site. The buildings are designed to integrate seamlessly into the existing residential fabric of the surrounding neighborhood while providing modern, high-quality living spaces. The design emphasizes a contemporary contextual approach, drawing inspiration from established architectural styles in the vicinity and prioritizing a positive pedestrian experience.

**Compliance with Section (i) Standards:**

**1. Exterior Design and Architectural Style:** The exterior design of the proposed structures, including architectural style, facade materials, building form and height, window pattern and spacing, and entryways, have been carefully considered to complement and enhance the surrounding neighborhood.

- **Building Form:**
    - A modern rectilinear design with flat roofs is proposed to be architecturally consistent with multi-family dwellings in the area. Upper floors of the building have been set back to reduce the perceived overall height; these set-backs relate to datums pulled from the adjacent buildings.
    - Entryways along York Street are recessed into the primary façade and elevated from the sidewalk.
    - Juliette Balconies and Recessed Balconies provide architectural variation, depth to the facade, and outdoor space for residents, contributing to positive visual interest.
- **Exterior Materials:**
    - Brick along the first floor provides a robust and traditional base, consistent with the historic character often found in Portland's residential areas and within the immediate neighborhood. This material provides durability at grade and prevents unsightly wear as the building ages.
    - Vertical corrugated metal at the upper floors offers a visually appealing contrast while maintaining a sense of verticality and modern aesthetic, complementing existing diverse architectural styles in the area.

    - Galvanized Steel Railings at exterior balconies are durable and aesthetically consistent with adjacent building materials further enhance the building's facade.

- **Window Pattern and Spacing:**
    - The fenestration is designed to provide ample natural light and air to dwelling units, with a regular rhythm that aligns with surrounding residential structures. The front fenestration pattern is meant to be balanced with voids in the façade and other elevation elements. Windows along the side elevations are provided to draw natural light into the units while not detracting from privacy to and from the interior spaces.

**2. Relationship to Public Streets and Streetscape Integration:** The proposed development plans to enhance the existing street streetscape by infilling a currently vacant lot.

- The buildings are situated to maintain a consistent street edge, contributing to the "urban street wall" character often found in Portland. Design elements along the first floor intend to be scaled to pedestrian traffic. The York Street facing building is held off the front property line to reserve space for a landscape buffer between building and adjacent sidewalk which will contribute to the visual amenity and help integrate the buildings with the surrounding environment.
- Recessed Entry Stoops provide a clear and welcoming transition from the public sidewalk to the private entries, enhancing the pedestrian experience.

**3. Open Space Integration:** Open space and site landscaping have been designed to anchor the buildings and contribute to the overall livability and aesthetic of the development. These elements include planting strips surrounding the buildings, front garden beds along York Street to soften pedestrian interaction, patios supporting units in the interior multi-family structure, and walkways for site access. Each of these elements is intended to contribute to the overall green infrastructure and provide visual buffers.

**4. Windows for Light and Air:** The design incorporates ample windows in each dwelling, particularly in principal living areas, to maximize natural light and ventilation. This is evident in the large window openings on the front façade. Glass block, or a similar translucent glazing material, is suggested at strategic locations along the facades where interior space benefits from natural light, but additional privacy from the surrounding public area is desired.

**5. Parking and Paved Areas:** Vehicular access to the site is provided exclusively from Guilford Court. All vehicle traffic and parking remain in the interior of the lot, largely out of sight from the public right-of-way. (5) of the residential units include a 2-car garage. In addition to the garages, surface parking has been considered and incorporated for the (2) efficiency units, and visitor parking for the larger residential units. Site paving and impervious surface have been reduced as much as feasible and replaced with soft landscape.

In conclusion, the design for the multi-family dwellings at 161 York Street demonstrates a strong commitment to complying with the Portland Design Manual's standards. The architectural approach thoughtfully blends traditional and contemporary elements, prioritizes pedestrian experience, and integrates open space, ensuring a positive contribution to the neighborhood without being incongruous.

## City of Portland ME: Low-Impact Design Requirements

| | |
|---|---|
| Owner / applicant name: | 161 York Street LLC |
| Representative name: | Acorn Engineering |
| Project address: | 161 York Street, Portland |
| Project CBL: | 044B006001 & 044B007001 |
| Application ID (if known): | |

| | Maximum Points | How to Apply | Points Awarded | LID Standard / Approach |
|---|---|---|---|---|
| **CORE METHODS: Wetlands, Streams, & Drainage** | | | | |
| Protect natural drainage paths | Required | | | |
| Shoreland Zoning | Required | | | |
| Meeting DEP and ACOE standards for stream crossings | Required | | | |
| Protect wetlands | 12 | Select one option | 12 | Select a site that does not have wetlands or vernal pools = 12pts |
| | | | | Project maintains a 50' set-back / no-disturb buffer to all wetlands = 10pts |
| | | | | Project maintains a 25' set-back / no-disturb buffer to all wetlands = 7pts |
| | | | | Project does not place structures in wetlands and avoids wetlands impacts from construction and stormwater discharges = 5pts |
| | | | | Project replicates impacted wetlands elsewhere on site or within watershed = 3pt |
| | | | | Project pays wetlands impact fee = 0pts |
| Permanently protect stream (intermittent and perennial) and riparian buffers *(exclusive of approved stream crossings; must include a no-disturb zone with markers installed and deed restriction recorded at registry of deeds)* | 12 | Select one option | 12 | Select a site with no streams = 12pts |
| | | | | Permanently protect all 100ft shoreline buffers = 10pts |
| | | | | Permanently protect all 75ft shoreline buffers = 7pts |
| | | | | Permanently protect all 50ft shoreline buffers (intermittent streams) = 6pts |
| | | | | Permanently protect all 50ft shoreline buffers (required minimum for perennial streams) = 5pts |
| | | | | Permanently protect all 25ft shoreline buffers (required minimum for intermittent streams) = 5pts |
| Stream crossings | 12 | Select one option | 12 | Select a site with no streams = 12pts |
| | | | | Avoid any stream crossings = 10pts |
| | | | | All stream crossings use a bridge or open bottom culvert structure sized at 1.2 times the bank full width of the stream = 10pts |
| | | | | All stream crossings use Maine Stream Smart Principles to preserve natural pre-development drainage pathways = 6pts |
| **CORE METHODS: Natural Areas & Habitat** | | | | |
| Preserve threatened or endangered species habitat | Required (Beginning with Habitat Maps at a minimum) | | | |
| Protect 30% of trees over 10" DBH | Required (Tree survey required) | | | |
| Protect intact, contiguous forests and native trees over 10" DBH | 8 | Select one option | | All development and land disturbance outside of existing wooded/forested areas (no site clearing in prior 10 years) = 8pts |
| | | | | Protect 50% of trees over 10" DBH = 6pts |
| | | | | Protect 40% of trees over 10" DBH = 4pt |

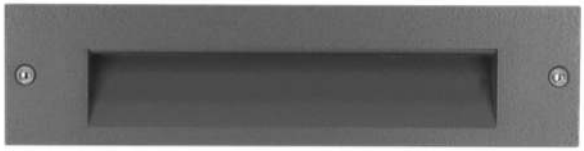
| | | | | |
|---|---|---|---|---|
| **CORE METHODS: Soils & Slopes** | | | | |
| USDA Web Soil Survey | Required (provide details how soil limitations will be mitigated) | | | |
| Avoid steep slope disturbance | 5 | Select one option | 5 | Selecting a site without slopes 15% or greater = 5pts |
| | | | | Maintain >20' undisturbed vegetated buffer to all slopes 15% or greater = 3pts |
| | | | | Maintain 10-20' undisturbed vegetated buffer to all slopes 15% or greater = 2pts |
| | | | | Maintain 1-10' undisturbed vegetated buffer to all slopes 15% or greater = 1pt |
| | | | | Disturbance of any slope 15% or greater = 0pts |
| Protect soils | 5 | Select one option | 5 | Redevelopment sites = 5pts |
| | | | | Detailed, site-specific soil survey; preparation of a Soil Management and Protection Plan; protect highly permeable soils = 5pts |
| Limit site disturbance and earthwork | 8 | Select one option | | Redevelopment limits disturbance to existing footprint = 8pts |
| | | | | New development disturbs less than 50% of existing undeveloped site area = 8pts |
| | | | | New development disturbs less than 75% of existing undeveloped site area = 6pts |
| | | | 0 | New development disturbs greater than 75% of existing undeveloped site area = 0pts |
| Soil preparation & minimizing compaction | 6 | Select all options that apply | 3 | Till soils to a depth of at least 10" prior to revegetation = 3pts |
| | | | | Organic matter amendments as needed based on soil tests = 3pts |
| **CORE METHODS: Landscaping** | | | | |
| Low-Impact Landscaping | 6 | Select all options that apply | | Redevelopment sites reduce lawn area by 50%, provided no increase in impervious area (lawn becomes landscaping) = 2pt |
| | | | 2 | New development results in >50% non-impervious developed area is landscaping = 2pt |
| | | | 2 | Use only native vegetation for landscaped areas = 2pts |
| | | | 2 | Using only locally-sourced landscape materials = 2pt |
| **CORE METHODS: Impervious Area & SW Management** | | | | |
| Meeting City's stormwater management standards | Required | | | |
| Reduce impervious and increase permeable surfaces | 10 | Select all options that apply, up to a maximum of 10 points | | 50% or more of proposed hard surfaces are permeable (porous pavers, permeable concrete, porous asphalt) = 6pts |
| | | | 4 | Minimize parking impervious area by using only the minimum required number of parking spaces, the minimum required parking lot dimensions, maximizing compact spaces and utilizing low-turnover standard parking space width reductions = 4pt |
| | | | | 25% or more of proposed hard surfaces are permeable (porous pavers, permeable concrete, porous asphalt) = 3pts |
| | | | 2 | Minimize roadway impervious area by developing roadways and driveways at the minimum width and using minimum number of curb cuts = 2pt |
| | | | 2 | Reducing the number of driveways by using a shared driveway design = 2pt |
| | | | | Providing transportation alternatives (such as bike share, car share, or similar) = 2pt |
| Use GI / natural stormwater treatment systems | 12 | Select all options that apply | | Treatment requirements and conveyance achieved through vegetated systems = 6pts |
| | | | 3 | No more than 1-acre of drainage per treatment system = 3pts |
| | | | | Increase time of concentration on site (1" 25 year storm event) = 3pts |
| Limit / eliminate salt use | 4 | Select one option | 4 | Detailed winter maintenance agreement, with annual reporting requirement, limiting chloride use (required in UIS watersheds) = 4pts |

| Bonus Points | | | | |
|---|---|---|---|---|
| Bonus points are offered for strategies that may go above and beyond typical approaches; may offer particularly innovative site design or engineering ; or may help achieve the larger goal of low-impact development on a regional scale. | 10 | | 10 | Utilizing structured parking = 10pts |
| | 10 | | | Utilizing a green roof for at least 50% of a newly developed or redeveloped building roof = 10pts |
| | 10 | | | Restoration of previously disturbed natural resources (minimum 500 square feet of restoration) = 10pts |
| | 10 | | | BMPs designed for known water quality impairment within watershed = 10pts |
| | 10 | | | Connecting to City sewer from a site >200 ft from existing City infrastructure = 10pts |
| | 6 | | | Detention of 1.5 times the required volume = 6pts |
| | 6 | | | Treatment for 1.5 times the required water quality volume = 6pts |
| | 6 | | | Innovative LID site design and/or stormwater improvement - 6pts |
| | 10 | | | Establishing a Traffic Demand Management plan for projects under 50,000ft = 10pts |
| | **Total Possible Points** | | **Total Points Awarded** | **Minimum points required for approval of LID strategies and techniques** |
| | **178** | | **80** | **80** |

# Q. Lighting

The proposed site lighting is to be in accordance with the City's Technical Manual. Please refer to the photometric plan prepared by Reflex Lighting. Cut sheets for the proposed site lighting attached below.

# INSERT+1





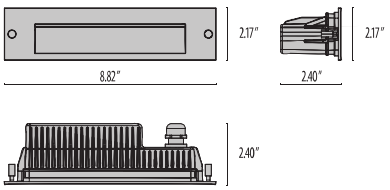
Recessed wall steplight series. Fixtures consist of:

- Multi-step powder-coat painting process, optimized against UV rays and corrosion.
- Copper-free precision die-cast aluminum housing and ring/faceplate.
- Frosted, flat, tempered silk-screened soda-lime glass diffuser.
- Custom molded, anti-aging gasket(s).
- Stainless steel external hardware.
- Custom MCPCB utilized to maximize heat dissipation and promote a long LED life.
- IESNA Type III light distribution.
- Input voltage: 120-277 V (50 / 60 Hz), integral driver.
- Pre-wired factory sealed cable for external electrical connection included.
- Consult factory for dimming options, custom finishes (please specify RAL color), and non-cataloged CCT (Kelvin) options.
- Consult factory for custom pre-wired factory sealed cable length options.
- Stainless steel recessed rough-in kit can be ordered separately.
- Optional INSERT+ 1 marine-grade, polished, brass faceplate suitable for coastal applications available (ordered separately).
- 5-year warranty.
- Consult factory for any Buy American Act (BAA) or Build America Buy America Act (BABAA) requirements.

IP 65 · WET · QUICK · PRONTO · cULus LISTED · ADA · RAL · IK 07 2 J

## FINISHES

- **AN-96** / Iron gray / Textured
- **GR-94** / Aluminum metallic / Textured
- **WH-87** / White / Textured
- **BK-81** / Black / Textured
- **RB-10** / Iron rust / Textured




INSERT+
**1**

| Lumen Output | 27K | 3K | 35K | 4K | 5K | 6K |
|---|---|---|---|---|---|---|
| Insert+1 | 238 | 250 | 262 | 275 | 287 | 299 |

7W Max Wattage

**Scan here for installation instructions**



Revision 14
06/25

# Order Guide - Insert+1

| Order code example | IN1-7-AM-3K-NA |
|---|---|

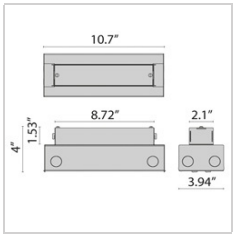
IN1- | | | | | | |

| Wattage | Finish | Kelvin | Voltage | Controls | Accessories |
|---|---|---|---|---|---|
| **7**<br>7 watt (max)<br><br>**XX**<br>Specify Wattage Must be below max | **AM**<br>Aluminum Metallic<br><br>**IG**<br>Iron Gray<br><br>**IR**<br>Iron Rust<br><br>**BK**<br>Textured Black<br><br>**WH**<br>Textured White<br><br>**CC**<br>Custom Color<br><br>**BR**<br>Marine Brass | **27K**<br>2700k<br><br>**3K**<br>3000k<br><br>**35K**<br>3500k<br><br>**4K**<br>4000k<br><br>**5K**<br>5000k<br><br>**65K**<br>6500k<br><br>**RED**<br>Static Red<br><br>**GRN**<br>Static Green<br><br>**BLU**<br>Static Blue<br><br>**AMB**<br>Static Amber<br><br>**RGBW**<br>RGBW<br>See below for control details | **UNV**<br>120-277V | **NA**<br>Non Dimming<br><br>**0-10V**<br>0-10V Dimming Driver<br><br>**ELV**<br>120V Line-Voltage Dimming Driver | **ADP**<br>Retrofit adaptor plate<br>Goof Ring<br><br>**TP**<br>Tamper Proof hardware<br><br>**RDR**<br>Optional Remote driver, please specify if 0-10V or ELV dimming is required.<br><br>**BABAA**<br>Build America Buy America Act compliant<br>(not available for all options) |

80 CRI STANDARD - OTHER OPTIONS AVAILABLE

## INCLUDED ACCESSORIES

INSERT+




310485
ROUGH-IN

# REMOTE RGBW ACCESSORIES

ONLY SUITABLE FOR RGBW LIGHTING

## Power Supply



**17433**
Kit driver 48V



**17096**
Kit driver 48V WP

## RF Controls



**3104173**
RGBW RF controller 4 channel
(0.35A each CH)



**31041730**
RGBW RF controller WP 4 channel
(0.35A each CH)



**310429**
RGBW hand held remote

## DMX Controls



**178973**
RGBW DMX enabler/decoder 4
channel (0.35A each CH)



**1789730**
RGBW DMX enabler/decoder WP 4
channel (0.35A each CH)



**11015**
Terminating Resistor



**110150**
Terminating Resistor WP



Performance in Lighting reserves the right to make all necessary changes without prior notice.
**Performance in Lighting** - 2621 Keys Pointe - Conyers, Georgia 30013 - USA - voice 770.822.2115 - info.usa@pil.lighting
www.performanceinlighting.com

# MIMIK 10





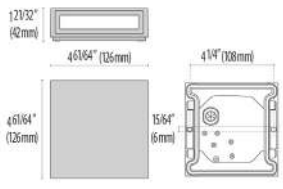
Wall sconce series. Fixtures consist of:

- Multi-step powder-coat painting process, optimized against UV rays and corrosion.
- Copper-free precision die-cast aluminum housing and mounting plate.
- Extra-clear, flat, tempered silk-screened soda-lime glass diffuser.
- Micro-prismatic patterned, flat, tempered silk-screened soda-lime glass diffuser (FLAT versions).
- Custom molded, anti-aging gasket(s).
- Stainless steel external hardware.
- Custom MCPCB utilized to maximize heat dissipation and promote a long LED life.
- High-transmittance transparent optics.
- DarkSky approved when ordered with single light emission only, and in 3000K or below.
- Single (M) or dual (B) light emission.
- IESNA Type III light distribution (FLAT).
- IESNA Type III light distribution.
- 20° x 20° beam angle (C/I).
- Input voltage: 120-277 V (50 / 60 Hz), integral driver.
- Customizing facade faceplate available (ordered separately).
- Consult factory for dimming options, custom finishes (please specify RAL color), and non-cataloged CCT (Kelvin) options.
- 5-year warranty.
- Marine Grade finish.
- Suitable for Natatorium applications.
- Consult factory for any Buy American Act (BAA) or Build America Buy America Act (BABAA) requirements.

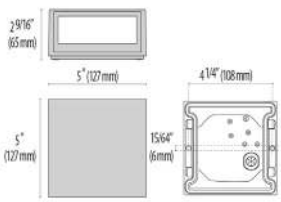
IP 65 · WET · PRONTO · c UL us LISTED · RAL · IK 06 1 J

## FINISHES

- **AN-96** / Iron gray / Textured
- **GR-94** / Aluminum metallic / Textured
- **WH-87** / White / Textured
- **BK-81** / Black / Textured
- **RB-10** / Iron rust / Textured




MIMIK
**10 FLAT**




MIMIK
**10**

**Scan here for installation instructions**

| WATTAGE | |
|---|---|
| MIMIK 10 M T3 | 5W |
| MIMIK 10 M T3 | 10W |
| MIMIK 10 M C/I | 5W |
| MIMIK 10 M C/I | 10W |
| MIMIK 10 FLAT M | 5W |
| MIMIK 10 FLAT M | 10W |
| MIMIK 10 FLAT B | 10W |
| MIMIK 10 B C/I | 10W |
| MIMIK 10 B C/I+T3 | 10W |

| LUMEN OUTPUT | | 2700K | 3000K | 3500K | 4000K |
|---|---|---|---|---|---|
| MIMIK 10 M T3 | 5W | 292 | 314 | 336 | 358 |
| MIMIK 10 M T3 | 10W | 505 | 542 | 579 | 617 |
| MIMIK 10 M C/I | 5W | 307 | 349 | 390 | 432 |
| MIMIK 10 M C/I | 10W | 607 | 653 | 699 | 745 |
| MIMIK 10 FLAT M | 5W | 440 | 451 | 462 | 473 |
| MIMIK 10 FLAT M | 10W | 751 | 771 | 790 | 810 |
| MIMIK 10 FLAT B | 10W | 857 | 880 | 902 | 925 |
| MIMIK 10 B C/I | 10W | 725 | 779 | 833 | 888 |
| MIMIK 10 B C/I+T3 | 10W | 657 | 707 | 756 | 806 |

Revision 13
06/25

## Order Guide - Mimik 10

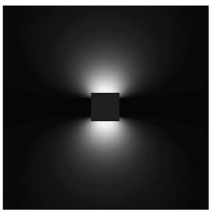
| Order code example | M10F-B-AM-27K-120V-NA |
|---|---|

M10-

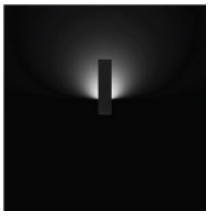
| Housing Style | Light Emission | Wattage | Optics | Finish | Kelvin | Voltage | Controls | Accessories |
|---|---|---|---|---|---|---|---|---|
| **M10** Standard<br><br>**M10F** Flat<br><br>*Flat Housing is only suitable for T3 Distrubution | **M** (One-Way)<br><br>**B** (Two-Way) | **5W** 5 watts<br><br>**10W** 10 watts (max)<br><br>**XX** Specify wattage must be below max | **Standard Housing only**<br>**Select one for M & two for B**<br>**Leave Blank for Flat Housing**<br><br>**T3** Type III<br><br>**T4** Type IV<br><br>**C/I** 20˚ beam<br><br>**10** 10˚ Beam<br><br>**40** 40˚ Beam<br><br>**56** 56˚ Beam | **AM** Aluminum Metallic<br><br>**IG** Iron Gray<br><br>**IR** Iron Rust<br><br>**BK** Textured Black<br><br>**WH** Textured White<br><br>**CC** Custom Color | **27K** 2700k<br><br>**3K** 3000k<br><br>**35K** 3500k<br><br>**4K** 4000k<br><br>**RED** Static Red<br><br>**GRN** Static Green<br><br>**BLU** Static Blue<br><br>**AMB** Static Amber 590nm<br><br>**RGBW** RGBW (flat only) | **UNV** 120-277V | (When selecting Flat housing, or B (two-way) emmisions, these options must be remote)<br><br>**NA** Non Dimming<br><br>**0-10V** 0-10V Dimming Driver<br><br>**ELV** 120V Line-Voltage Dimming Driver | (See pictures below)<br><br>**REM** Remote mounted Emergency battery back up<br><br>**RDR** Remote driver<br><br>**CON2** (double-gang j-box, adaptor plate and 1/2" knockouts)<br><br>**CON4** (double-gang j-box, adaptor plate and 3/4" knockouts)<br><br>**BABAA** Build America Buy America Act compliant (not available for all options)<br><br>**PANEL OPTIONS**<br><br>**SP** 8" Square Panel<br>**L24** 24" Vertical Panel<br>**L33** 33" Vertical Panel<br>**RP** 7" Round Panel<br>**Wedge** Wedge Panel<br>**D-Wedge** Double Wedge Panel |

80 CRI STANDARD - OTHER OPTIONS AVAILABLE

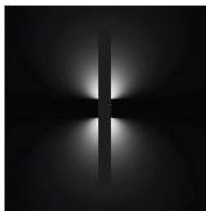
Performance in Lighting reserves the right to make all necessary changes without prior notice.



Square Panel



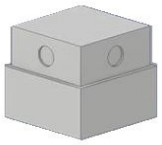
L24 Panel



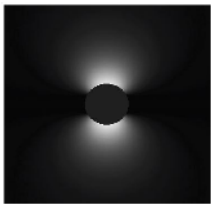
L33 Panel



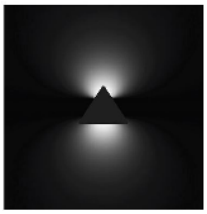

Signage Panel



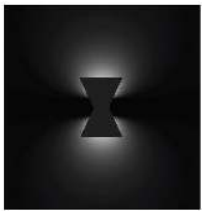
**CON 2/4**
Surface Mounted
J-box with Conduit
Entry



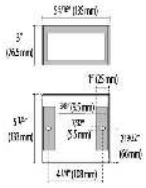
Round 7" Panel



Wedge Panel



Double Wedge Panel



Facade Cover

## Power Supply



**17433**
Kit driver 48V



**17096**
Kit driver 48V WP

## RF Controls



**3104173**
RGBW RF controller 4 channel (0.35A each CH)



**31041730**
RGBW RF controller WP 4 channel (0.35A each CH)



**310429**
RGBW hand held remote

## DMX Controls



**178973**
RGBW DMX enabler/decoder 4 channel (0.35A each CH)



**1789730**
RGBW DMX enabler/decoder WP 4 channel (0.35A each CH)



**11015**
Terminating Resistor



**110150**
Terminating Resistor WP



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**Performance in Lighting** - 2621 Keys Pointe - Conyers, Georgia 30013 - USA - voice 770.822.2115 - info.usa@pil.lighting
www.performanceinlighting.com

# SHIELD+ 1





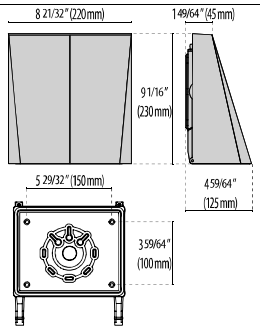
Long-lasting energy-efficient wall pack series. Fixtures consist of:

- Multi-step powder-coat painting process, optimized against UV rays and corrosion.
- Copper-free precision die-cast aluminum housing and mounting plate.
- Extra-clear, flat, tempered silk-screened soda-lime glass diffuser.
- Custom molded, anti-aging gasket(s).
- Stainless steel external hardware.
- High-efficiency COB, combined with an optimized passive cooling system, provides a long LED life.
- Specular vacuum metallized polycarbonate reflector provides full-cutoff, no glare design, and precision optical control.
- IESNA Type III light distribution.
- Input voltage: 120-277 V (50 / 60 Hz), integral 1-10 V dimming driver.
- Marine Grade finish.
- Suitable for Natatorium applications.
- Field settable integral tri-level lumen/wattage packages proprietary DIP switch driver for SHIELD+ 1 (stating factory setting at the lowest level).
- Standard knock-out template for multiple junction box mounting options.
- Suitable for three surface mounted conduit entry points with 1/2" NPS plugs.
- BUTTON and SWIVEL 120-277 V (50 / 60 Hz) photoelectric switch options available (ordered separately).
- Consult factory for dimming options, custom finishes (please specify RAL color), and non-cataloged CCT (Kelvin) options.
- Consult factory for remote emergency battery pack options (EMPK).
- 5-year warranty.
- Consult factory for any Buy American Act (BAA) or Build America Buy America Act (BABAA) requirements.

IP 66 · WET · PRONTO · FULL CUT OFF · cULus LISTED · 1-10 V · RAL · IK 07 2 J

## FINISHES

- **AN-96** / Iron gray / Textured
- **GR-94** / Aluminum metallic / Textured
- **RB-10** / Iron rust / Textured
- **WH-87** / White / Textured
- **BK-81** / Black / Textured




**Scan here for installation instructions**

SHIELD+ 1

| Lumen Output | 27K | 3K | 35K | 4K | 5K |
|---|---|---|---|---|---|
| SHIELD+1 8W | 929 | 957 | 984 | 1012 | 1039 |
| SHIELD+1 10W | 1209 | 1228 | 1247 | 1267 | 1286 |
| SHIELD+1 13.5W | 1448 | 1556 | 1664 | 1773 | 2516 |
| SHIELD+1 18W | 1906 | 2059 | 2211 | 2364 | 2516 |
| SHIELD+1 27W | 2478 | 2676 | 2874 | 3072 | 3270 |

# SHIELD+1

## Order Guide –

Order code example: SH1-10-80-3K-IG-UNV-NA-EMPK

| Series | Distribution | Wattage | CRI | CCT | Finish | Voltage | Controls | Accessories |
|---|---|---|---|---|---|---|---|---|
| **SH1**<br>Shield+1 | **T3**<br>Type 3<br><br>**T2**<br>Type 2 | **6**<br>6 watt (minimum)<br><br>**8**<br>8 watt<br><br>**10**<br>10 watt<br><br>**13.5**<br>13.5 watt*<br><br>**14.5**<br>14.5 watt<br><br>**18.5**<br>18.5 watt*<br><br>**27**<br>27 watt*<br><br>**28**<br>28 watt* (EMPK max) | **80**<br>80 CRI*<br><br>**90**<br>90 CRI | **27K**<br>2700K<br><br>**3K**<br>3000K<br><br>**35K**<br>3500K<br><br>**4K**<br>4000K*<br><br>**5K**<br>5000K<br><br>**65K**<br>6500K<br><br>**RED**<br>Static Red<br><br>**GRN**<br>Static Green<br><br>**BLU**<br>Static Blue<br><br>**AMB**<br>Static Amber<br><br>**RGBW**<br>See below for details | **AM**<br>Aluminum Metallic*<br><br>**IG**<br>Iron Gray*<br><br>**WH**<br>Textured White*<br><br>**IR**<br>Iron Rust*<br><br>**BK**<br>Textured Black<br><br>**CC**<br>Custom Color | **UNV**<br>120-277V* | **NA**<br>Non-Dim<br><br>**0-10V**<br>0-10V Dimming Driver*<br><br>**ELV**<br>120V-Line Voltage Dimming Driver | **EMPK**<br>Intergral Battery pack**<br>**OCC**<br>App Based Field programmable occupancy sensor ON/OFF<br>**HI/LO**<br>App Based Field programmable occupancy sensor HI/LO<br>**REM**<br>Remote Battery pack<br>**PHC-B**<br>Button Photocell<br>**PHC-S**<br>Swivel Photocell<br>**FRST**<br>Frosted Glass<br>**BOL**<br>40" Bollard<br>**BABAA**<br>Build America Buy America Act compliant (not available for all options)<br><br>**EMPK RATED FOR 90 MIN RUN TIME AT 4W<br><br>590lm Output in EM Mode<br><br>Ambient EM Temp Range<br>Min= 5°C / 41°F<br>Max= 35°C / 95°F |

80 CRI STANDARD - OTHER OPTIONS AVAILABLE
*STANDARD OPTION, SHORTER LEAD TIME, NO MOQ*

PERFORMANCE iN LIGHTING reserves the right to make all necessary changes without prior notice

**PERFORMANCE iN LIGHTING USA, Inc.**
2621 Keys Pointe Conyers GA 30013 - United States
Tel: 770 822 2115

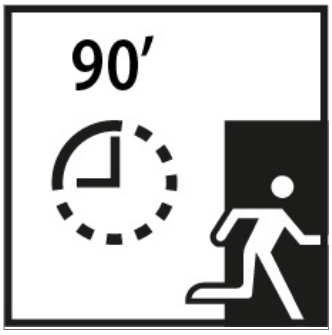
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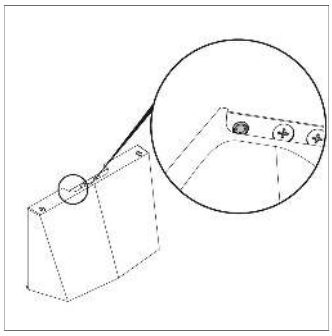
REVISION 24
06/25

## OPTIONAL ACCESSORIES

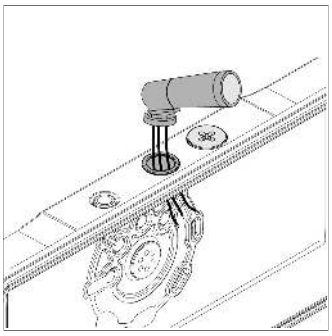
| DESCRIPTION | FINISH | PART NUMBER |
|---|---|---|
| SHIELD+1 | | |



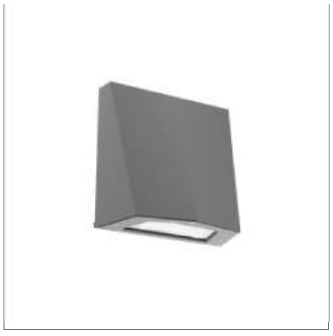

EMPK



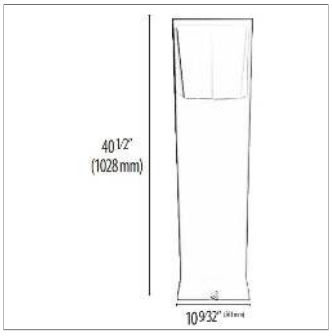
PHC-B



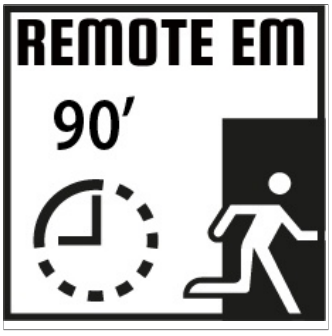
PHC-S



FRST




BOL




REM



OCC



HI/LO

## Power Supply



17433
Kit driver 48V



17096
Kit driver 48V WP

## RF Controls



3104173
RGBW RF controller 4 channel
(0.35A each CH)



31041730
RGBW RF controller WP 4 channel
(0.35A each CH)



310429
RGBW hand held remote

## DMX Controls



178973
RGBW DMX enabler/decoder 4
channel (0.35A each CH)



1789730
RGBW DMX enabler/decoder WP 4
channel (0.35A each CH)



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# R. Calculation of Wastewater Flowrate

Based upon Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

| Table 1: Estimate of Design Flows | | | |
|---|---|---|---|
| **Classification of Water Demand** | **Uses and Use Count** | **Gallons per Day per Use** | **Total Gallons per Day** |
| *Existing* | | | |
| - | - | - | - |
| *Proposed* | | | |
| Residential Studios: | 1 | 120 | 120 |
| Residential Four-Beds: | 5 | 360 | 1,800 |
| **Total Existing** | | | **0** |
| **Total Proposed** | | | **1,920** |
| **Net Change** | | | **1,920** |
| *Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition | | | |

Att.
S

# S. EROSION & SEDIMENTATION CONTROL REPORT

**Prepared For:**

**161 York Street, LLC**
**Freeport ME**

**Prepared By:**

**Acorn Engineering, Inc.**
**P.O. Box 3372**
**Portland, Maine 04104**




**July 2025**

## INTRODUCTION

Acorn Engineering, Inc. has been retained by 161 York Street LLC to provide civil engineering services for the proposed work located at 161 York Street, Portland, ME 04101. The site is currently comprised of vacant vegetated land with potential remnants of a previously demolished building. The property consists of approximately 0.25 acres of land.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 12 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

| | Plan Submission Requirement | Inspector Requirement | Inspection Report Submittal |
|---|---|---|---|
| Construction Activity < 1 Acres of Disturbance | Basic | Qualified Professional | Weekly or as specified |

The proposed project is subject to a Basic Erosion and Sedimentation Control Plan as defined in Section 12 of the City of Portland Technical Manual.

## 1.0 EXISTING CONDITIONS

The proposed project is located at 161 York Street. A Boundary & Topographic Survey has been prepared by Spurwink Surveying LLC, dated March 8th, 2017. Since the survey was completed the two existing buildings that were identified in the survey have since been removed.

Abutting Uses:

- North RN4 Zone Residential
- East RN4 Zone Residential
- South RN6 Zone Residential
- West RN6 Zone Residential

A large majority of the existing site is wooded vegetation with some gravel remaining toward the front of the site on York Street from a previous structure that was demolished. The slope within the existing developed area is relatively flat with steeper grades along the rear of the parcel.

### 1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation

because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11;12/8/20 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

| Table 1 - "K" Value | | |
|---|---|---|
| **Soils Type** | **Subsurface** | **Substratum** |
| Hinkley Loamy Sand | 0.17 | 0.17 |

The soil "K" value for the soil, listed above, shows a low susceptibility to erosion. The site's susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil "K" values for the soils show a moderate susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

There are no critical areas.

1.4 Protected Natural Resource

The client is not aware of the presence of any existing significant natural features located on the site as listed in Section 14-526 (b) 1. of the Land Use Code. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.

## 2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this

report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

Erosion and Sedimentation Control BMPs must be in place prior to earth disturbance. The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
- The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.

2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.

2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.

2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.

2.1.5 York Street and Guilford Court shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.

2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.

2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be "toed" into the ground.

2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached ½ the design height.

2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.

2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.

2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.

2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.

2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.1.14 Within 7 days of the cessation of Construction Activities in an area that will not be worked for more than 7 days, stabilize any exposed soil with mulch, or other non-erodible cover. Stabilize areas within 75 feet of a wetland or

waterbody within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.

2.2 Permanent Erosion Control Measures

If the Site or a portion of the Site will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, moisture, and soil conditions; amend the Disturbed Area subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding so to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established with 90% cover by healthy vegetation. If necessary, areas must be reworked and restabilized if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. Permanent Stabilization Definitions are as follows:

2.2.1 **Seeded areas:** For seeded areas, permanent stabilization means a 90% cover of the Disturbed Area with mature, healthy plants with no evidence of washing or rilling of the topsoil.

2.2.2 **Sodded areas**: For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.

2.2.3 **Permanent mulch:** For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.

2.2.4 **Riprap:** For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.

2.2.5 **Paved areas:** For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed, provided it is free of fine materials that may runoff with a rain event.

2.2.6 **Ditches, channels, and swales:** For open channels, permanent stabilization means the channel is stabilized with a 90% cover of healthy vegetation, with a well-graded riprap lining, turf reinforcement mat, or with another non- erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.

2.2.7 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.

2.2.8 All stormwater devices shall be installed, and tributary areas stabilized prior receiving stormwater.

2.2.9 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

2.2.10 Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

## 3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Erosion and Sedimentation Control Plan (Construction Management Plan) is included within the plan set.

## 4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion Control Details and Specifications are included in the plan set.

## 5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded

soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.

- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.

- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.

- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.

- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.

- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

## 6.0 INSPECTION AND MAINTENANCE

A. All areas of disturbance, impervious areas, ESC BMPs, materials storage areas exposed to precipitation, and locations where vehicles enter or exit the Site shall be inspected:

1. Once before any disturbance begins and after all Erosion and Sedimentation Control BMPs specified in the Erosion and Sedimentation Control Plan are in place;
2. At least once a week as well as before and within 24 hours after a storm event (rainfall); and
3. Once at project completion to ensure the Site has reached permanent stabilization and all temporary erosion and sedimentation controls have been removed.

B. The applicant is responsible for inspecting the site and maintaining erosion and sedimentation controls in good working order.

