

1. Legal Ad

Documents: [PB LEGAL AD 4-26-16.PDF](#)

2. Agenda

Documents: [PB AGENDA 4-26-16.PDF](#)

3. 605 Stevens Avenue

3.I. Memo

Documents: [STEVENS AVE. - 605 \(MEMO\).PDF](#)

3.II. Memo Attachments

Documents: [STEVENS AVE. - 605 \(MEMO ATTACHMENTS\).PDF](#)

3.III. Applicants Submittal (As Of 4-12-16)

Documents: [STEVENS AVE. - 605 \(APPLICANTS SUBMITTAL AS SUBMITTED 4-12-16\).PDF](#)

3.IV. Applicants Submittal (As Of March)

Documents: [STEVENS AVE. - 605 \(APPLICANTS SUBMITTAL AS AT MARCH PB WKSP\).PDF](#)

3.V. Plans

Documents: [STEVENS AVE. - 605 \(PLANS\).PDF](#)

3.VI. Massing Model - Addl Submittal

Documents: [STEVENS AVE. - 605 \(MASSING MODEL - ADDL. SUBMITTAL\).PDF](#)

3.VII. Final Public Comments

Documents: [FINAL PUBLIC COMMENTS SET FOR WORKSHOP II- MDP 605 STEVENS.PDF](#)

4. 117 Preble Street

4.I. Report

Documents: [PREBLE ST. - 117 \(PB REPORT\).PDF](#)

4.II. Report Attachments

Documents: [PREBLE ST. - 117 \(RPT. ATTACHMENTS\).PDF](#)

4.III. Applicants Submittal

Documents: [PREBLE ST. - 117 \(APPLICANTS SUBMITTAL\).PDF](#)

4.IV. Plans

Documents: [PREBLE ST. - 117 \(PLANS\).PDF](#)

5. 749 Congress Street

5.I. Memo

Documents: [CONGRESS ST. - 749 \(MEMO\).PDF](#)

5.II. Report Attachments

Documents: [CONGRESS ST. - 749 \(REPORT ATTACHMENTS\).PDF](#)

5.III. Applicants Submittal

Documents: [CONGRESS ST. - 749 \(APPLICANTS SUBMITTAL\).PDF](#)

5.IV. Plans

Documents: [CONGRESS ST. - 749 \(PLANS\).PDF](#)

6. 636 Riverside Street Postponement Memo

Documents: [636 RIVERSIDE STREET POSTPONEMENT MEMO.PDF](#)

7. 121 Center Street

7.I. Center St. - 121 (Memo)

Documents: [CENTER ST. - 121 \(MEMO\).PDF](#)

7.II. Applicants Attachments

Documents: [CENTER ST. - 121 \(APPLICANT ATTACHMENTS\).PDF](#)

7.III. Exhibits

Documents: [CENTER ST. - 121 \(EXHIBITS\).PDF](#)

7.IV. Staff Attachments

Documents: [CENTER ST. - 121 \(STAFF ATTACHMENTS\).PDF](#)

7.V. Plans #1-20

Documents: [CENTER ST. - 121 \(PLANS 1-20\).PDF](#)

7.VI. Plan # 21

Documents: [CENTER ST. - 121 \(PLAN 21\).PDF](#)

**LEGAL ADVERTISEMENT
PORTLAND PLANNING BOARD MEETING**

The Portland Planning Board will hold a meeting on Tuesday, April 26, 2016, Council Chambers, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken at this meeting.**

Workshop – 4:30 p.m.

- i. Master Development Plan; 605 Stevens Avenue; Seacoast at Baxter Woods Associates, LLC., Applicant. The Planning Board will hold a workshop on a proposed master development plan which presents four phases of development with a total of 249 units of senior housing, including the Planning Board approval of the conversion of the former Motherhouse convent into 88 units. The additional 161 units are proposed in 5 new four- and five- story buildings. The focus of the workshop will be on the layout and design of the master plan, along with landscaping and connections to Baxter Woods.

Public Hearing – 7:00 p.m.

- i. Level III Subdivision and Site Plan Amendment; 117 Preble Street; Schlotterbeck Block, LLC., Applicant. (7:00 p.m. estimated time) The Planning Board will hold a public hearing on an amended plan to add one residential unit to the building for a total of 56 housing units. The amended plans include modifications to the utility connections and handicap ramps.

Evening Workshop (Immediately following the Public Hearing)

- i. Level III Site Plan; Bed and Breakfast Hotel; 749 Congress Street; Joe Delois, representing Denovo, LLC., Applicant. The Planning Board will hold an evening workshop on the proposed conversion of the existing building at 749 Congress Street into a 16 room hotel and restaurant. The proposal includes the development of 7 new townhouses at the rear of the site with parking within each townhouse and on-site for a total of 18 spaces. There are two existing housing units on-site that will remain.
- ii. Level III Site Plan and Subdivision; Suburban Propane Facility; 636 Riverside Street; Forefront Partners, LP., Applicant. The Planning Board will hold an evening workshop on the proposed relocation of Suburban Propane from Thompson's Point to 636 Riverside Street. The proposed development includes a 7,300 sq. ft. office building, a 2,146 sq. ft. garage with office space, and a 4,000 sq. ft. cylinder storage dock. The plan includes 3 LP fuel storage tanks, each with the capacity of 30,000 gpd.
- iii. Level III Site Plan; 121 Center Street; Tedlum Associates, LLC, and the Asylum, Inc., Applicants. The Planning Board will hold an evening workshop on the proposed redevelopment of the site at 121 Center Street. The proposal is to demolish a portion of the existing structure and expand the building footprint to 11,310 sq. ft. with a total floor area of 24,459 sq. ft. The proposed uses include a restaurant, drinking establishment and performance hall.

ELIZABETH BOEPPLE, CHAIR - PORTLAND PLANNING BOARD

CITY OF PORTLAND, MAINE

PLANNING BOARD

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Carol Morrisette
David Eaton
Kristien Nichols
Maggie Stanley
Lisa Whited

AGENDA PORTLAND PLANNING BOARD MEETING

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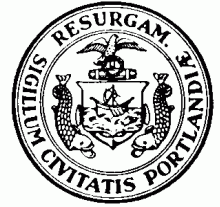
PUBLIC HEARING – 7:00 p.m.

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATIONS AND REPORTS**
3. **REPORT OF ATTENDANCE AT THE MEETING HELD ON APRIL 12, 2016:**
Workshop: Dundon, Eaton, Morrisette, Nichols, Stanley and Whited present; Boepple absent.
Public Hearing: Dundon, Eaton, Morrisette, Stanley and Whited present; Boepple and Nichols absent.
4. **REPORT OF DECISIONS AT THE MEETING HELD ON APRIL 12, 2016:**
 - i. Expansion of the India Street Historic District, City of Portland, Applicant. Morrisette moved and Eaton seconded a motion that finds the proposed expansion meets the ordinance requirements and is consistent with the comprehensive plan and the India Street Sustainable Neighborhood Plan; and the Board recommends to City Council the adoption of the proposed expanded India Street Historic District. Vote: 5-0, Boepple and Nichols, absent.
5. **NEW BUSINESS**
 - i. Level III Subdivision and Site Plan Amendment; 117 Preble Street; Schlotterbeck Block, LLC., Applicant. (7:00 p.m. estimated time) The Planning Board will hold a public hearing on an amended plan to add one residential unit to the building for a total of 56 housing units. The amended plans include modifications to the utility connections and handicap ramps.

6. EVENING WORKSHOP (Immediately following the Public Hearing)

- i. Level III Site Plan; Bed and Breakfast Hotel; 749 Congress Street; Joe Delois, representing Denovo, LLC., Applicant. (7:30- 8:30 estimated time) The Planning Board will hold an evening workshop on the proposed conversion of the existing building at 749 Congress Street into a 16 room hotel and restaurant. The proposal includes the development of 7 new townhouses at the rear of the site with parking within each townhouse and on-site for a total of 18 spaces. There are two existing housing units on-site that will remain.
- ii. POSTPONED: Level III Site Plan and Subdivision; Suburban Propane Facility; 636 Riverside Street; Forefront Partners, LP., Applicant. The Planning Board will hold an evening workshop on the proposed relocation of Suburban Propane from Thompson's Point to 636 Riverside Street. The proposed development includes a 7,300 sq. ft. office building, a 2,146 sq. ft. garage with office space, and a 4,000 sq. ft. cylinder storage dock. The plan includes 3 LP fuel storage tanks, each with the capacity of 30,000 gpd.
- iii. Level III Site Plan; 121 Center Street; Tedlum Associates, LLC, and the Asylum, Inc., Applicants. (8:30- 9:30 estimated time) The Planning Board will hold an evening workshop on the proposed redevelopment of the site at 121 Center Street. The proposal is to demolish a portion of the existing structure and expand the building footprint to 11,310 sq. ft. with a total floor area of 24,459 sq. ft. The proposed uses include a restaurant, drinking establishment and performance hall.

ELIZABETH BOEPPLE, CHAIR - PORTLAND PLANNING BOARD



Memorandum

Planning and Urban Development Department

Planning Division

To: Elizabeth Boepple, Chair and Members of the Portland Planning Board

From: Jean Fraser, Planner

Date: April 22, 2016

Re: Level III Master Development Plan; 605 Stevens Avenue;
Sea Coast at Baxter Woods Associates, LLC, Applicant
Project #: 2016-033 CBL: 136 E006001

Meeting Date: April 26, 2016

I. INTRODUCTION

This is the second Workshop on the Level III Master Development Plan (MDP) for 249 dwelling units of senior housing on two lots (approximately 13.5 acres) at the corner of Walton Avenue and Stevens Avenue. The 249 units would be made up of 88 apartments in the converted convent referred to as the Motherhouse, and 161 dwellings (condos) in five new 4-5 story new buildings nearby. The project includes 395 parking spaces and approximately 6 acres of open space. Sea Coast at Baxter Woods Associates, LLC are the applicant.

The first Workshop was held on March 22, 2016 and focused on traffic, parking and pedestrian accommodations. The second Workshop aims to concentrate on building and landscape design issues, including the relationship with Baxter Woods. The City's Urban Designer, Caitlin Cameron, and the City's Arborist Jeff Tarling will be available at the Workshop to answer questions.

The staff Memorandum for the March Workshop included a summary of the previous reviews and approvals, and background including the rezoning from R5 to R5A for part of the site; this has been extracted and included in [Attachment 8](#) for reference..

II. THE SITE

The MDP site is part of an approximately 20 acre site that was previously owned by the Sisters of Mercy and included the Motherhouse (now mostly vacant); the Catherine McAuley High School and associated playing fields; and the St Catherine apartments on Walton Street. The MDP does not include the ongoing uses of the School (except the playing field area) and the apartments, but does include the Motherhouse.

The site is adjacent to two valued open areas, Evergreen Cemetery and Baxter Woods and located on an arterial street with good public transit. The wider neighborhood is a cohesive and family-focused community with a mix of institutions (including 2 existing senior housing developments, several schools and UNE) and some retail.



III. PROJECT DATA for Lots 3 and 4 only (Lot #3 is Motherhouse site; Lot #4 is the area to south and east of the Motherhouse)

	<i>Existing</i>	<i>Proposed</i>
Zoning	R5 and R5a	Previously amended
Uses	Vacant Motherhouse; playing fields; open land	Senior housing and associated parking and open space; reconfigured playing field
Parcel Size	13.5 acres	13.5 acres
Dwelling Units	none	Motherhouse: 88 units (68 1-BR; 20 studios) Lot #4: 161 units, all 2BR
Building footprint	24,065 sf (Motherhouse)	Motherhouse: 24,065 sf Lot #4: 74,188sf
Building floor area	102,241 sf (Motherhouse)	Motherhouse; 102,241 sf Lot #4: 349,626 sf
Impervious Surface		272,946 sf
Parking spaces	Approx. 34	395

IV. EXISTING CONDITIONS

The MDP site has 460 feet of frontage along Stevens Avenue between Catherine McAuley High School and Baxter Woods. To the south the site abuts Baxter Woods and the Deering Pavilion. The north and north-east parts of the site abut an area of single and multifamily homes and the Forest Avenue RP zone is nearby.

Evergreen Cemetery is located opposite the site on Stevens Avenue and is an historic landscape. None of the buildings on or near the site are formally designated as landmarks, but the Motherhouse is currently being reviewed at State/Federal level (at the applicant's request) for inclusion on the National Register.

The existing Catherine McAuley High School is currently accessed by two one-way drives from Walton Street direct into the existing parking lot. There are two small drives with gates (currently closed) on Stevens Avenue that go directly to the front of the Motherhouse. Walton Street is a residential street connecting Stevens Avenue and Forest Avenue, with signals at both intersections. Under the Federal Street Classification system Stevens Avenue is classified as a "Minor Arterial" (other "Minor Arterials" in Portland are Warren Avenue and Washington Avenue) and Forest Avenue is classified a "Principal Arterial" (other "principal Arterials" in Portland are Brighton Avenue and outer Congress Street).

V. MASTER DEVELOPMENT PLAN PROPOSALS

The applicant has described the proposal in detail in the cover letter and narrative (Attachment B) which has been updated in Attachment I to include additional information regarding Baxter Woods and explain the plan revisions submitted April 12, 2016. The Plan set in Plans P1 to P16 are all revised since the PB Workshop and also include additional perspectives and elevations.

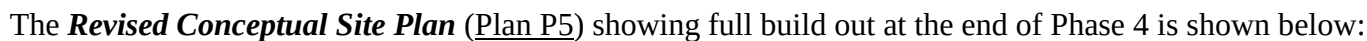
The key features of the submission package include:

- A four phase development to create 249 units of senior housing, of which 88 units are approved and are located within the existing Motherhouse building which will be refurbished and converted;
- Five new buildings, one at 4 stories (between the Motherhouse and Baxter Woods on the Stevens Avenue frontage) and 4 5-story buildings behind the Motherhouse;
- A total of 395 parking spaces, of which about half are underneath the new buildings;
- Several acres of open space, with connections to Baxter Woods and extensive new tree planting with a network of pedestrian walkways.

The revisions and additional information received in April include:

- Relocation of buildings 1-4 (to achieve several objectives including zoning, increased distance from Baxter Woods; achieve stronger visual links with both Stevens Ave and Walton Street; better fire department access and reconfigured open space;

- The Conceptual site plan considered at the March PB Workshop is included below for reference and is now superseded:



VI. PUBLIC COMMENT and PB WORKSHOP I DISCUSSION

A total of 129 notices were sent to property owners within 500 feet of the site and interested parties, and a legal ad was published in the *Portland Press Herald* on April 18 and 19, 2016. A Neighborhood Meeting was held on March 14, 2016 (Invitation in Attachment G) which was attended by about 20 neighbors. As of the time of completing this Memorandum, the Planning Division has received one written public comment (PC1) expressing concern about the impact on Baxter Woods and suggesting that the Board have a site visit to the Woods to understand its existing character.

The first Workshop on March 22, 2016 included a discussion about the potential traffic generation and noted that a Traffic Movement Permit (State but delegated to the City) was not required. Tom Errico, the City's Traffic consultant reviewer, clarified that the proposals would still be subject to a Traffic Study and further review of potential impacts, and that Transportation Demand Management measures would be expected as part of the proposals. Diane Moribito, the applicants Traffic consultant, outlined that the traffic analyses indicated that the proposals and the additional traffic would have very limited impacts, in part because much of the traffic would be off-peak. The proposals for pedestrian accommodations were not yet fully developed.

It was noted that the proposed parking was intended to ensure that all the parking demand could be accommodated on site, but that this could be modified in later stages if the parking demand in the early phases turned out to be less.

VII. ZONING ANALYSIS

The Master Development Plan proposals comply with the R5 and R5A requirements; the applicant has included this information on Plans P5 and P9, and the R5A dimensional standards are included in Attachment 11. It should be noted that the density and open space calculations are based on the R5A requirements but (based on the principle established by the City Council when the R5A area was reduced) the R5 parts of these lots is not built upon but the area is used to calculate the density and open space for a unified development plan.

VIII. STAFF REVIEW

A. MASTER DEVELOPMENT PLAN OBJECTIVES

The Site Plan ordinance outlines that an approved Master Development Plan (MDP) establishes the general parameters to be adhered to for the development, including the supporting documentation for floor area ratio and/or residential density, general types of uses, building coverage, generalized open space plans and infrastructure systems. It is not a final authorization for development, but it does confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of the approval for as long as the MDP approval remains valid (6 years initially), including permissible extensions up to 10 years. All Level III site plans for each phase shall be in general conformance with the approved MDP. The required review is under *Section 14-524(a)3c(iii) Master Development Plan Review including Standards for Review*.

B. MASTER DEVELOPMENT PLAN SUBMISSION REQUIREMENTS (Section 14-527(e))

Section 14-527 of the city's site plan ordinance outlines Master Development Plan submittal requirements. The Planning Authority or Planning Board may give direction regarding the form of the information required for the MDP review.

In general the submission requirements have been met, and staff understand that:

- The PB Workshop presentation on April 26, 2016 will include further modelling information and views of the development site that will clarify the massing and roofline of the buildings;
- The further detailed staff comments will be provided where necessary, and the final submissions will include revisions to address the Board, staff and public comments from both Workshops.

C. MASTER DEVELOPMENT PLAN STANDARDS (Section 14-524(a)3.c(iii))

Section 14-524 of the city's land use code establishes standards under which Master Development Plan applications must be reviewed. Per this section, Master Development Plans shall adhere to the following general requirements and features:

a. A designated tract of land consisting of a parcel or parcels of contiguous land or land on both sides of a public street, totaling one (1) acre or more;

Staff comments: The 13.5 acre site meets this requirement.

b. Developed in a comprehensive, design-integrated manner, according to an overall master development plan;

Staff comments: The applicant has submitted a Master Development Plan for Lots #3 and #4 where the proposed senior housing development will be located, and shows how the area integrates with the surrounding area.

c. Consistent with the objectives of this ordinance; and d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans and facility plans for off-premise infrastructure, including but not limited to, trails, pedestrian and bicycle network, view corridors, environmental management, sewer and stormwater, streets, or other facilities (see Section 15 of the Technical Manual);

Staff comments: There are no formal City Council approved plans in the vicinity except for the Evergreen Cemetery Master Plan. The applicant has sought staff guidance in relation to ensuring consistency with the proposed sidewalk improvements in Stevens Avenue, with surrounding utilities, with METRO's bus service and with the City's maintenance plans for Baxter Woods. These are discussed in detail below.

e. Developed so as to locate buildings and improvements in a manner that provides usable open space, preserves significant natural features, as defined by the site plan ordinance standards, and preserves existing trees to the maximum extent possible;

Staff comments: The trees to be preserved, removed and the new trees proposed to be planted are shown on the following plans: Landscape Master Plan (Plan P10); Tree Removal Plan (Plan P11); and Conceptual Site Plan in Plan P5 and above. Staff understand that the historic allees have been preserved as far as possible. The overall proposals are acceptable in principle and a final detailed review is pending.