C. Sites that require a basic ESC plan and have less than 1 acre of disturbance are required to have a Qualified Professional complete inspections as outlined in 12.2.2 Part A. Inspection reports must be submitted weekly unless otherwise specified. Inspection and submittal requirements and frequency may be altered based on site location and conditions at the discretion of Water Resources or Planning staff. In the case of Small-Scale Residential site plan projects (1-4 units) with less than 1 acre of disturbance, a qualified professional is not required and the contractor may perform self-inspections for any required ESC BMP's unless otherwise specified. In general, Small Scale Residential site plan projects (1-4 units) will not be required to submit inspection reports, however the City reserves the right to require and review reports for any project.

D. If ESC BMPs need to be maintained, repaired, or enhanced, the work shall be initiated upon discovery of the problem but no later than the end of the next workday or prior to a precipitation event, whichever comes first. If additional ESC BMPs or significant repair of ESC BMPs are necessary, implementation must be completed prior to any storm event (rainfall) and within 7 calendar days of identification. All measures must be maintained in

A "storm event" shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall be inspected in the manner as described.

### 6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence

or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas

All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

**The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.**

## 7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Commence installation of drainage infrastructure.
4. Install all other erosion control devices as necessary throughout the remainder of this schedule.
5. Commence earthwork operations, associated with the roadway construction.
6. Commence installation of utilities.
7. Continue earthwork and grading to subgrade as necessary for construction.
8. Complete installation of drainage infrastructure, as well as other utility work.
9. Complete remaining earthwork operations.
10. Install sub-base and base gravels in paved areas.
11. Install paving, curbing and brickwork.
12. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
13. Once the site is stabilized, 90% catch of grass has been obtained, or mulching of landscape areas is complete, remove all temporary erosion control measures.
14. Touch up areas without a vigorous catch of grass with loam and seed.
15. Complete site signage and striping.
16. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

## 8.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.

## 9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan
- Medium Intensity Soil Survey for Cumberland County

# TEMPORARY SEEDING PLAN

## Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

## Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P2O5-K2O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

## Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

| Seed | Pounds / 1,000 S.F. | Recommended Seeding Dates |
|---|---|---|
| Winter Rye | 2.57 | Aug-15 to Oct-1 |
| Oats | 1.84 | Apr-1 to Jul-1<br>Aug-15 to Sep-15 |
| Annual Ryegrass | 0.92 | Apr-1 to Jul-1 |
| Sudangrass | 0.92 | May-15 to Aug-15 |
| Perennial | 0.92 | Aug-15 to Sep-15 |

## Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

## Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.

# PERMANENT SEEDING PLAN

## Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

## Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P2O5-K2O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

## Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

| Seed | Pounds / 1,000 S.F. |
|---|---|
| Kentucky Bluegrass | 0.46 |
| Creeping Red Fescue | 0.46 |
| Perennial Ryegrass | 0.11 |
| Total | 1.03 |

## Mulching

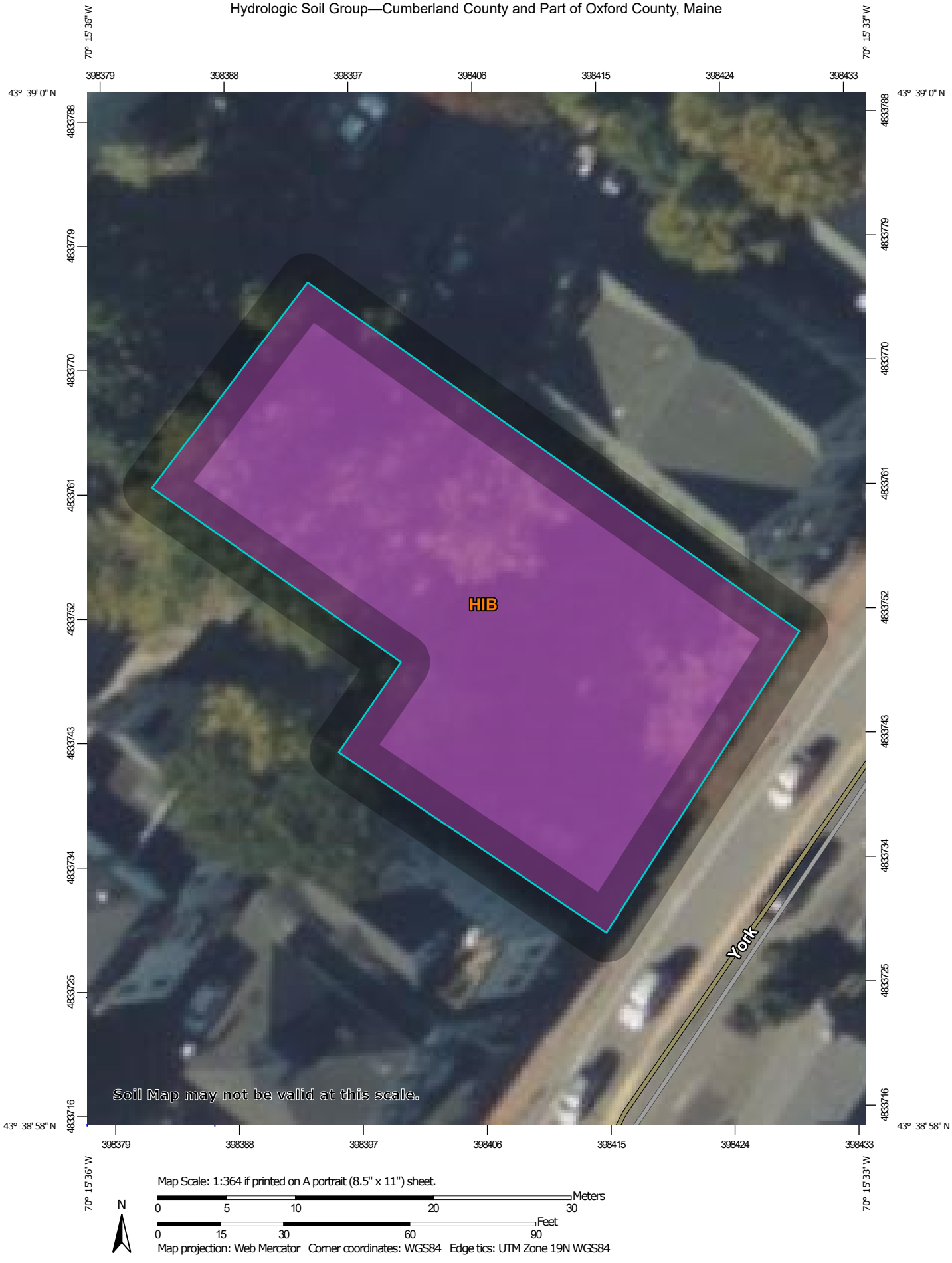
Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

## Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

## Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.


70° 15' 36" W
70° 15' 33" W
398379
398388
398397
398406
398415
398424
398433
43° 39' 0" N
43° 38' 58" N
4833788
4833779
4833770
4833761
4833752
4833743
4833734
4833725
4833716
HIB
York
Soil Map may not be valid at this scale.
Map Scale: 1:364 if printed on A portrait (8.5" x 11") sheet.
N
Meters
0 5 10 20 30
Feet
0 15 30 60 90
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

- Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Lines**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Points**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Water 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:
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 21, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

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.

# Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| HIB | Hinckley loamy sand, 3 to 8 percent slopes | A | 0.2 | 100.0% |
| **Totals for Area of Interest** | | | **0.2** | **100.0%** |

## Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

*Aggregation Method:* Dominant Condition

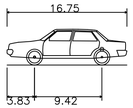
*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

# T. Parking Summary

Table 18-A, in Portland's Land Use Code, specifies a maximum parking ratio of 2 parking spaces per dwelling unit. Ten covered parking spaces are proposed as part of this project. Four spaces to be located on Lot 1, and six spaces on lot 2. Parking is accessed from Guilford Court, a 16.5' wide ROW.

Please find the attached Vehicle Tracking templates showing access to and from each parking garage on site. Turning movements were modeled using AutoCAD 2023 Vehicle Tracking Software.




| Architectural | |
|---|---|
| Overall Length | 16.750ft |
| Overall Width | 6.300ft |
| Overall Body Height | 5.003ft |
| Min Body Ground Clearance | 0.939ft |
| Track Width | 6.300ft |
| Lock-to-lock time | 5.00s |
| Curb to Curb Turning Radius | 20.000ft |




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CONSTRUCTION

| ISSUED FOR | BY | DATE |
|---|---|---|
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DRAWING NAME: **VEHICLE TRACKING – AUTO TURN 1**

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

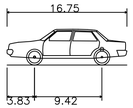
CLIENT: YORK STREET REDEVELOPMENT LLC
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| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

DRAWING NO.
**AT-1**




| Architectural | |
|---|---|
| Overall Length | 16.750ft |
| Overall Width | 6.300ft |
| Overall Body Height | 5.003ft |
| Min Body Ground Clearance | 0.939ft |
| Track Width | 6.300ft |
| Lock-to-lock time | 5.00s |
| Curb to Curb Turning Radius | 20.000ft |




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PROJECT NAME: 161 YORK STREET REDEVELOPMENT

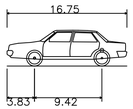
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| CHECKED BY: | SJL |

DRAWING NO.
**AT-1**




| Architectural | |
|---|---|
| Overall Length | 16.750ft |
| Overall Width | 6.300ft |
| Overall Body Height | 5.003ft |
| Min Body Ground Clearance | 0.939ft |
| Track Width | 6.300ft |
| Lock-to-lock time | 5.00s |
| Curb to Curb Turning Radius | 20.000ft |



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DRAWING NAME: **VEHICLE TRACKING – AUTO TURN 2**

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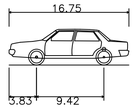
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| CHECKED BY: | SJL |

DRAWING NO.
AT-2




| Architectural | |
|---|---|
| Overall Length | 16.750ft |
| Overall Width | 6.300ft |
| Overall Body Height | 5.003ft |
| Min Body Ground Clearance | 0.939ft |
| Track Width | 6.300ft |
| Lock-to-lock time | 5.00s |
| Curb to Curb Turning Radius | 20.000ft |



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| ISSUED FOR | BY | DATE |
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PROJECT NAME: 161 YORK STREET REDEVELOPMENT

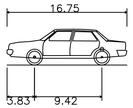
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DRAWING NO.
**AT-3**




| Architectural | |
|---|---|
| Overall Length | 16.750ft |
| Overall Width | 6.300ft |
| Overall Body Height | 5.003ft |
| Min Body Ground Clearance | 0.939ft |
| Track Width | 6.300ft |
| Lock-to-lock time | 5.00s |
| Curb to Curb Turning Radius | 20.000ft |




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| ISSUED FOR | BY | DATE |
|---|---|---|
| CLIENT REVIEW | SJL | 7/24/2025 |

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PROJECT NAME: 161 YORK STREET REDEVELOPMENT

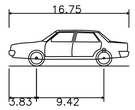
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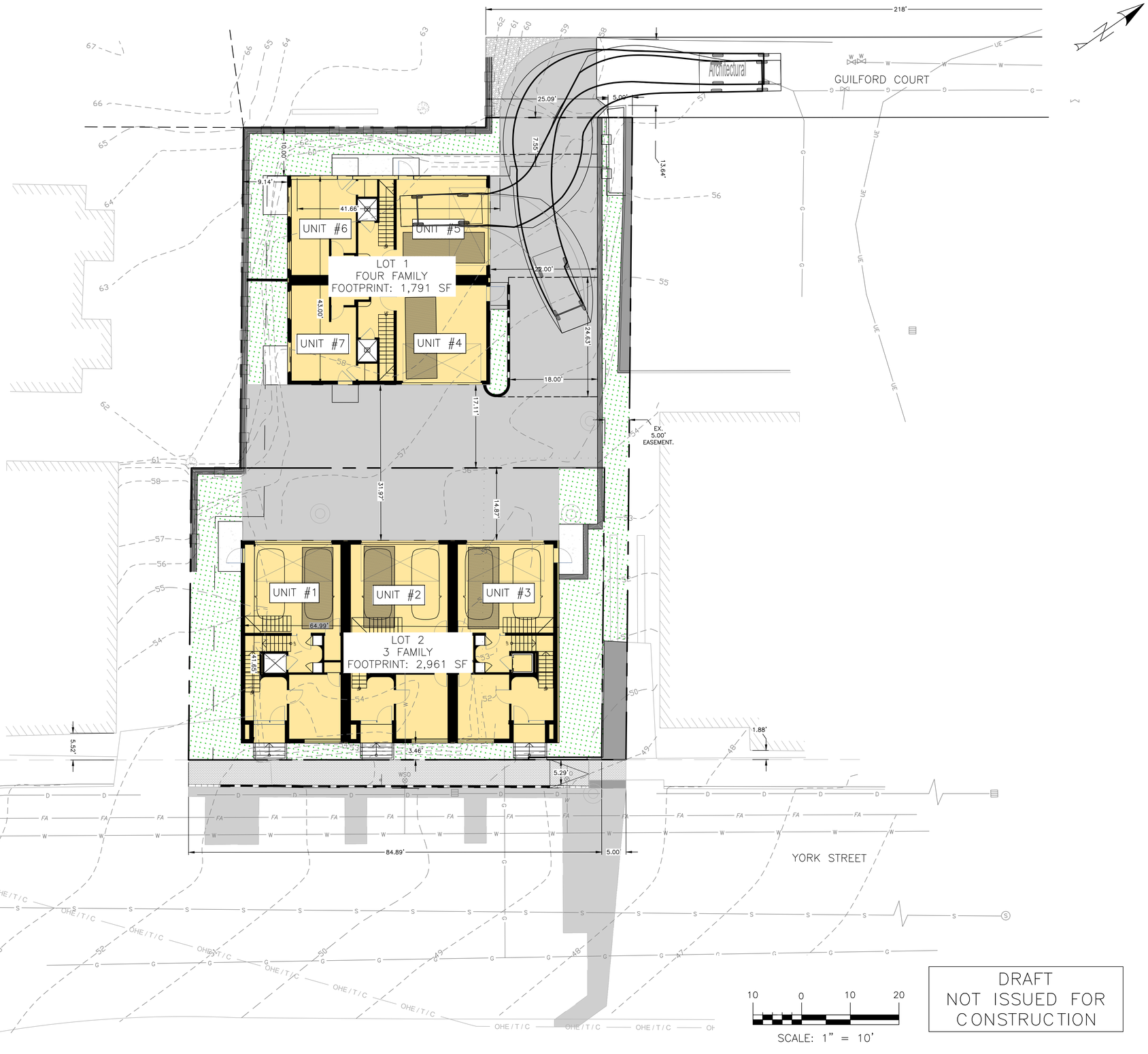
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| CHECKED BY: | SJL |

DRAWING NO.
**AT-4**




| Architectural | |
|---|---|
| Overall Length | 16.750ft |
| Overall Width | 6.300ft |
| Overall Body Height | 5.003ft |
| Min Body Ground Clearance | 0.939ft |
| Track Width | 6.300ft |
| Lock-to-lock time | 5.00s |
| Curb to Curb Turning Radius | 20.000ft |




10 0 10 20

SCALE: 1" = 10'

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| CLIENT REVIEW | SJL | 7/24/2025 |

DRAWING NAME: **VEHICLE TRACKING – AUTO TURN 5**

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

CLIENT: YORK STREET REDEVELOPMENT LLC
42 MARKET STREET, PORTLAND, MAINE 04101

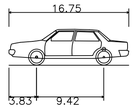
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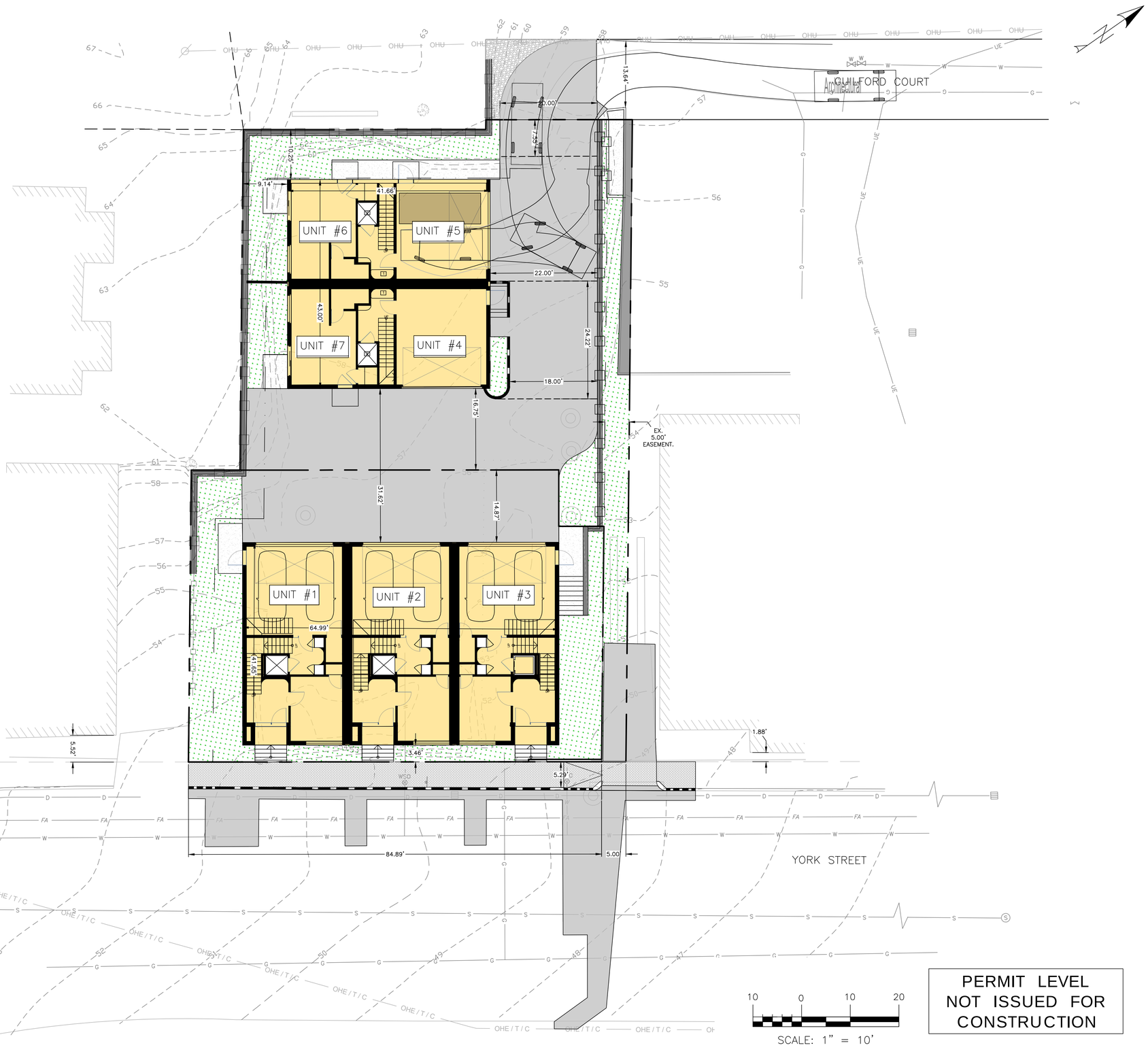
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| | |
|---|---|
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| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

DRAWING NO.
AT-5




| Architectural | |
|---|---|
| Overall Length | 16.750ft |
| Overall Width | 6.300ft |
| Overall Body Height | 5.003ft |
| Min Body Ground Clearance | 0.939ft |
| Track Width | 6.300ft |
| Lock-to-lock time | 5.00s |
| Curb to Curb Turning Radius | 20.000ft |




PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

| ISSUED FOR | BY DATE |
|---|---|
| CLIENT REVIEW | SJL 11/24/2025 |
| SITE PLAN APPLICATION | SJL 12/16/2025 |
| COMMENT RESPONSE | SJL 01/29/2026 |

DRAWING NAME: **VEHICLE TRACKING – AUTO TURN 6**

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

PARCEL ID: 044 B006001 & 044 B007001

CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

ACORN ENGINEERING, INC.

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ACORN ENGINEERING, INC
P.O. BOX 671 | SCARBOROUGH, MAINE 04104
(207) 775-2655

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|---|---|
| FILE: | AE_CIVIL |
| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

DRAWING NO.
AT-6

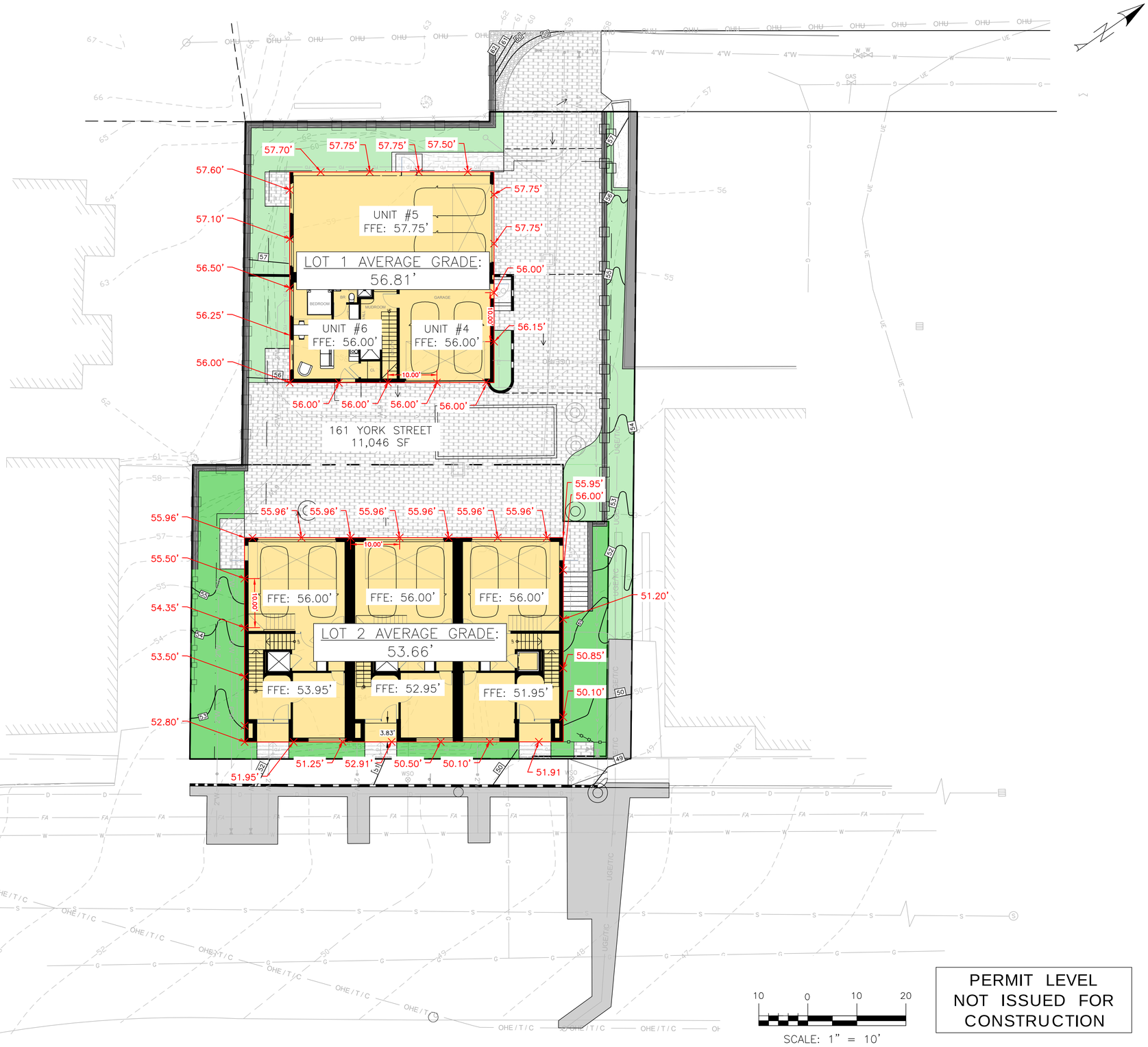
AVERAGE GRADE & BUILDING HEIGHT CALCULATIONS:

LOT 1:

AVERAGE GRADE = 56.81'
BUILDING HEIGHT = 42.71'

LOT 2:

AVERAGE GRADE = 53.66'
BUILDING HEIGHT = 44.34'




PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

| ISSUED FOR | BY DATE |
|---|---|
| CLIENT REVIEW | SJL 8/24/2025 |
| SITE PLAN APPLICATION | SJL 7/16/2025 |
| COMMENT RESPONSE | SJL 9/29/2025 |

DRAWING NAME: AVERAGE GRADE EXHIBIT
PROJECT NAME: 161 YORK STREET REDEVELOPMENT
PARCEL ID: 044 B006001 & 044 B007001
CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

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| FILE: | AE_CIVIL |
| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

STATE OF MAINE
SAMUEL J. LEBEL
No. 16505
PROFESSIONAL ENGINEER
LICENSED
9/29/25

DRAWING NO.
EX

ACORN ENGINEERING, INC.

Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

August 20, 2025

Subject: 161 York Street Neighborhood Meeting

I, Zachary Stevens, hereby certify that a neighborhood meeting was held on August 13, 2025 at the Canopy Portland Waterfront Hotel at 5:30 pm.

I also certify that on July 30th, 2025, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division, which includes property owners within 500 feet of the proposed development, and
2. Residents on the "interested parties" list.

Sincerely,

Zachary Stevens

Zachary Stevens, P.E.
Associate Project Manager
Acorn Engineering, Inc.

Included with this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting Minutes

ACORN ENGINEERING, INC.

Dear Neighbor: July 30th, 2025

On behalf of 161 York Street LLC, we are pleased to invite you to a neighborhood meeting on August 13th, 2025, to discuss the proposed Major Site Plan Application (Project Number PL-003412-2025) for the redevelopment of 161 York Street. The site is currently vacant and located within the RN-4 Zoning District. The project proposes dividing the 0.25-acre lot into two parcels in order to construct a four-family building on Lot 1 and a three-family unit on Lot 2 for a total of seven new residential units. The scope of work includes reconstructing the public sidewalk along the project's frontage, landscape improvements, and stormwater infrastructure upgrades. Please refer to the meeting information below:

**Meeting Location:** Swasey Room at the Canopy Portland Waterfront Hotel
9 Center Street, Portland, ME 04101

**Meeting Date/Time:** Wednesday, August 13th, 2025, at 5:30pm

A sign-in sheet will be circulated, and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board. If you have any questions, please call (207) 775-2655.

Sincerely,

Sam Lebel

Sam Lebel, P.E.
Acorn Engineering, Inc.

*Note: Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.*

**Sign-in Sheet** **Members of Public in Attendance:**

| Name | Email |
|---|---|
| David Keith | cdavidkeith@gmail.com |
| Stephen Simpson | stephensimpson@ymail.com |
| Mac Simpson | msimpson@portacompany.com |
| Peter Worthing | psw@mfn.com |
| Katherine and David Seorles | libbyvalley@yahoo.com |
| Margaret Busby | mbusby1@maine.rr.com |
| Amy Osborn | **amynolanosborn@gmail.com** |
| **Frank and Sharon Reilly** | **foreilly@aol.com** |
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**Sign-in Sheet** **Developer and Consultant Team:**

| Name | Email |
|---|---|
| Marieke Thormann | mcspepin@gmail.com |
| Patrick Boot | patrick.boothe@woodhullmaine.com |
| Soren Deniord | soren@sorendeniord.com |
| Zach Stevens | zstevens@acorn-engineering.com |
| Daneille McGowan | dmcgowan@acorn-engineering.com |
| Charlie Neill | cneill@acorn-engineering.com |
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**Sign-in Sheet** **Members of Public in Attendance:**

| Name | Email |
|---|---|
| * David Keith | cdavidksith@gmail.com |
| * Stephen Simpson | stephensimpson@ymail.com |
| Mac Simpson | MSimpson@portacompany.com |
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**Sign-in Sheet** **Members of Public in Attendance:**

| Name | Email |
|---|---|
| PETER WORTHING | PSW@MSN.COM |
| KATHERINE & DAVID SEARLES | libbyvalley@YAHOO.COM |
| Margaret Busby | mbusby1@maine.rr.com |
| | |
| Amy Osborn | amynolanosborn@gmail.com |
| Frank & Sharon Reilly | freilly@aol.com |
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# 161 York Street Site Plan Application

**Neighborhood Meeting Minutes**
August 13th, 2025 / 5:30 pm
9 Center Street, Portland, ME
Swasey Room at the Canopy Portland Waterfront Hotel

Project Team Attendees:

Marieke Thormann (**MT**): Developer/Presenter
Zach Stevens (**ZS**): Civil Engineer/Presenter (Acorn Engineering)
Soren Deniord (**SD**): Landscape Architect/Presenter (Soren Deniord Design Studio)
Patrick Boothe (**PB**) Architect/Presenter (Woodhull Architects)
Danielle McGowan (**DM**): Civil Engineer/Note Taker (Acorn Engineering)
Charlie Neill (**CN**): Civil Engineer/Note Taker (Acorn Engineering)

***The meeting started at approximately 5:30 pm.***

Presentation:

**Marieke Thormann:**
- Team Introduction
- Overview of meeting
- Project Introduction
  - Provide additional housing in neighborhood; 7 total units

**Zach Stevens:**
- Project Overview
- Existing Conditions
  - Historically two buildings were located on this parcel and were demolished around 2016
  - Grades drop approximately 10 feet from Guilford Court toward York Street.
  - There is an existing bus stop on State & York Street
- Proposed Programming
  - Construct two new buildings and divide the exisitng parcel into two lots for a total of 7 units.
  - Covered parking will be available within garages for Units 1-5.
  - The project proposes to rebuild the brick sidewalk on York Street
  - Underground Utilities will be installed for the new buildings. All Utilities are anticipated from York Street to avoid disruption to Guilford Court

- Stormwater infrastructure including detention and treatment will be provided in conformance with city standards

**Soren Deniord:**

- Overview of LA Plan:
  - Native plantings, maintenance on soft scape minimal
  - Ferns and shrubs / flowering
  - Hardscape programming

**Patrick Booth:**

- Building floor plan and elevation overview
- Townhome style units
- Building color and massing overview including providing a building of our time but also incorporating characteristics of existing buildings in the neighborhood

Comments, Questions & Answers:

The following recorded comments and questions, accompanied by the project team's responses, are presented in the following format:

**Neighbor Comment/Question:**
**Response denoted with Project Teams Initials in (parentheses)**

*Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the questions, answers, and discussion that took place at the meeting.*

**Recorded Neighborhood Meeting Minutes Comments, Questions, & Responses:**

**Question:** Who will be owning both lots?

**MT:** The 161 York Street LLC entity will own both lots.

**Question:** Will these buildings be Condos?

**MT**: Yes, they will be condos for sale.

**Question:** Does the city require the lot to be divided to construct this?

**MT:** Yes, the zoning requires the lot to be divided to allow the proposed density and buildings to be constructed

**Neighbor Comment:** The last application at this lot didn't require the lot to be divided.

**MT:** We can't speak to the last application since we were not involved. However, the last application proposed at this site was in 2016.

**Question**: Will the efficiency units be sold separately than the rest of the unit?

**MT:** Yes, if the adjacent unit does not want the efficiency unit as an in-law apartment, there will be opportunity to sell the unit separately.

**Question:** What will retaining wall do for Guilford court? What is its purpose?

ZS: The end of Guilford Court contains a steep grade that will need to be re-graded to extend the travel way into the parcel. There is an option to use crushed stone to tie back into grade as opposed to retaining wall if that is preferred.

**Question:** Do you have a cross section of the retaining wall? How tall is it?

ZS: The site drops approximately 10 feet from Guilford Court toward York Street and to soften grades within the site retaining walls will be required toward the rear of the lot to lower grade within the site. We do not have a cross section of the wall for this presentation but that is something we could provide for you separately if requested.

**Question:** What is the status of Guilford court & why must the site be accessed from Guilford Court and not York Street? Do you have rights**?**

**MT**: We hope to rebuild Guilford court & contribute to maintenance in the future.

We will do any necessary repairs to try to keep the road active.

**MT:** We are hopeful of joining a formal or informal maintenance agreement to maintain Guilford court and potentially provide upgrades to the street as part of this project.

**Question:** Won't construction equipment destroy the roadway in Guilford Court?

**MT:** We have no intent to destroy what is there. We anticipate that larger construction deliveries will come off York Street if possible and Guilford Court will likely be reconstructed in some capacity as part of this redevelopment project anyway.

**Question:** How would construction equipment come into the site from York Street?

**MT:** Vehicles could pull in and drop off materials from York Street near the existing driveway access or other locations. The timing of the deliveries would be timed to prevent traffic congestion. We will try to maintain access to the site during construction for neighbors.

**Question:** How will State Street changing to two-way street impact traffic on York Street?

**MT:** It is our assumption that this project will be completed before State Street becomes two-way. After state street becomes two-way in the future, I could imagine there being less traffic on York Street as a result.

**Question:** Why can't the site access the lot from York Street?

**MT:** We have had previous conversations with City Staff, and they were supportive in eliminating additional curb cuts on York Street. Due to the separation from the existing driveways for the adjacent properties, in addition to the proximity from the State and York Street intersection, a driveway along York Street is not ideal for this project.

**Neighbor Comment:** I don't understand why the City requested site access from Guilford Court, since Guilford court leads to Park Street and then cars must end up at York Street anyway (because Park Street is one-way).

**Neighbor Comment:** Traffic from State Street is quite bad

**MT:** I believe the intent is to prevent adding an additional driveway (curb cut) on York Street if possible.

**Question:** If we come to an agreement what would the improvements to Guilford Court be?

**MT/ZS:** There are no utilities proposed within Guilford Court. We could investigate repaving the Guilford Court to increase vehicle mobility.

**Neighbor Comment:** We currently run into vehicle mobility conflicts on Guilford Court as parts of the travel way do not allow two-way access. We often have to pull off the travel way to avoid conflicts with neighbors.

**MT:** A benefit from this project would allow the neighbors to use the driveway into the site as a turnaround, which could help with the current congestion on Guilford Court.

**Question:** Will there be a road maintenance agreement?

**MT:** I started reaching out to neighbors in hope that a maintenance agreement could be created (formal or informal) for Guilford Court. It would be great if this project could be part of that and contribute a fair share. We would contribute by rebuilding Guilford Court, and in the future could potentially bear more of the cost of maintenance than other neighbors because of the added cars using the road from the development.

**Question:** Would units be sold before the maintenance agreements are in place?

**MT:** All required maintenance agreements would happen before the sale of units. Ultimately, I can't speak to what Planning Board will give as a condition of approval.

**Question:** Will there be any trees on site?

**SD:** Yes, there will be three flowering trees onsite to provide some shade.

**Question:** How tall are the trees?

**SD:** The trees proposed will be approximately 15' – 20', which meets requirements in this zone.

**Question:** Will there be a path on/ through the property just for residents from Guilford Court to access and utilize to get to York Street?

**MT**: Currently the path is for residents only, but I would be open to further discussion to get a sense of what the residents on Guilford Court prefer.

**Question:** How tall is the fence on the retaining wall:

**SD:** Tall enough to provide fall protection. The height is not final at this time. The fence/wall is tall enough to prevent people from walking in without permission.

**Question**: How tall are the buildings?

**PB:** The buildings will be approximately 42 to 44 feet tall which conforms to the City Code

**Question**: Is the building in the back of the lot taller?

**PB:** The buildings and lot steps with the grade. The first building closest to York Street will be 44' tall, and the second building towards the back of the lot will be closer to 43' tall. The building height is derived from the average grade, so the buildings are close to the same height, however the surrounding finished grade is what determines the final height of the building.

**Neighbor Comment:** The buildings look taller than 45'.

**PB:** The buildings are in compliance with the city code, the buildings will not be taller than 45'.

**Question:** How many stories?

**PB:** The buildings will be 4 stories tall including covered parking on the first floor. The front of the building's "street wall" creates a uniform look along York Street. Filling in the vacant lot with a building closer to the street often has the effect of slowing down traffic.

**Question:** What kind of materials? Will the exterior of the building rust?

**PB:** Galvanized metal panel material for 2nd and higher floors so it doesn't rust & brick for first floor.

**Neighbor Comment**: The sidewalk on York Street is narrow and the city doesn't clear snow.

**ZS:** We will be rebuilding a 5.3' wide sidewalk along the property line abutting York Street. Additionally we will rebuild the curb which is currently damaged which will help formalize the sidewalk and feel safer.

**Question**: Is the building set back from the sidewalk?

**PB:** Yes, the building is set back 3.5' from the property line/sidewalk.

**MT:** Pedestrian and bike infrastructure is planned to eventually go in on York Street, which will hopefully make it feel safer to walk on the sidewalk on York Street.

**Question:** Does the applicant have a title to use Guilford court?

**MT:** There are no clear ownership or title rights to Guilford Court therefore our use of Guilford Court is permitted similar to other adjacent properties.

**Question:** Where will visitors park their cars?

**MT**: Visitors will likely need to park to block resident garages as there is no formal parking spaces located onsite aside from the garage parking.

**Question**: What about parking for service trucks and deliveries? If they park at the end of Guilford Court, it eliminates the turnaround mentioned earlier for cars leaving and entering Guilford Ct.

**MT:** It is our understanding delivery to Guilford Court would occur similarly to today's existing condition. Additionally, for larger deliveries it is possible a truck would pull over directly on York Street.

**Question**: Where will snow be placed?

**MT:** There are designated snow storage locations on site. During larger storms we would need to haul snow offsite if needed. Out of curiosity, where are the snow storages areas currently located for Guilford Court?

**Neighbor:** Currently, we move snow to the end of Guilford Court & sometimes it blocks in the neighbor's driveway.

**Question**: What are the prices of the units?

**MT:** We are still working on the final prices of the units.

**Question:** Would the smaller units share access to the garages?

**MT:** No

**Question:** What is the square footage of the units with garages:

**PB:** 2,500+ SF

**Question:** Are efficiency units on the ground floor?

**MT**: Yes. The efficiency units are on the ground floor only. They are located within the building on Lot 1 and are limited to the ground floor (no access to the garage).