The Open Space Calculations Plan in Plan P9, clearly shows the extent of impervious surfaces, wetland and open space, which helps in understanding the areas of usable open space. Further information and discussion on this subject is anticipated at the second PB workshop.

f. Ordinance standards for designated landmarks or for properties within designated historic districts or designated historic landscapes, if applicable. When proposed adjacent to or within one hundred (100) feet of designated landmarks, historic districts or historic landscapes, the Master Plan shall be developed so as to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development;

Staff comments: Although the Motherhouse building is considered of historic and architectural significance, the building is not yet designated a local landmark under Portland's Historic Preservation ordinance nor is it located in a local Historic District. It is understood that the applicant is seeking to list the building in the National Register of Historic Places in conjunction with their interest in securing tax credits for its rehabilitation. Review under the tax credit program

will likely require the preservation of some existing site elements, especially the iron fence along the Stevens Avenue frontage. The new buildings nearest to the Motherhouse may also be subject to review by the Maine Historic Preservation Commission and National Park Service, given the fact that the buildings will be located on the original Motherhouse property and have a visual relationship with the Motherhouse.

It should be noted that the site is opposite and within 100 feet of Evergreen Cemetery, which is an Historic Landscape, so the proposals for the frontage along Stevens Avenue would be reviewed by the Historic Preservation Program Manager under the site plan requirement for compatibility. If the Motherhouse is designated as a local landmark, then this site plan requirement would extend to any new buildings within 100 feet of the Motherhouse.

The Motherhouse dominates the site and the anticipated historic reviews are likely to consider the detailed architectural design relationship of any new buildings in the context of the Motherhouse; this would be a factor in the determining the architectural approach to the new buildings and is discussed in detail below under section *i*.

The recently submitted perspective of the proposed first phase building (building #1 on Plan P5, 4 story and 21 units) is extracted below; it illustrates how this new building would be set back to minimize impacts on the Motherhouse building.



EXISTING VIEW - VIEW FROM EVERGREEN CEMETERY



PROPOSED VIEW - VIEW FROM EVERGREEN CEMETERY

g. An efficient use of land which properly considers topography and protects significant natural features including, but not limited to, waterways, wetlands, floodplains and wildlife;

Staff comments: No issues have been identified to date.

h. An efficient use of land demonstrating full coordination of its own site development and surrounding context including, but not limited to, the land uses and functions contemplated, architecture, open space and pedestrian networks, vehicular access and circulation, and all other infrastructure;

and

f. Linked and coordinated with surrounding land uses, infrastructure and off-site public facilities, including but not limited to the public school system, where appropriate, in a manner that is safe, efficient, non-injurious to the public, and an improvement or benefit to the public where possible; and

Staff comments:

- **Architecture** - *see below under “i”*

- **Open space**

The Conceptual Site Plan (Plan P5) gives an indication of how open space areas have been integrated into the site layout. The total area of open space is indicated on Plan P9 (uncolored areas are “open space”) and the total area is will be about 6 acres compared to the zoning requirement of 1.2 acres.

- **Pedestrian Networks**

The pedestrian networks both within the site and linking to the surrounding sidewalks, Baxter Woods and bus transit facilities is acceptable in principle.

- **Baxter Woods**

The 29.5 acre Baxter Woods was presented to the “People of Portland” in 1946, a gift from then Governor Percival Baxter as a “municipal forest to be kept in its natural state” (see background leaflet with plan in Attachment 12. The use and maintenance of the Woods are dictated by deed restrictions and the City Arborist has been working with foresters over the years to meet the original intent of the gift, especially in the context of its high level of recreational use by the community.

Through the rezoning and MDP reviews the question of the potential impact of the future senior housing development on Baxter Woods has been raised by neighbors and staff. The City Arborist, Jeff Tarling, has provided the following comments (Attachment 5):

The proposed 605 Stevens Avenue project is adjacent to 'Mayor Baxter Woods' which is a significant natural, open space park donated to the City of Portland by Governor Percival Baxter in honor of his father, James P Baxter former Mayor of Portland. The woods was also formerly 'Forest Home' and throughout the last century and a half have have been a forested refuge. To minimize impact to the park both physically and view wise it will be important for the project team to work closely with the City objectively, so that visitors to the park have the natural experience as they have for over 75 years.

Recommendations include:

- Enhance buffering along the property edge, including the roadway easement*
- Future parking facing the park should be screened with native vegetation and earth berms.*
- Building facades facing the park should be painted or stained using natural earth tones. Night lighting should be engineered to have minimal trespass into the park.*
- Landscape treatment should be designed using native plants and plants that habitat friendly to birds.*
- Park impact baseline & monitoring - baseline assessment of park conditions along with a five year monitoring program would be a recommended.*

Staff met with the development team at the end of March, 2016 in Baxter Woods to consider the character of Baxter Woods now and how it might be affected. Staff suggested that the applicant document how they would ensure that any potential impacts were addressed, including:

1. An assessment of the Wood's current condition and use as a baseline for future monitoring of its condition, use and associated impacts.
2. Monitoring (linked to phases) of condition over time, with monitoring data maintained and made available to interested parties; and
3. A list of potential improvement proposals and timing.

The applicant has responded to this suggestion with a draft outline for a “*Memorandum of Understanding*” (*MOU*) ([Attachment J](#)) that, once finalized and recommended by the Planning Board, would constitute a condition of approval. Staff are concerned to ensure that the *MOU* reflects the ongoing monitoring and maintenance work that the City has been coordinating and the City Arborist comments ([Att. 5](#) and above), so the draft would need revisions along these lines.

In addition to the use and condition of the Woods, there are concerns about the height and proximity of the new buildings as viewed from the Woods. The applicant has recently submitted a perspective from the “Meadows” area of Baxter Woods that gives an impression of how the new buildings might look from that viewpoint:



EXISTING VIEW - VIEW FROM BAXTER WOODS MEADOW



PROPOSED VIEW - VIEW FROM BAXTER WOODS MEADOW

- ***Vehicular Access and Circulation***

The applicants consulting traffic engineer submitted a Traffic Impact Study (Att. H.) that considered trip generation, impact on intersections, accidents and sightlines, and Tom Errico, the City's Traffic Engineering reviewer, provided preliminary comments in March (Attachment 2). No further submissions have been received, but in reviewing the revised proposals staff have identified several additional issues that the final submissions will need to address:

- The crosswalk location and relocated bus stop are agreed in principle with staff and METRO, but METRO seek a bus shelter along the frontage (this is also a requirement in the Site Plan ordinance). The shelter would not fit in the ROW so the applicant will be requested to identify the location for a "pad" for the shelter on the development site, located so that it does not detract from the Motherhouse frontage but is near the bus stop. The construction details would be confirmed as part of the Site Plan Review process.
- The City's Traffic Consulting reviewer suggests - in principle at this time- that the pedestrian safety in Stevens Avenue could be improved by adding a pedestrian crossing at the Walton/Stevens intersection, particularly in light of the additional left - turners expected to be using the intersection once the development is built out.

- ***Fire Access***

The Fire Department was concerned that the previous layout needed additional access routes to ensure rescues could be made from all of the buildings (Attachment 1). The Fire Department are reviewing the revised layout and comments are pending.

- ***Parking***

The Parking Diagram (Plan P8) shows a total of 395 parking spaces, of which 212 spaces are on the surface and 183 are beneath the buildings. The allocation of the surface parking is shown as color-coded on the Parking Diagram.

The proposals outlined in the Master Development Plan are based on the approved parking ratio for the Motherhouse (73 dedicated parking spaces for the 88 units) and on the zoning requirement for the rest of the area (2 parking spaces per unit).

The objective is to ensure that the proposed parking levels will not result in overflow parking to streets outside of the site. Staff generally consider that the parking is adequate, but would suggest that this be monitored and that the later phases be revised to address the actual parking demands.

- ***Utilities; Stormwater; other***

The applicant submitted additional information to assess the available capacity and the extent of upgrades and new infrastructure that may be required. Staff have not been able to fully review the submissions at the time of preparing this Memorandum, and further staff comments are pending.

g. Designed with sizing of street and other infrastructure systems to accommodate the overall service demand of the Master Plan;

h. Designed to create a street grid pattern that reflects average city block sizes of the neighborhood for street connectivity;

Staff comments: This was discussed at the first Workshop and is summarized in Section VI.

i. Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;

Staff comments:

The proposed new buildings are illustrated in elevations ([Plan P14](#)); renderings ([Plan P15](#)) and in Site perspectives ([Plan P16](#)). The applicant has not submitted modelling information to illustrate the massing and roofline of the proposed buildings, so the staff review has concentrated on the architectural approach, as illustrated in the rendering of one of the 5-story buildings (at the back part of the site) that is extracted below (also in [Plan P15](#)):



The most immediate architectural context is the Motherhouse building and staff suggest that the detailed design should relate more closely to this key feature.

The City's Urban Designer, Caitlin Cameron, has commented ([Attachment 6](#)):

The proposed master plan for multi-family residential buildings are only reviewed according to the Master Plan criteria at this point. In future Site Plan design reviews, the projects will be subject to the R-5 and Multi-family design guidelines.

In the Master Plan level review, the design considerations include cohesiveness within the proposed development as well as compatibility with the context. In this case, the immediate context is the Motherhouse and campus property on which the future development will be situated. Though the design and placement of buildings should be sensitive to neighboring residential and park contexts, the multi-family building typology and the relationship to the Motherhouse are the primary considerations in evaluating the design.

In discussion with Planning and Historic Preservation staff, I have the following preliminary design comments. The overall massing of the buildings will best be evaluated with three-dimensional models and aerial views of the proposed massing in the campus with existing building and landscape context. From the information given, it appears the design proposal successfully mitigates the scale of the buildings through the use of varied forms and change of building plane. The buildings are also placed interior to the lot and are therefore less visible from public rights-of-way and neighboring properties, buffered by space and trees. Staff is not in support of the proposal to use gable roof forms in combination with flat roofs. This

approach is not responsive to the Motherhouse form or building composition. Rather than introduce vertical breaks in the façade, the preferred approach would be to use a consistent material palette for the lower floors and differentiate the upper floor in material and proportion keeping a flat roof throughout. This keeps the individual building design consistent with the typology and moves the architecture in a direction that is responsive to the Motherhouse context.

- j. *Inclusive of provisions for the ownership and maintenance of usable open space as appropriate;*

Staff comments: The submission includes the draft Condominium Documents that outline the management arrangements for the MDP area.

- k. *For areas proposed as future development phase(s), the proposed interim conditions shall be managed and maintained to ensure stable, safe and attractive site conditions.*

Staff comments: The applicant has submitted a Phasing Diagram (Plan P6).

IX. NEXT STEPS

1. Address staff, Planning Board and public comments;
2. Submit further information as outlined in the PB Memorandum;
3. Public comment has suggested a site walk, so the Board may want to consider whether this should be scheduled as part of the MDP review or at the time of the first level III Site Plan review;
4. If the Board agree that a Hearing is the next step, submit final MDP proposals and MOU.

ATTACHMENTS

MEMORANDUM ATTACHMENTS

1. Fire Dept. comments 3.17.16 on previous layout
2. Traffic Engineer comments 3.17.2016
3. Peer engineer Comments 3.17.2016
4. Dept. of Public Works comments (none at this time)
5. City Arborist comments 4.22.2016
6. Urban Design Comments 4.22.2016
7. Historic Preservation Program Manager comments (none as they have been incorporated into text)
8. Background and previous reviews and approvals
9. Conceptual Site Plan shown to PB & CC at Rezone Hearings 2015
10. Lots & zoning data table based on R5A zone
11. Dimensional Requirements of the R5A Zone
12. Baxter Woods leaflet: history, plans & restrictions

PUBLIC COMMENTS

PC1 C Gemmer

APPLICANT'S SUBMITTAL (AS AT MARCH PB WORKSHOP I)

- A. MDP Dev. Review Application 2.1.2016
- B. Cover Letter & Narrative 2.16.2016
- C. RTI
- D. Draft Condo Docs
- E. Financial Capability
- F. Utilities
- G. Neighborhood Meeting Invitation
- H. Traffic Impact Study

APPLICANT'S SUBMITTAL (ADDITIONAL AS SUBMITTED 4/12/2016)

- I. Addenda to February cover letter 4.12.2016
- J. Baxter Woods MOU Outline 4.12.2016
- K. Stormwater Management summary 4.12.2016

PLANS

- P1 Draft Subdivision Plat (previously approved)
- P2 Overall Existing Conditions Plan

PLANS (REVISED AS SUBMITTED 4/12/16)

- P3 Cover
- P4 Neighborhood Context Plan
- P5 Site Plan (full build out)
- P6 Phasing Diagram
- P7 Circulation Plan (full build out)
- P8 Parking Diagram (full build out)
- P9 Open space Calculations (full build out)
- P10 Landscape Master Plan (full build out)
- P11 Tree Removal Plan (full build out)
- P12 Concept Stormwater Plan (full build out)
- P13 Concept Utilities Plan (full build out)
- P14 Elevations (3 sheets)
- P15 Renderings of the 2 building types (2 sheets)
- P16 Existing & Proposed Perspective Views

MEMORANDUM

To: FILE
From: Jean Fraser
Subject: Application ID: 2016-033
Date: 3/17/2016

Comments Submitted by: Keith Gautreau/Fire on 3/17/2016

Had a preliminary meeting with the developers and architects and emergency access to the larger proposed building in the rear of the project had limited fire department emergency vehicle access. Possibly an additional fire lane would address this access problem. The applicant will propose something to be reviewed by the Authority Having Jurisdiction.

Comments Submitted by: Keith Gautreau/Fire on 3/17/2016

We mentioned that a proposed new private hydrant could be located at the intersection of the new access roads.



Jean Fraser <jf@portlandmaine.gov>

605 Stevens Avenue Master Development Plan - Initial Traffic Review Overview

1 message

Tom Errico <thomas.errico@tylin.com>

Thu, Mar 17, 2016 at 1:37 PM

To: Jean Fraser <jf@portlandmaine.gov>

Cc: David Margolis-Pineo <DMP@portlandmaine.gov>, Katherine Earley <KAS@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <JST@portlandmaine.gov>

Hi Jean – In advance of next Tuesday's Planning Board Workshop I have provided a summary of current traffic review items in conjunction with the above project.

- The applicant submitted a preliminary trip generation analysis that was based upon data from the Trip Generation Manual, Institute of Transportation of Engineers (ITE). The estimate was based upon Land Use Code 252 – Senior Adult Housing. I requested additional information on the ITE Land Use development type and is the data based upon current developments. Additionally, I requested the applicant provide local data for comparison. The applicant provided information that indicates the most recent publication provided by ITE does include current developments sites. Additionally, the applicant provided actual trip generation data collected at the Highlands in Topsham, which indicates similar trip levels as ITE. Based upon the applicant's analysis the project would be expected to generate 97 trips entering and exiting during the Weekday AM Peak hour and 87 trips entering and exiting during the Weekday PM Peak hour.

- A meeting with the applicant was held on March 9, 2016 to discuss the outcome of the trip generation analysis and for the City to provide guidance on the study area for a traffic impact study.

- Based upon the trip generation estimate, the project does not meet trip threshold requirements for a Traffic Movement Permit (TMP). The TMP threshold is 100 trips. Please note the following:

- During the Rezoning review process there were trip generation estimates that indicated a TMP would be required. That conclusion was based upon a development scenario with a greater number of dwelling units.
 - Given that this project will be constructed in phases, I have recommended that a traffic monitoring study be required as a condition of approval with the intent of surveying actual traffic levels following occupancy of each phase, and if that study identifies higher trip generation levels, a TMP may be needed.
 - The applicant is responsible for the preparation of a comprehensive traffic impact study for the proposed project. A traffic study was submitted on March 15, 2016. The traffic impact study reviewed impacts to the public street system including the Stevens Avenue/Walton Street, Stevens Avenue/Pleasant Avenue, Forest Avenue/Walton Street and Site Drive intersections. This type of study would likely be the same under a TMP submittal. Preliminary comments will be provided at the Workshop on March 22, 2016.
-
- City staff continues to review and provide comments on pedestrian, bicycle, and transit improvements in conjunction with this project. In conjunction with the Motherhouse project, improvements associated with transit and crosswalks (location and ADA compliance) were required. The MDP includes a relocated crosswalk location and associated links that are based on the discussions with the City and METRO.
 - On-site traffic circulation and parking will be closely reviewed particularly as it relates to interaction with McAuley School (both typical school days and during events).
 - The applicant will be requested to confirm the measures that will be implemented to reduce vehicle trips, such as car share vehicles; van service for local trips; bicycle facilities, etc. that would be considered to be a component of a Senior Housing development that would have been reflected in the developments surveyed by ITE for use in estimating trip generation.

Please let me know if you have any questions.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLININTERNATIONAL T.Y. Lin International

12 Northbrook Drive

Falmouth, ME 04105

[207.781.4721](tel:207.781.4721) (main)

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MEMORANDUM



TO: Jean Fraser, Planner
FROM: David Senus, PE
DATE: March 17, 2016
RE: 605 Stevens Ave – Master Development Plan Application

Woodard & Curran has reviewed the initial application materials for a Master Development Plan for a proposed senior living / active adult community at the former Sisters of Mercy campus located at 605 Stevens Avenue. We also attended a meeting with the Applicant and their consultant team on February 24, 2016.

Documents Reviewed by Woodard & Curran

- Master Development Plan Application and Narrative prepared by Licht Environmental Design, dated February 16, 2016.
- Master Plan Design Set, sheets G-1, C-1 through C-3, and L-1 through L-4, prepared by Titcomb Associates and Carroll Associates, dated February 16, 2016.

Comments

1. At the time of our meeting on February 24th, the consultant team was continuing to follow up with utility companies to ensure that the approach to utility service connections to Stevens Ave (Gas & Water) and Walton Street (Sewer & Electrical) were suitable as initially presented. The Design team was awaiting updated capacity to serve letters from these utility companies, and was actively working on sizing utility stub-ins across the current Motherhouse development site to ensure that the utility feeds were adequately sized to accommodate the overall development (the full build-out of the Master Plan). The Applicant's approach to utility design for the overall Master Development Plan is acceptable; we await additional information on proposed utility service sizes and confirmation of ability to serve.
2. The approach to stormwater management for the site is acceptable as presented in the initial Master Development Plan submittal and as described by the consultant team at our February 24th meeting. The proposal presents a Low Impact Development (LID) approach to stormwater management, seeking to treat and infiltrate stormwater at multiple locations close to the runoff source, and attempting to match the pre- and post- development hydrological conditions. The Applicant is aware of the importance of not increasing the discharge rate into Baxter Woods as a result of the development, and maintaining the existing discharge locations from the site. The Applicant's engineer has proposed to develop a broad HydroCAD model for the site and to identify the conceptual size and location of stormwater BMP's on the site. We await this additional information, and find the approach as presented to be in conformance with City of Portland and State of Maine Stormwater Standards.

Jeff Tarling

10:59 AM (36
minutes ago)

to me

Jean -

In review of the proposed 605 Stevens Avenue project master plan I would like to offer the following comments:

The proposed 605 Stevens Avenue project is adjacent to 'Mayor Baxter Woods' which is a significant natural, open space park donated to the City of Portland by Governor Percival Baxter in honor of his father, James P Baxter former Mayor of Portland. The woods was also formerly 'Forest Home' and throughout the last century and a half have been a forested refuge. To minimize impact to the park both physically and view wise it will be important for the project team to work closely with the City objectively, so that visitors to the park have the natural experience as they have for over 75 years.

Recommendations include:

- a) Enhance buffering along the property edge, including the roadway easement
- b) Future parking facing the park should be screened with native vegetation and earth berms.
- c) Building facades facing the park should be painted or stained using natural earth tones. Night lighting should be engineered to have minimal trespass into the park.
- d) Landscape treatment should be designed using native plants and plants that habitat friendly to birds.
- e) Park impact baseline & monitoring - baseline assessment of park conditions along with a five year monitoring program would be a recommended.

Jeff Tarling
Portland Parks & Recreation - City Arborist
55 Portland Street
Portland, ME. 04101
[\(207\) 874.8820](tel:(207)874.8820)
ist@portlandmaine.gov

Planning and Urban Development Department Planning Division



Subject: Design Review – 605 Stevens Avenue Master Plan

Written by: Caitlin Cameron, Urban Designer

Date of Review: Friday, April 22, 2016

The proposed master plan for multi-family residential buildings are only reviewed according to the Master Plan criteria at this point. In future Site Plan design reviews, the projects will be subject to the R-5 and Multi-family design guidelines.

In the Master Plan level review, the design considerations include cohesiveness within the proposed development as well as compatibility with the context. In this case, the immediate context is the Motherhouse and campus property on which the future development will be situated. Though the design and placement of buildings should be sensitive to neighboring residential and park contexts, the multi-family building typology and the relationship to the Motherhouse are the primary considerations in evaluating the design.

In discussion with Planning and Historic Preservation staff, I have the following preliminary design comments. The overall massing of the buildings will best be evaluated with three-dimensional models and aerial views of the proposed massing in the campus with existing building and landscape context. From the information given, it appears the design proposal successfully mitigates the scale of the buildings through the use of varied forms and change of building plane. The buildings are also placed interior to the lot and are therefore less visible from public rights-of-way and neighboring properties, buffered by space and trees. Staff is not in support of the proposal to use gable roof forms in combination with flat roofs. This approach is not responsive to the Motherhouse form or building composition. Rather than introduce vertical breaks in the façade, the preferred approach would be to use a consistent material palette for the lower floors and differentiate the upper floor in material and proportion keeping a flat roof throughout. This keeps the individual building design consistent with the typology and moves the architecture in a direction that is responsive to the Motherhouse context.

ATTACHMENT 8
to PB Memo for MDP Workshop II
As was in PB Memo for Workshop I

I. PREVIOUS REVIEWS AND APPROVALS

The MDP was submitted after a year of discussions with the Planning Division, Planning Board, members of the public and City Council regarding zoning text and map amendments to guide the appropriate scale of senior housing development on this site. The text and map amendments are outlined in more detail in section **V b.** below.

The associated policy decisions regarding density considerations and associated traffic, parking and visual impacts were the subject of extensive Planning Board and City Council discussion, including hours of public testimony (41 written comments on the rezoning).

The MDP submission and review is a “middle” stage between the rezoning that allowed for this particular use, and the implementation of four phases of senior housing development. The conversion of the Motherhouse as a first phase was approved by the Planning Board in August 2015 to facilitate housing and historic tax credits. The MDP, once approved, would provide a conceptual plan that integrates the existing buildings and uses into the anticipated final build out that includes 5 new buildings with associated access, parking and open space/landscape amenities.

The overall review and approval chronology is outlined in the following table:

Subject of application	Application Date	PB Workshop(s)	PB Hearing approval	City Council approval
Rezone 17 acres from R5 to R6A for senior housing/congregate care	February 2015	March 2015		
Rezone 13.5 acres to R5A senior housing/congregate care	April 2015	April 2015	May 2015	
Rezone 7.5 acres to R5A senior housing/congregate care				July 6, 2015 (amended PB recommendation)
Amendment to R5A Text	April 2015	April 2015	May 2015	June 15, 2015
Convert Motherhouse (part in R5A) to 88 senior units, incl. 66 units of affordable housing (Ph 1)	June 2015	July 2015	August 2015	N/A
Subdivision of the entire approx. 20 acre site into 4 lots	June 2015	July 2015	August 2015	N/A
(THIS APPLICATION) Master Development Plan for Lots 3 & 4 (Motherhouse and land to south and east of Motherhouse (total of 13.5 acres) /	February 2016	March 22, 2016	TBD	N/A
(ANTICIPATED NEAR FUTURE) Phase 1 of senior housing in 21 unit building near Motherhouse	Expected in 2016			N/A
(ANTICIPATED FUTURE) A further two phases as outlined in MDP	Not confirmed			N/A

II. BACKGROUND

a. Site History

The site was the location for a convent in the late 19th century for the Sisters of Mercy in Portland and originally included a church. Other uses were introduced over the years:

- A girl’s school in 1881 (later expanded into what is known as Catherine McAuley High School in 1971); the expansion of the playing fields at the back were added in the last 10 years;

- St Catherine's Hall in 1888 as St Joseph's Home for Aged Women, which later became St Joseph's college from 1917 to 1954 (now 18 apartments for Sisters of Mercy and will continue for foreseeable future);
- Motherhouse, completed in parts between 1909 and 1921, which was the home of up to 300 nuns but was closed about 10 years ago.



Motherhouse Building

b. Rezoning part from R5 to R5A

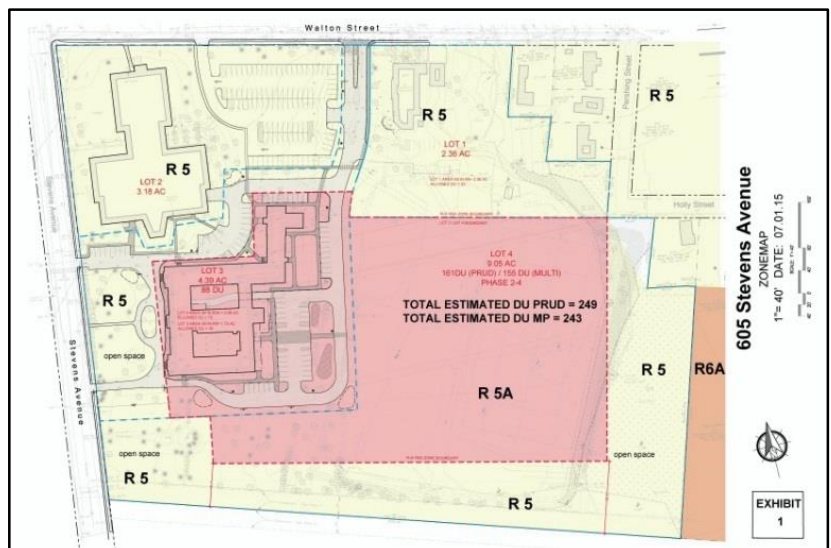
The applicant initially applied to rezone more of the site from R5 to R6A to allow for 300+ dwellings. During the review the Planning Board received extensive public comment raising concerns that the allowed density (which would have been higher) was out of scale with the surrounding neighborhood, and the lower density R5A zone emerged as an option with both a map amendment and associated text amendments (see [Att 8](#) for the amended dimensional requirements that impact density).

In summary the final zone amendments to the R5A zone text were:

- Adding “multifamily ” and “congregate care” to the permitted uses, with associated minimum lot sizes;
- Amend definition of “congregate care”;
- Clarification of the minimum lot area per dwelling (1600 sf) for both uses;
- Include a maximum structure height of 55 feet;
- Remove the requirement that the R5A zone be applied through the contract zone provisions;
- Streamlining the definition of “net land area” to meet current development review practices;
- Removal of unnecessary text and placing the dimensional requirements into a table;
- Amend the Site Plan ordinance regarding Master Development Plans to include the proposed uses.

The Planning Board recommendation to the City Council was for all of Lots 3 and 4 to be rezoned to R5A and was informed by the Conceptual Site Plan in [Att 6](#).

In response to public comments, the City Council approved a smaller final boundary of the R5A zone (shown right) which allows for a maximum of 249 dwellings on the Lot 3 and Lot 4 site. This number of dwellings was based on the total entire land area of both zones with pro-rata densities. The zone boundaries are not the same as the property or lot boundaries and the data is split out in [Att 7](#).



c. Subdivision into 4 lots

The Planning Board approved (August 2015) the creation of an overall Subdivision to define the following 4 lots within the overall site:

- Lot 1: St Catherines Hall (2.36 acres)
- Lot 2: Catherine McAuley High School (3.18 acres)
- Lot 3: Motherhouse (4.39 acres)
- Lot 4: Open area and fields (9.05 acres)

The Master Development Plan is for Lots 3 and 4 (developed for senior housing) as Lots 1 and 2 are anticipated to remain as existing for the period of the Master Development Plan.

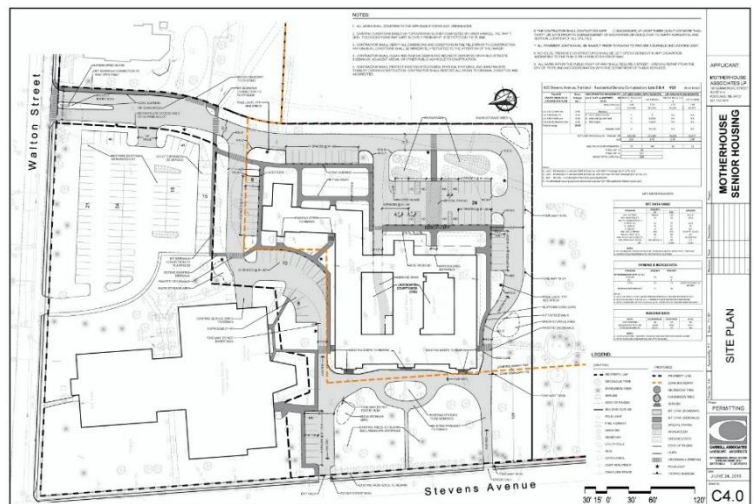


d. Review and Approval to Conversion of existing Motherhouse building

The applicant received Planning Board approval to the Phase 1 project to rehabilitate the main Motherhouse building for 66 affordable housing units and 22 market rate units - with a mix of 68 single bedroom and 20 studio apartments.

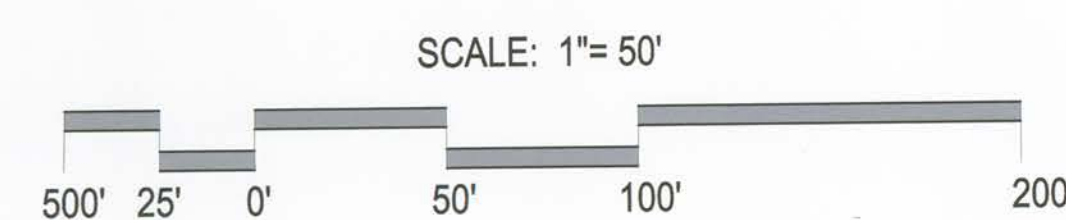
The site plan (see right) included:

- Redesign of the existing high school parking lot to better organize access and parking
- Creation of a rear main ADA entrance and associated drop-off and parking areas;
- New walkways to create an interconnected walkway system;
- Contribution to Stevens Avenue crosswalk improvements;
- Stormwater measures;
- Landscaping.





605 Stevens Avenue CONCEPTUAL MASTER PLAN



PRUD & MULTIPLEX/MULTIFAMILY ANALYSIS

Notes:
1. Under Multiplex Analysis: R5 density is 1 unit per 4,500 sf Gross ac. with 250 ft frontage (Lot 3) and 1 unit per 6,000 sf Gross ac. with < 250 ft. frontage (Lot 4) per (§ 14.117(a.) 2.)
2. Under Multifamily Analysis: R5A density is 1 unit per 1600 sf NET ac. based on Amended § 14-47 Net Land Area def. of 06-15-15
3. Under PRUD Analysis: R5 density is 1 unit per 3000/sf NET ac and R5A is 1 unit per 1600 sf NET ac.
4. No affordable housing multiplex density bonuses per §14-488 applied to Motherhouse Lot 3

R5A Zone - Extract**Sec. 14-130. Dimensional requirements.**

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the R-5A zone shall meet or exceed the following requirements:

Minimum Lot Size	Residential(Single-, two-and three-family dwellings): 6,000 SF and a maximum lot size up to 2 acres 1
	Planned residential unit development (PRUD), multifamily development of 4 or more dwelling units, and Congregate Care: 2 acres gross area
	Intermediate, extended or long-term care facilities: 1 1/2 acres.
Min. Lot Area per D.U.	Single-, two-and three-family dwellings: 1,600 SF.
	Planned residential unit development (PRUD), Congregate Care and Multifamily development of 4 or more dwelling units: 1600 SF of net land area..
Min. Lot Area per Resident	<i>Minimum land area per intermediate care facility resident: 8,000 SF gross land area for the first thirty-five (35) residents, plus three hundred fifty (350) square feet for each additional resident.</i>
Min. Street Frontage	50 feet.

1 A lot in an unsewered residential district shall meet the provisions of the state Minimum Lot Size Law, 12 M.R.S.A. Section 4807-A, or the applicable zoning lot size, whichever is the largest. Except as provided for lots of record in section 14-433 (lots of record and accessory structure setbacks for existing buildings) of this article.

Min. Yard Dimensions for Single-, two-and three-family dwellings²	1. <i>Front yard</i>: Principal or accessory structures: 25 feet. 2. <i>Rear yard</i>: a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: 25 feet. b. Accessory detached structures with a ground coverage of one hundred and forty-four (144) square feet or less: 5 feet. Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article. (continued) 3. <i>Side yard</i>: a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: <table border="0" style="margin-left: 40px;"> <tr> <td style="text-align: right;"><i>Height of Structure</i></td><td style="text-align: left;"><i>Required Side Yard</i></td></tr> <tr> <td>1 story</td><td>10 feet</td></tr> <tr> <td>1 1/2 stories</td><td>10 feet</td></tr> <tr> <td>2 stories</td><td>14 feet</td></tr> <tr> <td>2 1/2 stories</td><td>16 feet</td></tr> </table> The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than ten (10) feet. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than ten (10) feet. b. Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: 5 feet. 4. <i>Side setback on side streets</i>: Principal or accessory structures: 20 feet.	<i>Height of Structure</i>	<i>Required Side Yard</i>	1 story	10 feet	1 1/2 stories	10 feet	2 stories	14 feet	2 1/2 stories	16 feet
<i>Height of Structure</i>	<i>Required Side Yard</i>										
1 story	10 feet										
1 1/2 stories	10 feet										
2 stories	14 feet										
2 1/2 stories	16 feet										

² Yard dimensions include setbacks of structures from property lines and

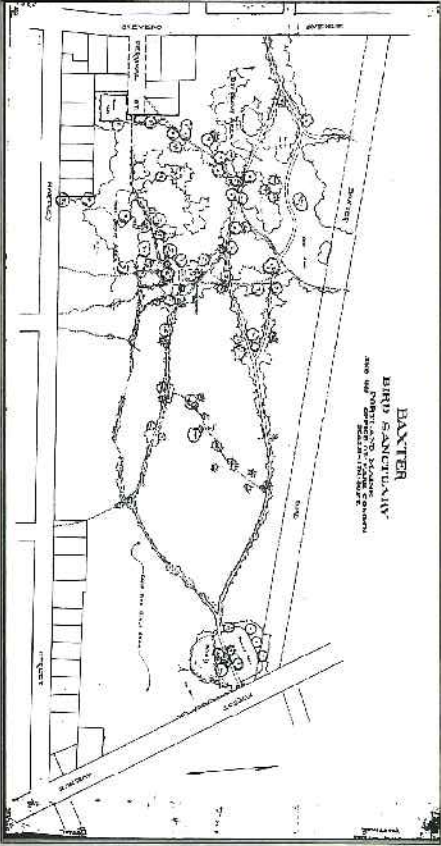
Maximum Structure Height	Principal residential (single, two and three-family) or attached accessory structure: 35 feet.
	Accessory detached structure: 18 feet.
	Principal or attached accessory structure for PRUD, Multifamily development of 4 or more dwelling units, Congregate Care and Intermediate, extended or long-term care facilities: 55 feet.
Max. Lot Coverage	30%
Minimum Lot Width	60 feet
Minimum building setback from external subdivision property lines	PRUD, multifamily development of 4 or more dwelling units, Congregate Care, and Intermediate, extended or long-term care: a. Building length of one hundred (100) feet or less: 25 feet. b. Building length of greater than one hundred (100) feet: 35 feet.
Minimum recreation open space area	PRUD, multifamily development of 4 or more dwelling units, and Congregate Care: 200 SF per dwelling unit or living unit of common area designated on the site for recreation purposes.

(Ord. No. 537-84, 5-7-84; Ord. No. 84-88, § 4, 7-19-88; Ord. No. 58-97, § 2, 8-18-97; Ord. No. 165-97, § 5, 12-1-97; Ord. No. 131-08/09, 12-15-08; Ord. No. 278-09/10, 7-19-10; Ord. 276-14/15, 6-15-2015)

setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.

... the above described premises with all the privileges and appurtenances thereto to said City of Portland as trustee as foresaid and its successors in trust and the same shall not be conveyed or encumbered by said City but shall be held forever for the benefit of the people of said Portland subject to the following terms, restriction, reservations and conditions

- 1 - shall forever be retained and used by said City in trust for the benefit of the people of Portland as a Municipal Forest and Park for public recreational and educational purposes the same forever to be known as "MAYOR BAXTER WOODS";
- 2 - shall forever be kept in its natural wild state and as a sanctuary for wild birds, with no streets for public conveyances and no cement walks therein and with only paths and trails for pedestrians, and any trees that shall fall or that may become a menace to life may be removed, but no other trees therein shall be taken down;
- 3 - shall forever be maintained for the sole use of pedestrians; and horses, automobiles and all motor vehicles, except those of the City used solely in caring for said woods, shall forever be excluded therefrom;
- 4 - that the heavy ornamental gates now in possession of said City shall be erected by said City either at the Forest Avenue or Stevens Avenue entrance within one year of the date of this deed;
- 5 - that said City shall erect within one (1) year after the date of this deed and shall forever maintain on the land hereby conveyed a suitable bronze marker the said marker to recite the conditions of this gift, the same to be attached to a granite boulder located on said land and provided by said City;



Above: Plan of Baxter Woods, dated 1935, & prepared for the Portland Parks Commission.

Public Services Department
55 Portland Street
Portland, Maine 04101

Mayor Baxter Woods

Welcome to

a gift from Percival P. Baxter to the City of Portland
in honor of his father, James Phinney Baxter in

- 1946 -



Mayor Baxter Woods ... "shall forever be retained and used by [the] City in trust for the benefit of the people of Portland as a Municipal Forest and Park and for public recreation and educational purposes..."

A brief history of Mayor Baxter Woods



As historian Herb Adams once wrote, "Baxter Woods' brush with history came at the hands of a politician, a portrait painter, and a plow salesman." The municipal forest now owned by the City of Portland was, at one time, the grand estate of congressman Francis Ormond Smith, also known as "Fog" Smith "for his initials and his principles" as Mr. Adams noted.

EOJ. Smith enjoyed a brief business venture with the portrait painter-turned-inventor Samuel F.B. Morse, who spent time at Forest Home working with the travelling plow salesman Ezra Cornell to lay the first underground telegraph cable in a field on the property. Also known as "Forest Home" and "Smith Castle," the house sat on the site from 1836 to 1882, when, following the deaths of Smith and his wife, the property was purchased by Mayor James Phinney Baxter.

Mayor Baxter developed little of the former estate. Portions of the property were divided, with several acres to the north sold to the Roman Catholic Diocese and streets and parcels developed to the south. Upon J.P. Baxter's death in 1921, care for the property fell to his youngest son Percival, the eventual Governor of Maine and founder of Baxter State Park. Percival soon opened the woods to the public for the purposes of passive recreation and the land soon became known as the "Baxter Bird Sanctuary." The community embraced the property and the care of it. The Cumberland County Audubon Society and the Longfellow Garden Club teamed to maintain the nature trails and the Boy Scouts and Girl Scouts adopted their own activity areas.