**Question**: Roof top decks?

**MT/ PB:** Yes, on all units apart from the efficiency unit.

**Question**: How will units access roof?

**PB**: There are internal stairs for Units 1-5 to access the roof.

**Question**: Are the plans online? Can we get a copy of the plans?

**MT/ZS**: The plans are on the City E-Plan site and we can send floor plans to neighbors if they are interested.

**Question**: Can a driveway be added to the side yard to provide access from York Street?

**MT**: We will need to maintain our open area percentages to meet city requirements within the RN4 zoning district. A pervious hardscape will not suffice as landscaped open space.

**Question:** Are we able to widen the Guilford Court Roadway? Some locations are pinched down to 12' wide. Especially right at the entrance of Guilford Court adjacent to Park Street. It is currently very difficult to pull out of Guilford Court onto Park Street because there are frequently cars parked that make it hard to see.

**MT:** If city/neighborhood allows it we are open to upgrading the access and mobility to Guilford Court as part of our improvements to Guilford Court.

**Question**: Can we eliminate parking spaces on Park Street to allow an easier turning radius on Guilford Court.

**Neighbor:** The Neighborhood would lose spaces.

**MT:** If city/neighborhood allows it we are open to upgrading the access and mobility to Guilford Court as part of our improvements to Guilford Court.

**Question**: Can you reconsider accessing the site from York street to prevent adding a vehicle load onto Guilford Court?

**MT:** If adding a curb cut on York Street could work for the proposed programming, we will consider it. We will take this comment into consideration.

**Question:** Can we explain how we drop grade down coming in from Guilford Court? And how that interacts with the proposed retaining walls?

**ZS:** Guilford Court is approximately 10' higher than York Street. Therefore, when you turn into the site from Guilford Court there will be some ramping on the rear drive aisle. The drive aisle will flatten out between the buildings to allow safe turning movements.

The retaining wall will be close to flush with existing grade on the neighbor's side of the wall and the height of the wall on our lot will vary with grades and increase toward the rear of the lot. The maximum retaining wall height will be approximately 8'.

**Neighbor Comment**: Not a fan of Guilford court having more traffic. I am in favor of the right project and I am just not in favor of one that makes use of Guilford Court. I like the look of the buildings but am not a fan of using Guilford court. I think you should have to access the site from York Street since cars are going down there anyway from Park Street.

**MT:** We have previously coordinated regarding site access from York Street. We will consider this comment and potentially follow up with the City of Portland if access from York Street works with our proposed programming.

**Neighbor Comment**: Every property owner that has an easement to it owns the land on Guilford Court

MT: There are no clear ownership or title rights to Guilford Court therefore our use of Guilford Court is permitted similar to other adjacent properties.

MT: Would need to work with neighbors on updates to road and want to work together to see what works best for everyone. I believe our lot would contribute higher share of maintenance cost vs single family homes as everyone would need to pay their fair share.

**Question:** Would we need to formalize the maintenance entity that is for private roads?

MT: That would be dependent on how people feel about doing that, but that is an option.

**Neighbor Comment**: I am not on board with a formal agreement, the informal structure currently used for the road is preferred.

**Question:** Are we picking up gas & water from Guilford?

**MT/ZS:** No, all subsurface utilities are proposed from the mains within York Street.

**Neighbor Comment**: I am concerned with an existing hedge at the intersection of Park Street and Guilford court that blocks the view of Park Street, I want it gone.

**Neighbor Comment**: Thinks road should be 16' wide and maintain clear width for the entire private right of way.

**MT:** I am not sure who owns that house and that hedge. We can investigate upgrades to Guilford Court as necessary.

**Neighbor Comment**: Guilford court would be very busy with two developments happening. The building at the corner of Guilford and Park is going to be renovated soon too.

**MT:** That is understandable.

**Neighbor Comment**: Widening curb cuts on Guilford court would be very helpful

**MT**: We will bring it up to the city and let them tell us what upgrades we are capable of pursuing.

**Question**: What are the next steps; how do neighbors contribute or come to an agreement?

**ZS/MT**: The next step will be a Planning Board Meeting; we anticipate a September Meeting. The city will send notices to all abutters and will provide an overview agenda on their website prior to the meeting. We encourage you all to join us there.

**Question:** Can the applicant team see the public comments that are submitted?

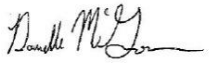
**MT:** All neighbors can submit public comments to the city. However, we will not see the public comments immediately. Typically, the city will give us the public comments with their staff comments prior to the Planning Board meeting.

Marieke Thormann concluded the meeting and acknowledged her appreciation for the comments received tonight and looks forward to continuing the conversation and opportunities for the development. Marieke offered to share the presentation or send a personal meeting reminder for upcoming meetings to anyone interested.

***The meeting concluded at approximately 6:50 pm.***

The above-mentioned material was interpreted and recorded from meeting notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,



Danielle McGowan, E.I.
Project Engineer - Acorn Engineering, Inc.

ACORN ENGINEERING, INC.

Taylor Colbeth – City Planner
Department of Planning & Urban Development
City Hall, 389 Congress Street, 4th Floor
Portland, Maine 04101

September 29, 2025

Subject: 161 York Street
Comment Response Letter

On behalf of 161 York Street, LLC, we are pleased to respond to the comments that we received dated July 10th, 2025, related to the proposed redevelopment project located at 161 York Street in Portland, ME.

## General Comments

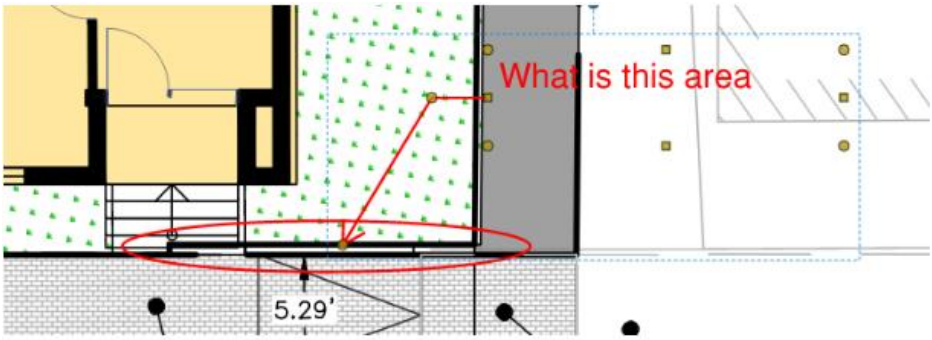
***Comment*** *– A boundary survey is required to be provided that was created within the last year per Technical Manual Section 14. The applicant shall submit a survey that meets the requirements of Technical Manual Section 14.*

**Response** – We request that an updated boundary survey be provided to planning staff as a condition of approval prior to application for building permit, understanding the city can provide comments on the boundary survey upon receipt. It should be noted that the current design is based on a survey last dated in 2017 with detailed topography that reflects the existing conditions of the site. Notable changes to the design as a result of an updated survey are not anticipated.

***Comment*** *– The submitted site plan and landscape plan do not match. The landscape plan shows gate access that has a connection ramp within the sidewalk and is inconsistent with the grading plan. The applicant shall revise the landscape plan to match the site plan.*

**Response** – The Landscape Plan has been revised to match the Civil Plan Set. See Sheet L1.0 and the Civil Plan Set for additional information.

***Comment*** *– The applicant shall confirm the area circled in red is the lot line and should label this portion in future submissions. Additionally, if it is the proposed lot line, it appears to be conflicting with the stairs. There may be an access agreement or easement that is required for this portion. Staff will provide additional guidance on this once it is confirmed by the applicant.*




**Response** – The line circled in red above is the property line and the Site Plan has been updated to include a clarifying callout at this condition. An access agreement or easement will be provided for the stair encroachment as suggested, in tandem with the larger overall mutual easement agreement that will outline access, maintenance, utilities, etc.. Please refer to the Site Plan (C-10) which has been revised to provide additional clarity on the proposed lot lines.

## Comments Related to Transportation Standards

### Access and Circulation

***Overview*** *– The applicant is proposing shared access and circulation for the two lots with access via Guilford Court. An easement is proposed between the two lots to facilitate the shared access. There are no curb cuts proposed along York Street and the existing brick sidewalk is proposed to be reset as part of construction.*

*Per Standard 13.6.1.B.1(c), continuous internal walkways shall be provided between building entrances on the site and adjacent public sidewalks. The applicant is proposing lawn space to the east and west of the proposed building on Lot 2, along with a staircase to the east, but has not indicated that this will be used as an internal walkway.*

***Comment*** *– Guilford Court is a private road per City records. The applicant shall provide adequate Right, Title, and Interest (RTI) that demonstrates that the applicant has the right to access from Guilford Court.*

**Response** –A letter from the client's attorney that demonstrates rights to access Guilford Court is provided. See Section C: Right, Title, Interest for additional information.

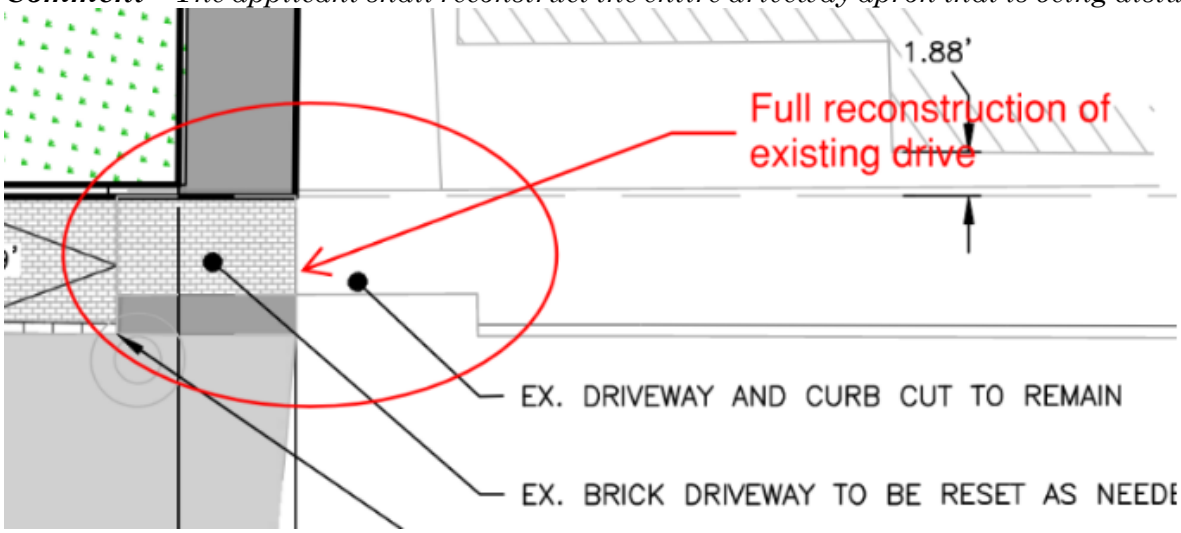
***Comment*** *– The applicant shall revise plans to depict a continuous internal walkway from the building entrances to the adjacent public sidewalk on York Street that meets ADA requirements.*

**Response** –The project is subdividing the parcel into two lots, each with an associated 3-unit building that does not require ADA access. Due to technical limitations a continuous internal walkway beyond what is shown is not possible, however there is ample pedestrian access opportunities from both York Street and Guilford Court which meets applicable accessibility

requirements.

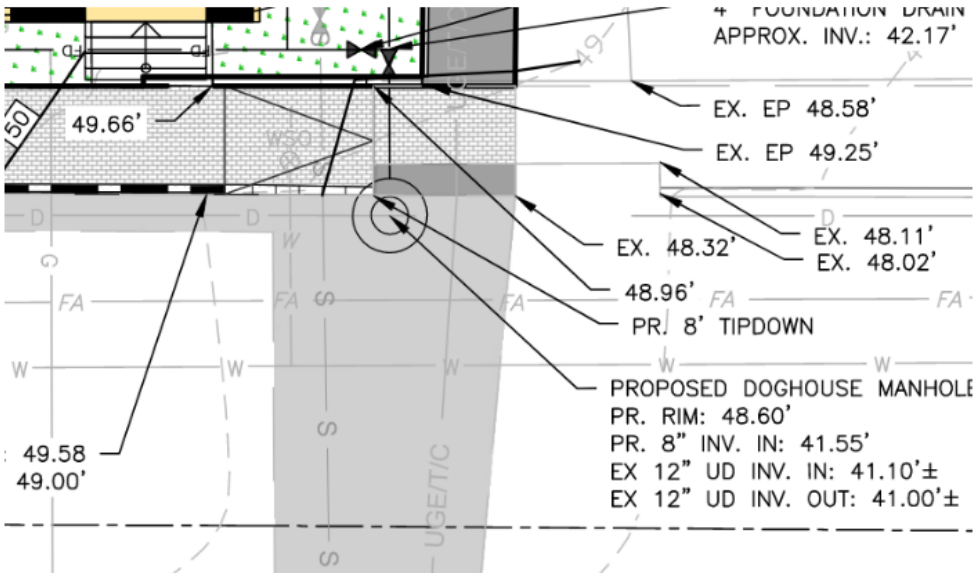
Additionally, See Comment #4 on the attached Comment Response Letter prepared by Woodhull Architects discussing FHA and ADA applicability requirements.

***Comment*** *– The applicant shall reconstruct the entire driveway apron that is being disturbed.*




**Response** – The Civil Plan Set has been updated to show the entire width of the existing driveway apron to be reconstructed. See Sheet C-10 & C-30 for additional information.

***Comment*** *– The proposed ramp does not appear to meet ADA requirements. The applicant shall revise the plans to meet ADA requirements.*




**Response** –The grading of the sidewalk is somewhat constrained in that it needs to tie into the existing grade at the abutting property line within the allowable limit of work. Careful consideration is also being taken to prevent any unintended consequences such as drainage issues on the abutting property. Therefore, the cross slope at the location the new curb ramp

meets the neighbor's driveway is steeper than 2% for a minor portion of the sidewalk, which is an existing condition. However, the plans have been revised to provide a more compliant sidewalk than the previous iteration. Please refer to the revised Grading Plan (Sheet C-30) for additional information.

## Parking

***Overview*** *– Per Table 18-A, the maximum off-street parking required is 2 spaces per dwelling unit, for a total of 14 for this proposed project. The applicant is proposing a total of 10 structured parking spaces that will be located on the ground floor of Units 1-5. No parking is proposed for Units 7 and 8.*

*The applicant is requesting a waiver for drive aisle width. Per Technical Manual Section 1.10.7, a minimum drive aisle width for two-way, 90-degree parking is 24-feet. The applicant is requesting this be reduced to 22-feet. The justification for this waiver is the 22-foot drive aisle is only proposed to access a single residential garage that provides two parking spaces.*

*Per Table 18-A, no bicycle parking spaces are required for this proposed development. No bicycle spaces have been proposed by the applicant. The applicant is proposing snow storage be located in the lawn areas, as depicted on the site plan. Per standard 13.6.1.D.3, snow storage may not encroach pedestrian walkways. It is unclear whether the lawn on Lot 2 is anticipated to be used to satisfy standard 13.6.1.B.1(c), regarding continuous internal walkways.*

***Comment*** *– The applicant has provided turning templates that show vehicle movements of one of the garage parking spaces for Unit 5. The applicant shall provide a vehicle turning template for the second parking space for Unit 5 to allow for a comprehensive review of the drive aisle parking waiver.*




**Response – A turning template has been provided for the second parking space within Unit 5 as requested. See Section T: Turning Templates for additional information.**

***Comment*** *– The applicant shall clarify how standard 13.6.1.B.1(c) intends to be met, and whether snow storage will impede on continuous internal walkways.*

**Response** – Land Use Code Standard 13.6.1.B.1(c) states the following "Continuous internal walkways shall be provided between existing or planned public sidewalks adjacent to the site, transit stops and street crossings, and building entrances on the site."

The project provides a continuous grassed path on the north side of the building located on Lot 2 to connect the York Street public sidewalk to the shared woonerf located on Lot 1 and Lot 2. The woonerf is proposed to blend pedestrian and vehicular access and promote safety and walkability for pedestrians.

Snow storage is not anticipated to encroach on continues internal walkways. Additionally, as stated on the site plan, the owner shall be responsible for the maintenance of snow removal and during larger storm events in urban areas it is common for maintenance to include snow removal from the site.

## Comments Related to Environmental Quality Standards

### Preservation of Significant Natural Features

***Overview*** *– All new development must meet Low-Impact Development standards as outlined in Technical Manual Section 3. The applicant has provided an LID scoring worksheet, with a total of 80 points awarded.*

***Comment*** *– The applicant claimed 2 pts for using only native vegetation but has proposed non-native plant species. Please update the proposed plant species to use native vegetation or remove these points from the LID score card.*

**Response** – The landscaping plan has been updated to use only native vegetation. See the attached Landscape Plan for additional information.

***Comment*** *– The applicant claimed 2 pts for using only locally-sourced landscape materials. This must be noted on the landscape plan to qualify for these points. Please add the note to the plans or remove these points from the LID score card.*

**Response** – The landscaping plan has been updated to note that landscape materials will be locally-sourced. See the attached Landscape Plan for additional information.

***Comment*** *– The applicant claimed 6 pts for innovative site design or stormwater management. Please provide a narrative detailing the innovation (new, advanced, and original methods) for DPW's consideration.*

**Response** – The project provides an innovative stormwater improvement through the proposed Stormfilter treatment BMP and StormBrixx detention BMP. The Stormfilter and Stormbrixx are innovative proprietary systems that have been reviewed and accepted by MaineDEP as an approved alternative to standard BMPs outlined in the MaineDEP Volume III Technical Design Manual. These approaches allow for this urban infill project to succeed

in activating the street frontage and providing new housing while improving the stormwater management on site despite the challenging topography. We believe the BMPs proposed provide an innovative technique to reduce peak flow rates for urban sites. Lastly, the project proposes to exceed the required treatment of 95% of new impervious area and 80% of new developed area. See the Stormwater Management Report for additional information.

## Site Landscaping and Buffers

***Overview*** *– Per standard 13.6.2.B.1, all development subject to site plan review must provide a minimum of one shade tree or six plantings per 5,000 square-feet of lot area. Lot 1 is a total of 6,068 square-feet, requiring one shade tree or six plantings, and Lot 2 is a total of 4,977 square-feet, requiring no shade tree or plantings. The applicant is proposing a total of three deciduous trees and a variety of shrubs and perennials to satisfy this requirement.*

*The applicant is proposing all trash and recycling operations to be internal to each unit, therefore no screening is required. Additionally, the applicant has indicated that all uncovered paving for non-vehicular use will have a minimum Solar Reflective Index (SRI) of 33 initially and 28 once aged three years.*

*Per Standard 13.6.2.B.5, all development shall include one street tree per 25-35 linear feet of frontage along a City right-of-way or private road. Per Standard 13.6.2.A.5.b, the review authority may permit an alternative subject to Section 4 of the Technical Manual. The applicant is not proposing street trees as part of this project due to the width of the existing sidewalk on York Street.*

***Comment*** *– Per Section 4.1.3 of the Technical Manual, the shall applicant shall make a contribution to the City of Portland Tree Fun at a ratio of $400 per street tree, for a total of $800 for two street trees.*

**Response** – Understood.

## Water Quality, Stormwater Management and Erosion Control

***Overview*** *– The subject property is a currently vacant vegetated land with potential remnants of a previously demolished building. The parcel is approximately 0.25 acres and the proposed project would create approximately 4,700 SF of new impervious surface area. The applicant has provided a stormwater management report as part of their submission.*

*The applicant is proposing drainage improvements, including catch basins, roof drains, foundation drains, and roof inlets. Treatment is proposed through a Stormfilter Manhole BPM and storage would be met using a subsurface chamber. This system would outlet to the existing drainage system within York Street. The proposed system is not anticipated to have adverse impacts on abutting properties and would reduce or maintain the peak flow runoff rates when compared to predevelopment conditions. Additionally, the proposed development is not anticipated to pose a contamination risk to groundwater during or after construction.*

***Comment*** *– A reciprocal easement will be required for the sewer infrastructure and drainage infrastructure that will be shared between the two lots.*

**Response** – Understood. The Utility Plan (Sheet C-20) has been updated to state future reciprocal access, utility, and maintenance easement will be established for the shared sewer and drainage infrastructure between the two lots, among other things such as access.

***Comment** – The project is required to provide for stormwater management in accordance with MaineDEP Chapter 500 and City of Portland Technical Manual Section 5 requirements. The Applicant has proposed to install a StormFilter and Stormbrixx system to provide for stormwater treatment and storage to meet the standards.*

- *The Applicant has identified a small area of impervious area in their narrative as "exempt" in their calculations for stormwater treatment. Please clarify what the intent is for this area. Similarly, the developed area calculation notes that only a portion of the proposed developed area is subject to treatment, please clarify this as well. The amount of treatment proposed is likely adequate, but some clarity is just needed on how the required areas were calculated as it does not appear to be just based on the 95% and 80% requirements of the standards.*

**Response** – Section 5 in the Technical Manual Section 5.2.2.A.1 states that 95% of new impervious area and 80% of new developed area are subject to treatment. The area that is labeled as 'exempt' is existing impervious area (currently used by the abutting property) that is located within the parcel that is proposed to remain. Therefore, it is not new and should not be counted toward the 95% new impervious area treatment requirement.

Due to this project being a historically developed parcel, the developed area subject to treatment initially only accounted for the increased limits of development. The stormwater report has been updated to show that the entire lot is now classified as new development. The stormwater model/design remains unchanged from the previous submission and the report provides clarification that 95% of new impervious areas and 80% of new developed area treatment requirements are met.

***Comment** – Looking at the post-development watershed map, there is an area included as part of subcatchment 1S that is labeled as "Landscaped area not being captured within R-Tanks". Please clarify how this area has been accounted for in the model. Looking at the grading plan, it does look like the stormwater will be collected from this area, so Staff believe treatment has been adequately captured, some additional clarification is needed.*

**Response** – The POST watershed map has been revised to display areas draining to the R-Tanks in the correct colored hatch. The stormwater model does account for this area and as such was not updated as part of this resubmission. Please see the attached POST watershed map for additional information.

## Comments Related to Public Infrastructure and Community Safety Standards

### Public Utilities

***Overview** – The applicant has sent a request for ability to serve to the respective companies.*

*The applicant has indicated they will provide ability to serve letters once they are received.*

*The applicant is currently proposing to install a new riser pole on York Street and run a single-phase underground electric across York Street to the development and has noted they are coordinating with CMP on the final layout. The applicant is proposing a new sewer lateral to tie into the existing main within York Street.*

***Comment** – The applicant shall provide ability to serve letters from the respective companies once they are received.*

**Response** – Understood. Ability to serve letters will be provided upon receipt.

***Comment** – The applicant shall provide the Planning Authority with the final proposed utility layout after guidance is received from CMP.*

**Response** – Understood. Acorn met onsite with a CMP field planner on August 25, 2025, and it was determined that a new utility pole and pole mounted transformer on York Street (as shown on the Utility Plan) will serve the development.

***Comment** – DPW is currently reviewing the submitted wastewater capacity application and will make a determination soon.*

**Response** – Understood. We have submitted a revised wastewater capacity table with the updated 6-unit program. Please See Section R. Wastewater Capacity for additional information.

***Comment** – In general, the utility plan lacks clarity regarding the proposed private sewer connection to the City's sewer in York Street. The applicant appears to be illustrating multiple connection options, but the rationale for this approach is unclear. Additionally, there is conflicting information regarding the size of the proposed private sewer lateral as it is labeled as both 6" and 8" in different locations on the plan. Please feel free to contact DPW directly to discuss the proposed approach.*

**Response** – The Utility Plan has been revised to clarify sewer service pipe size at all locations. Please see the Utility Plan for additional information.

***Comment** – The utility plan shows five connections within the site into the proposed sewer service. One of these connections includes a note that floor drains within garages will tie into sewer laterals. Oil water separators will be required for any parking drainage connecting into the sewer. The locations of oil water separators, and the different types of connections (parking drainage vs. sanitary) should be shown on the drawings.*

**Response** – An oil water separator has been incorporated downstream of the garage floor drains prior to connecting into the proposed 6" sewer service. Please see the revised Utility Plan for additional information.

## Comments Related to Site Design Standards

**Massing, Ventilation, and Heat Impacts**

***Overview*** *– The applicant is proposing two multi-family structures comprised of seven total units. The building fronting York Street is proposed to be 3-stories, and the building on the interior of the site is proposed to be 4-stories. The massing of the building is consistent with the surrounding context of the neighborhood, which is comprised primarily of 3-and-4-story buildings.*

**Response** – The building fronting York Street (Lot 2) is proposed to be 4 stories similar to the Building on Lot 1. The programming has been revised to contain 6 total units.

*Mechanical equipment is proposed to be located on the roof of both proposed buildings. Along York Street, mechanical equipment is proposed to be located towards the rear of the building, away from York Street. For the interior of the building, mechanical equipment is proposed to be located towards the west of the building, away from Guilford Court.*

*The building fronting York Street is over 2,000 SF of floor area. Per Standard 13.6.4.A.3, roofs over 2,000 SF with a slope less than 2:12, 75% of roof area must meet a Solar Reflective Index (SRI) of 82+ (initial)/64+ (3-year aged).*

***Comment*** *– The applicant shall confirm that Standard 13.6.4.A.3 regarding SRI is being met.*

**Response** – See Comment #1 on the attached Comment Response Letter prepared by Woodhull Architects.

**Noise and Vibration**

***Overview*** *– The proposed HVAC system will meet the applicable state and federal emission requirements. The applicant has indicated that the proposed HVAC system will be screened and directed away from abutters, but it unclear how the applicant intends to screen.*

***Comment*** *– The applicant shall indicate how the mechanical equipment is proposed to be screened.*

**Response** – See Comment #2 on the attached Comment Response Letter prepared by Woodhull Architects.

**Signage and Wayfinding**

***Overview*** *– The applicant is proposing to replace the "No parking at any time" sign along the York Street frontage. Additionally, the applicant has indicated in their narrative that signage will be designed to compliment the building and its immediate context. However, there doesn't appear to be any other proposed signage.*

***Comment*** *– The applicant shall confirm whether any additional specialty signage is proposed as part of this project and indicate such on the site plan and/or building elevations.*

**Response** – There is no specialty signage proposed as part of this project at this time.

**Design Standards**

***Overview*** *– The two proposed buildings have been designed to integrate into the surrounding neighborhood context, with the ground floor consisting of brick and the upper floors utilizing a modern vertical corrugated metal.*

***Comment*** *– City staff have provided a design review memo. Please see comment regarding the materiality selection.*

**Response** – See Comment #3 as part of the Comment Response Letter prepared by Woodhull Architects and the Berridge FW-1025 & FW-12 Panel Specification Sheet attached at the end of this document for additional information.

## Comments Related to Zoning Dimensional Review

***Overview*** –

| Zoning Dimensional Review (Article 7) | | | | |
|---|---|---|---|---|
| Dimensional Standards (Sec. 7.3) | | | | |
| ***Standard*** | ***Requirement 1*** | ***Lot 1*** | ***Lot 2*** | ***Finding*** |
| *Lot area (min)* | ***2,000 SF*** | ***6,069 SF*** | ***4,977 SF*** | Met |
| *Street frontage (min)* | ***20 ft*** | ***20 ft*** | ***69.89 ft*** | Met |
| *Front setback (min)* | ***Average of adjacent front yards minus 5 (0ft)*** | ***> 5 ft*** | ***3.46 ft*** | Met |
| *Rear setback (min)* | ***10 ft*** | ***10.25 ft*** | ***14.87 ft*** | Met |
| *Side setback, interior (min)* | ***5 ft*** | ***> 5 ft*** | ***> 5 ft*** | Met |
| *Structure height (max)* | ***45 ft, except 35 ft within 15 ft of a rear lot line*** | ***42.77 ft*** | ***44.34 ft*** | More Information Required* |
| *Lot coverage (max)* | ***60%*** | ***29.5%*** | ***59.5%*** | Met |
| *Landscaped open space ratio (min)* | ***20%*** | ***20.1%*** | ***20.9%*** | More Information Required^ |

***Comment*** *– * The applicant shall provide the average grade calculation for each building. Staff need to know what interval they are using between grades and each grade needs to be shown on a plan. Once the average grade is determined it needs to be shown on the elevations.*

*^ The landscaped open space ratio is close for each lot. The applicant shall provide detailed calculations to show how it is being met for each lot.*

**Response** – Please see Section U: Average Grade Calculation that shows 10' intervals between spot grades. Additionally, the average grade calculation is shown on the building

elevations. Lastly, calculations for the landscape open space ratio have been added to the site plan. See Sheet C-10 for additional information.

Please let us know if you have any additional questions or comments.

Sincerely,

Sam Lebel P.E.
Senior Project Manager
Acorn Engineering, Inc.

Sincerely,

Zachary Stevens P.E.
Associate Project Manager
Acorn Engineering, Inc.

WOODHULL

29 September, 2025

Planning Board Staff Review #1: Responses to Architectural Comments

Project Title: 161 York Street
Project Address: 161 York Street Portland, ME 04101

**Comment #1**

**Overview:** The applicant is proposing two multi-family structures comprising seven total units. The building fronting York Street is proposed to be 3-stories, and the building on the interior of the site is proposed to be 4-stories. The massing of the building is consistent with the surrounding context of the neighborhood, which is composed primarily of 3-and-4-story buildings. Mechanical equipment is proposed to be located on the roof of both proposed buildings. Along York Street, mechanical equipment is proposed to be located towards the rear of the building, away from York Street. For the interior of the building, mechanical equipment is proposed to be located towards the west of the building, away from Guilford Court. **The building fronting York Street is over 2,000 SF of floor area. Per Standard 13.6.4.A.3, roofs over 2,000 SF with a slope less than 2:12, 75% of roof area must meet a Solar Reflective Index (SRI) of 82+ (initial)/64+ (3-year aged).**

**Updates Requested:** The applicant shall confirm that Standard 13.6.4.A.3 regarding SRI is being met

**Response:** Standard 13.6.4.A.3 differentiates residential developments, stating: “for residential projects, greater than nine residential units”. Where the York Street building only contains 3 residential units it appears to be not applicable to this requirement.

**Comment #2**

The proposed HVAC system will meet the applicable state and federal emissions requirements. The applicant has indicated that the proposed HVAC system will be screened and directed away from abutters, but it is unclear how the applicant intends to screen.

Updates Requested: The applicant shall indicate how the mechanical equipment is proposed to be screened.

**Response:** The design uses the building form strategically to obscure visibility of the mechanical equipment from ground level, particularly from York Street and abutters. The mechanical equipment is in the rear of the building on the fourth floor roof. Visibility of this equipment is screened in part by the roof enclosure mass, and partially by the roof parapet surrounding the mechanical space. In our modeling study this equipment will be nearly invisible from ground level at any point outside of the site.

**Comment #3**

STANDARD G-1 – Materials

The proposed building façade materials include brick at the first floor and infill between residential units that Staff finds is contextual to the surrounding residential structures found within a two-block radius. Other building façade materials include vertically corrugated metal and translucent glass block or screening for light and privacy that is unique to the surrounding context. Staff requests the Applicant provide façade material precedent within the surrounding residential context to illustrate the use of these materials for Staff review.

**Response:** Although there may not be a direct precedent for each exterior material proposed, all pull context from the immediate surrounding urban fabric. Our effort is to use visually compatible materials that mature with age and result in an overall consistent aesthetic suitable for a background building in this neighborhood. Below is commentary on the specific materials mentioned in the report:

> **Translucent Glass Block:** There are a multitude of fenestration patterns sharing the size and proportions of the proposed glass block. This can be seen in the heavily divided windows at 30 Park Street, 133 York Street, 154 York Street, and 66 State Street to name a few.
>
> The proposed project has ground-level living intended to engage the streetscape. To balance the need for light but provide privacy from the uniquely heavily trafficked section of York Street a translucent finish is proposed.
>
> **Corrugated Metal Panel:** The vertical metal is intended to align with the residential scale and vernacular of the neighborhood. It pulls characteristics of the wooden clapboard siding found throughout the neighborhood without being a duplication. The corrugations will follow a consistent pattern and dimension as clapboard with exposures between 3.5"-5.5" and a thin shadow line to reiterate the scale and allusion to vertical wood siding. Similarly, the corrugated metal is proposed to be painted to avoid it reading overly metallic or reflective.
>
> By applying a metal panel finish carefully, the building also acknowledges the immediate Commercial Street vernacular in which metal is used as a cladding material extensively.
>
> Although the exterior material is not finalized, the current basis of design is Berridge FW-12 Panel with 2 grooves and no reveal. This would read similar to 4” vertical wood siding. See attached profile and image of installed system for precedent.
>
> We will explore both metal panel and fiber cement options in similar dimensions as a way to create a durable, cost effective yet aesthetically pleasing result.

**Comment #4**

**Overview:** The applicant is proposing shared access and circulation for the two lots with access via Guilford Court. An easement is proposed between the two lots to facilitate the shared access. There are no curb cuts proposed along York Street and the existing brick sidewalk is proposed to be reset as part of construction.

Per Standard 13.6.1.B.1(c), continuous internal walkways shall be provided between building entrances on the site and adjacent public sidewalks. The applicant is proposing lawn space to the east and west of the proposed building on Lot 2, along with a staircase to the east, but has not indicated that this will be used as an internal walkway.

**Updates Requested:** The applicant shall revise plans to depict a continuous internal walkway from the building entrances to the adjacent public sidewalk on York Street that meets ADA requirements.

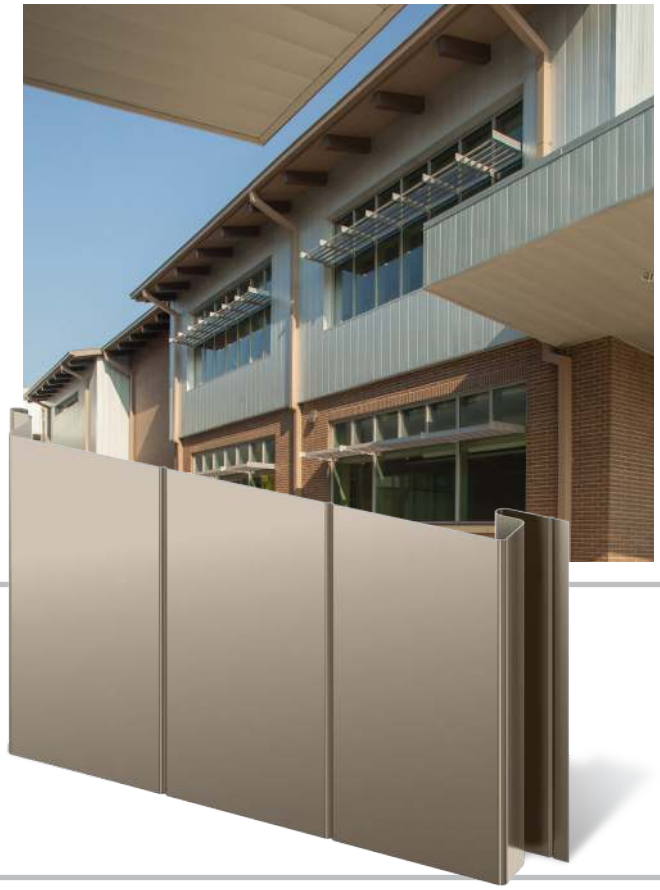
**Response:** A first floor efficiency unit has been removed from the Guildford Ct facing building to reduce the unit count within the structure to 3. This removes FHA and ADA requirements as the threshold for FHA and ADA application is 4 or more units. In turn, site accessibility features are no longer required.

> **2021 IBC Chapter 11 Section 1108.6.3 Group R-3:** In group R-3 occupancies where there are ***four or more dwelling units*** or sleeping units intended to be occupied as a residence in a single structure, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.
>
> **2021 IBC Chapter 11 Section 1105.1.8 Dwelling Units and Sleeping Units:** An accessible entrance is not required to dwelling units and sleeping units that are not required to be Accessible units, Type A units, or Type B units.
>
> **2021 IBC Chapter 11 Section 1104.1 Site Arrival Points:** At least one accessible route within the site shall be provided from public transportation stops, accessible parking, accessible passenger loading zones, and public streets or sidewalks to the ***accessible*** building entrance served.
>
> **2021 IBC Chapter 11 Section 1104.2 Within a Site:** At least one accessible route shall connect ***accessible*** buildings, accessible facilities, accessible elements and accessible spaces that are on the same site.

# Berridge FW-1025 & FW-12 Panels

## WALL, SOFFIT, CEILING AND FASCIA PANEL SYSTEM





The Berridge FW-1025 and FW-12 Panels can be installed on wall, soffit and liner applications. The prefinished metal wall panels can be used over open framing or with solid sheathing. Additionally, the panel can be ordered smooth, with vee-grooves, striated, vented or with a stucco texture thus allowing for countless design options.