In April of 1946, Governor Percival Baxter presented the 29.5 acres to the People of Portland as a municipal forest to be kept in its natural state. To this end, he established distinct deed restriction to guide the use and maintenance of the park. The woods were to be known forever as "Mayor Baxter Woods."



IMAGES: Top left, "View of the EOJ. Smith House, Portland." Oil on canvas by Harrison Bird Brown (1831-1915). Above left: James Phinney Baxter (1831-1921). Above right: Percival Proctor Baxter (1876-1969). Images courtesy of the City of Portland and the Maine State Archives Baxter Collection.

MAYOR BAXTER WOODS TRAILS

LEGEND

- ENTRANCE KIOSK
- EDGE OF WOODLAND
- SIGNIFICANT EVERGREEN
- SIGNIFICANT SHADE TREE
- PRIMARY TRAIL
- SECONDARY TRAIL
- CONNECTION PATH
- FOOT PATH





February 16, 2016
Received
4.12.2016

J14.067

Barbara Barhydt
 Development Review Manager
 Planning and Urban Development Department
 Planning Division
 389 Congress Street, 4th Floor
 Portland, Maine 04101

605 Stevens Avenue
Master Development Plan Addenda Information
(CBL 136 E006001, 143 F004000, 144 B001000)

Dear Barbara:

On behalf of Sea Coast at Baxter Woods Associates, LLC and Motherhouse Associates LP, our project team are submitting these Addenda to the Master Development Plan (MDP) application dated February 16, 2016 and update dated March 16, 2016 for the 605 Stevens Avenue project.

This submittal provides additional information in support of the Portland Land Use Code Articles IV - Subdivision and Article V - Site Plan Sections 14-523 through 14-527 - Master Development Plan review. The project proposes development of a residential senior living campus on the grounds of the former ST. Joseph's Convent and McAuley High School fields.

Enclosed are one (1) hard copy of the following materials and Site Plans and PDF copies submitted electronically:

- A. Cover Letter & Attachments:
 - 1. Baxter Woods MOU Outline
- B. MDP Site Plans Revised 04-11-16 with the following *new* Plan Sheets added:
 - L-2.1 Open Space Calculations
 - L-3.1 Parking Diagram
 - L5.0 Tree Removal and Preservation Plan
 - L5.1 Landscape Master Plan
 - C-3.0 Concept Stormwater Plan (originally one plan)
 - C-4.0 Concept Utility Plan (originally one plan)
- C. Additional Photo Board Perspective/Massing Views dated 04-12-16
 - From Stevens Ave At Evergreen Cemetery
 - From the Baxter Woods Meadow
- D. Architectural Elevations and Materials Selection dated 04-11-16
- E. MDP Stormwater Report & Plans dated 04-11-16

I. Summary of Events Since February 16th MDP Submission:

As you are aware, the project team has been working closely with staff to address comments and develop supplemental information to support the Zoning Section 14-523 – 14-527 MPD Submittal requirements. As a review, the project approval schedule has included the following activities and updates since the February submission:

- Staff Review meetings held – 02/14 and 03/29
- Planning Board Workshop #1 – 03/22
- Neighborhood Meeting held -03/14
- Supplemental Submittal (Plan Updates, Traffic Study, Photo Perspective Boards) - 03/16
- Baxter Woods Site Walk Staff and Design Team – 03/31
- Supplemental Submittal – 04/12

This updated material is being submitted for the Planning Board workshop #2 scheduled for April 26.

II. Plan Revisions:

The overall Lot 4 Senior Campus design has seen considerable improvements since the initial submittal – both in response to staff and neighborhood comments and in part due to the zoning lines being shown incorrectly on the initial submittal. The R5 and R5A zone lines were inadvertently shown *closer* to Baxter Woods (from an earlier version of the 2015 zoning process) than the final zoning map amendment approved on July 06, 2015. The plans now reflect the updated zone boundaries resulting in the following improvements to the plans:

- In the original submittal, buildings 1-3 ranged from approximately 65 to 80 feet off the southern property line. The corrected zone boundary increases the building setbacks to the property line with Baxter Woods from approximately 80 feet for building 1 to over 140 feet for building 3.
- The configuration of the buildings has been modified to provide a more integrated campus by aligning buildings 1-3 along the southern zone boundary line and increasing space between the buildings, particularly buildings 3 and 4. The design creates a stronger pedestrian and visual connection from Stevens Avenue into the campus courtyard on Lot 4 whereas in the initial plan, Building 3 blocked this view with the access to the interior courtyard offset further north from the current location.
- Additional parking has been placed behind buildings 2 and 3 which allows for more green space and plaza areas within the central courtyard areas. The rear parking will be buffered from Baxter Woods with a combination of plantings and/or berms.
- The central courtyard parking and amenity spaces have been re-organized to provide more efficient and interesting outdoor spaces for residents.
- The configuration provides a more prominent north-south visual and pedestrian connection between Baxter Woods across the courtyard and to the athletic fields to the north.
- The increased building spacing has allowed the former fire lane, located previously on the north side of buildings 4 and 5, to be located within the courtyard - which was preferred by the fire department.
- The main campus sidewalk connection to Stevens Avenue has shifted 10 to 15 feet to the north. This has been coordinated with City Staff with respect to the proposed new crosswalk location.

- Additional landscaping and screening has been added to the plans conceptually.
- Stormwater BMP's and utilities have been adjusted to reflect the new layout.
- The Site Data/Net Residential Density tables have been updated.

Overall we believe that the new layout provides greater buffering and setbacks to Baxter Woods and a more cohesive urban design for the campus. Refer to the Site Plans for additional detail.

III. Parking:

The plan continues to provide 2 parking spaces per unit including both covered and open parking. The applicant has indicated in our meetings with Staff and the Planning Board that as the project is phased, should the market demonstrate that a lesser ratio is justified, some of the additional parking may not be necessary. This will be finalized during the site plan review for future phases. For now the plan is currently in compliance with the Zoning Ordinance requirement of 2 spaces per unit.

IV. Baxter Woods:

As discussed above, the current design provides greater opportunity for buffering Baxter Woods with increased setbacks to the buildings. Equally as important is the focus on a collaborative approach between the applicant and the City to support Baxter Woods through the implementation of assessment, monitoring and stewardship programs to improve the conditions of the park. A site walk was conducted on March 31st with staff, Jeff Tarling, City Arborist, and the applicant's team to explore opportunities for meeting these goals.

The outcome of that meeting and discussions with staff provided clarity to a two pronged approach to protecting Baxter Woods. One is a design strategy which includes landscaping and buffering on the campus site and selected plantings within Baxter Woods to enhance the park. Notwithstanding ongoing ecological monitoring by groups such as the U.S. Forest Service, the second strategy is the implementation of a program of assessment, monitoring and education to target improvements to the park infrastructure. All goals must align with the mission of Baxter Woods as set forth by Mayor Baxter. Attachment A.1 provides a draft MOU for the applicant together with the City to both define and meet these objectives.

An outline of sample tasks and design guidelines follow:

1. Physical Improvements & Landscaping:

- Add landscaping plantings along the fence line on both the project side and Baxter Woods side of the existing fence to fill in visual gaps. Coordinate plant species with Jeff Tarling to compliment Baxter Woods.
- Remove invasive species within the 33 ft. strip of land along the fence in Baxter Woods.
- Establish where existing fencing is to be replaced and provide fencing specification.
- Create stormwater rain gardens along buffer area to Baxter Woods.
- Create landscape berms on the project side of the Baxter Woods fence.
- Provide additional trail connections from campus to Baxter Woods (See Site Plans).
- Formalize a new trail in Baxter Woods along the former "allée" and connect to the campus behind building 1 (new fence opening) and link to internal project pathway/sidewalk system.

- Work with Jeff Tarling to supplement the red pine grove near Stevens Avenue and the “Meadow” in Baxter Woods.
- Together with Jeff Tarling, close off and redirect overused side trails by the property fence, and re-vegetate with screening materials.
- Provide funds or assistance for trail maintenance.
- Implement/add interpretive signage as deemed needed by the City.

2. Assessment/Monitoring and Education (MOU):

(See attached draft MOU Attachment A.2 for specifics)

- Provide baseline assessment of physical condition of trails and infrastructure.
- Implement method for annually monitoring use of Baxter Woods.
- Provide/support educational strategies to increase awareness and promote stewardship.
- Research and promote historical connection between McAuley campus and Baxter Woods.

V. Building Massing and Perspective Views:

In addition to the existing and proposed perspective views provided in the March 16th submission, staff requested additional building massing views from two additional locations – one from the Meadow at Baxter Woods and one from Stevens Avenue as one approaches from the south. These are attached.

The view sheds demonstrate that even in winter conditions, the existing woods provide significant filtering of views of proposed buildings 1-3. Additionally the Meadow is bordered by a thick row of pines which provide dense filtering of the proposed area of parking behind buildings 2-3 and the lower levels of the buildings as well. The perspective suggests supplemental evergreen plantings to strengthen that buffer as well.

VI. Architectural Materials:

Archetype, PA have provided architectural elevations and perspectives suggesting the building forms and a selection of potential exterior materials and finishes –as examples, which may vary with the final building designs. These include clapboard fiber cement siding, PVC trim boards, brick or similar materials. The models depict shadow effects across the face of a typical building and the variation in flat and pitched rooflines. The architecture creates interest with protruding balconies and breaking up the buildings into various forms and fenestrations both in the vertical and horizontal planes to provide a scale in context with the site and buildings in this area.

VII. Summary:

In summary we feel that the updated site plans together with the supporting massing assessments provide for an improved project layout and design. The improved buffers and proposed Baxter Woods stewardship strategies demonstrate the applicant’s commitment to preserving and protecting Baxter Woods.

We look forward to working closely with staff in preparation for the April 26th Planning Board workshop. In the meantime our project team remains available to meet with staff or to provide any additional information if required.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick Licht", written in a cursive style.

Frederic (Rick) Licht, PE, LSE
Principal

Encl: As Noted

Cc: John Wasileski; Sea Coast at Baxter Woods Associates, LLC
Matthew Teare; Sea Coast at Baxter Woods Associates, LLC
Kevin Bunker; Motherhouse, LLC , Ron Epstein; Jensen, Baird, Gardner & Henry
Pat Carroll; Carroll Associates, Landscape Architects
Andrew Johnston; Stantec
Diane Morabito, Maine Traffic Resources

Master Development Plan for the 605 Stevens Avenue Campus

Outline for a Memorandum of Understanding

Re: Interrelationship between 605 Stevens Avenue Campus and Baxter Woods – April 12, 2016

- 1) **Background.** The applicant, neighbors, City of Portland and a variety of other stakeholder groups have identified the interrelationship between 605 Stevens Avenue and Baxter Woods as a key topic to address during the Master Planning Process. Over the past 24 months, we have heard many comments, concerns and ideas regarding Baxter Woods. Based on this input and meetings with city staff, please accept the following outline as the basis for a Memorandum of Understanding on this important topic. Based on our collaborative experience with the creation and management of a 235 acre conservation area in Topsham, Maine (<http://creamaine.org/>), we understand the importance of preserving and enhancing the Baxter Woods experience.

- 2) **Current Condition and Monitoring.** With its long history, there is a significant amount of information on Baxter Woods. We would propose to assist the city and various stakeholders in assembling this data to create a baseline of information and then establish a periodic monitoring program to update, organize and maintain this information. This process could include the following:
 - a) Baseline Data
 - i) Solicit proposals from and engage a professional environmental / conservation organization to complete the following:
 - (1) Research and assemble all appropriate existing data and information on Baxter Woods;
 - (2) Interview various stakeholder groups and offer a public forum as part of the data collection process;
 - (3) Plan and conduct a monitoring study which will result in a comprehensive set of *baseline data* on the condition, use and impacts on Baxter Woods;
 - (4) Create an annual monitoring plan for Baxter Woods to update the baseline data.
 - ii) This first phase of the project could be launched in conjunction with the construction phase of the redevelopment of the Motherhouse – currently scheduled for the 2nd half of 2016.
 - b) Annual Monitoring
 - i) Identify an appropriate and capable organization to oversee the annual monitoring and collection of the data on the condition, use and impacts on Baxter Woods.
 - ii) The monitoring organization could be a professional firm, a university graduate program, an environmental non-profit organization or similar group that could be counted on to complete the task in a professional, timely and independent manner.
 - iii) The annual monitoring task could involve a variety of local schools and groups in order to collect the necessary data and involve the community.
 - iv) The annual monitoring could include a community forum in order to encourage public involvement and input on a regular basis.
 - v) The monitoring would occur on an annual basis beginning approximately one year after the completion and publication of the baseline study. It would be continued indefinitely with the first 5 years sponsored by the applicant.

c) Annual Recommendations

- i) The monitoring could include a series of recommendations designed to preserve and enhance the Baxter Woods experience.
- ii) These recommendations would be updated and published annually.
- iii) The recommendations would include a plan of action with specific tasks, deadlines and funding resources designed to ensure implementation.

- 3) **Potential Improvements.** The border area between Baxter Woods and the new 605 Stevens Avenue community provides a variety of opportunities to enhance both properties and reduce any potential negative impact upon the Baxter Woods experience. Some of the potential activities that have been discussed with Jeff Tarling, City of Portland Arborist, include:
- a) Removal of invasive species within the 33 ft. of Baxter Woods that is located on the woods side of the chain link fence but is part of the 605 Stevens Avenue property. (Please see item #4 below regarding this 33 ft. strip of land).
 - b) Reestablish the carriage path that once connected Baxter Woods to the 605 Stevens Avenue property. Framed by an allée of mature trees, this pathway could also become a future connection between the properties. Minimal disturbance to the woods would be necessary.
 - c) Relocate and repurpose some of the secondary trails that are approximate to the 33 ft. buffer area – especially the ones that run directly against the chain-line fence. These trails should be designed as primitive footpaths – providing for modest, lower level use.
 - d) Replace the chain-link fencing with a more attractive, appropriate option. While public access will be allowed and even encouraged in areas of the campus, it is important that the fencing provide an attractive and secure separation between the properties. This is particularly important for the evening hours along the rear of the new apartment homes.
 - e) Additional plantings on the 605 Stevens Avenue property to enhance the buffer area between the fence and the new development. Two areas of particular focus should include:
 - i) Red Pine Grove at the Entrance to Baxter Woods along Stevens Avenue. The trees are tall with no limbs for buffering on their lower trunks. There are several areas in and around this viewpoint where plantings could add significant buffering.
 - ii) The Meadow in Baxter Woods. While the existing evergreens here are effective, there is a zone approx. 100 ft. long to the north of the meadow where additional plantings would be beneficial.
 - f) Additional supplemental plantings on both sides of the fence with the purpose of providing wildlife habitat and food – particularly for birds. Plantings as viburnum, elderberry and blueberry might add to the buffering and act to enhance the wildlife habitat of the woods.
- 4) **Conservation Easement.** An item that remains from Baxter Woods' long history is a 66 foot wide street easement along the border between Baxter Woods and 605 Stevens Avenue. 33 feet of this easement is the property of 605 Stevens Avenue and is actually on the Baxter Woods side of the fence. The applicant has no intention to develop any of this area and is open to the idea of creating a permanent conservation easement for this area at an appropriate time in the future of the project.

**STORMWATER MANAGEMENT CONCEPT DESIGN
SUMMARY**

**605 STEVENS AVENUE
MASTER DEVELOPMENT PLAN
PORTLAND, MAINE**

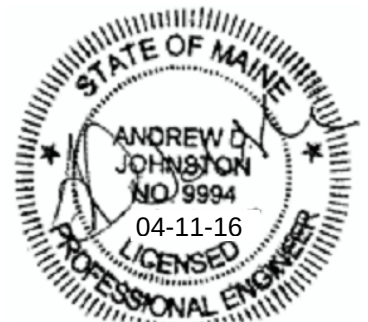
Prepared for:

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100 COMMERCIAL STREET
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APRIL 2016



STORMWATER MANAGEMENT CONCEPT DESIGN SUMMARY

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Attachments

Attachment A	Pre-development & Post-development Watershed Maps
Attachment B	Subcatchment Area Summaries
Attachment C	TR-20 Computations (HydroCAD) ▪ Pre-development Model ▪ Post-development Model

STORMWATER MANAGEMENT REPORT

I. INTRODUCTION

Stantec Consulting Services, formerly FST (Stantec) has prepared the following stormwater management summary for the redevelopment of property at 605 Stevens Avenue in the City of Portland, Maine to support an application for Master Plan Development Review. The site development design is at an early stage and no detailed grading plans have been developed. Therefore, the aim of this submission is to describe the general approach that will be taken to stormwater management, with sufficient detail to demonstrate the feasibility of the project and the ability of the design to meet the pertinent local and State stormwater management standards.

The site work associated with the Master Development Plan includes construction of five new residential buildings and the associated access and parking infrastructure around the buildings, utility upgrades and the provision of new stormwater infrastructure.

Runoff from the existing impervious areas on the site drains to two locations. The roof drainage from the existing building drains via downspouts and underground piping directly into the combined sewer system that serves the site. The remaining site area drains to a system of catch basins and storm drains that run across the property in an easterly direction. The system discharges to a wetland complex at the foot of the embankment located along the eastern property line. There is currently no provision for stormwater treatment or detention on the property.

The recently approved Motherhouse re-development plan includes removal of the roof drainage for that building from the combined sewer system, and several other new stormwater Best Management Practices that are designed to capture and treat runoff from developed areas. Details of these plans can be found in the previously issued Stormwater Management Report that accompanied the development plans.

The design for the Master Development Plan will incorporate several Low Impact development BMPs that are designed to mimic the natural hydrology of the site by capturing and treating runoff close to the source, and using the nature of the underlying soils to maximize groundwater recharge, and thus limit surface runoff. The stormwater management design for the project aims to meet the following key objectives:

- Water quality treatment of runoff from newly developed areas in accordance with local and State regulations;
- Detention, as necessary to ensure no increase in peak runoff from the site under design storm conditions; and
- The incorporation of Low Impact Design (LID) Best Management Practices (BMPs) to maximize groundwater recharge and ensure that there is no increase in surface runoff volume leaving the property.

II. EXISTING SITE CONDITIONS

The project site is approximately 4.5 acres in size and represents a lot to be subdivided from a larger overall parcel that totals approximately 19 acres and includes McAuley High School and the associated facilities. The property is located on the east side of Stevens Avenue, just south of Walton Street.

The watershed area analyzed in this report includes the areas of the school and Motherhouse lot that drain towards the wetland at the eastern boundary of the property. The total area of the watershed is approximately 13.3 acres. The current impervious areas within the drainage area include the existing Motherhouse building, the High School building, and the associated paved access and circulation roads and paths, parking areas and courtyards. Other improvements include the current school playing fields, and landscaped and wooded areas around the perimeter of the property. It should be noted that the roof drains from the existing buildings at the site currently drain, via downspouts and underground piping, to the combined sewer system that serves the property. Site observations of the Motherhouse building indicate that approximately half of the downspouts are broken at, or above the ground surface, allowing roof runoff to drain directly to the ground adjacent to the building. For this reason, the existing conditions stormwater model developed for the Motherhouse project includes half of the roof area from the Motherhouse building only in the subcatchment analysis. Roof runoff from the school building is excluded from the analysis as this drains to the sewer system in Walton Street.

The topography slopes in a generally easterly direction across the site, away from Stevens Avenue and towards the receiving wetland area. Slopes across most areas of the site are between 1% and 5%.

III. RECEIVING WATERS

The site drains in an easterly direction towards the wetland area located at the foot of the embankment, adjacent to the eastern property line. This entire area eventually drains into the municipal storm drain system in Forest Avenue.

IV. HISTORIC FLOODING

There are no reports of historic flooding on the project site. The site is within Flood Zone C, Areas of Minimal Flooding according to the FEMA Flood Insurance Rate Map for the area.

V. ALTERATIONS TO NATURAL DRAINAGE WAYS

There are no natural drainage ways on the site and therefore no alterations to natural drainage ways are proposed.

VI. METHODOLOGY AND MODELING ASSUMPTIONS

Runoff and routing calculations have been performed for the watershed areas affected by the proposed development under pre-development and post-development conditions scenarios. Time of concentration and runoff curve number calculations have been performed using the method described in Natural Resource Conservation Service (NRCS) Technical Release 55 (TR-55) – Urban Hydrology for Small Watersheds. The TR-20 based HydroCAD modeling software has been utilized to perform the more complex runoff and routing calculations, some of which are beyond the scope of the TR-55 method. Time of concentration calculations have been amended where the value given by the TR-55 method is less than six minutes (0.1 hour). In these cases a standard minimum value of six minutes has been used to keep this parameter within the acceptable working range of the model and prevent computational errors.

Design rainfall events have been modeled using the SCS Type III Hydrograph for 24-hour duration storms. The rainfall depth for each return period is taken from *Stormwater Management for Maine: Best Management Practices, Appendix A (Cumberland County)*. The rainfall depth values for standard design storm frequencies are shown in the table below:

TABLE 1				
24-Hour Rainfall Depths for Cumberland County at Design Storm Frequencies				
<i>Stormwater Management for Maine: Best Management Practices, Appendix A</i>				
Frequency	2-Year	10-Year	25-Year	100-Year
Rainfall Depth	3.0 in	4.7 in	5.5 in	6.7 in

Soil types in the area of the site have been identified using the Natural Resource Conservation Service (NRCS) Web Soil Survey. The soils mapped across most of the site are identified as Windsor series loamy sand soils. These are classified as Hydrologic Group "A". There is a small area of Paxton fine sandy loam soils towards the south end of the site. These soils are classified as Hydrologic Group "C". The Web Soil Survey information is supplemented by a more detailed geotechnical investigation of the site, undertaken by Summit GeoEngineering Services in March 2015. The investigations included a number of borings throughout the site, analysis and description of existing soil textures, and estimated infiltration rates for use in the design of stormwater Best Management Practices (BMPs). The report describes the subsurface conditions at the site as generally topsoil, or pavement overlying fill/reworked native soil, overlying marine fan deposits. The marine fan deposits consist of sandy, well drained soils that can be divided into two distinct layers. Groundwater was observed at elevations between 5.4 feet and 11.4 feet below the surface. Infiltration rates were estimated from grain size analysis results at boring locations B-6 (depth 5-7 feet) and B-8 (depth 10-12 feet). The hydraulic conductivity of the native soil material is stated as 60in/hr. For the purposes of design of stormwater BMPs that include an infiltration component, a conservative infiltration rate of 7.5in/hr has been used.

The existing topography of the site was determined by field survey and the existing vegetative cover was identified by site inspection. The following table includes a list of the surficial soil types that were identified on the project site, along with their associated Hydrologic Soil Group (HSG).

TABLE 2	
Soils	Hydrologic Soil Group
Windsor	A
Paxton	C

A stormwater management model was developed for the previously approved Motherhouse project using the base information described above. In the pre-development conditions scenario the site was represented by a single subcatchment area that includes all areas that drain to the wetland located at the foot of the embankment, at the east end of the property. In the post-development conditions scenario for the previously approved Motherhouse project, the site was divided further into several small subcatchment areas to allow the effects of localized storage and treatment Best Management Practices (BMPs) to be analyzed. Outflow from the post-development subcatchments was combined at a single design point that represented the same discharge location to the downstream wetland as that analyzed under the pre-development scenario.

The post-development conditions model from the previously approved development of the site has been modified to reflect the new development proposed under the current Master Development Plan. Approximate subcatchment areas have been defined around proposed new Best Management Practices that are designed to capture, treat and discharge runoff from contributing areas. The proposed BMPs have been included in the new model, with approximate sizing and assumed elevations in order to demonstrate the feasibility of the general approach to the stormwater design.

VII. PROPOSED BMPS

The stormwater management system for the project has been designed to meet several key objectives. These are:

- Water quality treatment of runoff from new developed areas;
- Detention, as necessary to ensure no increase in peak runoff from the site under design storm conditions; and
- The incorporation of Low Impact Design (LID) Best Management Practices (BMPs) to maximize groundwater recharge and ensure that there is no increase in surface runoff volume leaving the property.

The proposed stormwater management BMPs include filtering roof drip strips, four small bioretention cells, an infiltration trench, and several areas of porous pavement. These BMPs will capture, detain and treat runoff in accordance with the design standards described in Stormwater Management for Maine Technical BMPs Manual. The design aims to utilize the high infiltration rates associated with the granular onsite soils to maximize water quality treatment efficiency, promote groundwater recharge and reduce both the peak runoff rate and the volume of surface runoff leaving the property.

The filtering drip strips extend all around the perimeter of the new buildings and will allow capture, storage, treatment and exfiltration of roof runoff. The foundation walls will be waterproofed and insulated to protect any proposed interior basement spaces. Although foundation drainage is provided in order to convey excess flow away from the buildings in the event of severe storm events, under all normal conditions runoff will infiltrate directly to the underlying soils. The drip strips provide sufficient storage in the void space of the stone material to detain the Water Quality volume for the contributing roof area.

The new bioretention cells are located on the perimeters of the project. These will make use of green spaces to incorporate stormwater management seamlessly into the overall landscaping plan. The bioretention cell provides storage and treatment for the Water Quality Volume (WQV) from the contributing area. This is defined as 1.0 inches of runoff from all contributing impervious areas and 0.4 inches of runoff from all landscaped areas.

Runoff from several of the roadways and parking areas will drain by sheet flow to areas of porous pavement. The porous pavement section will provide storage within the void space of a reservoir stone layer before allowing runoff to drain through a filtering sand layer below. Underdrain piping is provided near to the bottom of the section, but given the high anticipated exfiltration rates observed in the underlying soils at, these will not be of use except in extreme storm events.

The infiltration trench is located on the east side of the site, just west of the athletic field. A five foot wide grass filter strip is provided between the edge of pavement and the infiltration trench. This will allow pre-treatment and removal of gross solids from runoff entering the BMP from the adjacent paved area. The infiltration trench is designed to capture, treat and discharge runoff from the contributing area to the underlying soils. As in the example of the bioretention cells, an underdrain is provided above the base of the BMP as an overflow in case of large storm events.

The preliminary water quantity analysis performed for the development demonstrates that there will be no significant increase in peak flows at the design point, for design storms of 2-Year, 10-year and 25-year frequencies. There is a minor increase in peak runoff (0.19cfs) predicted during

the 2-year event, but this is the result of the limitations of standard modeling techniques and is explained as follows:

- The increase is related solely to a predicted increase in peak runoff from the “uncaptured” area associated with the existing site development. The area of this subcatchment is significantly reduced under the post-development conditions scenario. However, because most of the reduction is due to the removal of grass areas with a relatively low runoff curve number, the composite curve number of the remaining area is increased. This reduces the initial abstraction losses assumed in the model and thus raises the peak runoff rate for the 2-year storm despite the reduction in the contributing area.

VIII. STORMWATER QUANTITY ANALYSIS

A. Predevelopment Conditions

Under the predevelopment conditions scenario the site was represented by a single subcatchment area in the original model, representing the watershed draining to the wetland located along the eastern property line. A summary of the subcatchment area included in the pre-development model is given in the table as follows:

TABLE 3			
PREDEVELOPMENT SITE CONDITIONS			
Subarea	Area (square feet)	CN	Time of Concentration (min.)
101	579,629	55	15.5

Full details pre-development subcatchment areas, cover conditions and time of concentration flow paths are described in detail in the supporting HydroCAD documentation included in Attachment C of this report. A Predevelopment Conditions Watershed Plan is included in Attachment A of this report.

B. Post-Development Conditions

Under the post–development conditions scenario, the site is divided into small subcatchment areas to allow the effect of the new stormwater BMPs to be accurately modeled. The total area of analysis remains the same as in the pre-development conditions, and runoff from all areas is combined at a Design Point at the same location as the pre-development discharge point to the receiving wetland.

A summary of the subcatchment areas included in the post-development model for the previously approved Motherhouse development is given in the table as follows:

TABLE 4 POST-DEVELOPMENT SITE CONDITIONS – MOTHERHOUSE PROJECT			
Subarea	Area (square feet)	CN	Time of Concentration (minutes)
201	537,572	53	15.5
210	15,676	81	6.0
211	7,303	74	6.0
212	9,701	73	6.0
221	9,601	94	6.0
222	4,490	95	6.0
223	4,520	94	6.0
224	6,069	94	6.0

The proposed development described in the Master Development Plan takes place almost entirely within the area described as Subcatchment 201 “Uncaptured Area” in the table above. This area is thus significantly reduced in the Master Development Plan Post-Development Model. In addition, several new subcatchment areas are added to represent the new development areas that are captured and treated in the proposed new stormwater BMPs. The post-development areas included in the Master Development Plan model are listed in the table below.

TABLE 4 POST-DEVELOPMENT SITE CONDITIONS – MASTER DEVELOPMENT PLAN			
Subarea	Area (square feet)	CN	Time of Concentration (minutes)
201	323,793	59	15.5
210	15,676	81	6.0
211	7,303	74	6.0
212	9,701	73	6.0
221	9,601	94	6.0
222	9,600	93	6.0
223	9,600	93	6.0
224	9,600	93	6.0
301A	8,500	66	6.0
301B	4,200	48	6.0
302	12,000	98	6.0
303	4,500	91	6.0
304	3,100	99	6.0
305	5,010	94	6.0
306	12,000	98	6.0
307	21,600	97	6.0
308	21,600	98	6.0
309	35,000	90	6.0
310	12,000	98	6.0
311	6,000	67	6.0
312	21,600	98	6.0
313	6,000	67	6.0
314	22,750	51	6.0

Full details of the post-development subcatchment areas, cover conditions and time of concentration flow paths are described in detail in the supporting HydroCAD documentation included in Attachment C of this report. A Post-Development Conditions Watershed Plan is included in Attachment A of this report.

IX. WATER QUANTITY ANALYSIS SUMMARY

The table below summarizes the peak runoff values and runoff volumes for pre-development and post-development conditions during each of the analyzed design storm events.

TABLE 5				
SUMMARY OF PEAK RUNOFF VALUES (CFS) AND RUNOFF VOLUMES (AC-FT)				
Storm Event	Peak Runoff Rate (cfs)		Runoff Volume (ac-ft)	
	Pre-Development	Post-Development	Pre-Development	Post-Development
2-Year	0.81	1.00	0.216	0.188
10-Year	7.27	6.34	0.926	0.675
25-Year	12.10	11.42	1.374	1.019

X. STORM WATER QUALITY ANALYSIS

A. Water Quality Treatment Measures

The project has been designed in accordance to provide water quality treatment for runoff from the new developed areas in accordance with current local and State regulations. The initial analysis suggests that these standards will be met with capture of 95% of new impervious areas.

XI. CONCLUSIONS

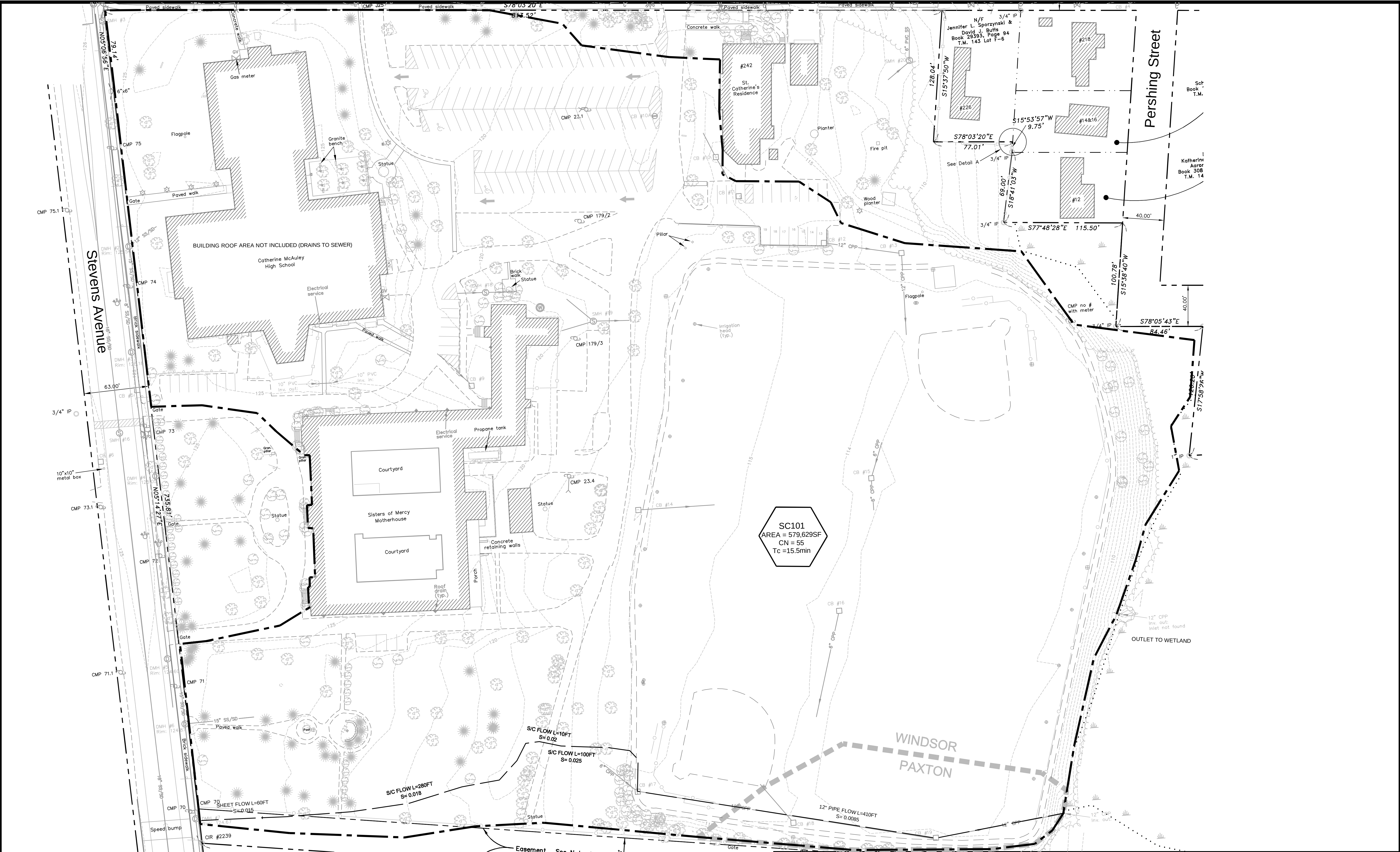
The concept stormwater management system designed for this project will mitigate impacts of development on stormwater runoff peak discharge rates and provide treatment of non-point source pollutants in the runoff in accordance with current State and local standards. Based on the preliminary analysis described herein, the stormwater management system will ensure that there are no significant adverse impacts to downstream properties as a result of this development.

XII. ATTACHMENTS

- Attachment A – Predevelopment & Post-development Watershed Maps
- Attachment B – Stormwater Areas Summary
- Attachment C – TR-20 Computations (HydroCAD)

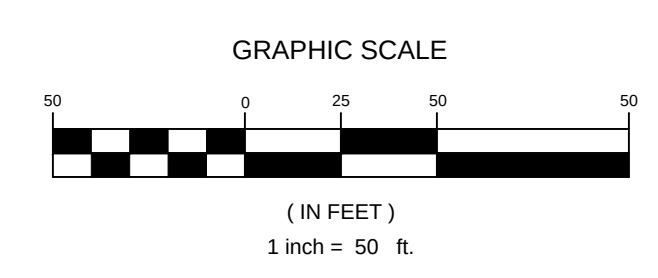
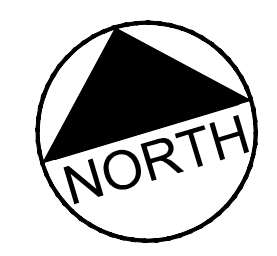
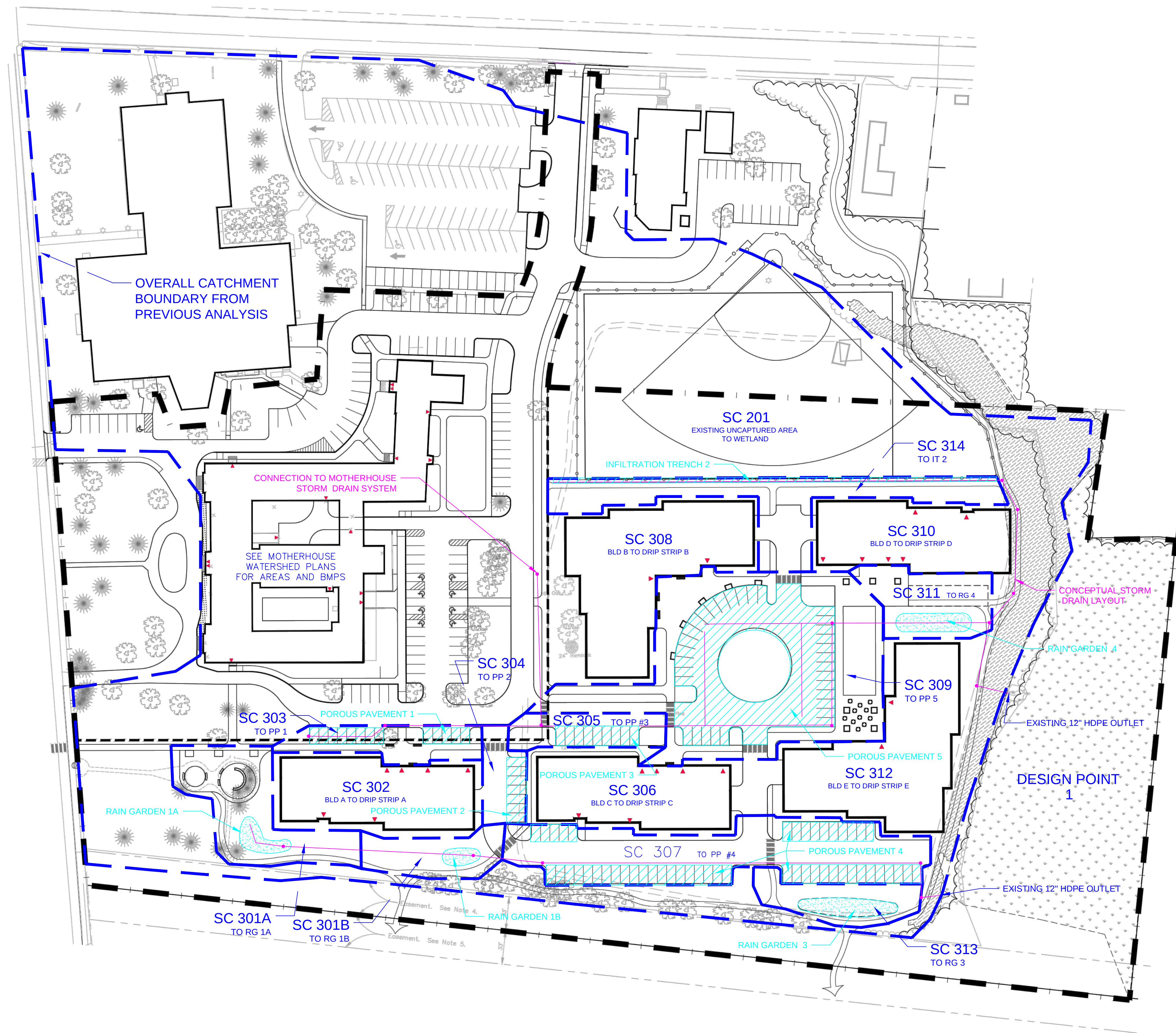
ATTACHMENT A