### Materials

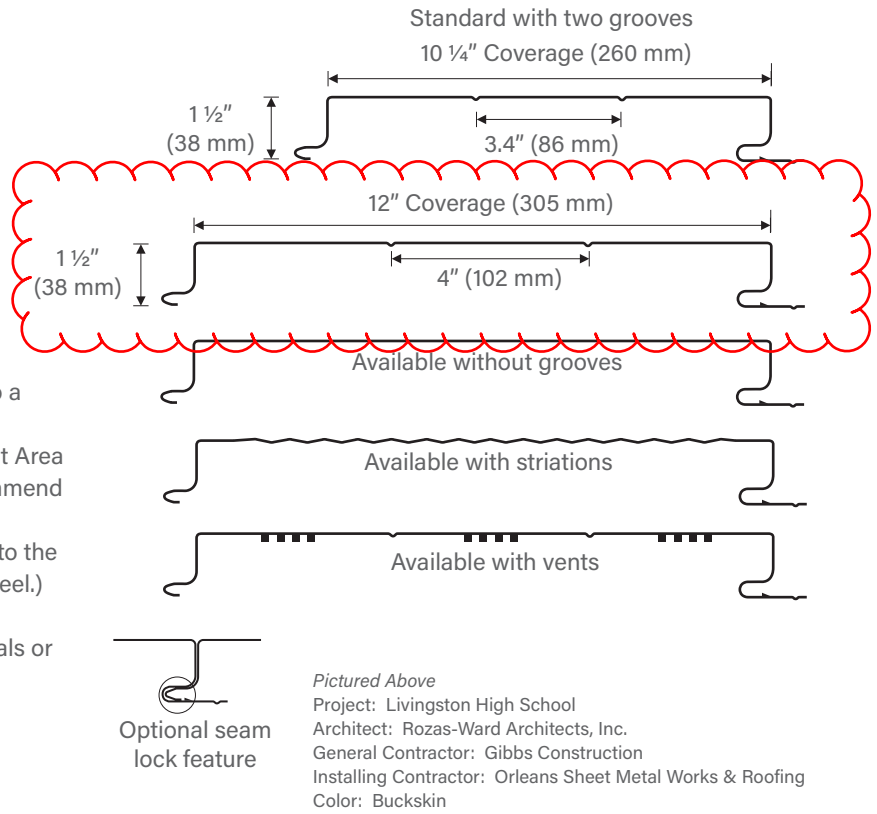
24 and 22 Gauge Steel
0.032 and 0.040 Aluminum

### Specifications

Uses: Wall, Soffit, Ceiling, Fascia, Screen Wall
Coverage: FW-1025: 10¼"; FW-12: 12"
Finishes: Smooth, optional stucco emboss
Fasteners: Concealed
Applications: Vertical over open framing or solid sheathing
Pattern: Optional vee-grooves, striations or venting
Optional: Seam lock feature

### Installation

- Panel is available from the factory in continuous lengths to a maximum of 40'
- Vented option provides 7.79 square inches of Net Free Vent Area (NFVA) per linear foot (6.65 in²/ft²). (BMC does not recommend vented products in applications subject to aggressive atmospheres, marine environments, or high humidity due to the corrosive nature of these environments on raw edges of steel.)
- 22 Gauge material may require 4,500 sq minimum order
- Requires seam-locking feature for Florida Product Approvals or Miami Dade NOA






Optional seam lock feature

*Pictured Above*
Project: Livingston High School
Architect: Rozas-Ward Architects, Inc.
General Contractor: Gibbs Construction
Installing Contractor: Orleans Sheet Metal Works & Roofing
Color: Buckskin

All information subject to change without notice. See website for details, specifications and Watertightness Warranty requirements.
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PC1

# 161 York Street External Inbox

**'Katherine Searles' via Planning Board** 9:16 AM (28 minutes ago)
to planningboard@portlandmaine.gov, Mbusby1

A proposal for 161 York Street is asking to use Guilford Court as their entrance to the project. Guilford Court is a private road, a narrow one lane road that is in need of major work, adding 10 extra vehicles will add to its existing condition.
The required frontage is 40 -50 ' to build and they only have 25', while using 161 York St which is their legal address has over 80+ '.
The previous project was using 161 York Street which has existing curb cuts, for their entrance.
We have not seen any legal document of easement/right of way to Guilford Court. The previous owner did not show any to us. The Planning Board required a road maintance agreement which is documented in their deed but was not carried out. We would expect this condition would also apply to the new developer. We would also expect that the cities legal team would oversee any documents.

Katherine & David Searles
207-632-5947

**From:** Katherine Searles <libbyvalley@yahoo.com>
**To:** tcolbeth@portlandmaine.gov <tcolbeth@portlandmaine.gov>
**Cc:** Mbusby1 <mbusby1@maine.rr.com>
**Sent:** Sunday, August 17, 2025 at 09:03:21 AM EDT
**Subject:** 161 York St

Hi Taylor,
I'm sending you a list of safety issues concerning the 161 York St project using Guilford Court as their entrance.

1.York Street is a well maintained 2 lane road with no parking on either side and sidewalks on both sides. It has a clear line of sight in both directions.

2 Guilford Court is a narrow one lane private road with no parking or sidewalks. Upon entering or exiting it has no clear line of sight on Park Street which is a one way street. People walking toward Park Street from Guilford Court walk in the center of the road facing a real possibility of being struck by a car entering the Court. Once you are in the Court there is no where for you to go to escape from being hit. Adding 10+ cars make it less safe.

During the winter months the snow and ice increase the level of safety.

The summary of the above concerns is that by using Guilford Court a private road the traffic is still put on York Street just by detouring in through a less safe route.

I would like this concern to be shared with DPW and the third party traffic engineer. A actual site visit would also be beneficial to those in making decisions.

Thank You
Katherine & David Searles
14 Stetson Ct
9-13 Guilford Court

PC3

Katherine Searles <libbyvalley@yahoo.com> Oct 4, 2025, 2:28:12 PM (2 days ago)
to Taylor Colbeth, planningboard@portlandmaine.gov, Mbusby1

Hello Taylor,
Another concern of using Gilford Court,
e) Egress and access to the site is directly off Guilford Court. There are no anticipated conflicts with traffic flows or turning movements.
This statement above is from Acorn Engineering.

This is not true, adding 12+ cars will definitely impact Guilford and Park St entering and exiting. Park St is a one way street with parking on one side and Guilford Court is a narrow single lane road with no parking or sidewalks.
Traffic will back up on both roads and backing up on both will cause a safety concern. Traffic backing up on Guilford Court will have to back into someone else's private driveway to allow incoming traffic from Park St.

The traffic diverted through Guilford Court and lower Park St instead of 161 York St will still end up on York St. Sending vehicles through Guilford Ct and lower Park St to get to York St is adding to the congestion that already exists. Putting the entrance to the proposed project at 161 York St would be a safer route than Guilford Court and lower Park St.

Please make sure that the City of Portland's traffic engineer receives this letter. A site visit would help the engineer see the lack of a pedestrian walkway and the actual usable width is 12' 4", not 16' 5".

Katherine & David Searles
14 Stetson Court
9-13 Guilford Court

PC3

Katherine Searles <libbyvalley@yahoo.com> Oct 3, 2025, 1:18:26 PM (3 days ago)
to Taylor Colbeth, Mbusby1, planningboard@portlandmaine.gov

Hello Taylor,
I have concerns about the developer now claiming that they have an easement to use Guilford Court. This comes after their lawyer could not find any clear ownership or title of Guilford Court therefore their use of Guilford Court is permitted. These are their words.
All the other owners on Guilford Court have easements.
We have lived and owned 9-13 Guilford Court for 47 years and there has never been anyone from 161 York St using Guilford Court for access.

I would really like our city lawyer to insure that in fact they have an easement and not just their interpretation of the deeds.

Also again using York St which is a 2 lane road with no parking and sidewalks on both sides and a clear line of sight is much safer than Guilford Court, which is a one lane narrow private road with no sidewalks and no clear line of sight when exiting onto Park St. Adding 12+ more cars is just not safe for drivers or anyone choosing to walk on Guilford Court in either direction.
Thank you

Katherine & David Searles
9-13 Guilford Ct
Portland Me

PC4

Katherine Searles <libbyvalley@yahoo.com> Oct 7, 2025, 1:12:01 PM (19 hours ago)
to Taylor Colbeth, planningboard@portlandmaine.gov, Mbusby1

Hi Taylor,
City of Portland Technical Manual – Section 10 Public Safety 3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).
Response: The proposed development layout has contemplated emergency access conditions and has had preliminary coordination with the Portland Fire Department. The Fire Department has approved the building placement on the proposed lots. 3.4.2 Where possible, developments shall provide access for Fire Department vehicles to a
This is on Page 125.

Thank you

Katherine & David Searles

PC5

Katherine Searles <libbyvalley@yahoo.com> Oct 7, 2025, 5:10:17 PM (15 hours ago)

to Taylor Colbeth, planningboard@portlandmaine.gov, Mbusby1

Response –The project is subdividing the parcel into two lots, each with an associated 3-unit building that does not require ADA access. Due to technical limitations a continuous internal walkway beyond what is shown is not possible, however there is ample pedestrian access opportunities from both York Street and Guilford Court which meets applicable accessibility

Hi Taylor,
I believe this is misleading to claim that there is ample pedestrian access from Guilford Ct.
Thanks

Katherine& David Searles
9-11 Guilford Court
14 Stetson Ct

PC6

cfr...@portlandmaine.gov <cfrank@portlandmaine.gov> 1:15 PM (2 hours ago)

to planningboard@portlandmaine.gov

---------- Forwarded message ---------
From: **Joseph Smaha** <smahajk3@gmail.com>
Date: Wed, Oct 8, 2025 at 1:01 PM
Subject:
To: <citymanager@portlandmaine.gov>, mdion@portlandmaine.gov <mdion@portlandmaine.gov>, <planning@portlandmaine.gov>

So the city of Portland changes its zoning regs to allow for buildings up to 380 feet and along comes a company that wants to build a structure nearly that tall. How convenient! What an eyesore and a monstrosity that will be. I have less and less respect for our city government.

Joseph Smaha
Portland

PC7

pestoaddict@yahoo.com <pestoaddict@yahoo.com> Oct 10, 2025, 4:25:07 PM (4 days ago)
to planningboard@portlandmaine.gov

Dear Planning Board,

I read an article that was featured in the Portland Press Herald recently about a large luxury hotel proposed by East Brown Cow for the Old Port, which I am vehemently against. Parking is already challenging in the old port, and this hotel not only provides zero additional parking, but it would also be developed on an existing parking lot! This makes no sense. I'm also concerned about the impact on local businesses, and I have spoken to business owners in the old port who believe that this tower is a bad idea in many different ways. Finally, the design is banal and would sterilize our city's gorgeous skyline.

Sincerely,

Emily

PC8

Katherine Searles <libbyvalley@yahoo.com> Oct 12, 2025, 6:47:31 AM (2 days ago)
to Taylor Colbeth, planningboard@portlandmaine.gov, Mbusby1, Katherine Searles

Construction Staging Area: • As indicated on the site logistics plan, truck deliveries will be brought in to the site through Guilford Court off Park Street.

Hello Taylor,
Once again I stress the fact that using Guilford Court is not safe for drivers and pedestrians. We who live on Guilford Court have seen large vehicles try to access it, it doing so they must use private property to drive on, back out and park on. To access the entrance of Guilford Ct they must do a wide turn and doing so they drive on the city side walk , this causes a back up on cars coming down Park Street, they can't complete it in one turn causing cars to back up. Park Street is a busy street and cars often are traveling fast. Also when the pedestrian encounters the vehicle it's the pedestrian that is forced to walk it back and enter someone else's private property to stay safe.
The safer entrance would be York St which is a two lane road with sidewalks on both side and a clear line of sight.
The previous developer was going to use York St .

Thank you

Katherine & David Searles

PC9

Katherine Searles <libbyvalley@yahoo.com> 6:44 AM (2 hours ago)
to Taylor Colbeth, planningboard@portlandmaine.gov, Mbusby1

Hello Taylor,

It is anticipated that between 20 and 25 workers will be on the project site at peak time. (Their words)

On Page 38 the drawings show an construction gate on Guilford Court, walk through only.
So for the duration of the construction there will be 20 -25 more pedestrians
entering and exiting Guilford Court, a narrow one lane road with no sidewalks.
So how is this considered safe for the workers.
Please consider everyone's safety.

PC10

Katherine Searles <libbyvalley@yahoo.com> Oct 17, 2025, 8:21:08 AM (4 days ago)

to Taylor Colbeth, planningboard@portlandmaine.gov, Mbusby1

Morning Taylor,
Could you tell me what the status is of the easement on Guildford Ct.
Thank you

PC11

Katherine Searles <libbyvalley@yahoo.com> Oct 18, 2025, 9:43:39 AM (4 days ago)

to Taylor Colbeth, planningboard@portlandmaine.gov, Mbusby1

Hello Taylor,
Please make sure that our city lawyer gets these documents concerning Guilford Ct.
Thanks

Arthur P. Schaefer
Admitted
Maine Bar
New York Bar
Federal Bar

Law Offices
**Arthur P. Schaefer**
449 Forest Avenue
Portland, Maine 04101
Telephone 207-775-2484

Associate
Peter K. Sampson
Admitted
Maine Bar
Federal Bar

July 1, 1985

Mr. and Mrs. Ralph LaRochelle
151 York Street
Portland, Maine 04101

RE: Guilford Court

Dear Mr. and Mrs. LaRochelle:

I have received a title report on Guilford Court, but it raises many more questions than it answers. Based on the information now at my disposal, therefore, my conclusion is that without a court action to establish title to the court in you, you cannot assert ownership of Guilford Court. I stress, however, that no one else can either. While it is true that under the law all real estate is always owned by somebody, in the case of Guilford Court we cannot determine who that somebody is without going to the lengths set out below.

As you know, the City of Portland regards Guilford Court as unaccepted common passageway. It has not been dedicated to the City, the City does not maintain it, and the City does not claim to own it. Research in the Registry of Deeds on your own property was carried back as far as 1864, to which time all of the deeds contained the same language as yours, "all the right, title and interest in and to Guilford Court . . . of which these Grantors may be possessed." What this means is that each Grantor passed along to the next owner all of the ownership rights he may have had in Guilford Court, but it does not guarantee or even say that any given Grantor actually had any ownership interest.

Prior to 1864, Guilford Court is referred to as a "Lane", but no reference was found in any instrument to explain what original parcel of land Guilford Court was taken from. This is true back as far as 1800.

In addition, deeds to and from the Brown Co. "formerly known as Berlin Mills Co.", were investigated. These deeds all seem to mention Guilford Court but none of them clarify what interest the Berlin Co. made then or where it may have come from.

The mystery might yet be solved by a complete title search of your property and all of the other properties in Guilford Court, by a complete search, I mean a search that goes back to the very beginning of deed preparation in New England. This would necessitate searches in the local Registry

and in the York County Registry of Deeds back as far as 1760. A search before that would be done in Massachusetts. I can give you no fair estimate of what such a search would cost, except to say that it would certainly amount to several thousand dollars. I also cannot comment on what the chances of success in a court action are without such a search having been done. This is because such a search might reveal the existance of several different claims to ownership to the court.

If you have questions about any of this, I would be happy to meet with you again to discuss the situation in detail as well as what further steps, if any, you might wish to take.

I have enclosed for services performed to date. This bill reflects all the work that has been done.

Sincerely,

PETER K. SAMPSON

PKS:lsw
Enc.

PC12

Margaret <MBUSBY1@maine.rr.com> Oct 20, 2025, 10:42:03 PM (2 days ago)
to planningboard@portlandmaine.gov

For your records and review regarding this proposal

---

From: "Margaret"
To: "tcolbeth@portlandmaine.gov"
Cc:
Sent: Tuesday July 29 2025 5:55:32PM
Subject: 161 York Street Proposal, Plan PL-003412-2025

Hi Taylor - Thank you for your voicemail in response to my call last week. I decided it would make sense to put some early questions, concerns and comments in writing. These all relate to the project's potential use of Guilford Court, a private road.

My initial question is whether the 161 York Street property owners have the right to use Guilford Court? I've lived here for 60 years. The prior property owners, a multi-generational family who owned it all of my life prior to the 2015 or 2016 sale, never used Guilford for access. The property was completely fenced in on the back/Guilford side, and they had driveways on York Street. They did install a small gate on the Guilford side shortly before the sale, though it was never used and not large enough for a car. The current owner's deed doesn't appear to explicitly include an easement regarding Guilford.

Guilford is a very small road. The proposal shows it as 16.5 feet wide. This may reflect how far apart boundary pins are placed, but it is NOT the actual usable width of the road. I've attached a photo of my car, a relatively small Corolla, at the entrance to Guilford at Park Street. From curb to curb there, the road is just over 12 feet wide. There are other curbs along the road that leave it about 14 feet wide in places. If a car is entering the road and another is exiting, one of them has to back up and make way as the road isn't wide enough for two. It becomes much tighter in the winter as snow piles narrow the road. With approximately 20 current resident vehicles, adding 10 more would be a large increase, and one that the road wasn't built to accommodate.

As Guilford is a private road, residents contract for snow plowing services. Snow from driveways and parking areas must be stored on the owner's property, but for many years we have used the end of the road to store snow from the road itself. This space abuts my property and the 161 York property, and they are proposing to use this space for their vehicle entrance and exit. Without that space, current residents will have to pay to have snow hauled out, as some of the properties lack adequate room to store the snow from the road. As noted above, the road narrows with snow piles, and these will be even bigger if we lose the storage space and try to manage snow hauling costs. Further, 161 York would need to increase the limited space they've alloted for snow storage, as they would be required to take on some of the road snow if using Guilford.

While reviewing a proposal for this property in 2016 or 2017, the Planning Board made formation of a Road Association, or execution of a road maintenance agreement, a condition of approval. The developer did not pursue this.

I can't tell for certain whether it's a retaining wall or fence proposed at the upper end of Guilford, but this would block access to that part of my property. That area currently has a low slope that allows vehicle access to that section of my property.

Those are some preliminary concerns regarding use of Guilford Court. If you have any questions, please let me know. Thank you.

Margaret Busby
16 Stetson Court (and 0 Guilford Court)


Guilford
MAINE
SQRLGL

PC13

Margaret <MBUSBY1@maine.rr.com> Oct 20, 2025, 10:42:03 PM (2 days ago)
to planningboard@portlandmaine.gov

For your records and review regarding this proposal

---

From: "Margaret"
To: "tcolbeth@portlandmaine.gov"
Cc:
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Subject: 161 York Street Proposal, Plan PL-003412-2025

Hi Taylor - Thank you for your voicemail in response to my call last week. I decided it would make sense to put some early questions, concerns and comments in writing. These all relate to the project's potential use of Guilford Court, a private road.

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Guilford is a very small road. The proposal shows it as 16.5 feet wide. This may reflect how far apart boundary pins are placed, but it is NOT the actual usable width of the road. I've attached a photo of my car, a relatively small Corolla, at the entrance to Guilford at Park Street. From curb to curb there, the road is just over 12 feet wide. There are other curbs along the road that leave it about 14 feet wide in places. If a car is entering the road and another is exiting, one of them has to back up and make way as the road isn't wide enough for two. It becomes much tighter in the winter as snow piles narrow the road. With approximately 20 current resident vehicles, adding 10 more would be a large increase, and one that the road wasn't built to accommodate.

As Guilford is a private road, residents contract for snow plowing services. Snow from driveways and parking areas must be stored on the owner's property, but for many years we have used the end of the road to store snow from the road itself. This space abuts my property and the 161 York property, and they are proposing to use this space for their vehicle entrance and exit. Without that space, current residents will have to pay to have snow hauled out, as some of the properties lack adequate room to store the snow from the road. As noted above, the road narrows with snow piles, and these will be even bigger if we lose the storage space and try to manage snow hauling costs. Further, 161 York would need to increase the limited space they've alloted for snow storage, as they would be required to take on some of the road snow if using Guilford.

While reviewing a proposal for this property in 2016 or 2017, the Planning Board made formation of a Road Association, or execution of a road maintenance agreement, a condition of approval. The developer did not pursue this.

I can't tell for certain whether it's a retaining wall or fence proposed at the upper end of Guilford, but this would block access to that part of my property. That area currently has a low slope that allows vehicle access to that section of my property.

Those are some preliminary concerns regarding use of Guilford Court. If you have any questions, please let me know. Thank you.

Margaret Busby
16 Stetson Court (and 0 Guilford Court)


Guilford
MAINE
SQRLGL

PC14

Margaret <MBUSBY1@maine.rr.com> Oct 20, 2025, 10:44:49 PM (2 days ago)

to planningboard@portlandmaine.gov

For your records and review regarding this proposal

---

From: "Margaret"
To: "tcolbeth@portlandmaine.gov"
Cc:
Sent: Tuesday August 26 2025 1:29:09AM
Subject: RE: 161 York Street Proposal, Plan PL-003412-2025

Hi Taylor - I have some additional comments regarding this proposal.

Another Guilford Court property owner, Katherine Searles, copied me on some comments sent to you on 8/19. Those related to vehicle and pedestrian safety issues, and I'd like to second those. I hadn't thought about the impacts to pedestrian safety, even though I've had some close calls at the entrance to Guilford as a pedestrian and a driver. The road is the only place to walk. Vehicles frequently pull in a little too fast. The proposed significant increase in the number of vehicles will make it less safe.

Katherine also suggested a site visit by those individuals reviewing the proposed plans. I couldn't agree more. It's difficult to get a good sense of the tight quarters looking at the papers, particularly when certain measurements, such as the actual width of Guilford Court at various places, vary from those shown on the drawings.

Getting back to the issue of increased traffic on Guilford, an attendee at the neighborhood meeting asked where visitors to the new units would park. The response was that there is room behind the designated parking spaces. It's not clear to me just how many more vehicles would fit. Page 15 of the 1st Plan Set appears to show a total of 13 vehicles. Could even more park on site? The 10 spots originally indicated were already a sizable increase to Guilford usage.

Regarding the submitted Minutes of the 8/13 neighborhood meeting, there is a recorded neighbor comment about vehicle mobility conflicts, with the response being "A benefit of this project would allow the neighbors to use the driveway into the site as a turnaround, which could help with the current congestion..." Neighbors who need to back up go only as far as needed to let an entering vehicle get to the resident's driveway. The only individuals who might need to back up as far as the new site would be those living at the new site. There is no benefit to current residents.

Also in the Minutes, in response to neighbor questions about the developer's rights to use Guilford Court, it is stated "There are no clear ownership or title rights to Guilford Court therefore our use of Guilford Court is permitted similar to other adjacent properties." This was NOT conveyed at the meeting. In response to the first question asked on this issue, Ms. Thormann stated that Guilford Court is "a public way." A number of neighbors reminded her that it is a private road. She then stated that their attorneys were researching the matter. Is the statement above that is included in the Minutes their legal position, and does the City accept that? It should be noted that other residents of Guilford Court have Guilford Court addresses, whereas the York Street site does not.

If you have any questions, please let me know. Thank you.

Margaret Busby
16 Stetson Court (and 0 Guilford Court)

PC15

Margaret <MBUSBY1@maine.rr.com> Oct 20, 2025, 10:39:06 PM (17 hours ago)

to planningboard@portlandmaine.gov

For your records and review regarding this proposal

---
From: "Margaret"
To: "tcolbeth@portlandmaine.gov"
Cc:
Sent: Monday October 20 2025 10:36:24PM
Subject: 161 York Street Proposal, Plan PL-003412-2015

Hi Taylor - Some additional comments regarding this proposal:

The Applicant has submitted a letter from Drummond Woodsum attorney Laura Hartz regarding the right to use Guilford Court. Attorney Hartz notes that the Applicant "...received interests in Guilford Court via section 1 of the PSA, which states that the conveyed property rights include "all rights, privileges, easements and appurtenances thereto, including without limitation, all...rights-(sic) rights-of-way or other interests in, on, under or to any land, highway, alley, street or rights-of-way abutting or adjoining said parcel."

It should be noted that, earlier in the quoted sentence, it is specified that the parcel is "...located on York Street.." Further, the quoted sentence continues from where attorney Hartz ended to state "...and more particularly described [in] deeds recorded at the Cumberland County Registry of Deeds in Book 32580, Page 183, Book 32580, Page 186, and Book 33060, Page 83 ("Premises")." The referenced deeds only reference conveyance of rights that the grantors possess.

The letter from Attorney Hartz states that "Both lots comprising the Property have frontage on Guilford Court..." Would you please confirm that is true for lot 2, the front lot along York Street?

Attorney Hartz also states that her office "...completed extensive title research on Guilford Court and confirmed that it has been used to access the Property and other properties abutting Guilford Court for at least 140 years, as shown on a tax map for the City of Portland dated 1882..." I do not understand how an 1882 tax map, a drawing, can confirm use of the Court for access to properties for at least 140 years.

It seems like the Applicant has no documentation explicitly stating a right to use Guilford Court, but they are assuming they have such rights because they assume the prior owners had those rights.

As I previously shared, I've lived here for 60 years, and knew 3 generations of the Sachelie/Martorana/Larochelle family who owned and lived at 161 and 163 York Street. They did not use Guilford Court for access. Their property was fenced on 3 sides and they used York Street for access. In a 10/18 email to you that I was copied on, Katherine Searles shared a 1985 letter from attorney Peter K. Sampson to Rosary and Ralph Larochelle. The 151 York Street address on the letter appears to be a typo. This letter may shed light on why the family never used Guilford Court for access. Attorney Sampson states that his office was not able to establish whether they had any ownership of, or rights to, Guilford Court. With ownership or rights not established, they could not have been conveyed to others when selling the property.

If the Applicant did have some right to access Guilford Court, I want to point out that the Property previously contained two single family homes. Had the prior owners used Guilford Court for access, that impact would have been far less than the impact from six housing units with parking for 10-13 vehicles. Guilford is a very small road. It wasn't and isn't meant to accommodate what the Applicant has proposed. As previously shared, it isn't even as wide as the drawings and surveys indicate. There are a number of places where the road is significantly less than the 16.5 feet wide shown on paper, with the entrance from Park Street being just over 12 feet wide, and other points only 14 feet wide.

At the Neighborhood Meeting in August, we were told that York Street would be used for large construction vehicles and construction deliveries. It now appears that the plan is to use Guilford Court instead. Given the small size of the road, this would be a significant inconvenience for Guilford Court residents. We already need to maneuver carefully with the number of vehicles we have, especially if a vehicle wants to enter from Park Street and another wants to exit Guilford. The road cannot accommodate construction traffic as well.

If you have any questions, please let me know. Thank you.

Margaret Busby

16 Stetson Court and 0 Guilford Court

# 161 YORK STREET REDEVELOPMENT

## YORK STREET REDEVELOPMENT LLC.
## PORTLAND, MAINE

## LEGEND

### EXISTING

REFER TO THE EXISTING CONDITIONS PLAN FOR ADDITIONAL INFORMATION

### PROPOSED

| | |
|---|---|
| | UNDERDRAIN |
| | GREEN SPACE |
| | UTILITY PAVEMENT CUTS |
| | STRIPING |
| | SEDIMENTATION BARRIER |
| | EDGE OF EX. PAVEMENT |
| | CURB |
| | SIGN |
| | LAMP OR LIGHT POLE |
| | UTILITY POLE |
| | GUY WIRE |
| | WATER VALVE |
| | FIRE HYDRANT |
| | SEWER MANHOLE |
| | CATCH BASIN |
| | DRAIN MANHOLE |
| UE | UNDERGROUND ELECTRIC LINE |
| W | UNDERGROUND WATER LINE |
| 64 | MINOR CONTOURS (1 FT) |
| 65 | MAJOR CONTOURS (5 FT) |
| G | GAS LINE |
| SD | STORM DRAIN LINE |
| S | SEWER LINE |
| | EXISTING/PROPOSED BUILDING |
| OHE/T/C | OVERHEAD ELECTRICAL/TELEPHONE/CABLE |
| | PROPERTY LINE |
| | SETBACKS |

## INDEX


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CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

## PROJECT TEAM


### DEVELOPER

161 YORK STREET, LLC
331 FLYING POINT ROAD
FREEPORT, MAINE
CONTACT: MARIEKE THORMANN

### CIVIL ENGINEER:

ACORN ENGINEERING, INC.
PORTLAND, MAINE
CONTACT: SAM LEBEL, P.E.
(207) 775-2655

### ARCHITECT

WOODHULL MAINE ARCHITECTURE
PORTLAND, MAINE
CONTACT: JOSH JACQUES
(207) 283-8777

### LANDSCAPE ARCHITECT

SOREN DENIORD DESIGN STUDIO
PORTLAND, MAINE
CONTACT: SOREN DENIORD
(207) 400-2450

### SURVEYOR

SPURWINK SURVEYING LLC
SCARBOROUGH, MAINE
CONTACT: JAMES MULLEN
(207) 321-8966


## UTILITIES

### SEWER

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: BRAD ROLAND, P.E.
(207) 874-8834

### TELEPHONE

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT)
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PAT MORRISON
(207) 745-9363

### ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: JAMIE COUGH
(207) 828-2882

### WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
ATTN: MEANS DIVISION
(207) 774-5961

### CABLE

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: STEVEN HOLMES
(207) 631-1618




VICINITY MAP
SCALE: 1:500

## ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION

| | |
|---|---|
| APPROX. | APPROXIMATE |
| BC | BOTTOM OF CURB |
| BMP | BEST MANAGEMENT PRACTICE |
| BOT. | BOTTOM |
| CAD | COMPUTER AIDED DESIGN |
| CB | CATCH BASIN |
| CF | CUBIC FOOT |
| CIP | CAST IN PLACE |
| CL | CENTERLINE |
| CM | CONSTRUCTION MANAGER |
| CMP | CENTRAL MAINE POWER |
| CONC. | CONCRETE |
| CPP | CORRUGATED PLASTIC PIPE |
| CY | CUBIC YARD |
| DI | DUCTILE IRON PIPE |
| DIA. | DIAMETER |
| DIM. | DIMENSION |
| EA. | EACH |
| ELEC. | ELECTRICAL |
| ELEV. | ELEVATION |
| EQUIV. | EQUIVALENT |
| EST. | ESTIMATE |
| EX. | EXISTING |
| FFE | FINISH FLOOR ELEVATION |
| FT. | FEET |
| HDPE | HIGH DENSITY POLY ETHYLENE |
| ID | INNER DIAMETER |
| IN. | INCH |
| INV. | INVERT |
| L | LENGTH |
| MAX. | MAXIMUM |
| MDEP | MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION |
| MDOT | MAINE DEPARTMENT OF TRANSPORTATION |
| M.E.P | MECHANICAL, ELECTRICAL, PLUMBING DESIGNER |
| MFG. | MANUFACTURED |
| MH | MANHOLE |
| MIN. | MINIMUM |
| O.C. | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OHE/T/C | OVERHEAD ELECTRIC/TELEPHONE/CABLE |
| PC | PRECAST |
| PE | PROFESSIONAL ENGINEER |
| PL | PROPERTY LINE |
| PLS | PROFESSIONAL LAND SURVEYOR |
| PROP. | PROPOSED |
| PSI | POUNDS PER SQUARE INCH |
| PVC | POLYVINYL CHLORIDE |
| PWD | PORTLAND WATER DISTRICT |
| R | RADIUS |
| RD | ROOF DRAIN |
| RET. | RETAINING |
| ROW | RIGHT OF WAY |
| S | SLOPE |
| SD | STORM DRAIN |
| SDR | STANDARD DIMENSION RATIO |
| SF | SQUARE FEET |
| SMH | SEWER MANHOLE |
| SPEC. | SPECIFICATION |
| TC | TOP OF CURB |
| TW | TOP OF WALL |
| TYP. | TYPICAL |
| UD | UNDERDRAIN |
| UGE | UNDERGROUND ELECTRIC |
| VIF | VERIFY IN FIELD |

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

| ISSUED FOR | BY | DATE |
|---|---|---|
| CLIENT REVIEW | SJL | 6/24/2025 |
| SITE PLAN APPLICATION | SJL | 7/16/2025 |

DRAWING NAME: COVER SHEET & LEGEND
PROJECT NAME: 161 YORK STREET REDEVELOPMENT
PARCEL ID: 044 B006001 & 044 B007001
CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032


THESE PLANS ARE NOT TO BE CHANGED OR MODIFIED WITHOUT WRITTEN AUTHORIZATION FROM ACORN ENGINEERING, INC. ANY CHANGES OR MODIFICATIONS TO THESE PLANS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.



ACORN ENGINEERING, INC
PORTLAND, MAINE 04104
PO BOX 3472
(207) 775-2655


FILE: AE_CIVIL
JN: 1288
SCALE: AS NOTED
DESIGNED BY: ZMS
DRAWN BY: DNM
CHECKED BY: SJL

STATE OF MAINE
Sam Lebel
SAMUEL J. LEBEL
No. 16505
LICENSED PROFESSIONAL ENGINEER
7/16/25

DRAWING NO.
C-01

## GENERAL NOTES:

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.

2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.

3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.

4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.

5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED ''AS–BUILT''. IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.

6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.

7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED EXISTING CONDITIONS SURVEY BY SPURWINK SURVEYING LLC, DATED SEPTEMBER 29TH, 2015, AND STAMPED AND SIGNED BY SURVEYOR ON MARCH 8TH, 2017.

8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THOUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.

9. **CONSTRUCTION MANAGEMENT PLAN SHALL BE PREPARED BY CONTRACTOR AND** SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

10. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.

11. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT–OF–WAY.

12. THE CONTRACTOR SHALL CONDUCT A PRE–CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM ADJACENT STRUCTURES. PROVIDE A COPY OF THE SURVEY TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.

13. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

## CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.

2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON–STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.

3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.

4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.

5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.

6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.

8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.

9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.

10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILLING, CONCRETE SHALL BE CURED PER STRUCTURAL ENGINEER'S SPECIFICATIONS.

11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.

12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650–.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).

15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAVER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

## SPECIAL INSPECTION NOTES

1. ALL SITE SOILS–RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.

2. ALL SITE DRAINAGE–RELATED WORK SHALL BE REVIEWED BY ACORN.

3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.

4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.

5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.

5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.

5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.

**5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY OWNER AND COORDINATED BY THE CONTRACTOR.**

## LAYOUT NOTES:

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.

2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF PORTLAND, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.

6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

## PERMITTING NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF MAJOR **SITE PLAN FROM THE CITY OF PORTLAND.**

2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.

3. ALL WORK WITHIN THE PUBLIC RIGHT–OF–WAY REQUIRES A STREET OPENING PERMIT FROM THE **CITY OF PORTLAND**. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

## GRADING AND DRAINAGE NOTES:

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.

2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. **SEE BORING LOGS FOR ADDITIONAL INFORMATION.**

3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.

4. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.

5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST **GEOTECHNICAL REPORT PREPARED BY THE PROJECT GEOTECHNICAL ENGINEER.**

6. CONTRACTOR TO REVIEW EXISTING SOIL CONDITIONS, TEST PITS, AND BORINGS. THERE WILL BE NO ADDITIONAL PAYMENT FOR UNSUITABLE SOILS.

7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF N=0.012 OR LESS.

8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.

9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.

10. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT **GEOTECHNICAL** ENGINEER, IF APPLICABLE.

## EROSION CONTROL NOTES:

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.

2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.

3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.

4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.

5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

6. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.

7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

## UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

2. **CONTRACTOR TO BYPASS EXISTING SEWER FLOW CONTROL AT CONNECTION TO EXISTING SYSTEM AT NO ADDITIONAL COST.**

3. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.

4. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED AND SHOWN TO PASS PRIOR TO BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR–16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.

5. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.

6. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.

7. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAINT ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.

8. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT ''WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURE'', MOST RECENT REVISION.

9. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH **CITY OF PORTLAND**, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.

10. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE PORTLAND WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.

11. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE **PORTLAND WATER DISTRICT** SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.

12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

13. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.

14. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.

15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH **THE CITY OF PORTLAND TECHNICAL MANUAL** PRIOR TO ANY WORK.

16. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.

17. ALL UTILITY PIPES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS OR SAGS IN THE PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED PIPE LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS. RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS, HORIZONTAL AND VERTICAL, AS REQUIRED TO MEET THE GRADES AND ALIGNMENTS INDICATED ON THE DRAWINGS.

18. ALL WASTEWATER PIPING, EXCLUDING BUILDING DRAINS, AND ALL PRESSURIZED PIPING, TO INCLUDE WATER MAINS, INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.

19. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO ENSURE A COMPLETE AND PROPERLY FUNCTIONING CONNECTION. CONTRACTOR TO VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. ADAPTERS AND FITTINGS ARE INCIDENTAL TO THE PIPE INSTALLATION.

20. WHENEVER POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED WHERE POSSIBLE. WHERE A WATER LINE CROSSES UNDER THE WASTEWATER LINE, A FULL LENGTH OF WASTEWATER PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE,

21. THE CONTRACTOR SHALL BE ANTICIPATE THAT THE NATIVE SILT AND CLAY SOILS WILL NOT BE SUITABLE FOR PIPE TRENCH BACKFILL IN PAVED AREAS.

22. GROUNDWATER SHALL BE CONTROLLED TO A LEVEL OF AT LEAST ONE FOOT BELOW SUBGRADE OF THE PIPE OR STRUCTURE. THE CONTRACTOR SHALL MAINTAIN THE LOWERED GROUNDWATER LEVEL UNTIL CONSTRUCTION HAS BEEN COMPLETED TO SUCH AN EXTENT THAT THE STRUCTURES OR PIPES WILL NOT BE FLOATED OR OTHERWISE DAMAGED.

23. EXCAVATION TO SUBRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.

24. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

## DEMOLITION NOTES:

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
   - ROCK AND CONCRETE FOUNDATIONS
   - CONCRETE SLABS
   - BITUMINOUS ASPHALT PAVEMENT
   - CONCRETE PADS AND BLOCKS
   - FENCE POST AND FENCING
   - UNDERGROUND UTILITY LINES
   - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
   - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
   - OTHER TRASH & MISCELLANEOUS SOLID WASTES

2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED

3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.