Predevelopment & Post-development Watershed Maps



PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MAINE ANDREW D. JOHNSTON NO. 9994 6-24-15 LICENSED PROFESSIONAL ENGINEER P.E. ANDREW D. JOHNSTON LIC. #9994			PROJECT MOTHERHOUSE SENIOR HOUSING		FST FAY, SPOFFORD & THORNDIKE ENGINEERS • PLANNERS • SCIENTISTS 778 MAIN ST., SUITE 8, SOUTH PORTLAND, ME 04106
			SHEET TITLE PRE-DEVELOPMENT WATERSHED PLAN		
1 06.24.15 ISSUED FOR SITE PLAN REVIEW			CLIENT MOTHERHOUSE ASSOCIATES LP		DRAWN: ADJ DATE: JUNE 2015
REV DATE DESCRIPTION					CHECKED: ADJ SCALE: 1" = 40'
REVISIONS					FILE NAME: WSHED-PRE
					SHEET C 9.0



PROJECT 605 STEVENS AVE MASTER DEVELOPMENT PLAN			FST FAY, SPOFFORD & THORNDIKE ENGINEERS • PLANNERS • SCIENTISTS 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106	
SHEET TITLE CONCEPT STORMWATER LAYOUT AND POST DEVELOPMENT WATERSHED PLAN			DRAWN:	DATE: APRIL 2016
CLIENT SEACOAST AT BAXTER WOODS ASSOCIATES, LLC & MOTHERHOUSE ASSOCIATES, LP			DESIGNED: ADJ	SCALE:
REV			CHECKED: ADJ	JOB NO. SP-M162
1 04.11.16 ISSUED FOR CITY REVIEW			FILE NAME:	
REV DATE DESCRIPTION			SHEET	C2
P.E. ANDREW D. JOHNSTON LIC. #9994				

ATTACHMENT B

Stormwater Areas Summary

Master Plan Areas

Post-Development Area Summary

Subcatchment 201

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	74	89	98	98	59	
Area	175010	8506	25724	11640	0	92620	10293	323793	111419

Subcatchment 210

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	81	
Area	4452	0	0	0	0	11224	0	15676	11224

WQV= 1084

Subcatchment 211

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	74	
Area	3004	0	0	0	0	4299	0	7303	4299

WQV= 458

Subcatchment 212

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	73	
Area	4135	0	0	0	0	5566	0	9701	5566

WQV= 602

Subcatchment 221

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	94	
Area	0	1600	0	0	0	0	8000	9600	9600

WQV= 800

Subcatchment 222

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	93	
Area	0	2000	0	0	0	0	7600	9600	9600

WQV= 800

Subcatchment 223

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	93	
Area	0	2000	0	0	0	0	7600	9600	9600

WQV= 800

Subcatchment 224

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	93	
Area	0	2000	0	0	0	0	7600	9600	9600

WQV= 800

Subcatchment 301A

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	74	100	98	98	66	
Area	4600	0	0	0	0	3900	0	8500	3900

Subcatchment 301B

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	48	
Area	3570	0	0	0	0	630	0	4200	630

WQV= 172**Subcatchment 302**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area		0	0	0	0	0	12000	12000	12000

WQV= 1000**Subcatchment 303**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	91	
Area	600	0	0	0	1794	0	2106	4500	3900

WQV= 345**Subcatchment 304**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	99	
Area	0	0	0	0	1134	1966	0	3100	3100

WQV= 258**Subcatchment 305**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	94	
Area	420	0	0	0	1548	3042	0	5010	4590

WQV= 383**Subcatchment 306**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area	0	0	0	0	0	0	12000	12000	12000

WQV= 1000

Subcatchment 307

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	97	
Area	720		0	0	10100	10780		21600	20880

WQV= 1740

Subcatchment 308

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area	0	0	0	0	0	0	21600	21600	21600

WQV= 1800

Subcatchment 309

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	90	
Area	5200	0	0	0	18200	11600	0	35000	29800

WQV= 2483

Subcatchment 310

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area		0	0	0			12000	12000	12000

WQV= 1000

Subcatchment 311

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	67	
Area	3200	0	0	0		2800	0	6000	2800

WQV= 233

Subcatchment 312

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area	0	0	0	0		0	21600	21600	21600

WQV= 1800

Subcatchment 313

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	67	
Area	3200	0	0	0		2800	0	6000	2800

WQV= 233

Subcatchment 313

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	51	
Area	18000	0	0	0		4750	0	22750	4750

WQV= 396

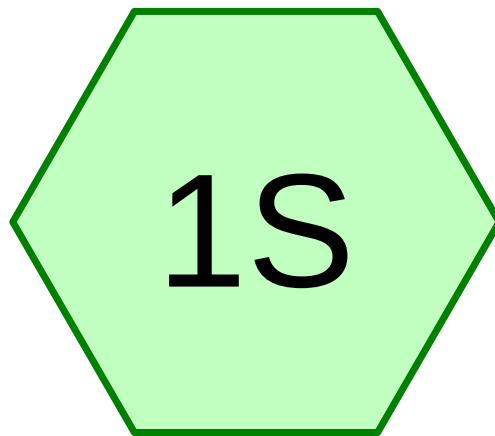
TOTAL POST-DEVELOPMENT AREA **590733 SF**
13.56136364 ACRES

ATTACHMENT C

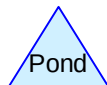
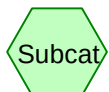
TR-20 Computations (HydroCAD)

- **Predevelopment Model**
- **Postdevelopment Model**

Pre-development Calculations



Existing Area to Wetland



Drainage Diagram for 605 Stevens Ave - Pre-Development
Prepared by FST, Inc., Printed 6/24/2015
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605 Stevens Ave - Pre-Development

Type III 24-hr 2-Year Storm Rainfall=3.00"

Prepared by FST, Inc.

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Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing Area to Wetland Runoff Area=579,629 sf 22.03% Impervious Runoff Depth=0.19"
Flow Length=860' Tc=15.5 min CN=55 Runoff=0.81 cfs 0.216 af

Total Runoff Area = 13.306 ac Runoff Volume = 0.216 af Average Runoff Depth = 0.19"
77.97% Pervious = 10.375 ac 22.03% Impervious = 2.932 ac

605 Stevens Ave - Pre-Development

Type III 24-hr 2-Year Storm Rainfall=3.00"

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Summary for Subcatchment 1S: Existing Area to Wetland

Runoff = 0.81 cfs @ 12.52 hrs, Volume= 0.216 af, Depth= 0.19"

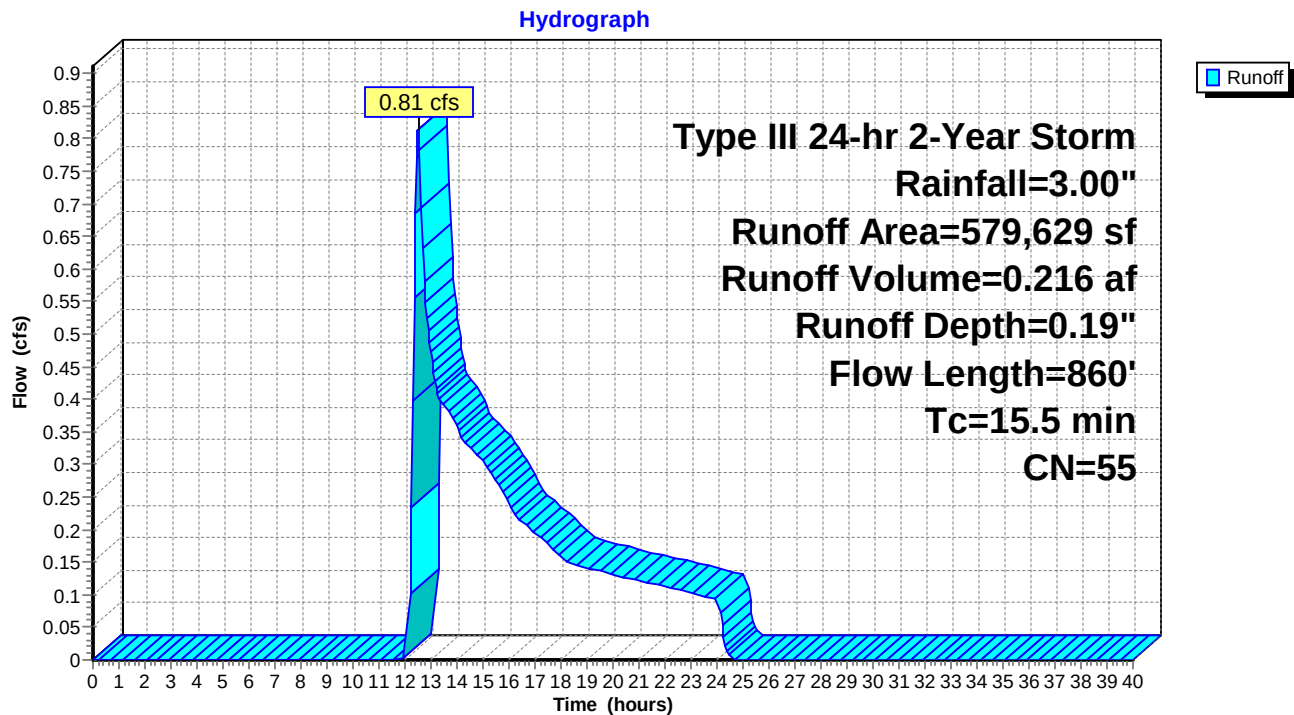
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
378,378	39	>75% Grass cover, Good, HSG A
22,142	76	Gravel roads, HSG A
25,724	32	Woods/grass comb., Good, HSG A
23,810	74	>75% Grass cover, Good, HSG C
1,860	89	Gravel roads, HSG C
111,100	98	Paved parking
* 16,615	98	Roof
579,629	55	Weighted Average
451,914		Pervious Area
127,715		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	60	0.0150	0.09		Sheet Flow, Grass
					Grass: Dense n= 0.240 P2= 3.00"
2.2	280	0.0180	2.16		Shallow Concentrated Flow, Grass
					Unpaved Kv= 16.1 fps
0.1	10	0.0200	2.87		Shallow Concentrated Flow, Paved
					Paved Kv= 20.3 fps
0.7	100	0.0250	2.55		Shallow Concentrated Flow, Grass
					Unpaved Kv= 16.1 fps
1.5	410	0.0085	4.53	3.56	Circular Channel (pipe), Pipe
					Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.5	860	Total			

Subcatchment 1S: Existing Area to Wetland



605 Stevens Ave - Pre-Development

Type III 24-hr 10-Year Storm Rainfall=4.70"

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Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing Area to Wetland Runoff Area=579,629 sf 22.03% Impervious Runoff Depth=0.83"
Flow Length=860' Tc=15.5 min CN=55 Runoff=7.27 cfs 0.926 af

Total Runoff Area = 13.306 ac Runoff Volume = 0.926 af Average Runoff Depth = 0.83"
77.97% Pervious = 10.375 ac 22.03% Impervious = 2.932 ac

605 Stevens Ave - Pre-Development

Type III 24-hr 10-Year Storm Rainfall=4.70"

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Summary for Subcatchment 1S: Existing Area to Wetland

Runoff = 7.27 cfs @ 12.27 hrs, Volume= 0.926 af, Depth= 0.83"

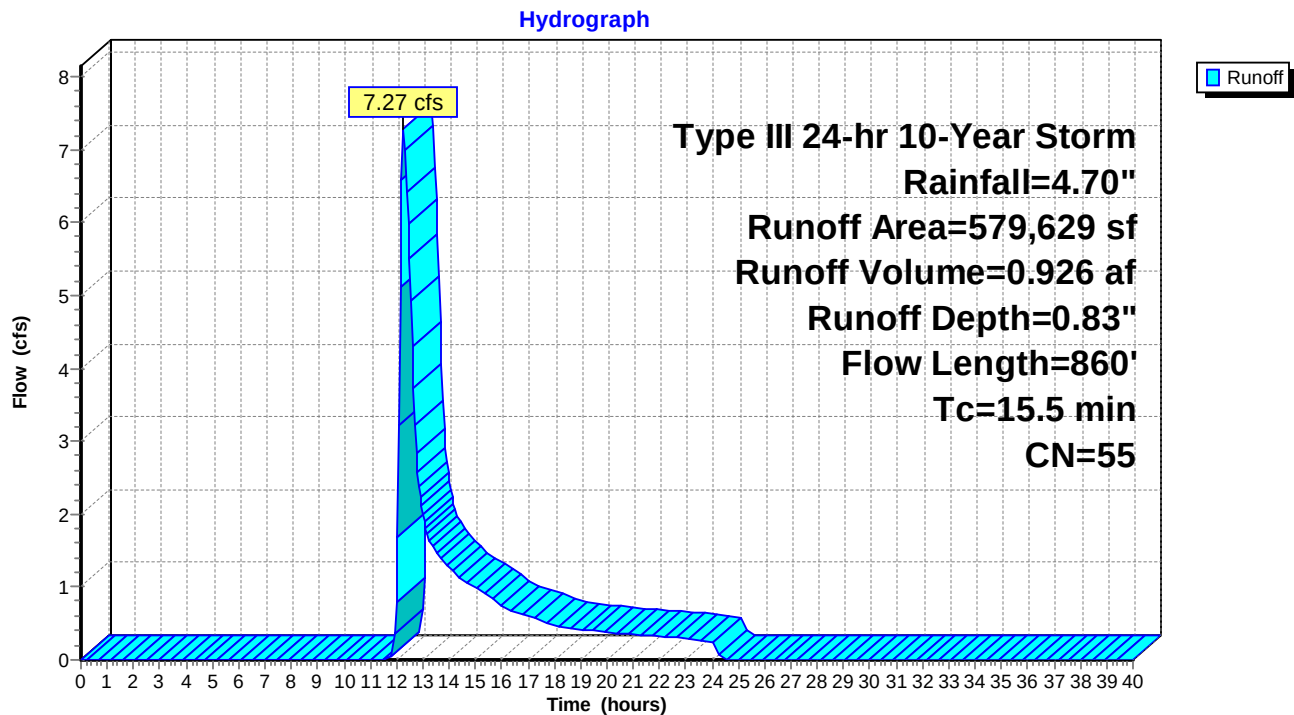
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Type III 24-hr 10-Year Storm Rainfall=4.70"

Area (sf)	CN	Description
378,378	39	>75% Grass cover, Good, HSG A
22,142	76	Gravel roads, HSG A
25,724	32	Woods/grass comb., Good, HSG A
23,810	74	>75% Grass cover, Good, HSG C
1,860	89	Gravel roads, HSG C
111,100	98	Paved parking
* 16,615	98	Roof
579,629	55	Weighted Average
451,914		Pervious Area
127,715		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	60	0.0150	0.09		Sheet Flow, Grass
					Grass: Dense n= 0.240 P2= 3.00"
2.2	280	0.0180	2.16		Shallow Concentrated Flow, Grass
					Unpaved Kv= 16.1 fps
0.1	10	0.0200	2.87		Shallow Concentrated Flow, Paved
					Paved Kv= 20.3 fps
0.7	100	0.0250	2.55		Shallow Concentrated Flow, Grass
					Unpaved Kv= 16.1 fps
1.5	410	0.0085	4.53	3.56	Circular Channel (pipe), Pipe
					Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.5	860	Total			

Subcatchment 1S: Existing Area to Wetland



605 Stevens Ave - Pre-Development

Type III 24-hr 25-Year Storm Rainfall=5.50"

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Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing Area to Wetland Runoff Area=579,629 sf 22.03% Impervious Runoff Depth=1.24"
Flow Length=860' Tc=15.5 min CN=55 Runoff=12.10 cfs 1.374 af

Total Runoff Area = 13.306 ac Runoff Volume = 1.374 af Average Runoff Depth = 1.24"
77.97% Pervious = 10.375 ac 22.03% Impervious = 2.932 ac

605 Stevens Ave - Pre-Development

Type III 24-hr 25-Year Storm Rainfall=5.50"

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Summary for Subcatchment 1S: Existing Area to Wetland

Runoff = 12.10 cfs @ 12.25 hrs, Volume= 1.374 af, Depth= 1.24"

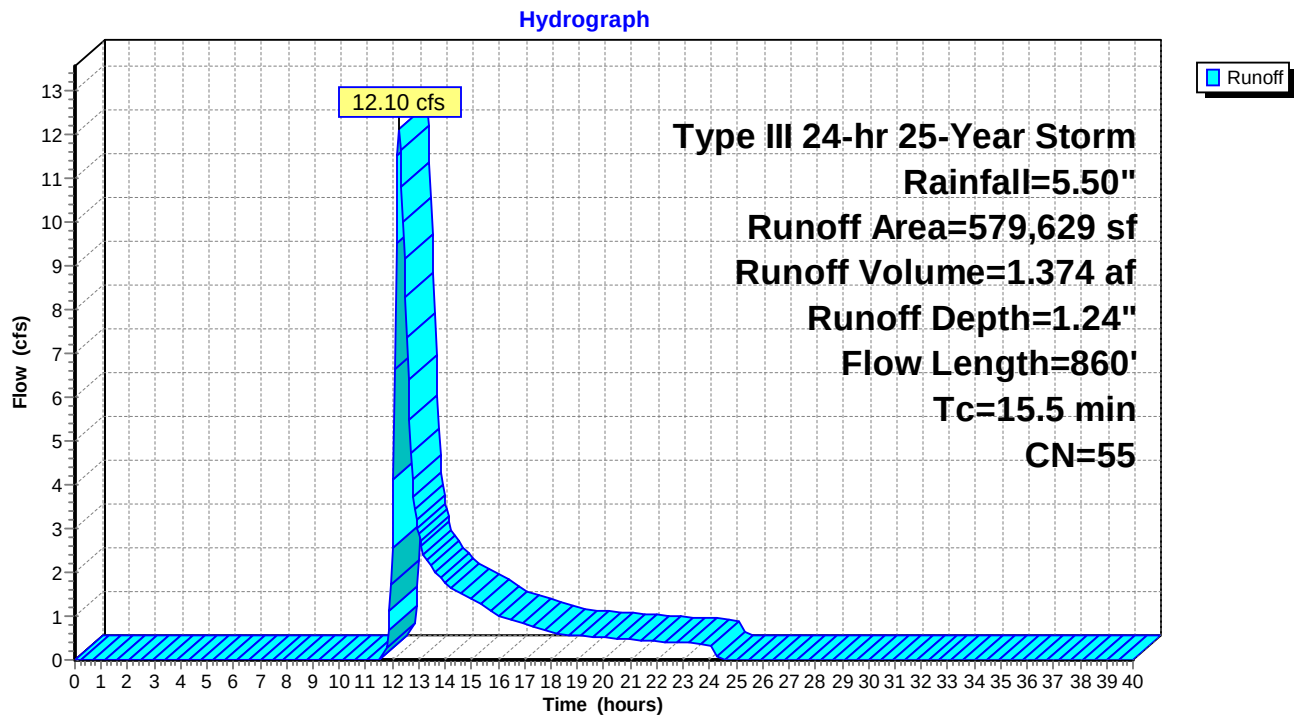
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Type III 24-hr 25-Year Storm Rainfall=5.50"