4. **THE CLIENT HAS NOT REQUESTED NOR HAS ACORN COMPLETED A PHASE I – ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.**

**PERMIT LEVEL NOT ISSUED FOR CONSTRUCTION**

| ISSUED FOR | BY | DATE |
|---|---|---|
| CLIENT REVIEW | SJL | 6/24/2025 |
| SITE PLAN APPLICATION | SJL | 7/16/2025 |

DRAWING NAME: **GENERAL NOTES**

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

PARCEL ID: 044 B006001 & 044 B007001

CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

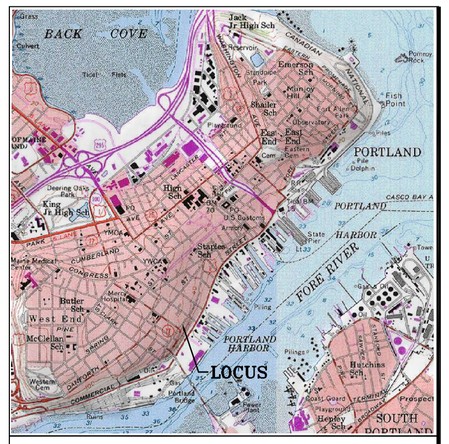
ACORN ENGINEERING, INC
ENGINEERING • PLANNING • SURVEYING
PO BOX 3294 FALMOUTH, MAINE 04104
(207) 775-2655

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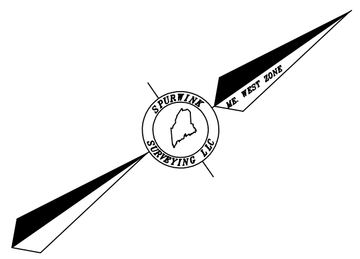
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| FILE: | AE_CIVIL |
| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

STATE OF MAINE — SAMUEL J. LEBEL — No. 16505 — LICENSED PROFESSIONAL ENGINEER — 7/16/25

DRAWING NO.
**C-02**




VICINITY MAP
1"=3000'







## LEGEND

- #5 REBAR WITH PLASTIC CAP STAMPED P.L.S. #2028
- FOUND IRON PIPE (SIZE & TYPE AS NOTED)
- FOUND IRON ROD
- FOUND CAPPED IRON ROD (NUMBER AS NOTED)
- UTILITY POLE (NUMBER AS NOTED)
- FOUND DRILL HOLE
- CHAIN LINK FENCE
- STOCKADE FENCE
- FOUND DECIDUOUS TREE (SIZE & TYPE AS NOTED)
- FOUND CONIFEROUS TREE (SIZE & TYPE AS NOTED)
- BOUNDARY LINE
- EASEMENT LINE
- EDGE OF PAVEMENT
- RIGHT-OF-WAY LINE
- ABUTTER LINE
- OHU — OVERHEAD UTILITY
- N/F — NOW OR FORMERLY OWNED BY
- 1234/567 — DEED BOOK AND PAGE (????CRD)
- 12-3-45 — TAX MAP-BLOCK-LOT
- (123.45') — PARENTHESIS DENOTE RECORD DATA
- WSO — WATER SHUT OFF
- FIRE HYDRANT

## NOTES

1. THE BASIS OF BEARING FOR THIS SURVEY IS MAINE STATE COORDINATE SYSTEM, WEST ZONE. ELEVATIONS AND CONTOURS ARE REFERENCED TO NAVD 1929.
2. DEED AND PLAN BOOK REFERENCES ARE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS
3. RECORD OWNERSHIP OF 161 YORK STREET CAN BE FOUND IN A DEED FROM REBECCA A. LAKE AND ROXANNE A. LAROCHELLE TO YORK STREET REDEVELOPMENT, LLC DATED SEPTEMBER 9, 2015 AND RECORDED AT CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN DEED BOOK 32580, PAGE 186. RECORD OWNERSHIP OF 163 YORK STREET CAN BE FOUND IN A DEED FROM ROSARY M. LAROCHELLE TO YORK STREET REDEVELOPMENT, LLC DATED SEPTEMBER 9, 2015 AND RECORDED AT CCRD IN DEED BOOK 32580, PAGE 183. DEED FROM GUILFORD COURT CONDOMINIUM ASSOCIATION TO YORK STREET REDEVELOPMENT, LLC DATED APRIL 8, 2016 AND RECORDED AT CCRD IN BOOK 33060, PAGE 83.
4. REFERENCE IS MADE TO THE FOLLOWING PLANS:
   a. "STANDARD BOUNDARY SURVEY, LOTS AT 161 & 163 (A.K.A.165) YORK STREET FOR ROSARY M. LAROCHELLE & RALPH A. LAROCHELLE, PORTLAND, MAINE" BY ROSSBOUNDARY SURVEYS DATED OCTOBER 2004. RECORDED AT CCRD IN PLAN BOOK 214, PAGE 119.
   b. "SUBDIVISION RECORDING PLAT OF GUILFORD COURT AT 157 YORK STREET" FOR WAYNE BARKER AND TACHA VOSBURGH BY BACK BAY BOUNDARIES, INC." DATED NOVEMBER 11, 2002. RECORDED AT CCRD IN PLAN BOOK 204, PAGE 447.
5. THE PARCEL SURVEYED IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 44, BLOCK B, PARCELS 6 &7.
6. THE PARCEL SURVEYED IS LOCATED IN THE R6 ZONE/DISTRICT*. PORTIONS OF BULK AND SPACE REQUIREMENTS ARE AS FOLLOWS:

   FRONT SETBACK: 5 FEET
   SIDE SETBACK: 5 FEET
   REAR SETBACK: 10 FEET

   *OTHER MUNICIPAL AND STATE OVERLAY ZONES MAY EXIST AND APPLY. BEFORE PROCEEDING ON ANY PROJECT WE RECOMMEND VERIFYING CURRENT ZONING / SETBACKS / RESTRICTIONS WITH THE APPROPRIATE AGENCIES.
7. YORK STREET IS AN ACCEPTED CITY STREET 4 RODS (66') WIDE. GUILFORD COURT IS A PRIVATE STREET ONE ROD (16.5 FEET) WIDE.
12. THE UTILITIES SHOWN ON THIS PLAN WERE MARKED BY DIG SAFE ON 10/8/2015 AND THEIR LOCATIONS ARE TO BE CONSIDERED APPROXIMATE. THERE MAY BE OTHER UTILITIES EXISTING THAT ARE NOT SHOWN. CONTRACTOR TO CONTACT DIG-SAFE (888)DIG-SAFE PRIOR TO ANY EXCAVATION WORK.

| Revision: | By: | Date: | Change: |
|---|---|---|---|
| C | J.A.M. | 2-28-17 | REVISED PROPERTY LINES AND EASEMENTS |
| B | J.A.M. | 9-14-16 | ADDED UTILITY INFORMATION |
| A | J.A.M. | 12-16-2015 | ADDED 5' STRIP/EASEMENT CROSS CONVEYANCE W/ GUILFORD CONDOMINIUMS |

| | | |
|---|---|---|
| PROJECT: 201563 | DRAWING NAME: YORKSTREETREDEVELOPMENT,LLC.DWG | |
| DATE: SEPTEMBER 29, 2015 | SCALE: 1"=10' | FB # 12 E. FB Y |
| FIELDED BY: J.A.M. & K.P. | FIELD DATE: 9-23-2015 | DRAWN BY: J.A.M. |

Drawing Name and Location:
EXISTING CONDITIONS/SITE PLAN
161 & 163 YORK STREET, PORTLAND, MAINE

Owner:
YORK STREET REDEVELOPMENT, LLC
42 MARKET STREET, PORTLAND, MAINE 04101

Prepared For:
YORK STREET REDEVELOPMENT, LLC
42 MARKET STREET, PORTLAND, MAINE 04101

SURVEYING LAND PLANNING
Spurwink Surveying LLC
INCORPORATED
182 SPURWINK ROAD, SCARBOROUGH, MAINE
tel 207.799.2654 cell 207.321.8966 e-mail spurwinksurveying@gmail.com

0 10' 20' 40'

STAMP AND SIGNATURE

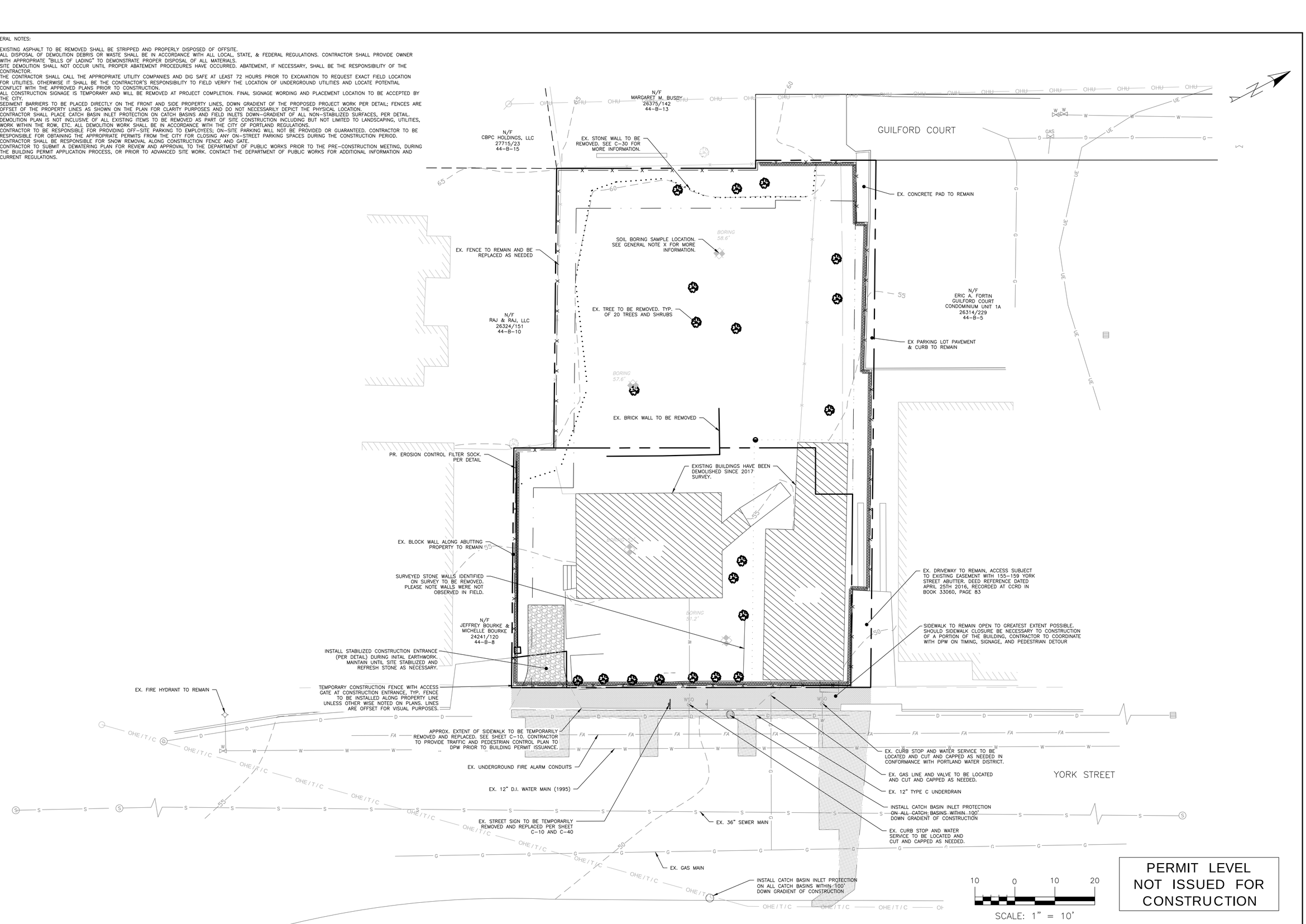
James A. Mullen MARCH 8, 2017
JAMES A. MULLEN DATE
MAINE P.L.S. No. 2028

IF THIS PLAN DOES NOT CONTAIN AN EMBOSSED SEAL, IT IS NOT AN ORIGINAL AND MAY BE VOID.

STATE OF MAINE JAMES A. MULLEN PLS 2028 PROFESSIONAL LAND SURVEYOR
EMBOSSED SEAL ABOVE

GENERAL NOTES:

1. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
2. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
3. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
5. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
6. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
7. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
8. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
9. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.
11. CONTRACTOR TO SUBMIT A DEWATERING PLAN FOR REVIEW AND APPROVAL TO THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE PRE-CONSTRUCTION MEETING, DURING THE BUILDING PERMIT APPLICATION PROCESS, OR PRIOR TO ADVANCED SITE WORK. CONTACT THE DEPARTMENT OF PUBLIC WORKS FOR ADDITIONAL INFORMATION AND CURRENT REGULATIONS.




PERMIT LEVEL
NOT ISSUED FOR CONSTRUCTION

| ISSUED FOR | BY | DATE |
|---|---|---|
| CLIENT REVIEW | SJL | 4/24/2025 |
| SITE PLAN APPLICATION | SJL | 7/16/2025 |

DRAWING NAME: EROSION & SEDIMENTATION CONTROL & CONSTRUCTION MANAGEMENT PLAN

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

PARCEL ID: 044 B006001 & 044 B007001

CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032


ACORN ENGINEERING, INC
ENGINEERING, LAND SURVEYING
ACORN ENGINEERING, INC
70 FORE RIVER PKWY, SUITE 102
PORTLAND, MAINE 04104
PO BOX 3474
(207) 775-2655



THIS PLAN, AND ALL NOT BE USED, MODIFIED OR REPRODUCED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY UNAUTHORIZED USE OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.


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| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

STATE OF MAINE
Sam Lebel
SAMUEL J. LEBEL
No. 16505
PROFESSIONAL ENGINEER
LICENSED
7/16/25

DRAWING NO.
C-03

GENERAL NOTES:

1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

## 161 YORK STREET SPACE AND BULK STANDARDS

| RESIDENTIAL ZONING DISTRICT (RN4) | REQUIRED | PROPOSED (OVERALL) | LOT 1 | LOT 2 |
|---|---|---|---|---|
| MIN. LOT AREA | 2,000 SF | 11,046 SF | 6,068 SF | 4,977 SF |
| MIN. STREET FRONTAGE | 20 FT[A] | | 20 FT | 69.89 FT |
| MIN. FRONT SETBACK (LOT 2 ONLY) | AVERAGE OF ADJACENT FRONT YARD MINUS 5 FT (3.70 FT – 5 FT) = 0 FT | 3.46 FT | > 5 FT | 3.46 FT |
| MIN. REAR SETBACK | 10 FT | 10 FT | 10.25 FT | 14.87 FT |
| MIN. SIDE SETBACK | 0 FT (AVERAGE OF BOTH SIDE YARDS NEEDS TO BE 5 FT) | > 5 FT | > 5 FT | > 5 FT |
| STRUCTURE HEIGHT | 45 FT[B] | – | 42.71 FT | 44.34 FT |
| DETACHED ACCESSORY STRUCTURE HEIGHT | 18 FT | – | – | – |
| MAX BUILDING LENGTH | 70 FT | < 70 FT | < 70 FT | < 70 FT |
| MAX LOT COVERAGE | 60% | 41% | 29.5% | 54.4% |
| MIN OPEN SPACE RATIO | 20% | SEE TABLE BELOW | SEE TABLE BELOW | SEE TABLE BELOW |
| MAX WIDTH OF GARAGE OPENING ON FRONT FACADE | THE GREATER OF 9 FT OR 30% OF FRONT FACADE (MAX 20 FT) | N/A | N/A | N/A |

[A] 20 FT, EXCEPT 15 FT/UNIT FOR TOWNHOUSE

[B] 35 FT, EXCEPT 45 FOR BUILDINGS WITH THREE OR MORE DWELLING UNITS. IN ALL CASES 35 FT WHEN WITHIN 15' OF REAR LOT LINE ABUTTING RN1,RN2, OR RN3 ZONES

## PARKING SUMMARY

| | # PARKING SPACES |
|---|---|
| EXISTING | 0 |
| MIN. REQUIRED | 0 |
| MAX. REQUIRED* | 12 |
| PROPOSED (GARAGE) | 10 |
| ADA (DIMENSIONS) | 0 |
| TOTAL PROPOSED SPACES | 10 |

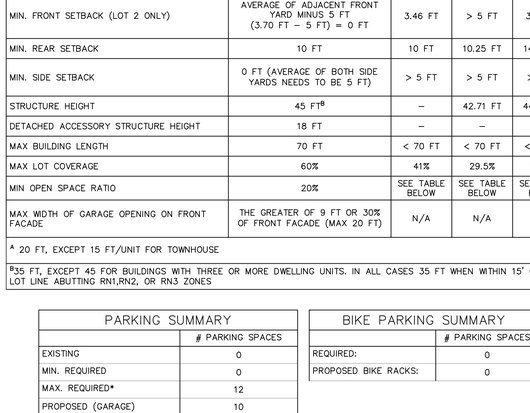
*MAXIMUM VEHICLE SPACES REQUIRED FOR RESIDENTIAL DWELLINGS = 2 SPACES PER DWELLING UNIT, PER PORTLAND MAINE LAND USE CODE, TABLE 18A

## BIKE PARKING SUMMARY

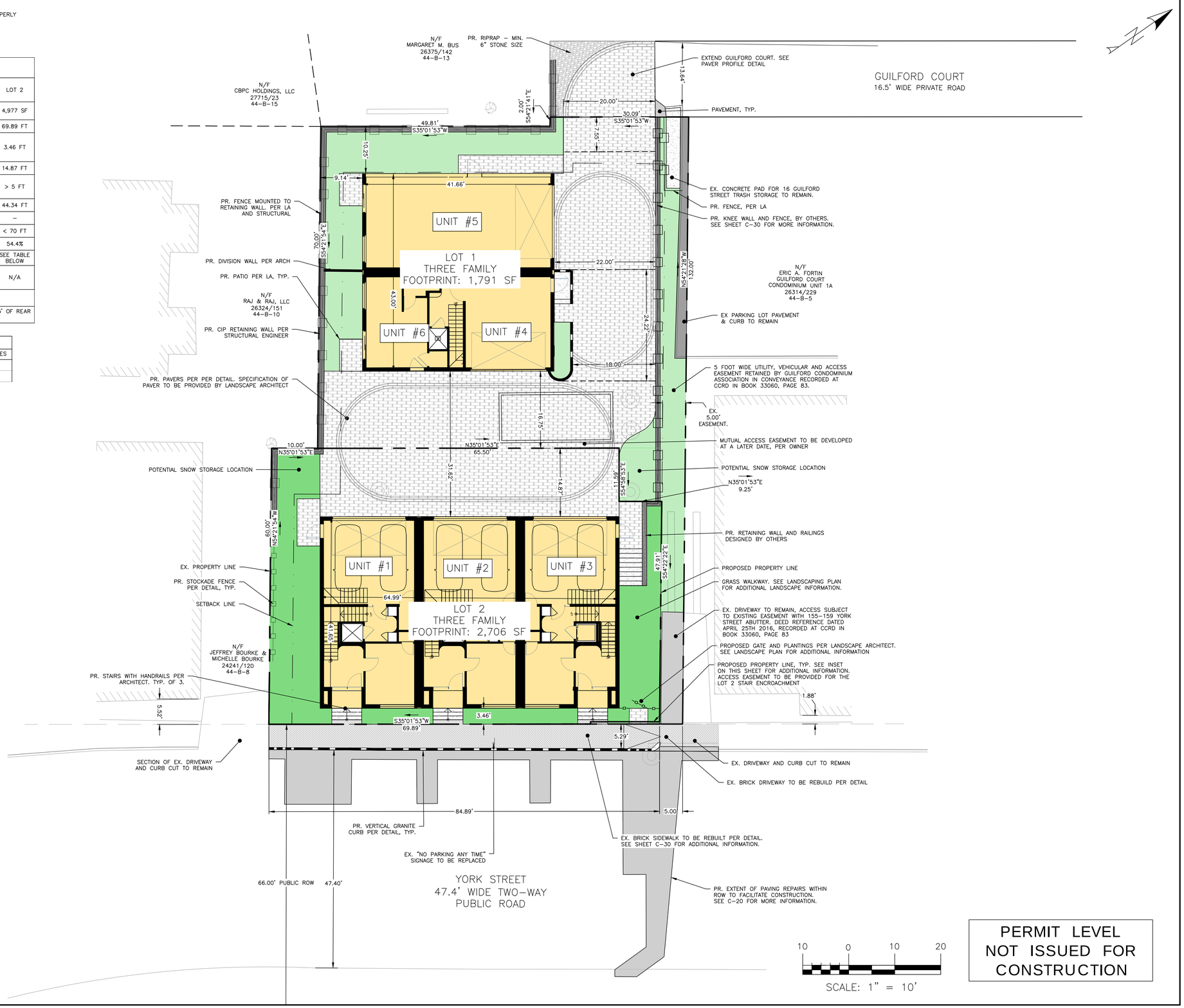
| | # PARKING SPACES |
|---|---|
| REQUIRED: | 0 |
| PROPOSED BIKE RACKS: | 0 |

## MINIMUM OPEN SPACE RATIO CALCULATION BREAKDOWN

| RESIDENTIAL ZONING DISTRICT (RN4) | PROPOSED (OVERALL) | LOT 1 | LOT 2 |
|---|---|---|---|
| LOT AREA | 11,046 SF | 6,068 SF | 4,977 SF |
| TOTAL OPEN SPACE | 2,300 | 1,278 SF | 1,022 SF |
| MIN OPEN SPACE RATIO | 20.82% | 21.06% | 20.5% |




PROPERTY LINE INSET
SCALE: 1" – 5'




10 0 10 20
SCALE: 1" = 10'

PERMIT LEVEL
NOT ISSUED FOR CONSTRUCTION

| ISSUED FOR | BY DATE |
|---|---|
| CLIENT REVIEW | SJL 9/24/2025 |
| SITE PLAN APPLICATION | SJL 9/16/2025 |
| COMMENT RESPONSE | SJL 9/29/2025 |
| COMMENT RESPONSE II | SJL 10/21/2025 |

DRAWING NAME: SITE PLAN
PROJECT NAME: 161 YORK STREET REDEVELOPMENT
PARCEL ID: 044 B006001 & 044 B007001
CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ALTERATIONS OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
53 ROYAL RIVER ROAD, YARMOUTH, MAINE 04104
PO BOX 3357 (207) 775-2655

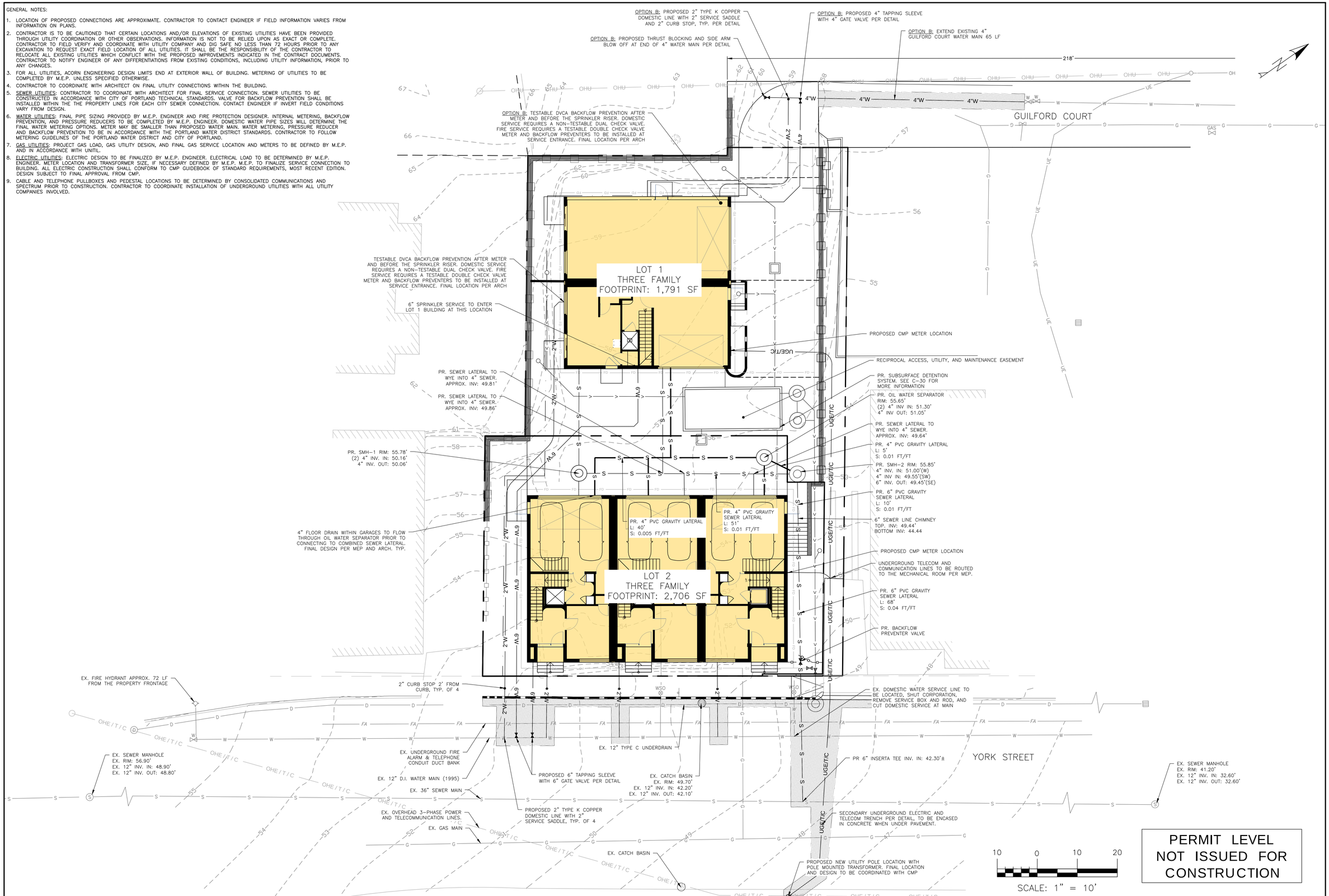
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DRAWN BY: DNM
CHECKED BY: SJL

STATE OF MAINE
SAMUEL J. LEBEL
No. 16505
LICENSED PROFESSIONAL ENGINEER
10/21/25

DRAWING NO.
C-10

GENERAL NOTES:

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNITIL.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CONSOLIDATED COMMUNICATIONS AND SPECTRUM PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.




PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

| ISSUED FOR | BY | DATE |
|---|---|---|
| CLIENT REVIEW | SJL | 8/24/2025 |
| SITE PLAN APPLICATION | SJL | 9/16/2025 |
| COMMENT RESPONSE | SJL | 9/29/2025 |
| COMMENT RESPONSE II | SJL | 10/21/2025 |

DRAWING NAME: UTILITY PLAN
PROJECT NAME: 161 YORK STREET REDEVELOPMENT
PARCEL ID: 044 B006001 & 044 B007001
CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032


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ACORN ENGINEERING, INC
70 CENTRE STREET, PORTLAND, MAINE 04104
PO BOX 3477, PORTLAND, MAINE 04104
(207) 775-2655

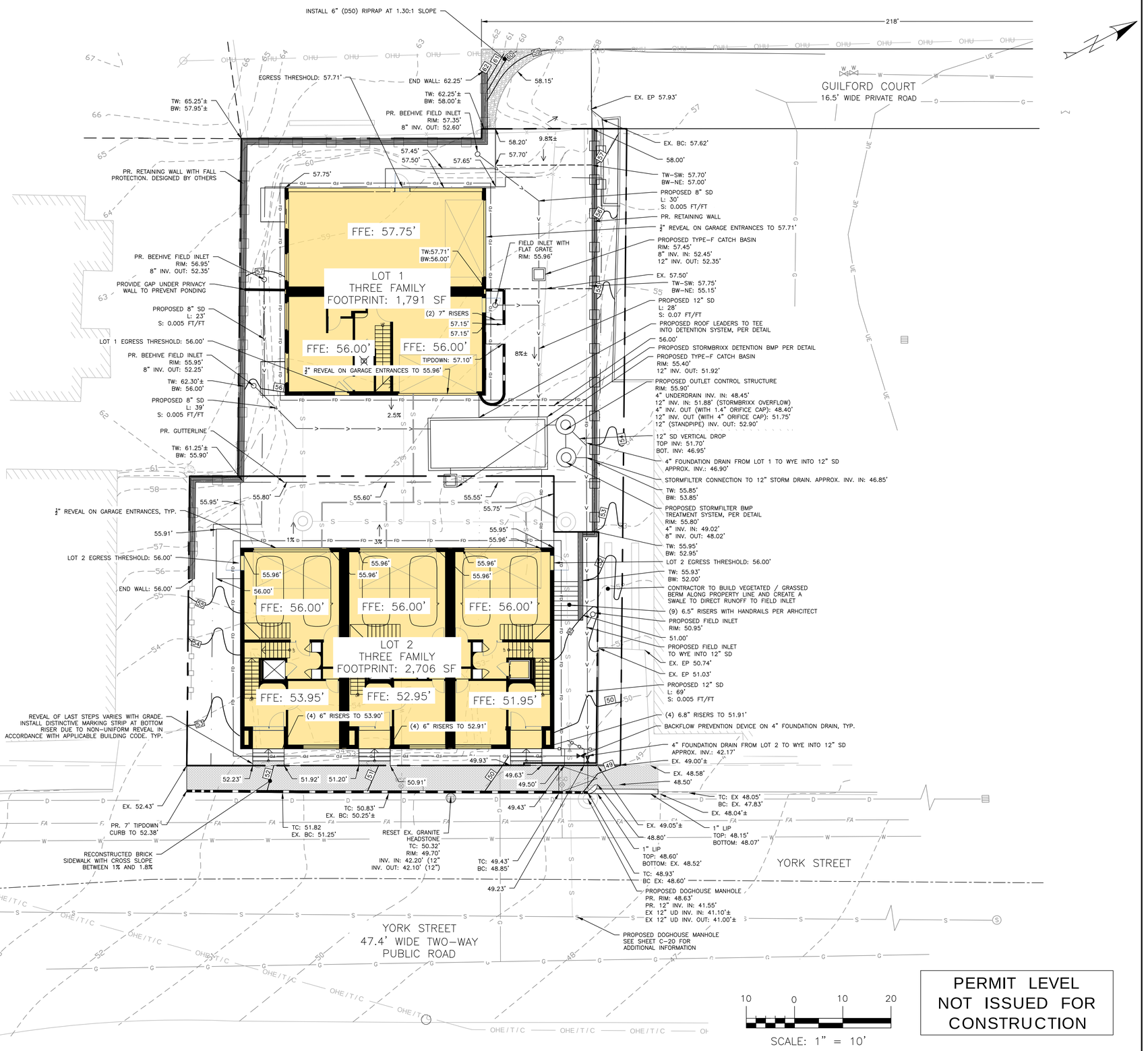

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| CHECKED BY: | SJL |

STATE OF MAINE
Sam Lebel
SAMUEL J. LEBEL
No. 16505
LICENSED PROFESSIONAL ENGINEER
10/21/25

DRAWING NO.
C-20

GENERAL NOTES:

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.
6. CONTRACTOR SHALL VERIFY BOTTOM AND TOP OF CURB ELEVATIONS ALONG BUILDING FRONTAGES PRIOR TO CONSTRUCTION OF THE FOUNDATIONS. CONTACT ENGINEER PRIOR TO CONSTRUCTION IF DISCREPANCIES ARE FOUND.




10 0 10 20

SCALE: 1" = 10'

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

| ISSUED FOR | BY DATE |
|---|---|
| CLIENT REVIEW | SJL 8/24/2025 |
| SITE PLAN APPLICATION | SJL 7/16/2025 |
| COMMENT RESPONSE | SJL 9/29/2025 |

DRAWING NAME: GRADING & DRAINAGE PLAN

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

PARCEL ID: 044 B006001 & 044 B007001

CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

ACORN ENGINEERING, INC
ENGINEERING, INC.

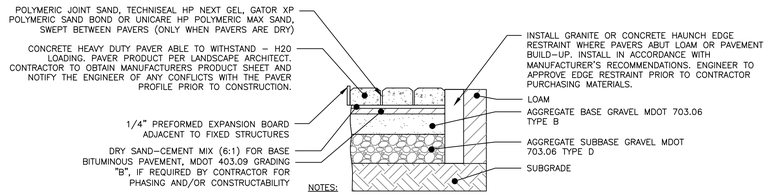
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ACORN ENGINEERING, INC
70 CENTRAL AVENUE, SUITE 2 FARMINGDALE, MAINE 04104
PO BOX 1222 (207) 775-2655


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| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

STATE OF MAINE
SAMUEL J. LEBEL
No. 16505
PROFESSIONAL ENGINEER
LICENSED
9/29/25

DRAWING NO.
C-30




NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D–1557
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF BIDDEFORD STANDARDS IN ADDITION TO MDOT STANDARDS.
3. JOINT SAND COMPRESSION STRENGTH: PROVEN RESISTANCE TO COMPRESSION OF 550 PSI AFTER DRYING FOR 7 DAYS UNDER CONTROLLED CONDITIONS (73 DEGREE F AT 50% HUMIDITY)

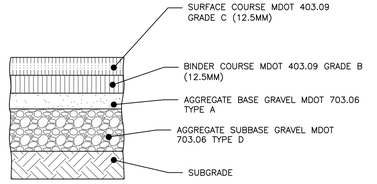
GRADATION REQUIREMENTS FOR JOINT SAND

| SIEVE SIZE | NATURAL SAND PERCENT PASSING | MANUFACTURED SAND PERCENT PASSING |
|---|---|---|
| NO. 4 (4.75mm) | 100 | 100 |
| NO. 8 (2.36mm) | 95–100 | 95–100 |
| NO. 16 (1.18mm) | 70–100 | 70–100 |
| NO. 30 (0.60mm) | 40–75 | 40–75 |
| NO. 50 (0.30mm) | 10–30 | 20–40 |
| NO. 100 (0.15mm) | 2–15 | 10–25 |
| NO. 200 (0.075) | 0–1 | 0–10 |

THICKNESS OF LAYERS

| STANDARD | LAYERS |
|---|---|
| 3.149" | CONCRETE PAVER (DEPTH TBD BASED UPON MANUFACTURER) |
| 1" | DRY SAND–CEMENT MIX (6:1) |
| 2" | BITUMINOUS MDOT 403.09 GRADING "B" |
| 3" | AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B |
| 15" | AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D |

## PAVER PROFILE
NOT TO SCALE




NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D–1557.
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.

THICKNESS OF LAYERS

| STANDARD | LAYERS |
|---|---|
| 2" | SURFACE COURSE MDOT 403.09 GRADE C (12.5mm) |
| 3" | BINDER COURSE MDOT 403.09 GRADE B (12.5mm) |
| 3" | AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A |
| 18" | AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D |

## CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT PROFILE
NOT TO SCALE

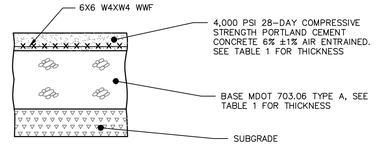



TABLE 1

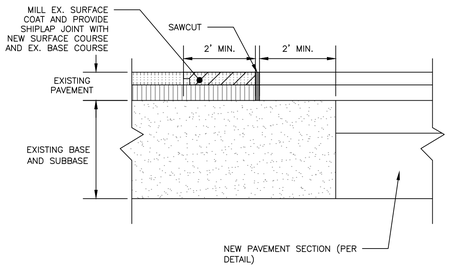
| DESCRIPTION | SLAB | MDOT 703.06 AGGREGATE TYPE A |
|---|---|---|
| STANDARD | 5" | 8" |
| HEAVY DUTY | 6" | 8" |

DESIGN NOTES:
1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D–1557.
2. CONCRETE PAVEMENT SHALL BE UNDERLAIN WITH 12 INCHES OF SUBBASE (MDOT 703.06 TYPE D).
3. CONCRETE CONTROL JOINTS SHALL BE CONSTRUCTED WITH A ZIP STRIP PLACED AT 10' (MAX.) ON–CENTER.
4. FINISH WITH A STIFF, COARSE, FIBER BROOM.

## CONCRETE PAVEMENT SECTION
NOT TO SCALE

NOTES:

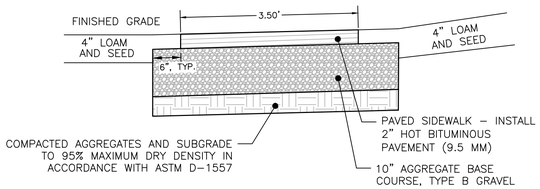
1. SAWCUT EXISTING PAVEMENT AND REMOVE 2' STRIP OF EXISTING PAVEMENT. CREATE UNIFORM AND RIGID BUTT JOINT AND APPLY BITUMINOUS TACK COAT AT AN APPLICATION RATE OF 0.10 TO 0.14 GALLONS PER SQUARE YARD PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
2. THE NEW PAVEMENT SECTION SHALL MEET PAVEMENT SECTION DETAIL AT A MINIMUM OR THE THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



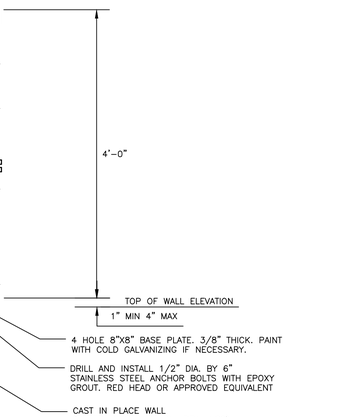

## PAVEMENT SAWCUT DETAIL
NOT TO SCALE

NOTE:

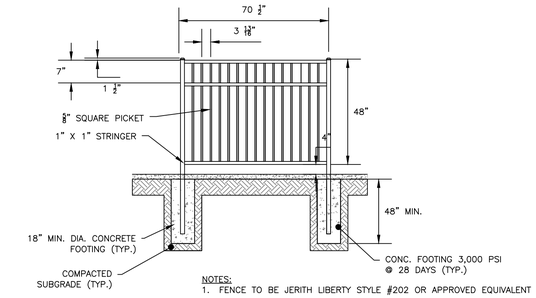
COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORNDANCE WITH ASTM D–1557




## BITUMINOUS SIDEWALK DETAIL
NOT TO SCALE

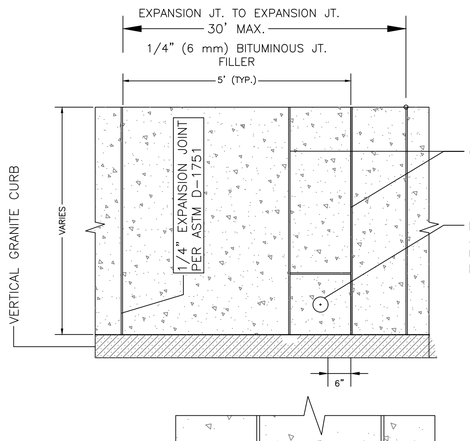


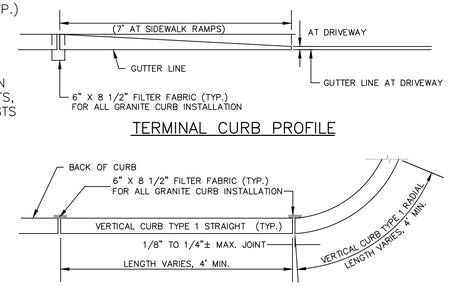

## CHAIN LINK FENCE INSTALLED ON CAST IN PLACE RETAINING WALL DETAIL
NOT TO SCALE




NOTES:
1. FENCE TO BE JERITH LIBERTY STYLE #202 OR APPROVED EQUIVALENT

## DECORATIVE FENCE
NOT TO SCALE

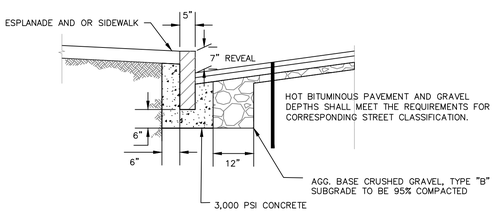



## TERMINAL CURB PROFILE



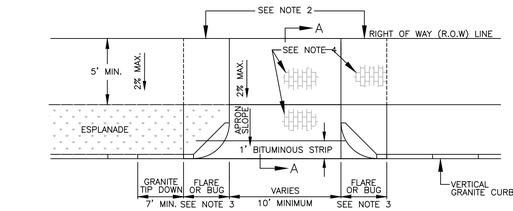

## VERTICAL GRANITE CURB PLAN VIEW




## VERTICAL GRANITE CURB CROSS SECTION

NOTES:
1. INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
2. THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10–INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF CURB.
3. CURBING SHALL BE SET IN A 6–INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
4. WOODEN SHIMS MAY BE USED TO SET CURB.