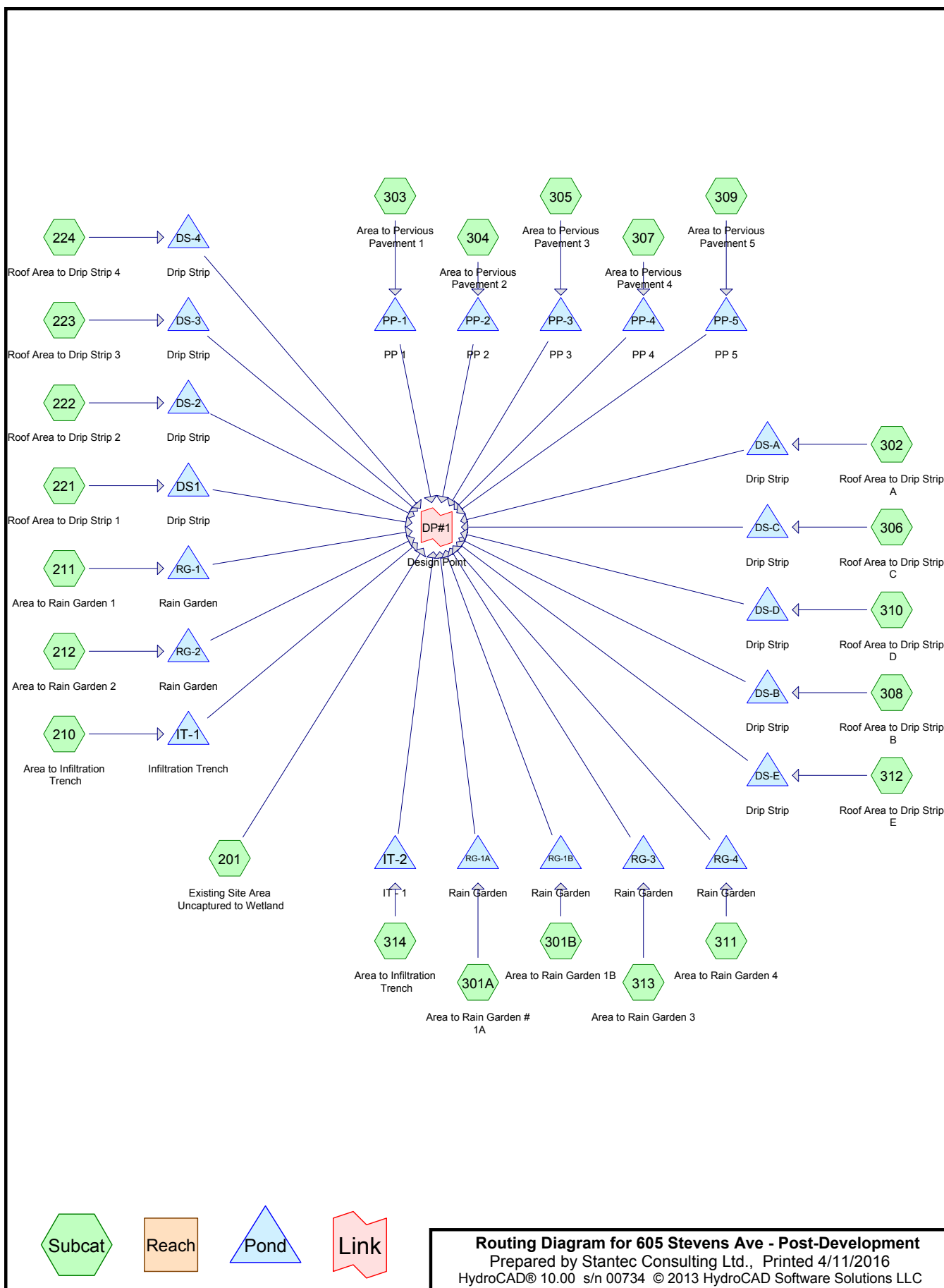
Area (sf)	CN	Description
378,378	39	>75% Grass cover, Good, HSG A
22,142	76	Gravel roads, HSG A
25,724	32	Woods/grass comb., Good, HSG A
23,810	74	>75% Grass cover, Good, HSG C
1,860	89	Gravel roads, HSG C
111,100	98	Paved parking
* 16,615	98	Roof
579,629	55	Weighted Average
451,914		Pervious Area
127,715		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	60	0.0150	0.09		Sheet Flow, Grass
					Grass: Dense n= 0.240 P2= 3.00"
2.2	280	0.0180	2.16		Shallow Concentrated Flow, Grass
					Unpaved Kv= 16.1 fps
0.1	10	0.0200	2.87		Shallow Concentrated Flow, Paved
					Paved Kv= 20.3 fps
0.7	100	0.0250	2.55		Shallow Concentrated Flow, Grass
					Unpaved Kv= 16.1 fps
1.5	410	0.0085	4.53	3.56	Circular Channel (pipe), Pipe
					Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.5	860	Total			

Subcatchment 1S: Existing Area to Wetland



Post-development Calculations



605 Stevens Ave - Post-Development

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.191	39	>75% Grass cover, Good, HSG A (201, 210, 211, 212, 301A, 301B, 303, 305, 307, 309, 311, 313, 314)
0.267	74	>75% Grass cover, Good, HSG C (201)
0.184	76	Drip stone, HSG A (221, 222, 223, 224)
0.195	76	Gravel roads, HSG A (201)
0.484	98	Paved parking & roofs (210, 211, 212)
3.097	98	Paved parking, HSG A (201, 301A, 301B, 304, 305, 307, 309, 311, 313, 314)
0.041	98	Paved road, HSG A (303)
0.760	100	Pervious Pavement, HSG A (303, 304, 305, 307, 309)
0.275	98	Roof, HSG A (306)
0.934	98	Roofs (201, 221, 222, 223, 224)
1.543	98	Roofs, HSG A (302, 308, 310, 312)
0.591	32	Woods/grass comb., Good, HSG A (201)
13.561	72	TOTAL AREA

605 Stevens Ave - Post-Development

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
11.876	HSG A	201, 210, 211, 212, 221, 222, 223, 224, 301A, 301B, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314
0.000	HSG B	
0.267	HSG C	201
0.000	HSG D	
1.418	Other	201, 210, 211, 212, 221, 222, 223, 224
13.561		TOTAL AREA

605 Stevens Ave - Post-Development

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
5.191	0.000	0.267	0.000	0.000	5.458	>75% Grass cover, Good	201, 210, 211, 212, 301A, 301B, 303, 305, 307, 309, 311, 313, 314
0.184	0.000	0.000	0.000	0.000	0.184	Drip stone	221, 222, 223, 224
0.195	0.000	0.000	0.000	0.000	0.195	Gravel roads	201
3.097	0.000	0.000	0.000	0.000	3.097	Paved parking	201, 301A, 301B, 304, 305, 307, 309, 311, 313, 314
0.000	0.000	0.000	0.000	0.484	0.484	Paved parking & roofs	210, 211, 212
0.041	0.000	0.000	0.000	0.000	0.041	Paved road	303
0.760	0.000	0.000	0.000	0.000	0.760	Pervious Pavement	303, 304, 305, 307, 309
0.275	0.000	0.000	0.000	0.000	0.275	Roof	306
1.543	0.000	0.000	0.000	0.934	2.477	Roofs	201, 221, 222, 223, 224, 302, 308, 310, 312
0.591	0.000	0.000	0.000	0.000	0.591	Woods/grass comb., Good	201

605 Stevens Ave - Post-Development

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Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
11.876	0.000	0.267	0.000	1.418	13.561	TOTAL AREA	

605 Stevens Ave - Post-Development*Type III 24-hr 2-Year Storm Rainfall=3.00"*

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Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment201: Existing Site Area	Runoff Area=323,793 sf 31.78% Impervious Runoff Depth=0.30" Tc=15.5 min CN=59 Runoff=1.00 cfs 0.188 af
Subcatchment210: Area to Infiltration	Runoff Area=15,676 sf 71.60% Impervious Runoff Depth=1.31" Tc=6.0 min CN=81 Runoff=0.54 cfs 0.039 af
Subcatchment211: Area to Rain Garden 1	Runoff Area=7,303 sf 58.87% Impervious Runoff Depth=0.91" Tc=6.0 min CN=74 Runoff=0.16 cfs 0.013 af
Subcatchment212: Area to Rain Garden 2	Runoff Area=9,701 sf 57.38% Impervious Runoff Depth=0.86" Tc=6.0 min CN=73 Runoff=0.20 cfs 0.016 af
Subcatchment221: Roof Area to Drip Strip 1	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=2.25" Tc=6.0 min CN=93 Runoff=0.55 cfs 0.041 af
Subcatchment222: Roof Area to Drip Strip 2	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=2.25" Tc=6.0 min CN=93 Runoff=0.55 cfs 0.041 af
Subcatchment223: Roof Area to Drip Strip 3	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=2.25" Tc=6.0 min CN=93 Runoff=0.55 cfs 0.041 af
Subcatchment224: Roof Area to Drip Strip 4	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=2.25" Tc=6.0 min CN=93 Runoff=0.55 cfs 0.041 af
Subcatchment301A: Area to Rain Garden #	Runoff Area=8,500 sf 45.88% Impervious Runoff Depth=0.54" Tc=6.0 min CN=66 Runoff=0.09 cfs 0.009 af
Subcatchment301B: Area to Rain Garden	Runoff Area=4,200 sf 15.00% Impervious Runoff Depth=0.06" Tc=6.0 min CN=48 Runoff=0.00 cfs 0.000 af
Subcatchment302: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.78 cfs 0.064 af
Subcatchment303: Area to Pervious	Runoff Area=4,500 sf 86.67% Impervious Runoff Depth=2.07" Tc=6.0 min CN=91 Runoff=0.24 cfs 0.018 af
Subcatchment304: Area to Pervious	Runoff Area=3,100 sf 100.00% Impervious Runoff Depth=2.88" Tc=6.0 min CN=99 Runoff=0.20 cfs 0.017 af
Subcatchment305: Area to Pervious	Runoff Area=5,010 sf 91.62% Impervious Runoff Depth=2.35" Tc=6.0 min CN=94 Runoff=0.30 cfs 0.023 af
Subcatchment306: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.78 cfs 0.064 af
Subcatchment307: Area to Pervious	Runoff Area=21,600 sf 96.67% Impervious Runoff Depth=2.66" Tc=6.0 min CN=97 Runoff=1.38 cfs 0.110 af

605 Stevens Ave - Post-Development*Type III 24-hr 2-Year Storm Rainfall=3.00"*

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Subcatchment308: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=1.41 cfs 0.114 af
Subcatchment309: Area to Pervious	Runoff Area=35,000 sf 85.14% Impervious Runoff Depth=1.98" Tc=6.0 min CN=90 Runoff=1.81 cfs 0.133 af
Subcatchment310: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.78 cfs 0.064 af
Subcatchment311: Area to Rain Garden 4	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=0.58" Tc=6.0 min CN=67 Runoff=0.07 cfs 0.007 af
Subcatchment312: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=1.41 cfs 0.114 af
Subcatchment313: Area to Rain Garden 3	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=0.58" Tc=6.0 min CN=67 Runoff=0.07 cfs 0.007 af
Subcatchment314: Area to Infiltration	Runoff Area=22,750 sf 20.88% Impervious Runoff Depth=0.11" Tc=6.0 min CN=51 Runoff=0.01 cfs 0.005 af
Pond DS-2: Drip Strip	Peak Elev=115.26' Storage=167 cf Inflow=0.55 cfs 0.041 af Discarded=0.28 cfs 0.041 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.041 af
Pond DS-3: Drip Strip	Peak Elev=115.26' Storage=167 cf Inflow=0.55 cfs 0.041 af Discarded=0.28 cfs 0.041 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.041 af
Pond DS-4: Drip Strip	Peak Elev=115.26' Storage=167 cf Inflow=0.55 cfs 0.041 af Discarded=0.28 cfs 0.041 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.041 af
Pond DS-A: Drip Strip	Peak Elev=115.35' Storage=283 cf Inflow=0.78 cfs 0.064 af Discarded=0.35 cfs 0.064 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.064 af
Pond DS-B: Drip Strip	Peak Elev=115.35' Storage=510 cf Inflow=1.41 cfs 0.114 af Discarded=0.62 cfs 0.114 af Primary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.114 af
Pond DS-C: Drip Strip	Peak Elev=115.35' Storage=283 cf Inflow=0.78 cfs 0.064 af Discarded=0.35 cfs 0.064 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.064 af
Pond DS-D: Drip Strip	Peak Elev=115.35' Storage=283 cf Inflow=0.78 cfs 0.064 af Discarded=0.35 cfs 0.064 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.064 af
Pond DS-E: Drip Strip	Peak Elev=115.35' Storage=510 cf Inflow=1.41 cfs 0.114 af Discarded=0.62 cfs 0.114 af Primary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.114 af
Pond DS1: Drip Strip	Peak Elev=115.26' Storage=167 cf Inflow=0.55 cfs 0.041 af Discarded=0.28 cfs 0.041 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.041 af
Pond IT-1: Infiltration Trench	Peak Elev=112.31' Storage=151 cf Inflow=0.54 cfs 0.039 af Discarded=0.28 cfs 0.039 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.039 af
Pond IT-2: IT - 1	Peak Elev=112.00' Storage=1 cf Inflow=0.01 cfs 0.005 af Discarded=0.01 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.005 af

605 Stevens Ave - Post-Development*Type III 24-hr 2-Year Storm Rainfall=3.00"*

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Pond PP-1: PP 1Peak Elev=114.04' Storage=20 cf Inflow=0.24 cfs 0.018 af
Discarded=0.23 cfs 0.018 af Primary=0.00 cfs 0.000 af Outflow=0.23 cfs 0.018 af**Pond PP-2: PP 2**Peak Elev=113.05' Storage=17 cf Inflow=0.20 cfs 0.017 af
Discarded=0.20 cfs 0.017 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.017 af**Pond PP-3: PP 3**Peak Elev=113.06' Storage=27 cf Inflow=0.30 cfs 0.023 af
Discarded=0.27 cfs 0.023 af Primary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.023 af**Pond PP-4: PP 4**Peak Elev=111.04' Storage=116 cf Inflow=1.38 cfs 0.110 af
Discarded=1.34 cfs 0.110 af Primary=0.00 cfs 0.000 af Outflow=1.34 cfs 0.110 af**Pond PP-5: PP 5**Peak Elev=112.03' Storage=151 cf Inflow=1.81 cfs 0.133 af
Discarded=1.75 cfs 0.133 af Primary=0.00 cfs 0.000 af Outflow=1.75 cfs 0.133 af**Pond RG-1: Rain Garden**Peak Elev=114.84' Storage=51 cf Inflow=0.16 cfs 0.013 af
Discarded=0.08 cfs 0.013 af Primary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.013 af**Pond RG-1A: Rain Garden**Peak Elev=116.53' Storage=6 cf Inflow=0.09 cfs 0.009 af
Discarded=0.09 cfs 0.009 af Primary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.009 af**Pond RG-1B: Rain Garden**Peak Elev=115.00' Storage=0 cf Inflow=0.00 cfs 0.000 af
Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af**Pond RG-2: Rain Garden**Peak Elev=114.56' Storage=19 cf Inflow=0.20 cfs 0.016 af
Discarded=0.17 cfs 0.016 af Primary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.016 af**Pond RG-3: Rain Garden**Peak Elev=111.02' Storage=5 cf Inflow=0.07 cfs 0.007 af
Discarded=0.07 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.007 af**Pond RG-4: Rain Garden**Peak Elev=111.52' Storage=5 cf Inflow=0.07 cfs 0.007 af
Discarded=0.07 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.007 af**Link DP#1: Design Point**Inflow=1.00 cfs 0.188 af
Primary=1.00 cfs 0.188 af**Total Runoff Area = 13.561 ac Runoff Volume = 1.168 af Average Runoff Depth = 1.03"**
47.40% Pervious = 6.427 ac 52.60% Impervious = 7.134 ac

Summary for Subcatchment 201: Existing Site Area Uncaptured to Wetland

Runoff = 1.00 cfs @ 12.42 hrs, Volume= 0.188 af, Depth= 0.30"

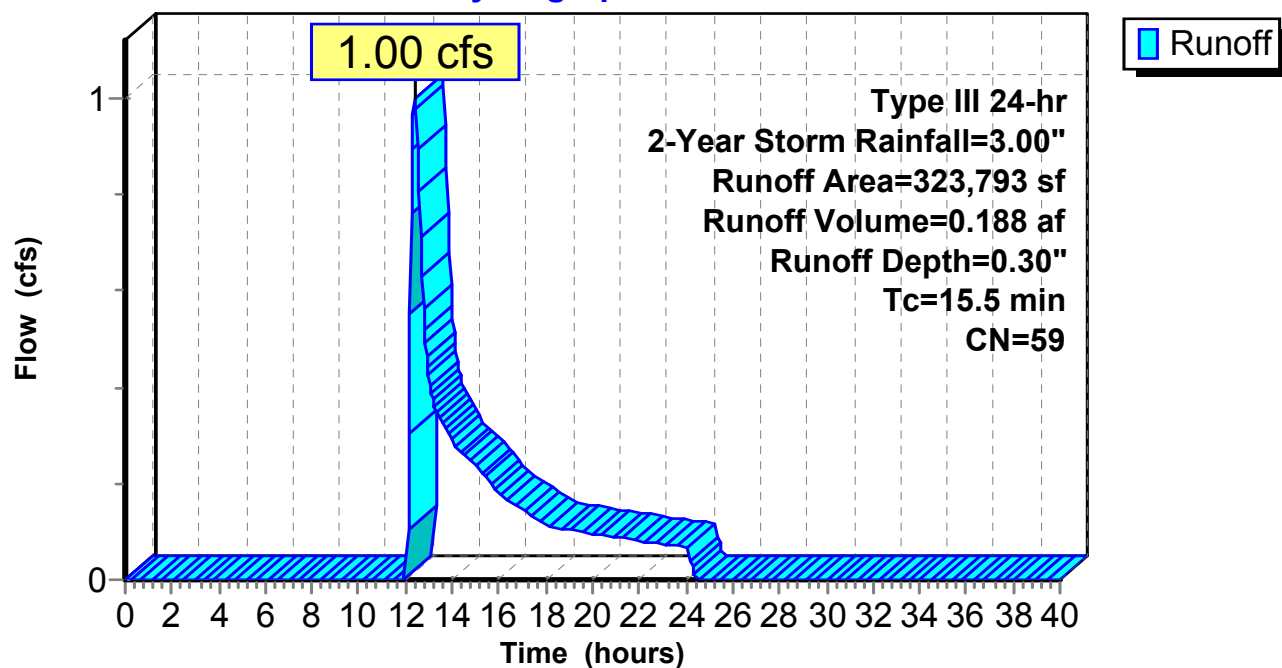
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
175,010	39	>75% Grass cover, Good, HSG A
92,620	98	Paved parking, HSG A
11,640	74	>75% Grass cover, Good, HSG C
25,724	32	Woods/grass comb., Good, HSG A
8,506	76	Gravel roads, HSG A
* 10,293	98	Roofs
323,793	59	Weighted Average
220,880		68.22% Pervious Area
102,913		31.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.5					Direct Entry,