## VERTICAL GRANITE CURB
NOT TO SCALE



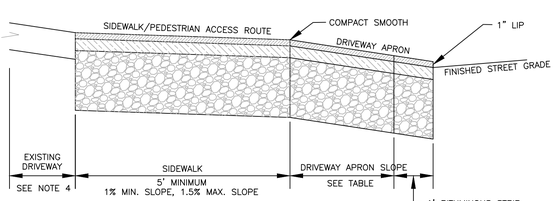

## PLAN

APRON SLOPE TABLE

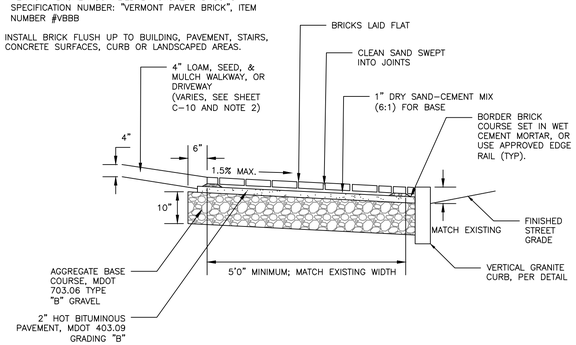
| LAND USE | MAXIMUM RECOMMENDED GRADE CHANGE AT STREET(G) |
|---|---|
| RESIDENTIAL WITH <9 PARKING SPACES | 14% |
| ALL OTHER DRIVEWAYS | 10% |

NOTES:

1. MATCH EXISTING GRADE AT R.O.W LINE, WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
2. IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
3. TWO–FOOT RADIUS CORNER GRANITE PIECES ("BUGS") ARE REQUIRED AT LOW–VOLUME DRIVEWAYS UNLESS OTHERWISE DIRECTED BY DPW. AT OTHER DRIVEWAYS, STANDARD FLARE/TIPDOWN TREATMENTS SHALL BE USED.
4. ALL MATERIALS TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK.




## SECTION A–A
## DRIVEWAY APRON
NOT TO SCALE




## BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL
NOT TO SCALE

NOTES:

1. BRICKS TO BE USED:

   NEW CONSTRUCTION:
   4"X8" PINE HALL PATHWAY PAVER BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623;. PINE HALL PATHWAY PAVER BRICK.

   REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS:
   VERMONT BACKER SUPPLIED BY GAGNE AND SONS SPECIFICATION NUMBER: "VERMONT PAVER BRICK", ITEM NUMBER #VBBB

2. INSTALL BRICK FLUSH UP TO BUILDING, PAVEMENT, STAIRS, CONCRETE SURFACES, CURB OR LANDSCAPED AREAS.

CONCRETE SIDEWALK EXPANSION JOINT NOTES:

1. EXPANSION JOINTS SHALL BE LOCATED WHERE SIDEWALK ABUTS DRIVEWAYS, CURB OR OTHER ADJACENT STRUCTURES.
2. 1/4" (6mm) BITUMINOUS JOINT FILLER SHALL BE INSTALLED AT THE EXPANSION JOINT LOCATIONS AND SHALL EXTEND THE FULL LENGTH/DEPTH OF THE CONCRETE.
3. 1" DEEP CONSTRUCTION JOINTS SHALL BE PLACED:
   A. AT INTERVALS OF APPROXIMATELY 15 FEET
   B. AT THE SPACING THAT MATCHES ADJACENT TIP DOWN CURB
   C. EXTENSION OF EXPANSION JOINTS LOCATED AT HYDRANTS & UTILITY POLES.
4. FORMED CONSTRUCTION JOINTS SHALL BE FINISHED WITH A TOOL HAVING A 1/4" (6 mm) RADIUS.
5. SCORED JOINTS SHALL BE 1/4" (6 mm) DEEP AND PLACED AT THE SPACING INDICATED FOR THE WIDTH OF THE SIDEWALK.
6. CONCRETE SHALL BE FINISHED BY MEANS OF A FLOAT, STEEL TROWELED AND BROOMED WITH A FINE BRUSH IN A TRANSVERSE DIRECTION.
7. 1/4" (6 mm) DEEP SCORED JOINTS (TYP.) SPACES AT 5 FOOT OR EQUAL TO SIDEWALK WIDTH AS GOVERNED BY PLAN AND/OR DPW ENGINEER.

## SIDEWALK EXPANSION JOINT
NOT TO SCALE

**PERMIT LEVEL NOT ISSUED FOR CONSTRUCTION**

ISSUED FOR

| | BY DATE |
|---|---|
| CLIENT REVIEW | SJL 1/24/2025 |
| SITE PLAN APPLICATION | SJL 7/16/2025 |
| COMMENT RESPONSE | SJL 9/29/2025 |

SITE DETAILS

DRAWING NAME:
PROJECT NAME: 161 YORK STREET REDEVELOPMENT
PARCEL ID: 044 B006001 & 044 B007001
CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

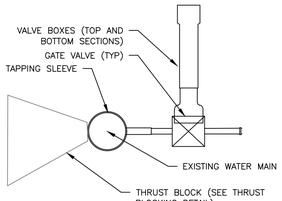
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. UNLESS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC
70 JOHN ROAD, SUITE 1, CAPE ELIZABETH, MAINE 04107
PO BOX 4232, PORTLAND, MAINE 04101
(207) 775–2655

| | |
|---|---|
| FILE: | AE_CIVIL |
| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

STATE OF MAINE
SAMUEL J. LEBEL
No. 16505
REGISTERED PROFESSIONAL ENGINEER
9/29/25

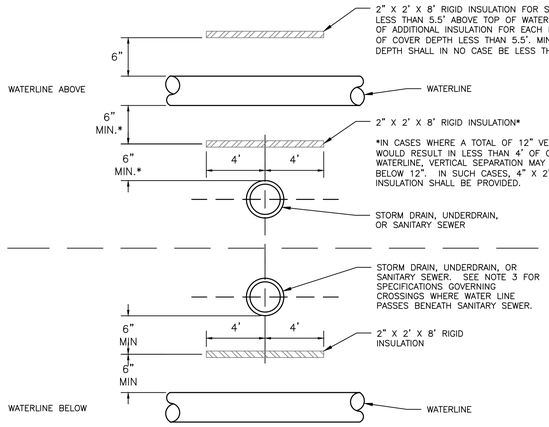
DRAWING NO.
C-40




SIDE VIEW

## TAPPING SLEEVE AND VALVE

NOT TO SCALE

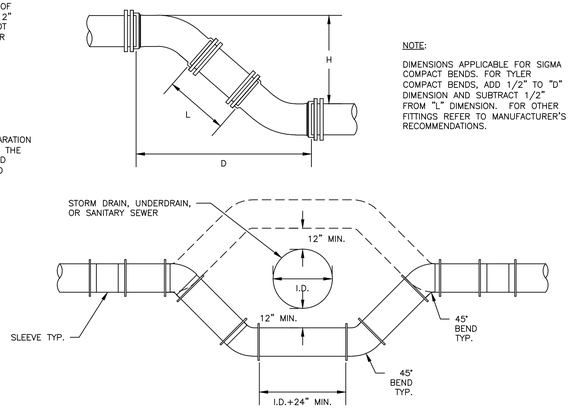



DESIGN NOTES:

1. 2" RIGID INSULATION SHALL BE "H1 60" EXTRUDED POLYSTYRENE BY DOW CO. OR APPROVED EQUAL.
2. CONTRACTOR SHALL INSULATE PER DETAIL WHEN PROPOSED WATER LINE COMES WITHIN 2' OF EXISTING STORM DRAIN, UNDERDRAIN, OR SANITARY SEWER.
3. WHERE WATER LINE PASSES BENEATH SANITARY SEWER, THE FOLLOWING SHALL BE PROVIDED:
   a. VERTICAL SEPARATION OF AT LEAST 12" BETWEEN THE BOTTOM OF THE SEWER AND TOP OF THE WATER MAIN.
   b. ADEQUATE STRUCTURAL SUPPORT FOR SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND PRESSURE UPON WATER LINE
   c. ONE FULL LENGTH OF SEWER PIPE (MIN. 18') CENTERED AT THE POINT OF CROSSING

## TYPICAL WATERLINE OFFSETS FROM STORM OR SANITARY AT CROSSING

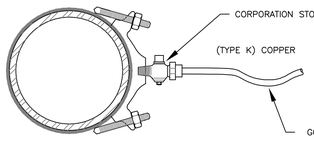
NOT TO SCALE




NOTE:

DIMENSIONS APPLICABLE FOR SIGMA COMPACT BENDS. FOR TYLER COMPACT BENDS, ADD 1/2" TO "D" DIMENSION AND SUBTRACT 1/2" FROM "L" DIMENSION. FOR OTHER FITTINGS REFER TO MANUFACTURER'S RECOMMENDATIONS.

| | 6" PIPE | | 8" PIPE | | 12" PIPE | |
|---|---|---|---|---|---|---|
| H | D | L | D | L | D | L |
| 12" | 1' 6-1/2" | 0' 10-1/2" | 1' 7-1/2" | 0' 9-1/2" | 1' 11-1/2" | 0' 5-1/2" |
| 13" | 1' 7-1/2" | 0' 11-7/8" | 1' 8-1/2" | 0' 10-7/8" | 2' 0-1/2" | 0' 6-7/8" |
| 14" | 1' 8-1/2" | 1' 1-5/16" | 1' 9-1/2" | 1' 0-5/16" | 2' 1-1/2" | 0' 8-5/16" |
| 15" | 1' 9-1/2" | 1' 2-11/16" | 1' 10-1/2" | 1' 1-11/16" | 2' 2-1/2" | 0' 9-11/16" |
| 16" | 1' 10-1/2" | 1' 4-1/8" | 1' 11-1/2" | 1' 3-1/8" | 2' 3-1/2" | 0' 11-1/8" |
| 17" | 1' 11-1/2" | 1' 5-9/16" | 2' 0-1/2" | 1' 4-9/16" | 2' 4-1/2" | 1' 0-9/16" |
| 18" | 2' 0-1/2" | 1' 6-15/16" | 2' 1-1/2" | 1' 5-15/16" | 2' 5-1/2" | 1' 1-15/16" |
| 19" | 2' 1-1/2" | 1' 8-3/8" | 2' 2-1/2" | 1' 7-3/8" | 2' 6-1/2" | 1' 3-3/8" |
| 20" | 2' 2-1/2" | 1' 9-13/16" | 2' 3-1/2" | 1' 8-13/16" | 2' 7-1/2" | 1' 4-13/16" |
| 21" | 2' 3-1/2" | 1' 11-3/16" | 2' 4-1/2" | 1' 10-3/16" | 2' 8-1/2" | 1' 6-3/16" |
| 22" | 2' 4-1/2" | 2' 0-5/8" | 2' 5-1/2" | 1' 11-5/8" | 2' 9-1/2" | 1' 7-5/8" |
| 23" | 2' 5-1/2" | 2' 2" | 2' 6-1/2" | 2' 1" | 2' 10-1/2" | 1' 9" |
| 24" | 2' 6-1/2" | 2' 3-7/16" | 2' 7-1/2" | 2' 2-7/16" | 2' 11-1/2" | 1' 10-7/16" |
| 25" | 2' 7-1/2" | 2' 4-7/8" | 2' 8-1/2" | 2' 3-7/8" | 3' 0-1/2" | 1' 11-7/8" |
| 26" | 2' 8-1/2" | 2' 6-1/4" | 2' 9-1/2" | 2' 5-1/4" | 3' 1-1/2" | 2' 1-1/4" |
| 27" | 2' 9-1/2" | 2' 7-11/16" | 2' 10-1/2" | 2' 6-11/16" | 3' 2-1/2" | 2' 2-11/16" |
| 28" | 2' 10-1/2" | 2' 9-1/8" | 2' 11-1/2" | 2' 8-1/8" | 3' 3-1/2" | 2' 4-1/8" |
| 29" | 2' 11-1/2" | 2' 10-1/2" | 3' 0-1/2" | 2' 9-1/2" | 3' 4-1/2" | 2' 5-1/2" |
| 30" | 3' 0-1/2" | 2' 11-15/16" | 3' 1-1/2" | 2' 10-15/16" | 3' 5-1/2" | 2' 6-15/16" |
| 31" | 3' 1-1/2" | 3' 1-5/16" | 3' 2-1/2" | 3' 0-5/16" | 3' 6-1/2" | 2' 8-5/16" |
| 32" | 3' 2-1/2" | 3' 2-3/4" | 3' 3-1/2" | 3' 1-3/4" | 3' 7-1/2" | 2' 9-3/4" |
| 33" | 3' 3-1/2" | 3' 4-3/16" | 3' 4-1/2" | 3' 3-3/16" | 3' 8-1/2" | 2' 11-3/16" |
| 34" | 3' 4-1/2" | 3' 5-9/16" | 3' 5-1/2" | 3' 4-9/16" | 3' 9-1/2" | 3' 0-9/16" |
| 35" | 3' 5-1/2" | 3' 7" | 3' 6-1/2" | 3' 6" | 3' 10-1/2" | 3' 2" |
| 36" | 3' 6-1/2" | 3' 8-7/16" | 3' 7-1/2" | 3' 7-7/16" | 3' 11-1/2" | 3' 3-7/16" |
| 37" | 3' 7-1/2" | 3' 9-13/16" | 3' 8-1/2" | 3' 8-13/16" | 4' 0-1/2" | 3' 4-13/16" |
| 38" | 3' 8-1/2" | 3' 11-1/4" | 3' 9-1/2" | 3' 10-1/4" | 4' 1-1/2" | 3' 6-1/4" |
| 39" | 3' 9-1/2" | 4' 0-11/16" | 3' 10-1/2" | 3' 11-11/16" | 4' 2-1/2" | 3' 7-11/16" |
| 40" | 3' 10-1/2" | 4' 2-1/16" | 3' 11-1/2" | 4' 1-1/16" | 4' 3-1/2" | 3' 9-1/16" |
| 41" | 3' 11-1/2" | 4' 3-1/2" | 4' 0-1/2" | 4' 2-1/2" | 4' 4-1/2" | 3' 10-1/2" |
| 42" | 4' 0-1/2" | 4' 4-7/8" | 4' 1-1/2" | 4' 3-7/8" | 4' 5-1/2" | 3' 11-7/8" |
| 43" | 4' 1-1/2" | 4' 6-5/16" | 4' 2-1/2" | 4' 5-5/16" | 4' 6-1/2" | 4' 1-5/16" |
| 44" | 4' 2-1/2" | 4' 7-3/4" | 4' 3-1/2" | 4' 6-3/4" | 4' 7-1/2" | 4' 2-3/4" |
| 45" | 4' 3-1/2" | 4' 9-1/8" | 4' 4-1/2" | 4' 8-1/8" | 4' 8-1/2" | 4' 4-1/8" |
| 46" | 4' 4-1/2" | 4' 10-9/16" | 4' 5-1/2" | 4' 9-9/16" | 4' 9-1/2" | 4' 5-9/16" |
| 47" | 4' 5-1/2" | 4' 11-15/16" | 4' 6-1/2" | 4' 10-15/16" | 4' 10-1/2" | 4' 6-15/16" |
| 48" | 4' 6-1/2" | 5' 1-3/8" | 4' 7-1/2" | 5' 0-3/8" | 4' 11-1/2" | 4' 8-3/8" |
| 49" | 4' 7-1/2" | 5' 2-13/16" | 4' 8-1/2" | 5' 1-13/16" | 5' 0-1/2" | 4' 9-13/16" |
| 50" | 4' 8-1/2" | 5' 4-3/16" | 4' 9-1/2" | 5' 3-3/16" | 5' 1-1/2" | 4' 11-3/16" |
| 51" | 4' 9-1/2" | 5' 5-5/8" | 4' 10-1/2" | 5' 4-5/8" | 5' 2-1/2" | 5' 0-5/8" |
| 52" | 4' 10-1/2" | 5' 7-1/16" | 4' 11-1/2" | 5' 6-1/16" | 5' 3-1/2" | 5' 2-1/16" |
| 53" | 4' 11-1/2" | 5' 8-7/16" | 5' 0-1/2" | 5' 7-7/16" | 5' 4-1/2" | 5' 3-7/16" |
| 54" | 5' 0-1/2" | 5' 9-7/8" | 5' 1-1/2" | 5' 8-7/8" | 5' 5-1/2" | 5' 4-7/8" |
| 55" | 5' 1-1/2" | 5' 11-5/16" | 5' 2-1/2" | 5' 10-5/16" | 5' 6-1/2" | 5' 6-5/16" |

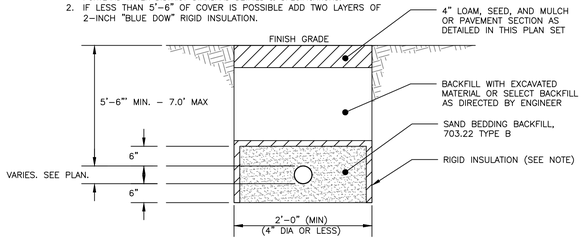



## SERVICE SADDLE: 1-1/2" AND 2" C.C. THREAD

NOT TO SCALE

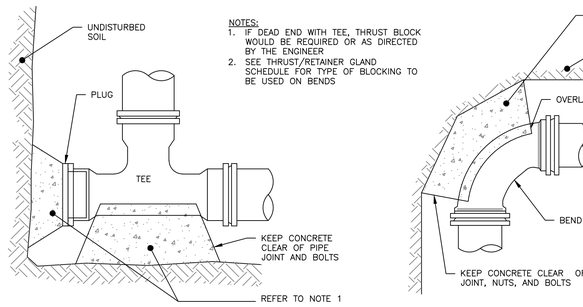
NOTES:

1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS POSSIBLE ADD TWO LAYERS OF 2-INCH "BLUE DOW" RIGID INSULATION.




## WATER SERVICE TRENCH SECTION DETAIL

NOT TO SCALE




NOTES:

1. IF DEAD END WITH TEE, THRUST BLOCK WOULD BE REQUIRED OR AS DIRECTED BY THE ENGINEER
2. SEE THRUST/RETAINER GLAND SCHEDULE FOR TYPE OF BLOCKING TO BE USED ON BENDS

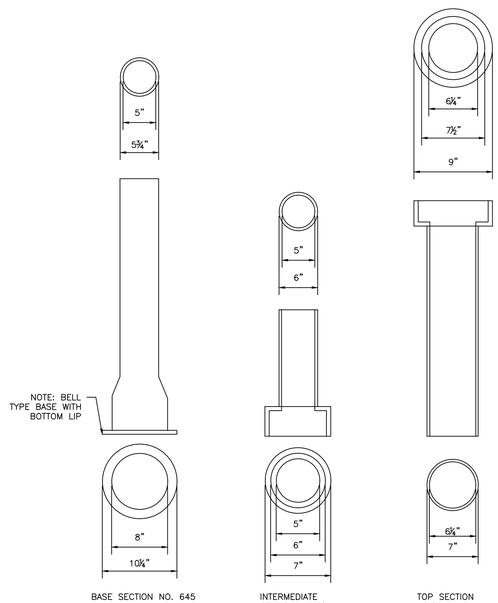
END SECTION

END VIEW

TOP VIEW

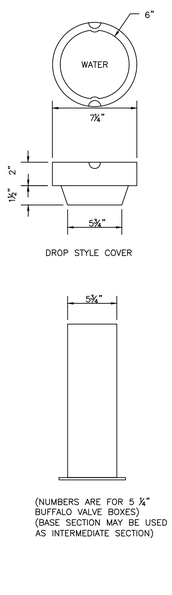
## THRUST BLOCKING: REGULAR BEND

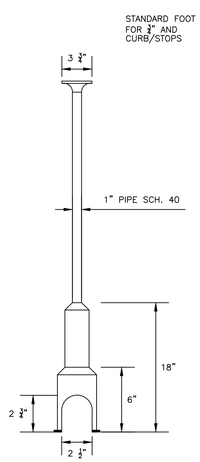
NOT TO SCALE




## VALVE BOX & COVER

N.T.S.



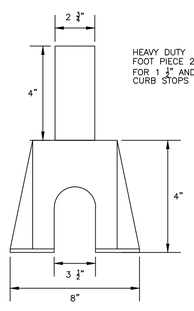




## SERVICE BOX

NOT TO SCALE



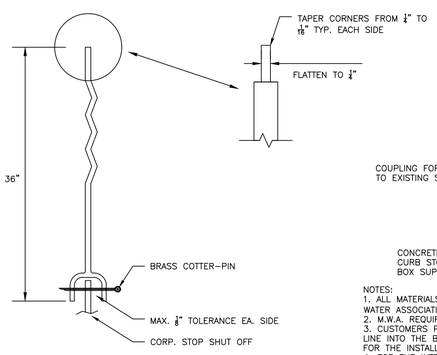

## COVER




## FOOT PIECE

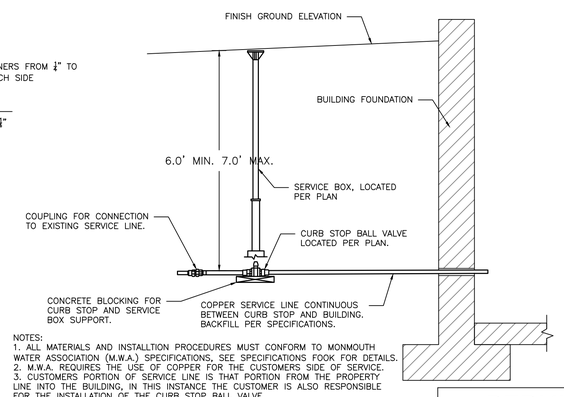
NOT TO SCALE

NOTES: ANY EXTENSION OF SERVICE BOX REQUIRES
1. 1" FEMALE IRON PIPE COUPLING
2. 1" THREADED PIPE (THIS IS TO BE A NON-WELDED, TWO PIECE ARRANGEMENT. SLIP ON ADAPTER ARE NOT PERMISSIBLE)




## SERVICE ROD

NOT TO SCALE




NOTES:
1. ALL MATERIALS AND INSTALLTION PROCEDURES MUST CONFORM TO MONMOUTH WATER ASSOCIATION (M.W.A.) SPECIFICATIONS, SEE SPECIFICATIONS FOOK FOR DETAILS.
2. M.W.A. REQUIRES THE USE OF COPPER FOR THE CUSTOMERS SIDE OF SERVICE.
3. CUSTOMERS PORTION OF SERVICE LINE IS THAT PORTION FROM THE PROPERTY LINE INTO THE BUILDING, IN THIS INSTANCE THE CUSTOMER IS ALSO RESPONSIBLE FOR THE INSTALLATION OF THE CURB STOP BALL VALVE.
4. FOR THE INTERIOR BUILDING PLUMBING REFER TO THE PLUMPING PLAN BY MECHANICAL SYSTEMS ENGINEERS.

## CURB STOP DETAIL

NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR

| BY | DATE |
|---|---|
| CLIENT REVIEW | SJL 6/24/2025 |
| SITE PLAN APPLICATION | SJL 7/16/2025 |

DRAWING NAME: UTILITY DETAILS - 1

PROJECT NAME: 161 YORK STREET REDEVELOPMENT

PARCEL ID: 044 B006001 & 044 B007001

CLIENT: 161 YORK STREET, LLC

331 FLYING POINT ROAD, FREEPORT, MAINE 04032

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN AUTHORIZATION FROM ACORN ENGINEERING, INC. ANY MODIFICATIONS MADE BY ANYONE OTHER THAN ACORN ENGINEERING, INC. SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC
PO BOX 472 FREEPORT, MAINE 04104
(207) 775-2655

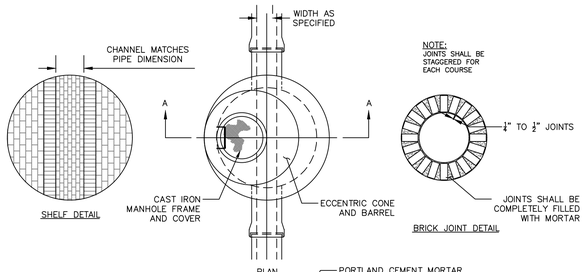
| | |
|---|---|
| FILE: | AE_CIVIL |
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| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

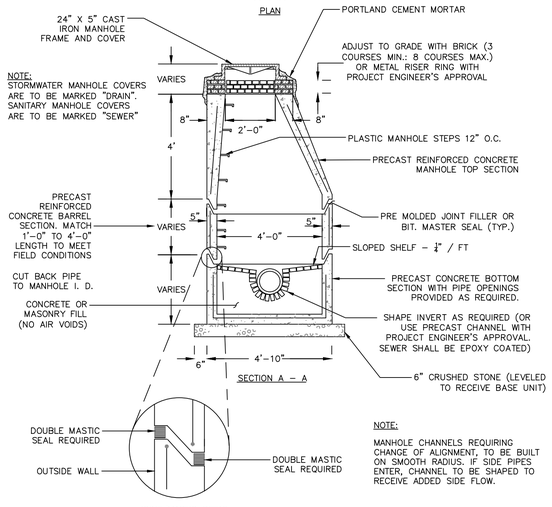
STATE OF MAINE — SAMUEL J. LEBEL — No. 16505 — PROFESSIONAL ENGINEER — LICENSED — 7/16/25

DRAWING NO. C-41

## GENERAL NOTES FOR MANHOLES AND CATCH BASINS

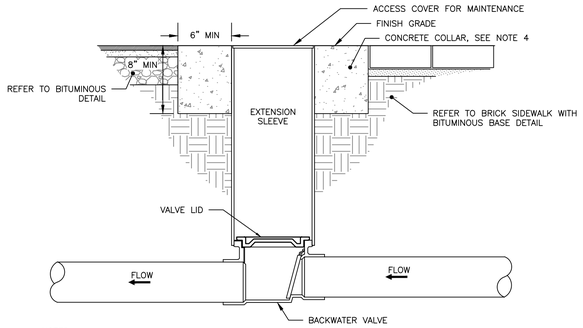
1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE ⅞" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL.
7. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
8. ALL SANITARY MANHOLES SHALL HAVE A WATERPROFFING COATING APPLIED TO THE EXTERIOR SURFACE.
9. CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DR5A OR APPROVED EQUAL.
10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.



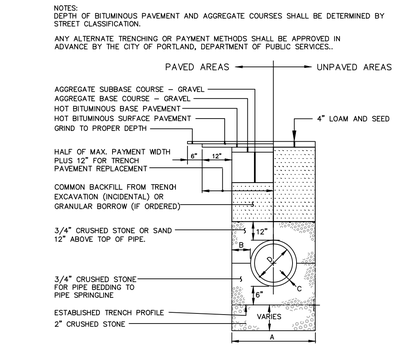

NOTE:
MANHOLE CHANNELS REQUIRING CHANGE OF ALIGNMENT, TO BE BUILT ON SMOOTH RADIUS. IF SIDE PIPES ENTER, CHANNEL TO BE SHAPED TO RECEIVE ADDED SIDE FLOW.

## PRECAST CONCRETE MANHOLE
NOT TO SCALE




NOTES:
1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE 'SEWER' ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

## BACKFLOW VALVE ASSEMBLY
NOT TO SCALE



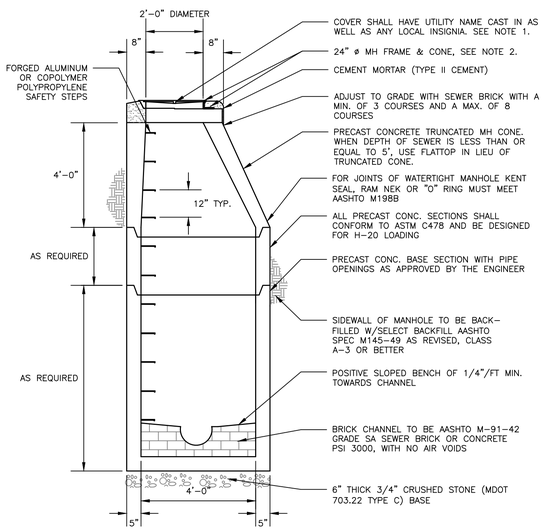

NOTES

1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
3. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
4. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE FOLLOWING TABLE.

| PIPE DIAMETER, D (INCHES) | MAX. TRENCH WIDTH, A (FEET) |
|---|---|
| 4 - - - - | 4.0 |
| 6 | 4.0 |
| 8 | 4.0 |
| 10 | 4.0 |
| 12 | 5.0 |
| 15 | 5.0 |
| 18 - - - - | 5.0 |
| 21 | 5.0 |
| 24 | 6.0 |
| 27 | 6.0 |
| 30 | 6.0 |
| 36 - - - - | 6.0 |
| 42 | 7.0 |
| 48 | 7.0 |

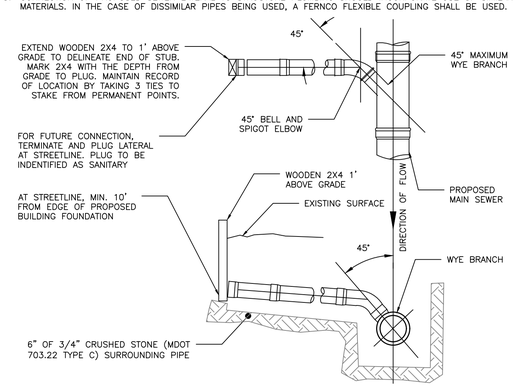
## TYPICAL PIPE TRENCH INSTALLATION
NOT TO SCALE

NOTES:
1. WITHIN CITY OF PORTLAND ROW, STORM DRAIN MANHOLE SHALL CONFORM WITH "STANDARD PRECAST SEWER MANHOLE DETAIL", WITH THE EXCEPTION THAT THE COVER SHALL BE MARKED AS "DRAIN". REFER TO CITY OF PORTLAND TECHNICAL MANUAL, SECTION 2 - SANITARY SEWER AND STORM DRAIN, FIGURE II-1
2. SUBMITTAL REQUIRED FOR MANHOLES, MANHOLE FRAMES & MANHOLE COVERS

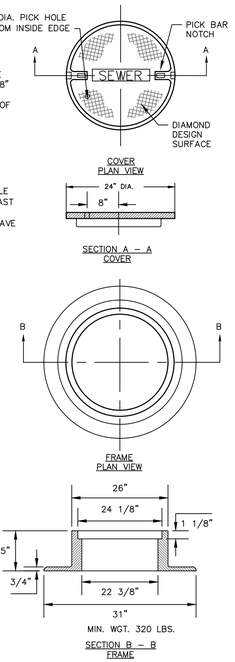



## STANDARD PRECAST SEWER MANHOLE
NOT TO SCALE

NOTES:
1. LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
2. SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO STRUCTURE PLUMBING WITH ARCHITECTURAL CONTRACTOR.
3. CONNECTION OF PROPOSED SEWER LATERAL TO STRUCTURE PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS. IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERNCO FLEXIBLE COUPLING SHALL BE USED.




## SEWER TEE/WYE CONNECTION DETAIL
NOT TO SCALE




CAST IRON MANHOLE NOTES:
1. ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 8" FROM THE CENTER OF THE COVER
2. ALL SANITARY AND STORMWATER/DRAIN MANHOLE COVERS SHALL BE 24" x 5".
3. ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
4. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
5. OIL WATER SEPARATOR SHALL HAVE "SEWER" CAST INTO THE COVER.
6. APPROVED MANHOLE FRAMES:
6.1. EAST JORDAN = 1690Z
6.2. NEENAH = R-1496
6.3. OR APPROVED EQUAL

7. APPROVED MANHOLE COVERS
7.1. EAST JORDAN = 2160A
7.2. NEENAH = R-1496
7.3. OR APPROVED EQUAL

## CAST IRON MANHOLE COVER AND FRAME
NOT TO SCALE

**PERMIT LEVEL NOT ISSUED FOR CONSTRUCTION**

| ISSUED FOR | BY DATE |
|---|---|
| CLIENT REVIEW | SJL 6/24/2025 |
| SITE PLAN APPLICATION | SJL 7/16/2025 |
| COMMENT RESPONSE | SJL 9/29/2025 |

DRAWING NAME: UTILITY DETAILS - 2
PROJECT NAME: 161 YORK STREET REDEVELOPMENT
PARCEL ID: 044 B006001 & 044 B007001
CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

ACORN ENGINEERING, INC.
ACORN ENGINEERING, INC
56 COMMERCIAL STREET SCARBOROUGH, MAINE 04104
PO BOX 4593 (207) 775 2655

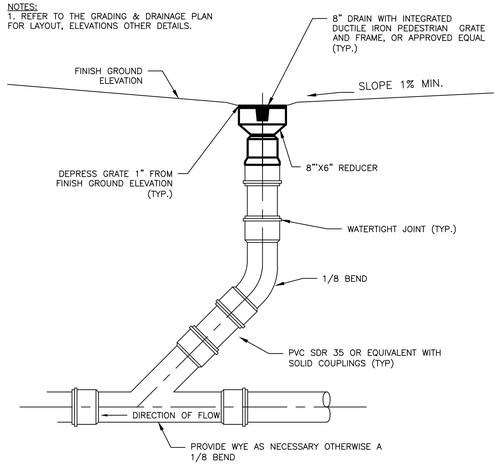
THIS PLAN IS NOT TO BE REPRODUCED, WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY REUSE WITHOUT WRITTEN AUTHORIZATION OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE: AE_CIVIL
JN: 1288
SCALE: AS NOTED
DESIGNED BY: ZMS
DRAWN BY: DNM
CHECKED BY: SJL

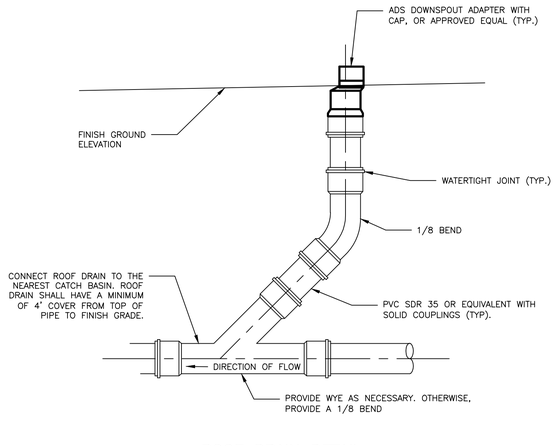
STATE OF MAINE
SAMUEL J. LEBEL
No. 16505
REGISTERED PROFESSIONAL ENGINEER
LICENSED
9/29/25

DRAWING NO.
C-42

NOTES:
1. REFER TO THE GRADING & DRAINAGE PLAN FOR LAYOUT, ELEVATIONS OTHER DETAILS.

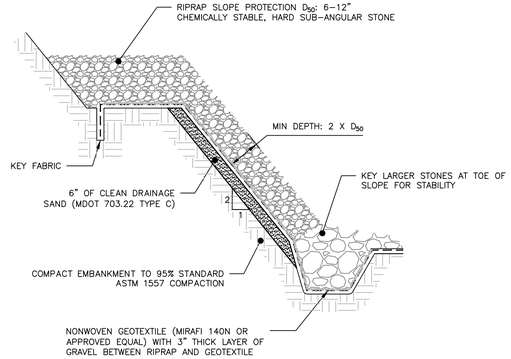



## FIELD INLET WITH GRATE DETAIL
NOT TO SCALE

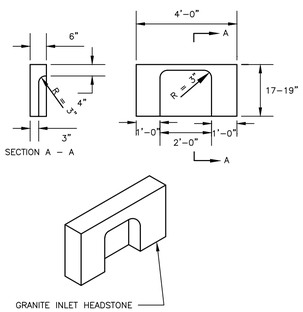



## ROOF DRAIN DETAIL
NOT TO SCALE

NOTES:
1. RIPRAP SHOULD CONTAIN A VARIETY OF SIZES TO PROVIDE COHESIVE, STRONG AND WELL-BLENDED COVER WITH MINIMUM VOIDS. THE DESIRED DISTRIBUTION OF STONES SHALL BE OBTAINED BY PLACING BY HAND.
2. RUBBLE CONCRETE MAY BE USED IN PLACE OF RIPRAP STONE PROVIDED THE CONCRETE HAS A MINIMUM DENSITY OF 150 POUNDS PER CUBIC FOOT. ROUND RIVER ROCKS MAY BE APPROPRIATE IN SITUATIONS WHERE THE SLOPE IS SHALLOWER THAN 3:1, IN A CHANNEL NOT RECEIVING CONCENTRATED WATER FLOW AND WHERE PEOPLE WILL NOT ACCESS THE AREA.
3. ANY FILL MATERIAL SHOULD BE WELL-GRADED.
4. IF DRAINAGE LAYER IS NECESSARY TO CONTROL GROUNDWATER SEEPAGE, APPROXIMATELY 6 INCHES OF GRANULAR FILL SHOULD BE SPREAD UNIFORMLY OVER THE NATIVE SOILS. A NON-WOVEN GEOTEXTILE FILTER FABRIC MAY BE PLACED DIRECTLY ON THE PREPARED SLOPE IN SITUATIONS WHERE GROUNDWATER IS NOT AN ISSUE. FOR MORE PROTECTION, PROVIDE BOTH THE DRAINAGE LAYER AND THE GEOTEXTILE.

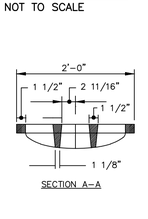


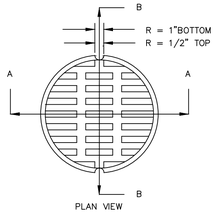

## RIPRAP PROTECTION
NOT TO SCALE

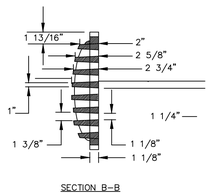



## 4' GRANITE HEADSTONE FOR CATCH BASIN INLET
NOT TO SCALE

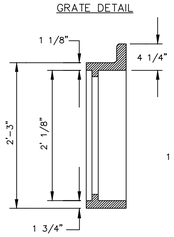
NOTES:
1. APPROVED CATCH BASIN FRAMES:
   1.1. EAST JORDAN = 7375Z
   1.2. NEENAH = R-3248
   1.3. OR APPROVED EQUAL
2. APPROVED CATCH BASIN GRATES
   2.1. EAST JORDAN = 2440M
   2.2. NEENAH = R-3248
   2.3. OR APPROVED EQUAL

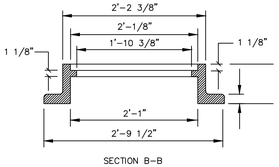


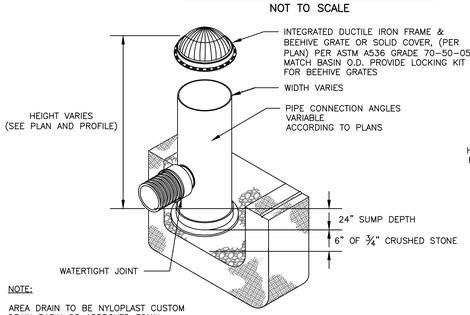

GRATE DETAIL




FRAME DETAIL

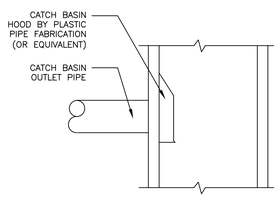
## CATCH BASIN FRAME & GRATE
NOT TO SCALE




NOTE:
AREA DRAIN TO BE NYLOPLAST CUSTOM DRAIN BASIN OR APPROVED EQUAL.

## BEEHIVE DRAIN DETAIL
NOT TO SCALE

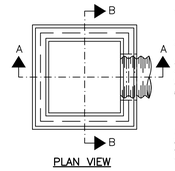
NOTES:
1. INSTALL HOOD ON ALL OUTLETS 24" OR LESS.
2. PREFERRED STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
3. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS.



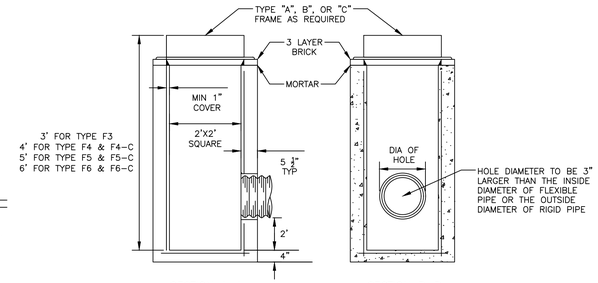

## CATCH BASIN HOOD DETAIL
NOT TO SCALE

1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLD AND SHALL HAVE ONE ⅞" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
6. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
7. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
8. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
9. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE TOWN OF SCARBOROUGH.
10. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CATCH BASIN HOOD.
11. HYDROCARBON ABSORBENT BOOM IN ALL CATCH BASINS REQUIRED BY CONTRACTOR FOLLOWING PAVING. OWNER TO MAINTAIN/REPLACE FOR 1-YEAR FOLLOWING FINAL PAVEMENT.

## GENERAL NOTES FOR MANHOLES AND CATCH BASINS

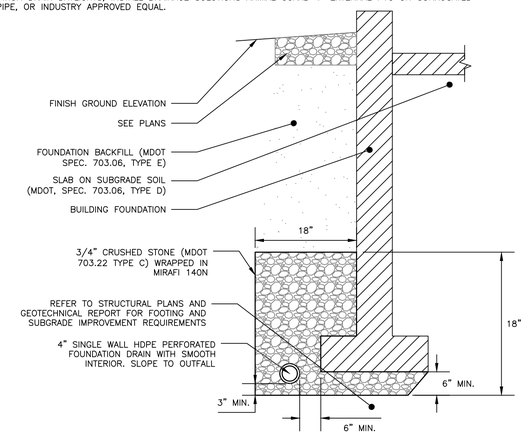



NOTES:
1. ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK FRAME AND GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT, #4 REBAR MINIMUM 8" O.C. OR EQUIVALENT WITH ENGINEER OF RECORD'S APPROVAL.
2. FIBER-REINFORCED CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
3. DESIGN LOAD FOR H-20 WHEEL LOAD.
4. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
5. REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM-NEK GASKET OR EQUAL.
6. POLYPROPYLENE STEPS 12" O.C.
   6.1. STEPS SHALL BE OFFSET AT NO MORE THAN 12" ON CENTER, STARTING FROM THE TOP OF THE MANHOLE FRAME AND SHALL BE FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE STEPS.
7. EXTERIOR WATERPROOFING.
8. FLEXIBLE WATERTIGHT PIPE BOOTS TO CONFORM TO ASTM C-923.
9. SHALL MEET THE APPLICABLE LOCAL AND STATE STANDARDS.
10. CATCH BASIN SHALL BE AS MANUFACTURED BY PRECAST OF MAINE OR APPROVED EQUAL.



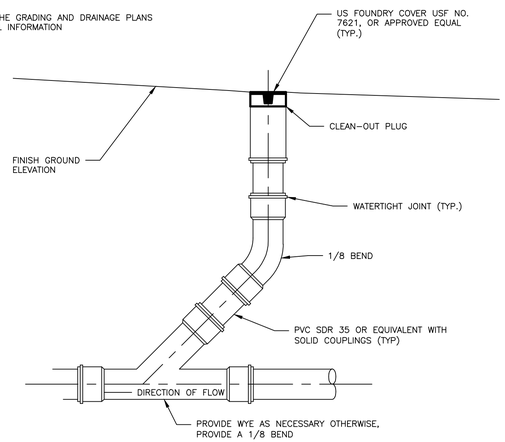

## 24" SQUARE CATCH BASIN "TYPE F"
NOT TO SCALE

NOTES:
1. REFER TO THE BUILDING ARCHITECTS PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
2. PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
3. INSTALL STONE DRIP EDGE IN A LOCATIONS SUBJECT TO ROOF RUNOFF. WIDTH SHALL BE A MIN. 12" BEYOND THE PROJECTION OF THE ROOF EVE.
4. FOUNDATION WALL FOOTINGS SHALL BE CONSTRUCTED TO A MIN. DEPTH OF 4 FT BELOW ADJACENT FINISH GRADE UNLESS OTHERWISE SPECIFIED BY THE GEOTECHNICAL ENGINEER OR STRUCTURAL ENGINEER. REFER TO STRUCTURAL ENGINEERS PLANS FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.
5. IF FOUNDATION DRAIN DAYLIGHTS, INSTALL DRAINAGE SOLUTIONS ANIMAL GUARD 4" EXTERNAL PVC OR CORRUGATED PLASTIC PIPE, OR INDUSTRY APPROVED EQUAL.

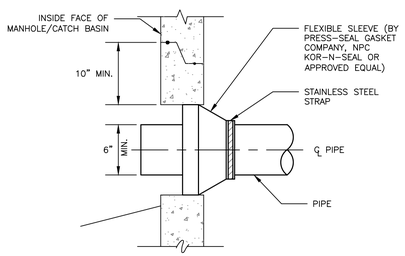



## FOUNDATION DRAIN DETAIL
NOT TO SCALE

DESIGN NOTES:
1. REFER TO THE GRADING AND DRAINAGE PLANS FOR ADDITIONAL INFORMATION




## CLEANOUT DETAIL
NOT TO SCALE




## NEW PIPE TO NEW STRUCTURE CONNECTION DETAIL
NOT TO SCALE

ISSUED FOR

| BY DATE |
|---|
| CLIENT REVIEW — SJL 6/24/2025 |
| SITE PLAN APPLICATION — SJL 7/16/2025 |

DRAWING NAME: DRAINAGE DETAILS - 1
PROJECT NAME: 161 YORK STREET REDEVELOPMENT
PARCEL ID: 044 B006001 & 044 B007001
CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

ACORN ENGINEERING, INC.

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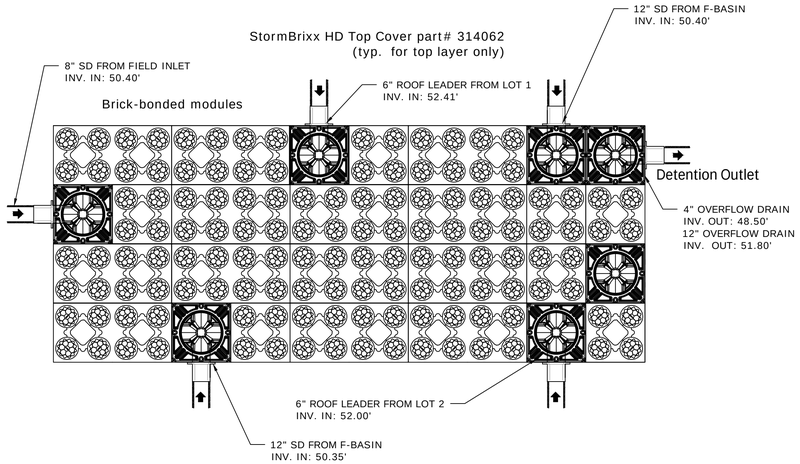
ACORN ENGINEERING, INC.
90 BRIDGE STREET, SUITE 100, WESTBROOK, MAINE 04104
PO BOX 3294, PORTLAND, MAINE 04104
(207) 775-2655

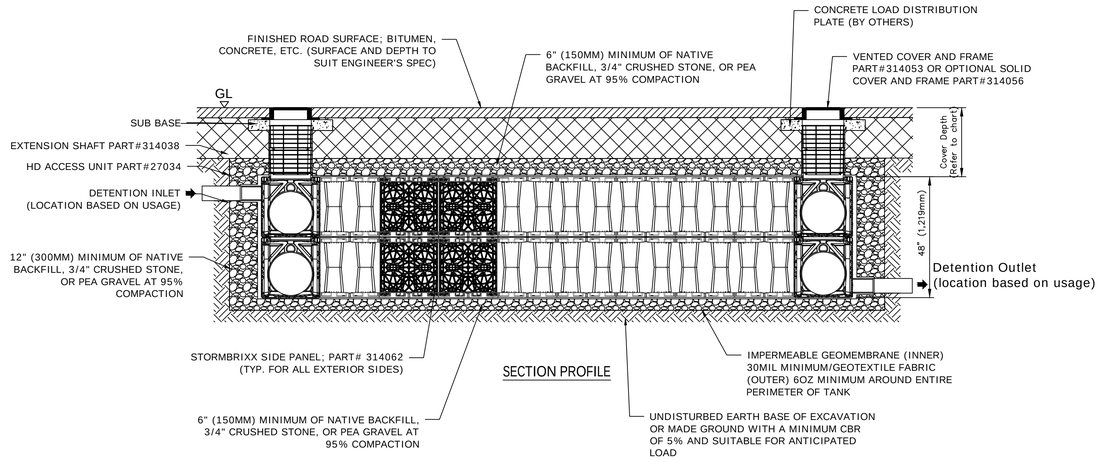
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| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

STATE OF MAINE — SAMUEL J. LEBEL — No. 16505 — PROFESSIONAL ENGINEER — LICENSED — 7/16/25

DRAWING NO.
C-43

PERMIT LEVEL
NOT ISSUED FOR CONSTRUCTION

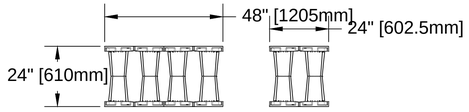


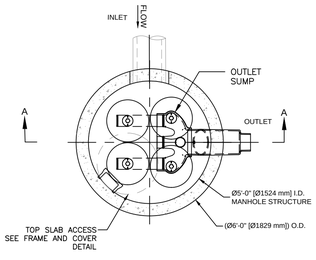




SECTION PROFILE

| Installation depths of ACO StormBrixx HD | |
|---|---|
| Installation Location | Minimum cover depth[4] ft (m) |
| Non-trafficked areas i.e. landscaping [2] | 1.65 (0.5) |
| Parking lots, vehicles up to 5,512lbs gross mass [1] | 1.8 (0.55) |
| Parking lots, occasional vehicles greater than 5,512lbs gross mass [3] | 2.00 (0.6) |
| Occasional heavy truck traffic up to HS-25 loading | Please consult with ACO |
| Maximum cover depth of ACO StormBrixx HD | 11.16 (3.4) |
| Maximum depth to invert of ACO StormBrixx HD one layer system | 15.16 (4.62) |
| Notes | |
| *(1) Assumes 27 degree load distribution through fill material and overlaying surface asphalt or block paving* | |
| *(2) Minimum cover depth to avoid accidental damage from gardening/landscaping work* | |
| *(3) Occasional sanitation trucks or similar vehicles (typically one per week)* | |
| *(4) Please check minimum frost cover depths and water table heights for geographical location* | |

ACO StormBrixx HD Module
48"x24"x36" [1205x602.5x914mm (H)]
14.85cuft [0.42m$^3$] net volume per completed module
Brick or Cross Bonded (where applicable)
part# 314061



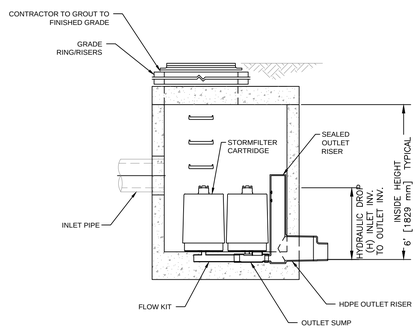

PLAN VIEW
STANDARD OUTLET RISER
FLOWKIT: 41A

| STORMFILTER DESIGN NOTES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (4). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 4 CARTRIDGES. Ø5'-0" [1524 mm] MANHOLE STORMFILTER WITH SEALED OUTLET RISER MAY REQUIRE AN UPSTREAM BYPASS STRUCTURE. | | | | | | | | | | |
| CARTRIDGE SELECTION | | | | | | | | | | |
| CARTRIDGE HEIGHT | 27" [686 mm] | | | 18" [458 mm] | | | LOW DROP | | | |
| RECOMMENDED HYDRAULIC DROP (Hr) | 3.05' [930 mm] | | | 2.3' [700 mm] | | | 1.8' [550 mm] | | | |
| SPECIFIC FLOW RATE (gpm/sf) [L/s/m$^2$] | 2 [1.30] | 1.67* [1.08] | 1 [0.65] | 2 [1.30] | 1.67* [1.08] | 1 [0.65] | 2 [1.30] | 1.67* [1.08] | 1 [0.65] | |
| CARTRIDGE FLOW RATE (gpm) [L/s] | 22.5 [1.42] | 18.79 [1.19] | 11.25 [0.71] | 15 [0.95] | 12.53 [0.79] | 7.5 [0.44] | 10 [0.63] | 8.35 [0.54] | 5 [0.32] | |

* 1.67 gpm/sf [1.08 L/s/m$^2$] SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY




**FRAME AND COVER**
(DIAMETER VARIES)
N.T.S.



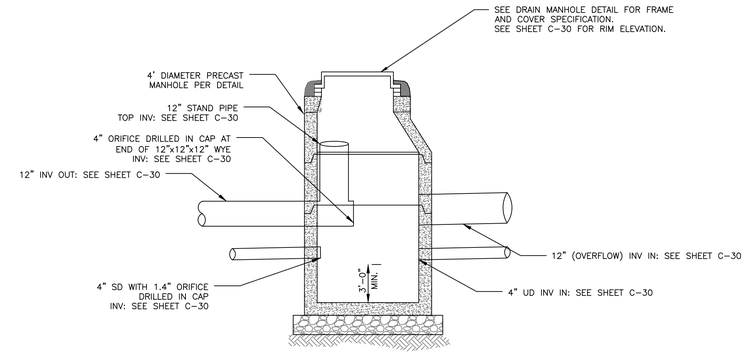

SECTION A–A

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' [1524 mm] AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES [178 mm]. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) [L/s] DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft)[m$^2$].
8. STORMFILTER STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
E. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES [200 mm], CONTRACTOR TO REMOVE THE 8 INCH [200 mm] OUTLET STUB AT MOLDED-IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

STORMFILTER (SFMH60) SYSTEM
NOT TO SCALE

*All systems must be designed and installed to meet or exceed ACO StormBrixx minimum requirements. Although ACO StormBrixx offers support during the design, review, and construction phases of the module system, it is the ultimate responsibility of the Engineer of Record to design the system in full compliance with all applicable engineering practices, laws, and regulations.




OUTLET CONTROL STRUCTURE
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR CONSTRUCTION

| ISSUED FOR | BY | DATE |
|---|---|---|
| CLIENT REVIEW | SJL | 1/24/2025 |
| SITE PLAN APPLICATION | SJL | 7/16/2025 |

DRAWING NAME: DRAINAGE DETAILS – 2
PROJECT NAME: 161 YORK STREET REDEVELOPMENT
PARCEL ID: 044 B006001 & 044 B007001
CLIENT: 161 YORK STREET, LLC
331 FLYING POINT ROAD, FREEPORT, MAINE 04032

ACORN ENGINEERING, INC.
ENGINEERING, INC.
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ACORN ENGINEERING, INC.
PO BOX 137 FREEPORT, MAINE 04104
(207) 775-2655

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| FILE: | AE_CIVIL |
| JN: | 1288 |
| SCALE: | AS NOTED |
| DESIGNED BY: | ZMS |
| DRAWN BY: | DNM |
| CHECKED BY: | SJL |

STATE OF MAINE
Sam Lebel
SAMUEL J. LEBEL
No. 16505
REGISTERED PROFESSIONAL ENGINEER
7/16/25

DRAWING NO.
C-44

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
- STONE SIZE SHALL BE 2–3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- THE THICKNESS OF THE ENTRANCE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
- THE ENTRANCE SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
- GEOTEXTILE FABRIC (WOVEN OR NON–WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
- THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROAD WAYS.

1.1.2 SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.

1.1.3 HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC150BN BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.

1.1.5 **YORK STREET AND GUILFORD COURT** SHALL BE SWEPT TO CONTROL MUD AND DUST FROM THE CONSTRUCTION SITE AS NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

1.1.6 DURING DEMOLITION, CLEARING AND GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION.

1.1.7 SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE "TOED" INTO THE GROUND.

1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED ½ THE DESIGN HEIGHT.

1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.

1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.

1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.

1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.

1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4" OF LOAM AND SHALL BE LIMED, AND MULCHED.
EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.2 OF THIS REPORT.

1.2.2 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.

1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH OVER–WINTER STABILIZATION. ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75–LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE–INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.3 SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR–INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE–ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER–WINTER PROTECTION.

- STABILIZE THE SOIL WITH SOD – STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

- STABILIZE THE SOIL WITH MULCH – BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE–COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.

- STABILIZE THE SOIL WITH SOD – THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR SHALL NOT USE LATE–SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

- STABILIZE THE SOIL WITH EROSION CONTROL MIX – EROSION CONTROL MIX SHALL BE PROPERLY INSTALLED BY NOVEMBER 15TH. THE CONTRACTOR SHALL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 2H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

- STABILIZE THE SOIL WITH STONE RIPRAP – PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. A REGISTERED PROFESSIONAL ENGINEER SHALL BE HIRED TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

5.0 INSPECTION AND MAINTENANCE

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY TWO WEEKS, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL – BEST MANAGEMENT PRACTICES (BMP'S) SHALL INSPECTED IN THE MANNER AS DESCRIBED.

5.1 SEDIMENT BARRIERS

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE–HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

5.2 STABILIZED STONE CONSTRUCTION ENTRANCES

THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD–TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE–INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: WILL SAVAGE, PE
TELEPHONE: (207) 775–2655

QUALIFICATIONS:

- Ø MAINE PROFESSIONAL ENGINEERING LICENSE #11419
- Ø MAINE DEP – CERTIFIED IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT #14
- Ø CERTIFIED EROSION, SEDIMENT AND STORM WATER INSPECTOR (CESSWI) CERT #0293
- Ø CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #4620

THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH THE EROSION AND SEDIMENTATION REPORT/PLAN, INCLUDING CONTROL OF FUGITIVE DUST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONETARY PENALTIES RESULTING FROM FAILURE TO COMPLY WITH THESE STANDARDS.

6.0 IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

1. INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
2. INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
3. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL SIDE TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN YORK STREET.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB–BASE AND BASE GRAVELS IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. ONCE THE SITE IS STABILIZED, 90% CATCH OF GRASS HAS BEEN OBTAINED, OR MULCHING OF LANDSCAPE AREAS IS COMPLETE REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMMENCE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED AREAS TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE–VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

7.0 SEEDING PLAN

7.1 SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

7.2 SEEDBED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10–10–10 (N–P205–K20) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 138 POUNDS PER 1,000 SQUARE FEET.

7.3 SEEDING

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

TEMPORARY SEED APPLICATION RATES

| SEED | LBS / ACRE | RECOMMENDED SEEDING DATES |
|---|---|---|
| WINTER RYE | 2.57 | 8/15 TO 10/1 |
| OATS | 1.84 | 4/1 TO 7/1 8/15 TO 9/15 |
| ANNUAL RYGRASS | 0.92 | 4/1 TO 7/1 |
| SUDANGRASS | 0.92 | 5/15 TO 8/15 |
| PERENNIAL | 0.92 | 8/15 TO 9/15 |
| TOTAL | 7.17 LBS/ACRE | |

PERMANENT SEED APPLICATION RATES

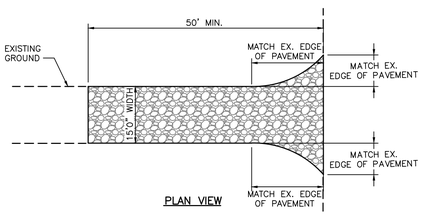
| SEED | LBS / ACRE |
|---|---|
| KENTUCKY BLUEGRASS | 20.00 |
| CREEPING RED FESCUE | 20.00 |
| PERENNIAL RYEGRASS | 4.80 |
| TOTAL | 44.8 LBS/ACRE |

7.4 MULCHING

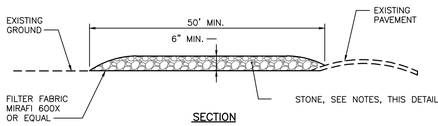
MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS – 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

8.0 CONCLUSION

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.




PLAN VIEW



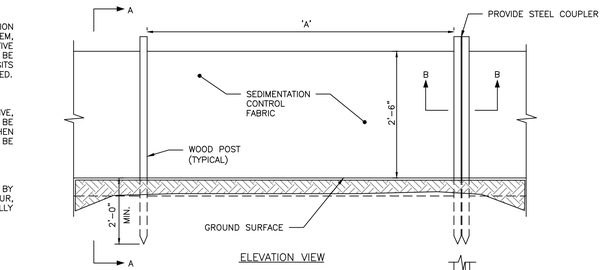

SECTION

## STABILIZED CONSTRUCTION ENTRANCE

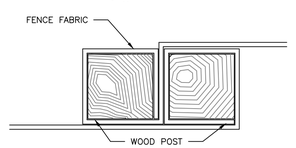
NOT TO SCALE

NOTES:

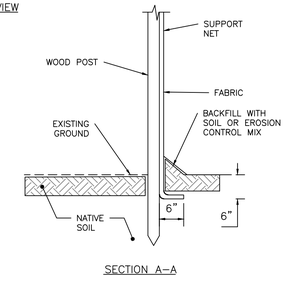
1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2"–3" COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
4. WHEN NECESSARY, ON–SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT–OF–WAY




ELEVATION VIEW




SECTION B–B




SECTION A–A

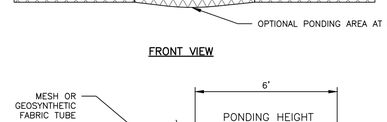
| SILT FENCE REINFORCEMENT | MAX. SPACING "A" |
|---|---|
| NONE | 6' |
| WIRE REINFORCEMENT 14 GAUGE, 6" MESH | 10' |

## SILTATION FENCE DETAIL

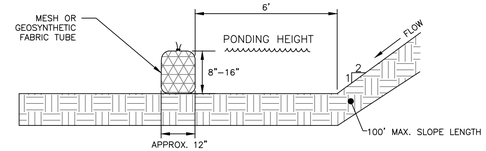
NOT TO SCALE

NOTES:

1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE – THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
2. STAKING MAY BE NECESSARY ON STEEP SLOPES.
3. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL SPREAD OUT ONTO THE GROUND. THE MESH MATERIAL SHOULD BE REMOVE.
4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.



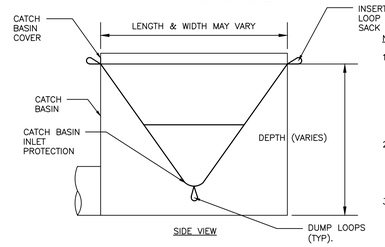

FRONT VIEW



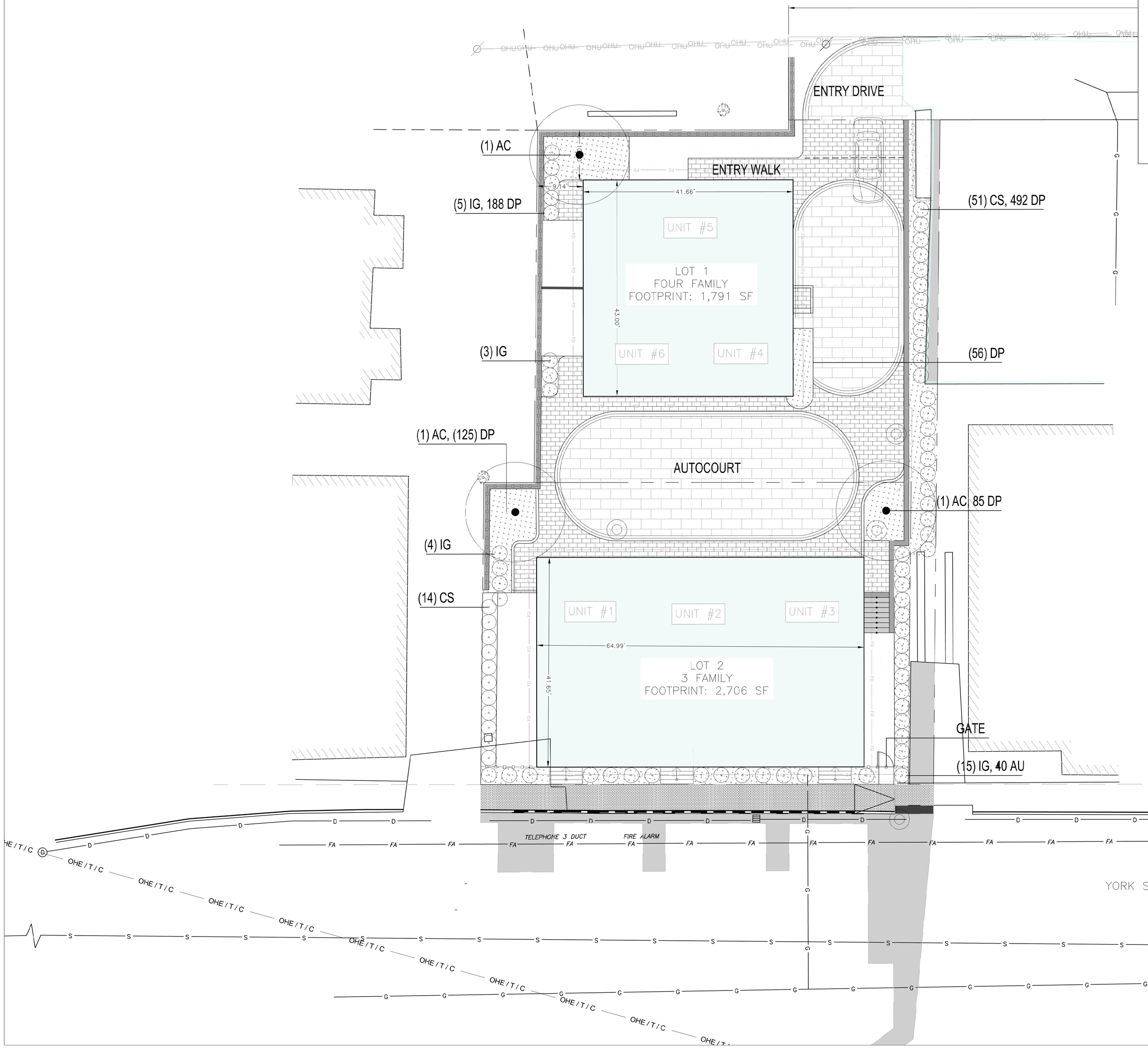

SIDE VIEW

## FILTER SOCK DETAIL

NOT TO SCALE



| ID | BOTANICAL NAME | COMMON NAME | QTY | SIZE |
|---|---|---|---|---|
| DECIDUOUS TREES | | | | |
| AC | AMELANCHIER | SERVICEBERRY 'LUSTRE' | 3 | 8'–10' |
| SHRUBS / PERENNIALS / GRASSES / GROUND COVER / BULBS | | | | |
| DP | DENNSTAEDTIA PUNCTILOBULA | HAYSCENTED FERN | 960 | 1 GAL. |
| IG | ILEX GLABRA | INKBERRY HOLLY | 27 | 5 GAL. |
| AU | ARCTOSTAPHYLOS UVA–URSI | BEARBERRY | 40 | 2 GAL. |
| CS | CORNUS SERICEA 'KELSEYI' | REDTWIG DOGWOOD | 68 | 7 GAL. |




**SYMBOLS LEGEND**

**HARDSCAPE**

- LOCALLY SOURCED MASONRY PAVING (TYPE 1) W/ COBBLE EDGE
- LOCALLY SOURCED MASONRY PAVING (TYPE 2) W/ COBBLE EDGE
- CITY SIDEWALK
- LOCALLY SOURCED MASONRY STEPS

**PLANTS**

- PROPOSED DECIDUOUS TREE
- PROPOSED SHRUB
- NATIVE SODS AND / OR PERENNIAL PLANTING BED
- LAWN (6" LOAM AND SEED)

LAYOUT NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND ACTUAL CONDITIONS AT THIS SITE SHALL BE REPORTED TO THE LANDSCAPE DESIGNER IMMEDIATELY.
2. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES.
3. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK
4. LAYOUT ALL PATHS AND OTHER NEW WORK PRIOR TO CONSTRUCTION FOR LANDSCAPE DESIGNERS' APPROVAL. ANY LOCATIONS NOT APPROVED BY THE LANDSCAPE ARCHITECT AND INSTALLED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AS PER THE LANDSCAPE ARCHITECT'S INSTRUCTIONS AT NO ADDITIONAL COST TO THE OWNER. LAYOUT OF ALL WORK TO BE ADJUSTED IN THE FIELD TO MEET SITE CONDITIONS AS APPROVED BY THE LANDSCAPE DESIGNER. ALL LAYOUT WORK TO BE PERFORMED BY A LICENSED MAINE LAND SURVEYOR UNLESS CONTRACTOR UTILIZES ADEQUATE INSTRUMENTATION REQUIRED TO ACCURATELY PERFORM THE TASK. A DIGITAL COPY OF THE LAYOUT CAN BE AVAILABLE UPON REQUEST.
5. WHERE EXCAVATION FOR CURBS, FOOTINGS, PAVEMENTS, ETC. IS REQUIRED ADJACENT TO TREES, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY REMEDIAL WORK, SUCH AS ROOT AND TOP PRUNING REQUIRED AND/OR NECESSARY TO PREVENT LOSS OF PLANT MATERIAL. ALL INVESTIGATION AND CORRECTIVE WORK SHALL BE DONE BY A CERTIFIED ARBORIST APPROVED BY THE LANDSCAPE DESIGNER AND ENGAGED BY THE CONTRACTOR.
6. EXISTING TREES IN PHYSICAL INTERFERENCE WITH THE WORK TO BE PERFORMED OR INSTALLED UNDER THIS CONTRACT SHALL BE PRUNED IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES.
7. CONTRACTOR TO FIELD MEASURE AND VERIFY ALL CONCRETE DIMENSIONS / ANGLES BASED ON AS–BUILT CONDITIONS. SUBMIT SHOP DRAWINGS FOR LANDSCAPE DESIGNER'S REVIEW PRIOR TO ORDERING.

PLANTING NOTES

1. THE CONTRACTOR SHALL PREPARE PLANTING ZONES TO THE GRADES AND DEPTHS AS INDICATED ON THE DRAWING.
2. IF THE CONTRACTOR DETERMINES THE SUB–GRADE SOIL CONDITIONS ARE DELETERIOUS TO PLANT GROWTH OR WILL INHIBIT DRAINAGE, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND PRIOR TO INSTALLATION OF PLANT MATERIAL.
3. TOPSOIL SHALL BE FREE FROM SUBSOIL, STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL; CONTAIN 5% ORGANIC MATTER AND HAVE A pH SUITABLE TO THE LOCAL GROWING CONDITIONS.
4. ALL PLANTS TO BE SELECTED AND SEALED IN THE FIELD BY THE LANDSCAPE DESIGNER. OR SELECTED BY THE LANDSCAPE CONTRACTOR, AND APPROVED BY LANDSCAPE DESIGNER.
5. THE PLANT LIST IS PROVIDED AS A CONVENIENCE TO THE CONTRACTOR. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT COUNT SHOWN IN THE SCHEDULE AND THE DRAWING, THE DRAWING SHALL TAKE PRECEDENCE.
6. ALL TRANSPLANTED SHRUBS SHALL BE 'HEELED IN' OR HEAVILY MULCHED IN A SHADED AREA AND WATERED AS NECESSARY UNTIL THEY CAN BE PLANTED.
7. FINAL LOCATION OF ALL PLANTS TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIAL.
8. PLANTS SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS THE BORE TO EXISTING GRADE IN THE NURSERY.
9. CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL. CUT AND REMOVE AT LEAST 1/3–1/2 OF WIRE BASKET. NYLON ROPE AND / OR NYLON BALLING MATERIAL IS NOT ACCEPTABLE.
10. PLANT PERENNIALS AND GROUNDCOVER IN 6" DEEP TOPSOIL BED CONSISTING OF 2/3 TOPSOIL AND 1/3 HUMUS.
11. TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL DISTURBANCES, CONSTRUCTION, OR STORAGE OF EQUIPMENT WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT WITH CONSERVATION MEADOW MIX. (SEE GRADING PLAN L3.0)
12. ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 6" OF CASSSELA'S ORGANICS OR EQUAL (40% COMPOST / 60% LOAM) AND A 3" LAYER OF DOUBLE SHREDDED HARDWOODBARK MULCH.
13. UPON COMPLETION OF THE ONE (1) YEAR PLANT GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING OR REMOVING ALL STAKES. THIS SHALL BE DONE IN CONSULTATION WITH THE LANDSCAPE ARCHITECT.
14. ALL TREE PLANTING AND REMOVAL TO COMPLY WITH LOCAL AND STATE TREE ORDINANCES.
15. IRRIGATION DESIGN BY OTHERS

0 10 20 N

NOT FOR CONSTRUCTION


Soren deNiord Design Studio
43 Wellwood Road
Portland, ME
04103
**T:** 207-400-2450
**E:** soren@sorendeniord.com


# 161 YORK STREET

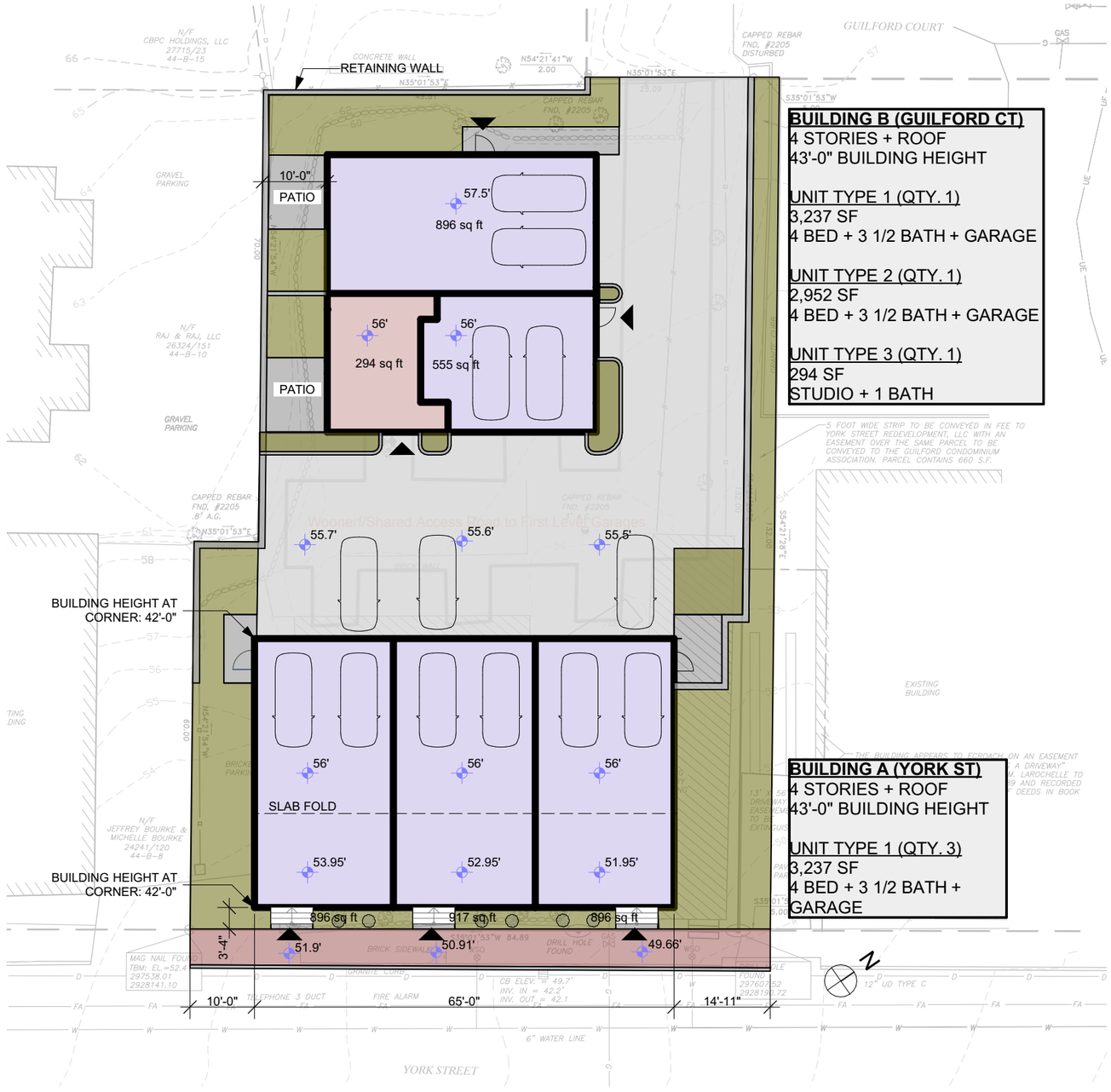
PORTLAND, MAINE

| No: | Revision | Date: |
|---|---|---|

revisions:
date: SEPTEMBER 30, 2025
scale: As Noted
drawn: XX
checked: XX

# L1.0

SCHEMATIC LANDSCAPE PLAN




**BUILDING B (GUILFORD CT)**
4 STORIES + ROOF
43'-0" BUILDING HEIGHT

UNIT TYPE 1 (QTY. 1)
3,237 SF
4 BED + 3 1/2 BATH + GARAGE

UNIT TYPE 2 (QTY. 1)
2,952 SF
4 BED + 3 1/2 BATH + GARAGE

UNIT TYPE 3 (QTY. 1)
294 SF
STUDIO + 1 BATH

**BUILDING A (YORK ST)**
4 STORIES + ROOF
43'-0" BUILDING HEIGHT

UNIT TYPE 1 (QTY. 3)
3,237 SF
4 BED + 3 1/2 BATH + GARAGE

1 ARCHITECTURAL SITE PLAN 1" = 20'

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# SITE PLAN

161 YORK STREET - PORTLAND, PORTLAND MAINE
CONCEPT REVIEW PACAKGE 9/29/2025

**YORK STREET RESIDENCES (BUILDING A)**

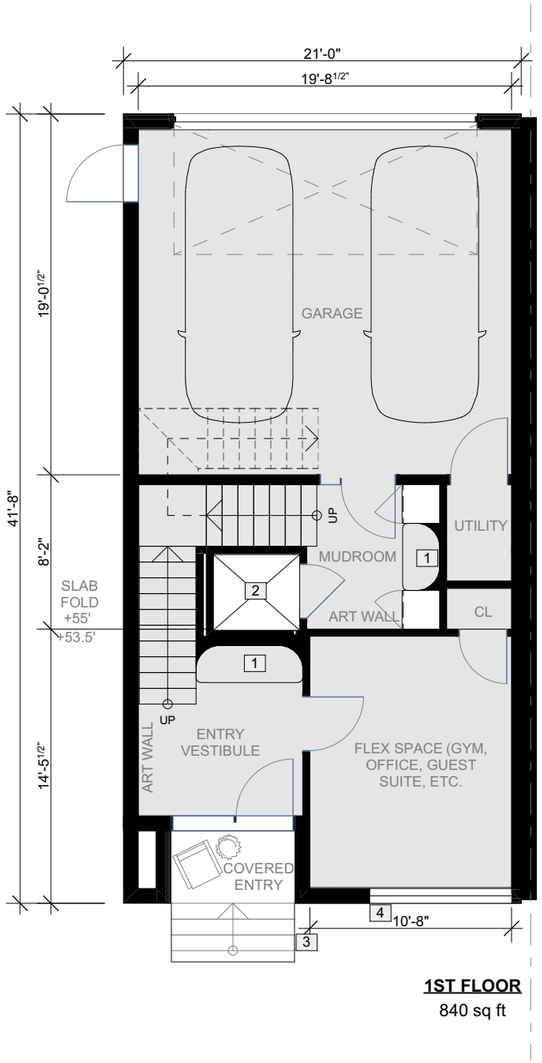
**Unit Type 1 (Qty. 3)**
4 Bedroom + Studio/ Office
3 1/2 Bath
2,877sf Living Area
360sf 2-Car Garage

**Aditional Amenities:**
Elevator
300sf+ Oceanview Deck
Off-Suite Balcony on 2nd and 4th Flr Primary Suites
Juliette Balcony in Living Room
Off-Kitchen Balcony

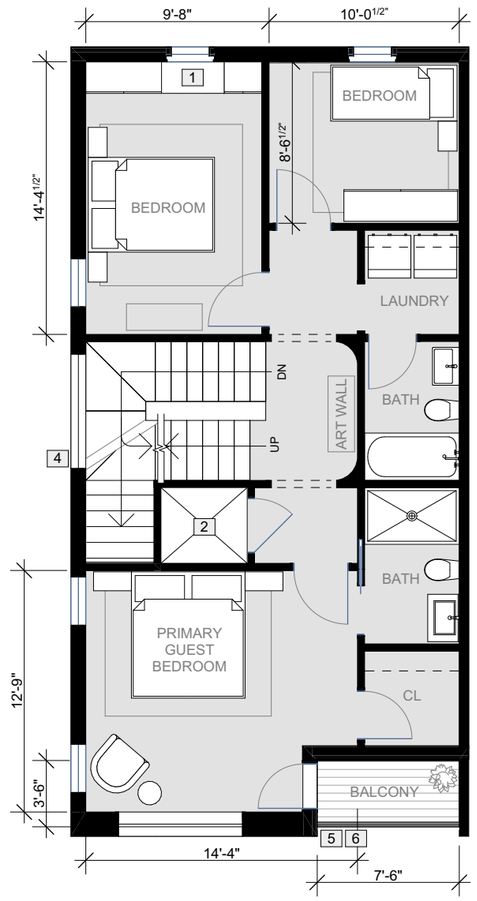
| Unity Type 1 Gross Floor Area | |
|---|---|
| Floor | Area |
| 1ST FLOOR | 840 |
| 2ND FLOOR | 842 |
| 3RD FLOOR | 812 |
| 4TH FLOOR | 552 |
| ROOF ENCLOSURE | 191 |
| | **3,237 ft²** |

**Floor Plan Legend:**

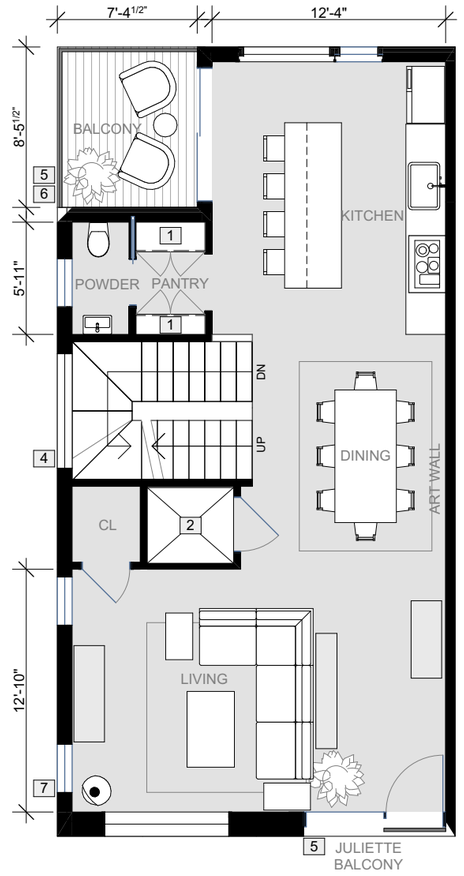
1. Buit In Cabinetry
2. Elevator
3. Stone Steps
4. Glass Block Window
5. Galv. MTL Guardrail
6. Wood Decking
7. Gas stove
8. Green Roof
9. Swing Gate




**1ST FLOOR**
840 sq ft




**2ND FLOOR**
842 sq ft




**3RD FLOOR**
812 sq ft

1 1ST FLOOR PLAN

2 2ND FLOOR PLAN

3 3RD FLOOR PLAN


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# FLOOR PLANS (YORK STREET)

161 YORK STREET - PORTLAND, PORTLAND MAINE
CONCEPT REVIEW PACAKGE 9/29/2025



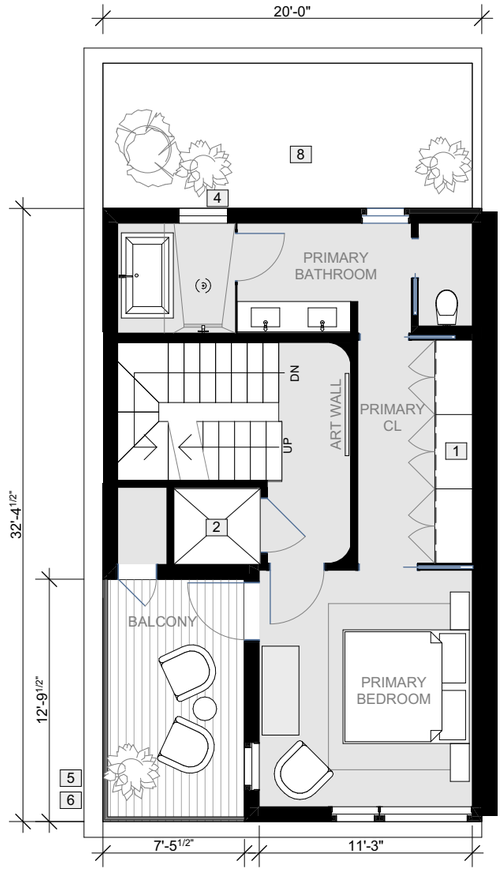
GREEN ROOF



LIGHT STUDY

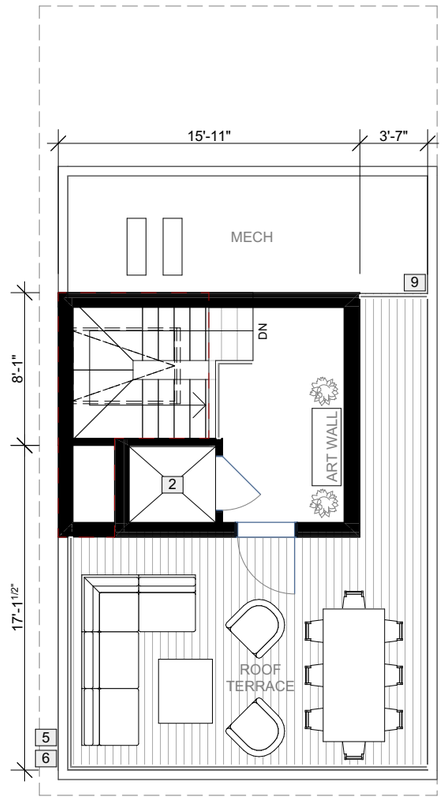
**Floor Plan Legend:**

1. Buit In Cabinetry
2. Elevator
3. Stone Steps
4. Glass Block Window
5. Galv. MTL Guardrail
6. Wood Decking
7. Gas stove
8. Green Roof
9. Swing Gate




**4TH FLOOR**
552 sq ft

1 4TH FLOOR PLAN




**ROOF ENCLOSURE**
191 sq ft

2 ROOF PLAN

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# FLOOR PLANS (YORK STREET)

161 YORK STREET - PORTLAND, PORTLAND MAINE
CONCEPT REVIEW PACAKGE 9/29/2025



MATERIALITY + VOIDS



RAILING + VOIDS




1 YORK STREET (FRONT) 1/8" = 1'-0"

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# ELEVATIONS (YORK STREET)

161 YORK STREET - PORTLAND, PORTLAND MAINE
PLANNING BOARD REVIEW PACAKGE 10/20/2025



MATERIALITY + FENESTRATION



COLORATION + DETAILING



1 REAR ELEVATION 1/8" = 1'-0"

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# ELEVATIONS (YORK STREET)

161 YORK STREET - PORTLAND, PORTLAND MAINE
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1 SIDE ELEVATION 1/8" = 1'-0"



TRANSPARENT VS TRANSLUCENT

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# ELEVATIONS (YORK STREET)

161 YORK STREET - PORTLAND, PORTLAND MAINE
CONCEPT REVIEW PACAKGE 9/29/2025

**GUILFORD COURT RESIDENCES (BUILDING B)**

**Unit Type 1 (Qty. 1)**
4 Bedroom + Studio/ Office
3 1/2 Bath
2,877sf Living Area
360sf 2-Car Garage

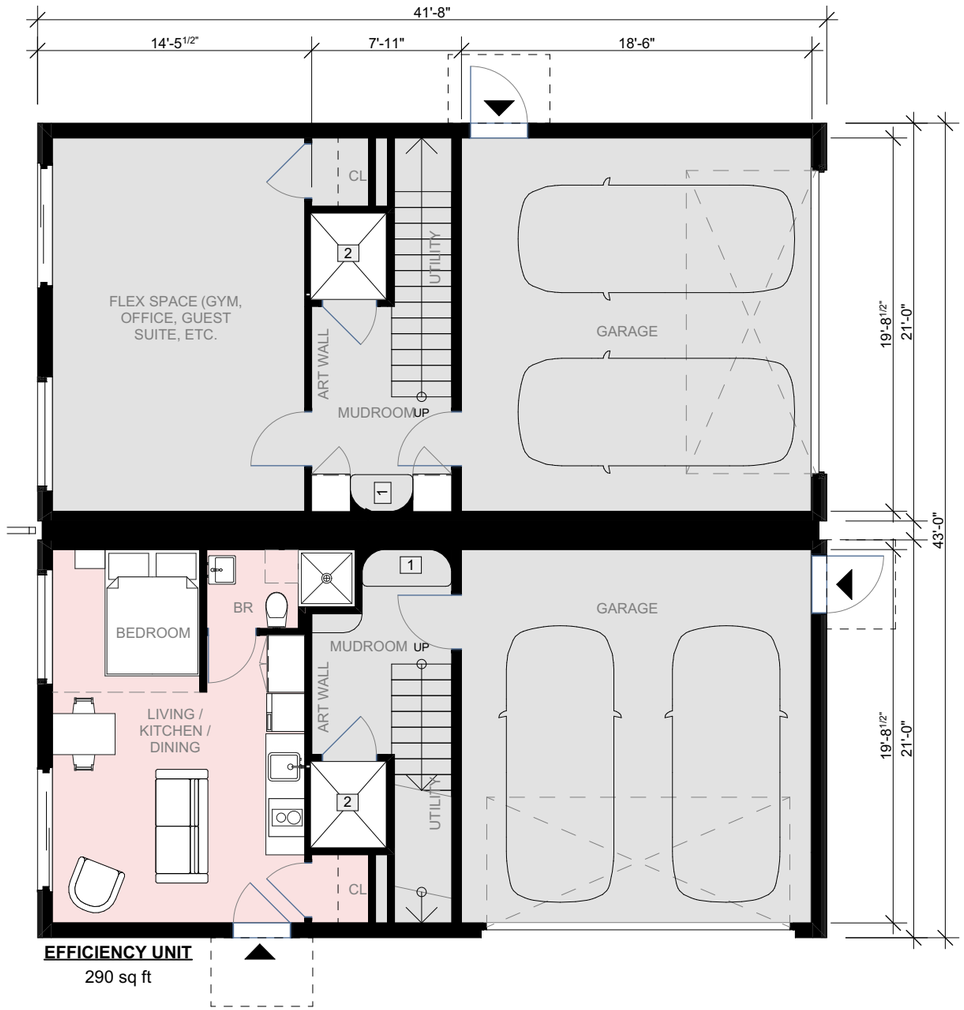
**Unit Type 2 (Qty. 1)**
4 Bedroom + Studio/ Office
3 1/2 Bath
2,592sf Living Area
360sf 2-Car Garage

**Unit Type 3 (Qty. 1) (Efficiency Unit)**
Studio
1 Bath
290sf Living Area

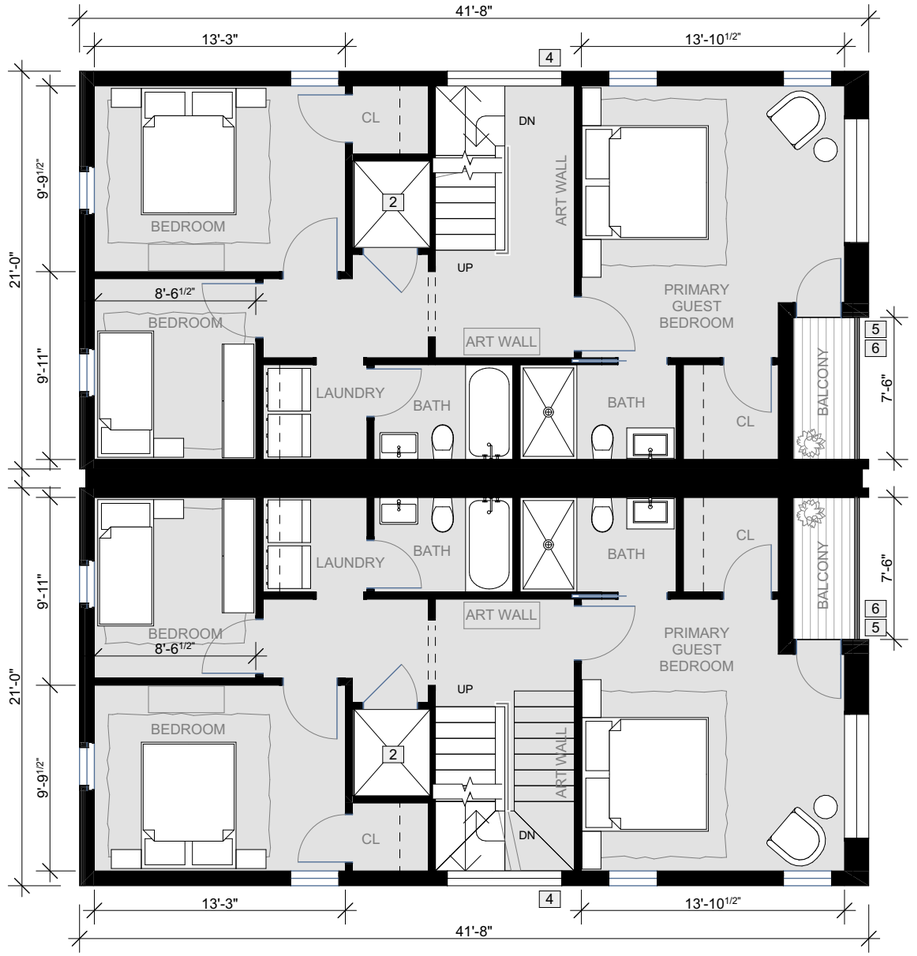
**Aditional Amenities (Type 1 and Type 2):**
Elevator
300sf+ Oceanview Deck
Balcony on 2nd and 4th Flr Primary Suites
Juliette Balcony in Living Room
Off-Kitchen Balcony

**Floor Plan Legend:**

1. Buit In Cabinetry
2. Elevator
3. Stone Steps
4. Glass Block Window
5. Galv. MTL Guardrail
6. Wood Decking
7. Gas stove
8. River Stone Ballast
9. Swing Gate



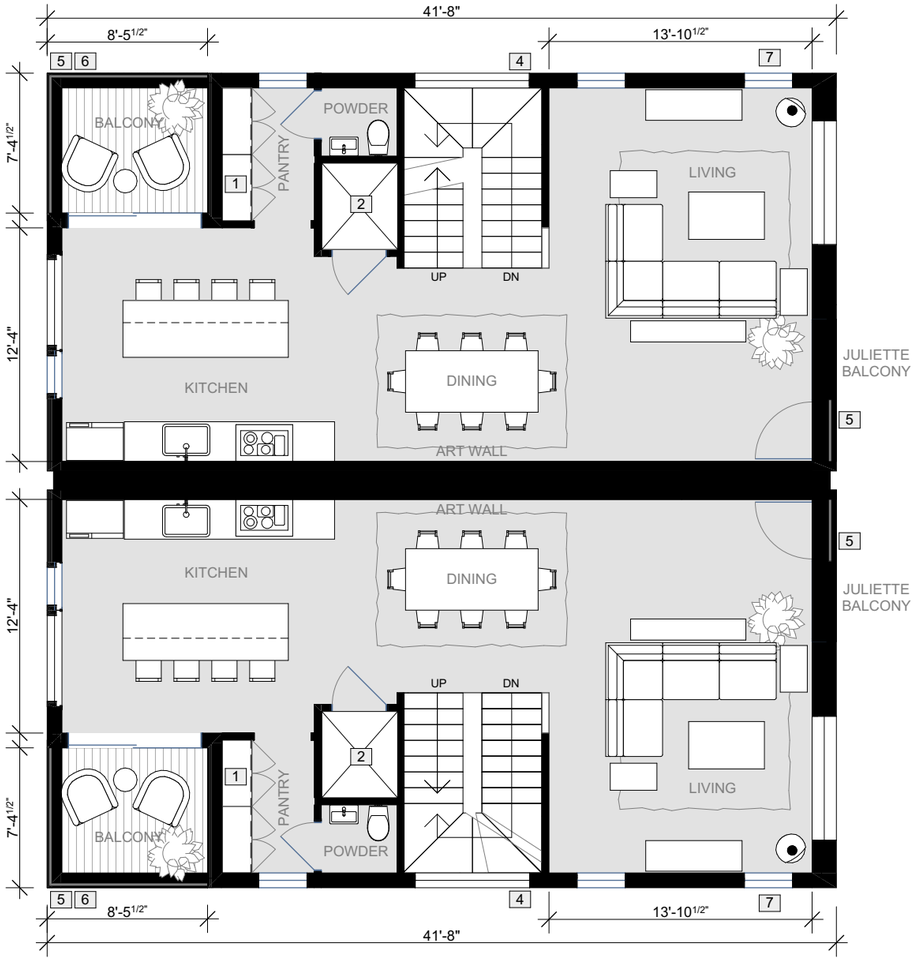

1 1ST FLOOR PLAN



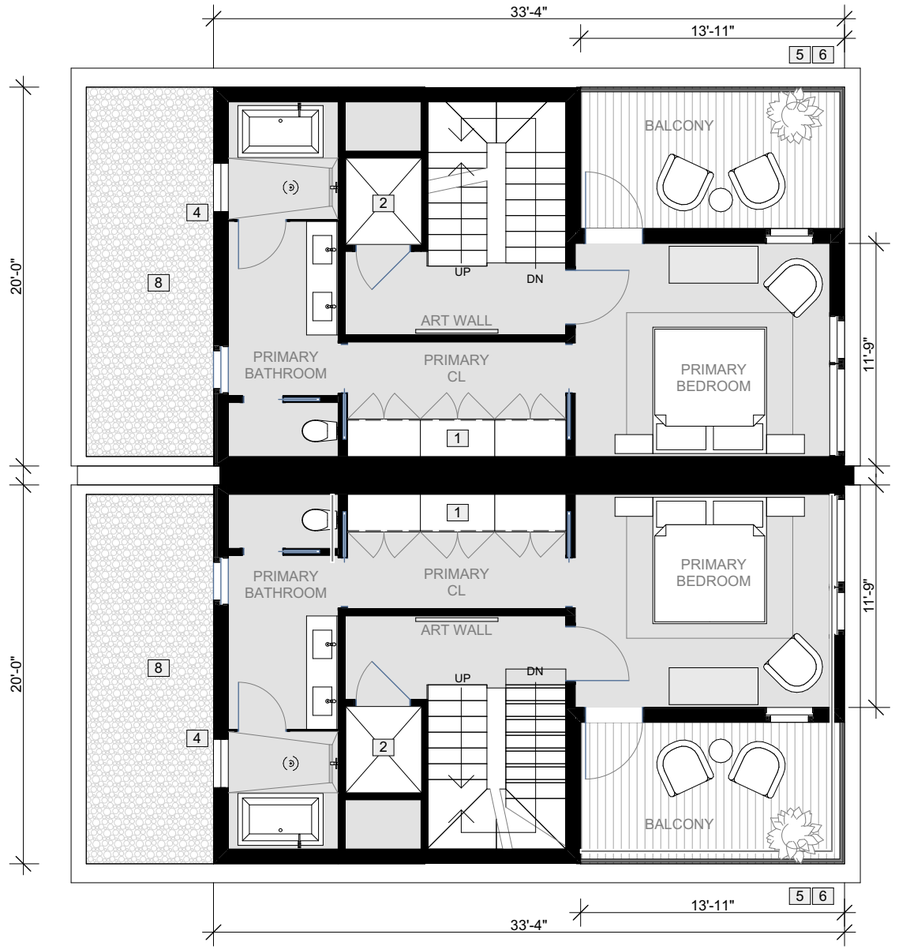

2 2ND FLOOR PLAN

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FLOOR PLANS (GUILFORD CT)
161 YORK STREET - PORTLAND, PORTLAND MAINE
CONCEPT REVIEW PACAKGE 9/29/2025




1 3RD FLOOR PLAN




2 4TH FLOOR PLAN

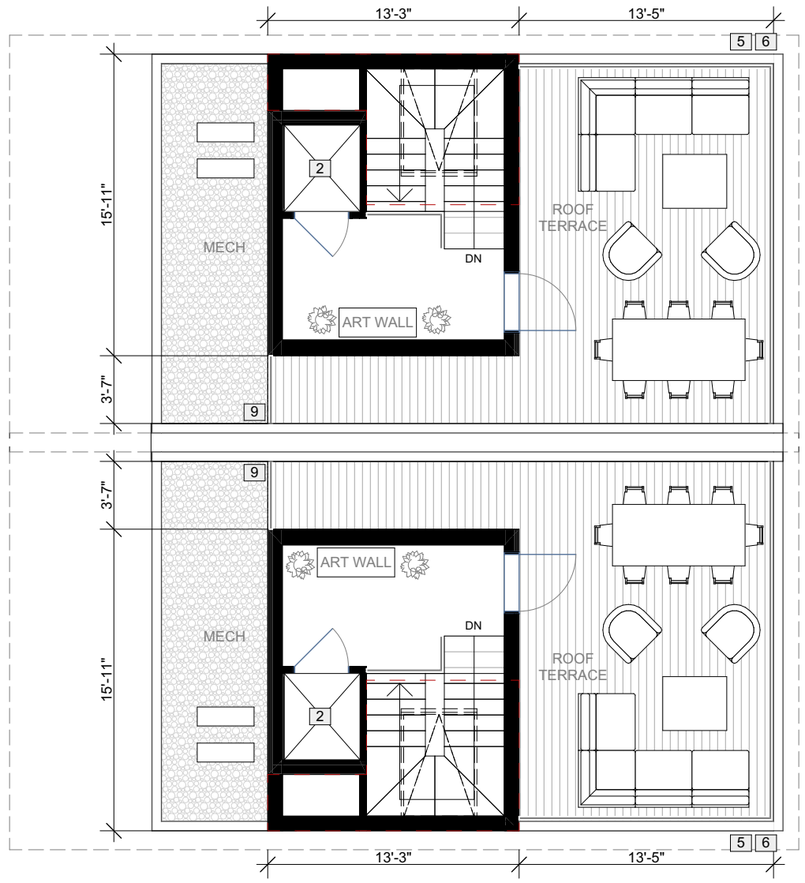
**Floor Plan Legend:**

1. Buit In Cabinetry
2. Elevator
3. Stone Steps
4. Glass Block Window
5. Galv. MTL Guardrail
6. Wood Decking
7. Gas stove
8. River Stone Ballast
9. Swing Gate

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# FLOOR PLANS (GUILFORD CT)

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**Floor Plan Legend:**

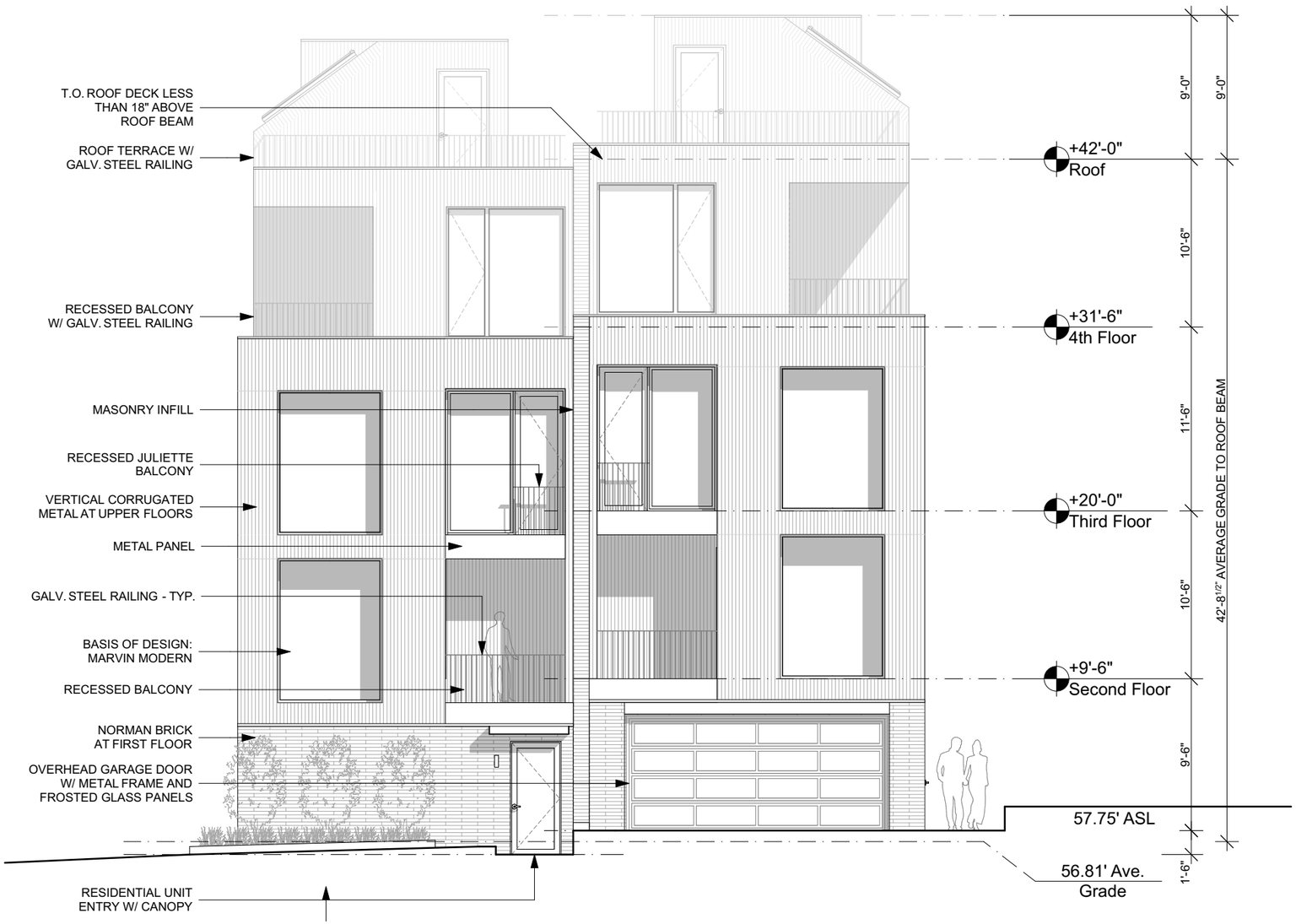
1. Buit In Cabinetry
2. Elevator
3. Stone Steps
4. Glass Block Window
5. Galv. MTL Guardrail
6. Wood Decking
7. Gas stove
8. River Stone Ballast
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1 ROOF PLAN

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# FLOOR PLANS (GUILFORD CT)

161 YORK STREET - PORTLAND, PORTLAND MAINE
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1 NORTH ELEVATION 1/8" = 1'-0"

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# ELEVATIONS (GUILFORD CT)

161 YORK STREET - PORTLAND, PORTLAND MAINE
PLANNING BOARD REVIEW PACAKGE 10/20/2025



1 EAST ELEVATION 1/8" = 1'-0"

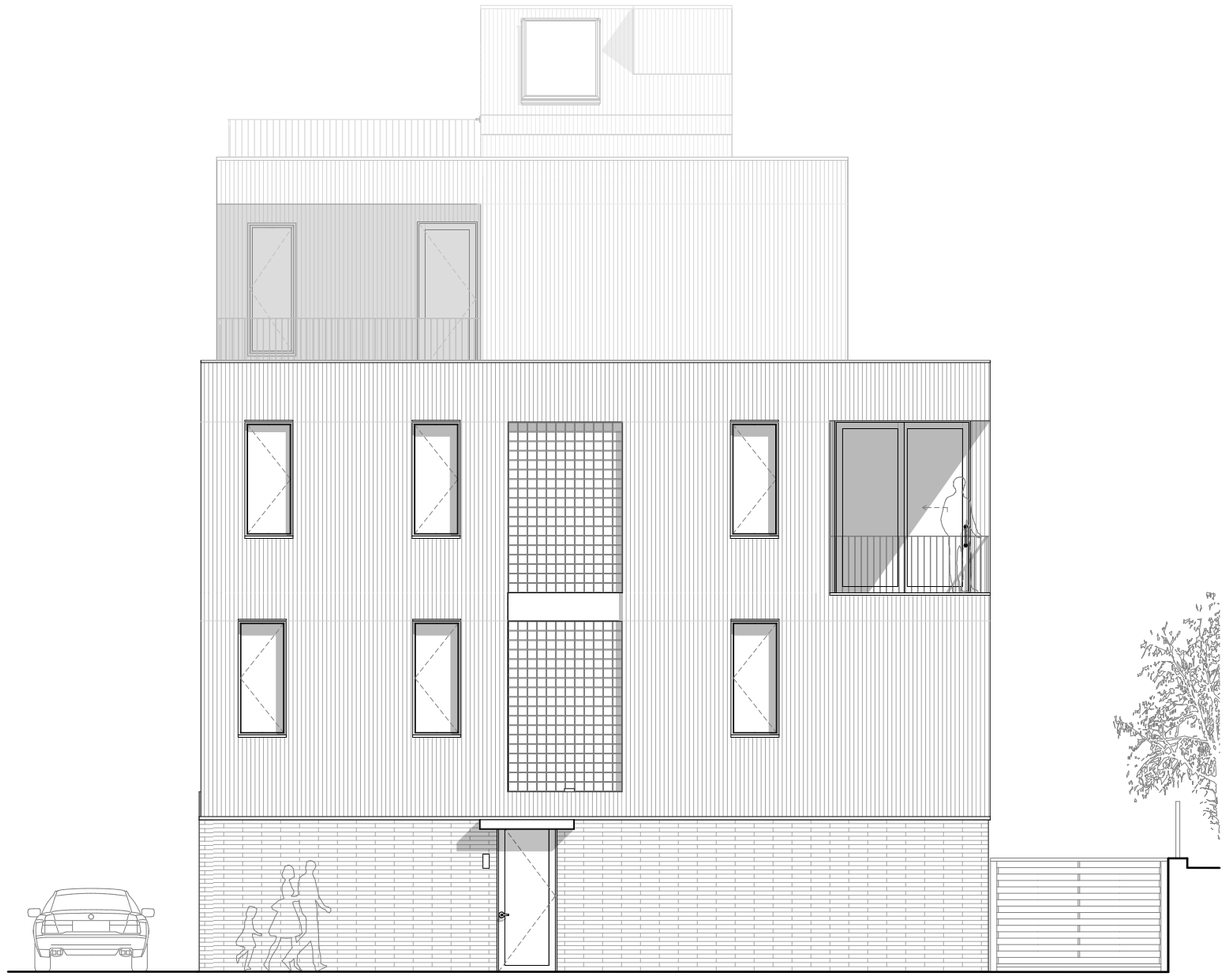
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# ELEVATIONS (GUILFORD CT)

161 YORK STREET - PORTLAND, PORTLAND MAINE
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1 SOUTH ELEVATION 1/8" = 1'-0"



2 WEST ELEVATION 1/8" = 1'-0"

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# ELEVATIONS (GUILFORD CT)

161 YORK STREET - PORTLAND, PORTLAND MAINE
PLANNING BOARD REVIEW PACAKGE 10/20/2025

| Luminaire Schedule | | | | | | |
|---|---|---|---|---|---|---|
| Symbol | Qty | Label | Description | Tag | LLF | Luminaire Lumens |
| + | 2 | SL1 | PERFORMANCE IN LIGHTING: IN1-7-CXX-3K-UNV-DIMXX | WALL MTD 2' AFG | 0.900 | 250 |
| ⊟ | 11 | W1 | PERFORMANCE IN LIGHTING: M10-M-5W-T3-CXX-3K-UNV-DIMXX | WALL MTD ADJACENT TO EGRESS, 6' AFG | 0.900 | 314 |
| ⊟ | 5 | W2 | PERFORMANCE IN LIGHTING: SH1-T3-6-80-3K-CXX-UNV-DIMXX | WALL MTD ABOVE GARAGE DOORS, 10' AFG | 0.370 | 1773 |

| Calculation Summary | | | | | | | |
|---|---|---|---|---|---|---|---|
| Label | CalcType | Units | Avg | Max | Min | Avg/Min | Max/Min |
| ENTIRE AREA | Illuminance | Fc | 0.11 | 4.4 | 0.0 | N.A. | N.A. |

CHARRON REFLEX LIGHTING

| # | Date | Comments |
|---|---|---|
| | | |

Revisions

Drawn By: Michael O'Brien
Checked By:
Date:7/14/2025
Contact: mobrien@charroninc.com
Scale: NTS

161 YORK STREET

PORTLAND, ME

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