Subcatchment 201: Existing Site Area Uncaptured to Wetland

Hydrograph



Summary for Subcatchment 210: Area to Infiltration Trench

Runoff = 0.54 cfs @ 12.10 hrs, Volume= 0.039 af, Depth= 1.31"

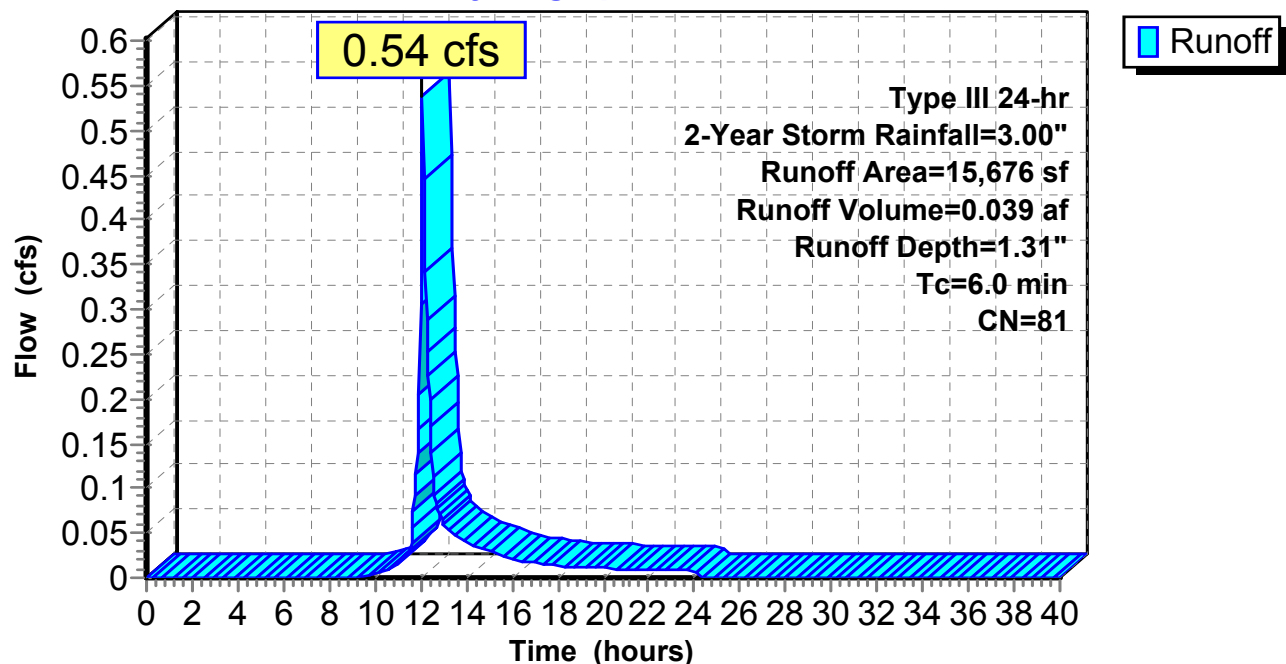
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
11,224	98	Paved parking & roofs
4,452	39	>75% Grass cover, Good, HSG A
15,676	81	Weighted Average
4,452		28.40% Pervious Area
11,224		71.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 210: Area to Infiltration Trench

Hydrograph



Summary for Subcatchment 211: Area to Rain Garden 1

Runoff = 0.16 cfs @ 12.10 hrs, Volume= 0.013 af, Depth= 0.91"

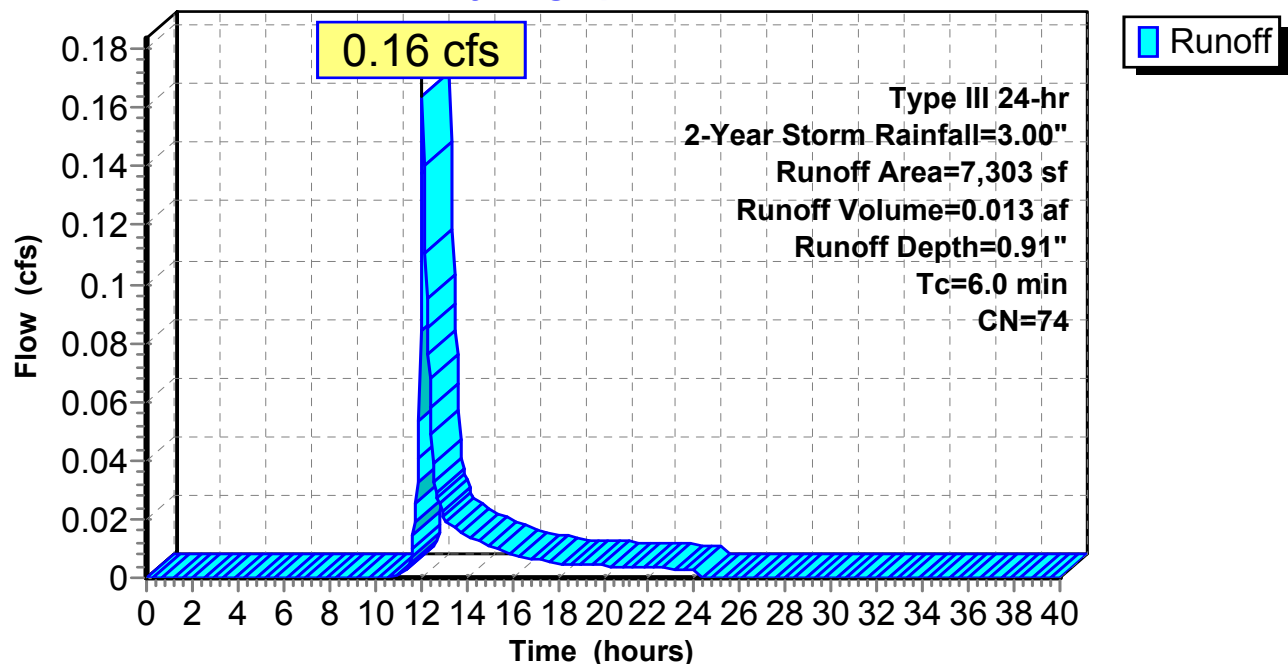
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
4,299	98	Paved parking & roofs
3,004	39	>75% Grass cover, Good, HSG A
7,303	74	Weighted Average
3,004		41.13% Pervious Area
4,299		58.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 211: Area to Rain Garden 1

Hydrograph



Summary for Subcatchment 212: Area to Rain Garden 2

Runoff = 0.20 cfs @ 12.10 hrs, Volume= 0.016 af, Depth= 0.86"

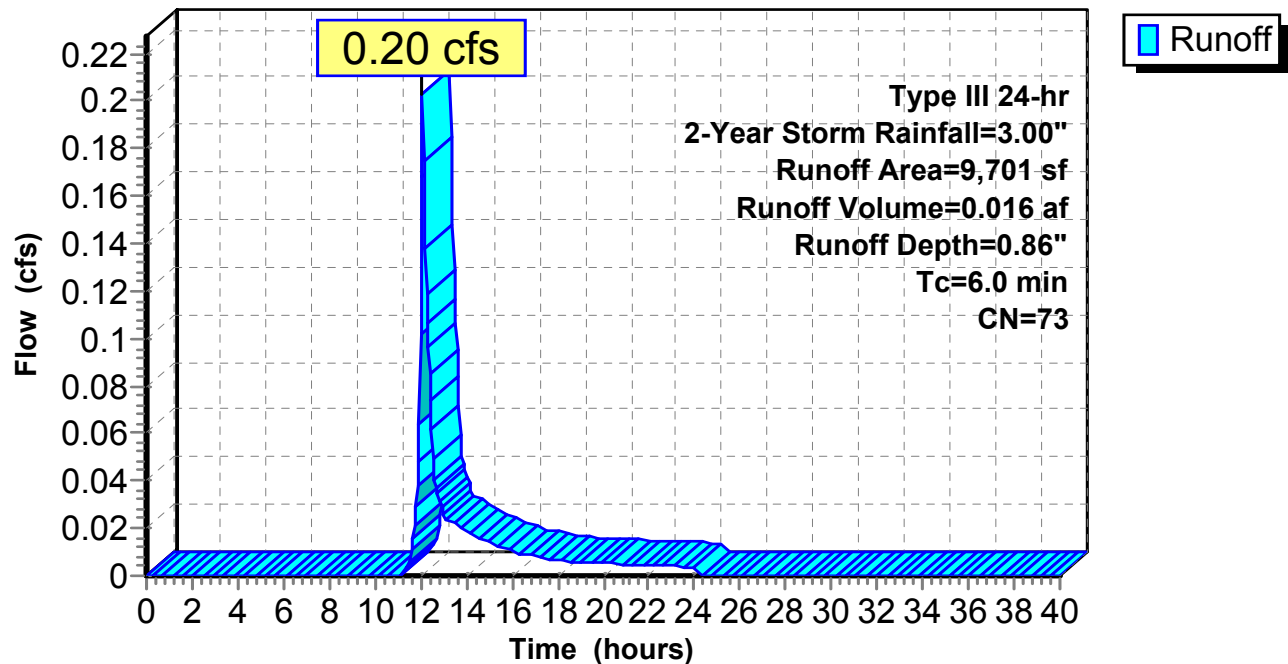
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
5,566	98	Paved parking & roofs
4,135	39	>75% Grass cover, Good, HSG A
9,701	73	Weighted Average
4,135		42.62% Pervious Area
5,566		57.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 212: Area to Rain Garden 2

Hydrograph



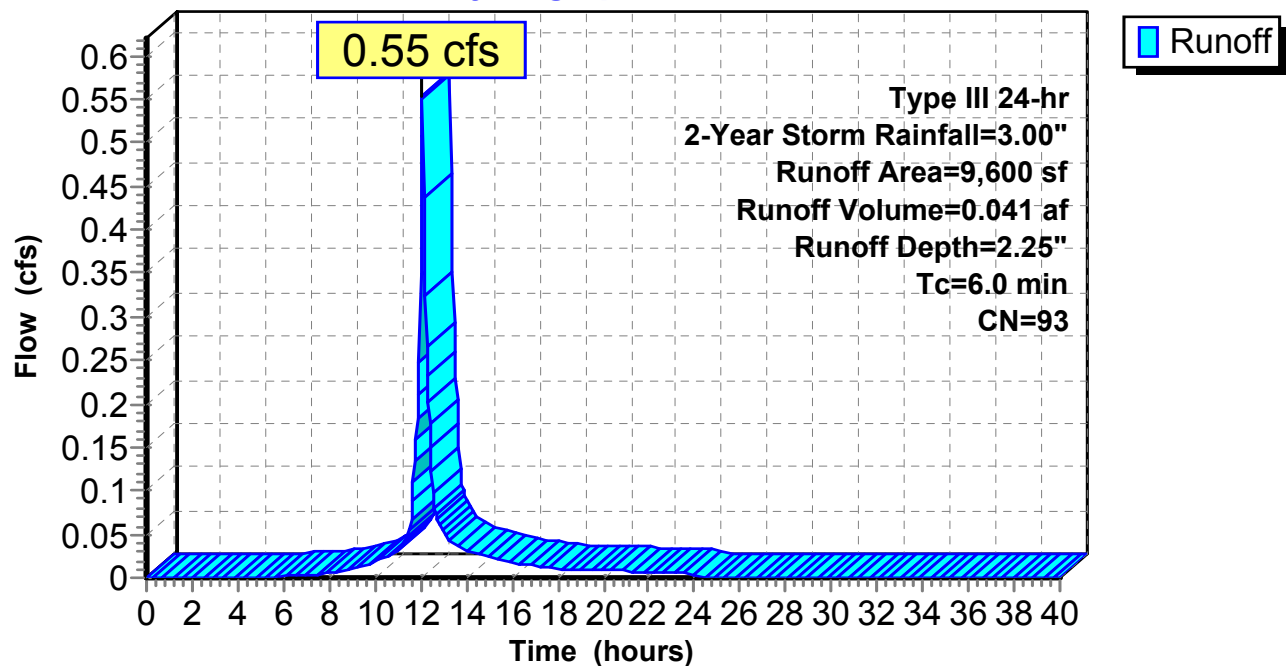
Summary for Subcatchment 221: Roof Area to Drip Strip 1

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

	Area (sf)	CN	Description
*	7,600	98	Roofs
*	2,000	76	Drip stone, HSG A
	9,600	93	Weighted Average
	2,000		20.83% Pervious Area
	7,600		79.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 221: Roof Area to Drip Strip 1**Hydrograph**

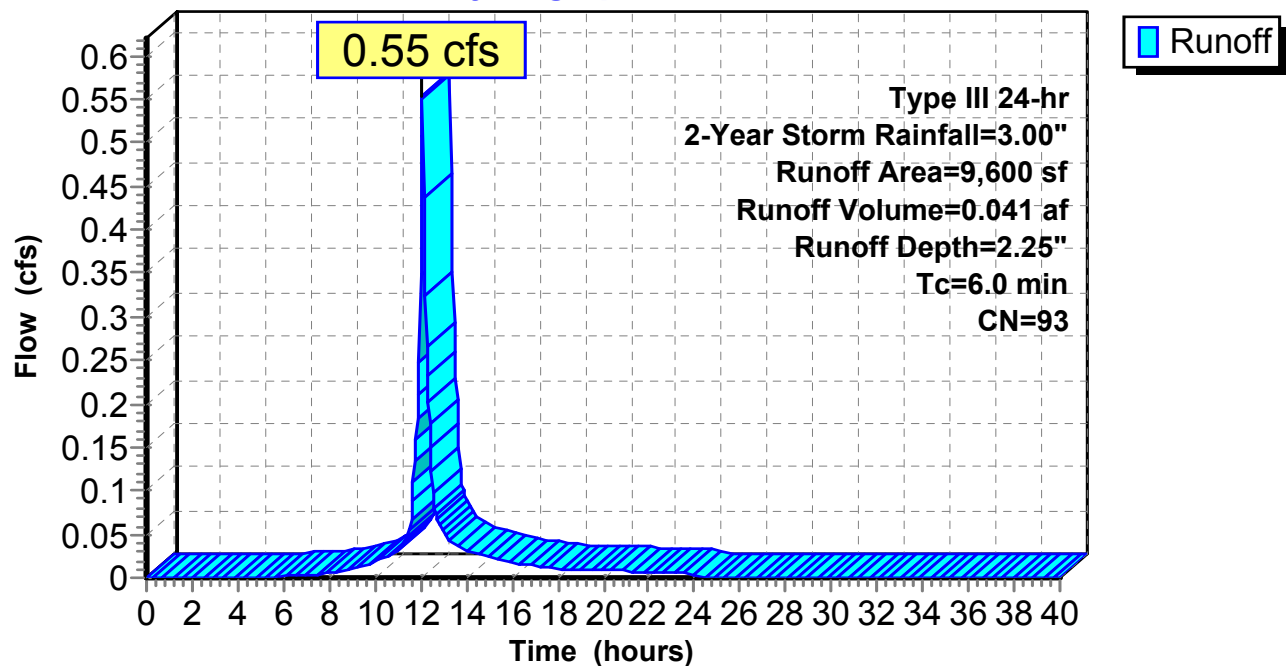
Summary for Subcatchment 222: Roof Area to Drip Strip 2

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

	Area (sf)	CN	Description
*	7,600	98	Roofs
*	2,000	76	Drip stone, HSG A
	9,600	93	Weighted Average
	2,000		20.83% Pervious Area
	7,600		79.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 222: Roof Area to Drip Strip 2**Hydrograph**

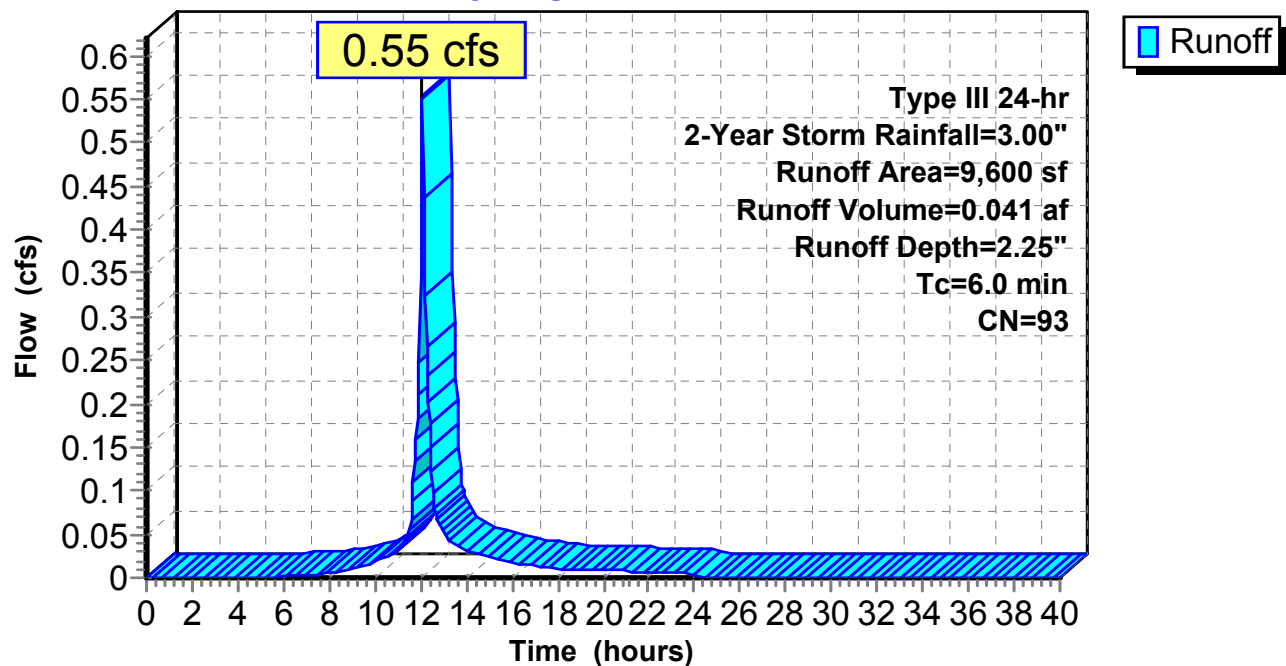
Summary for Subcatchment 223: Roof Area to Drip Strip 3

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

	Area (sf)	CN	Description
*	7,600	98	Roofs
*	2,000	76	Drip stone, HSG A
	9,600	93	Weighted Average
	2,000		20.83% Pervious Area
	7,600		79.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 223: Roof Area to Drip Strip 3**Hydrograph**

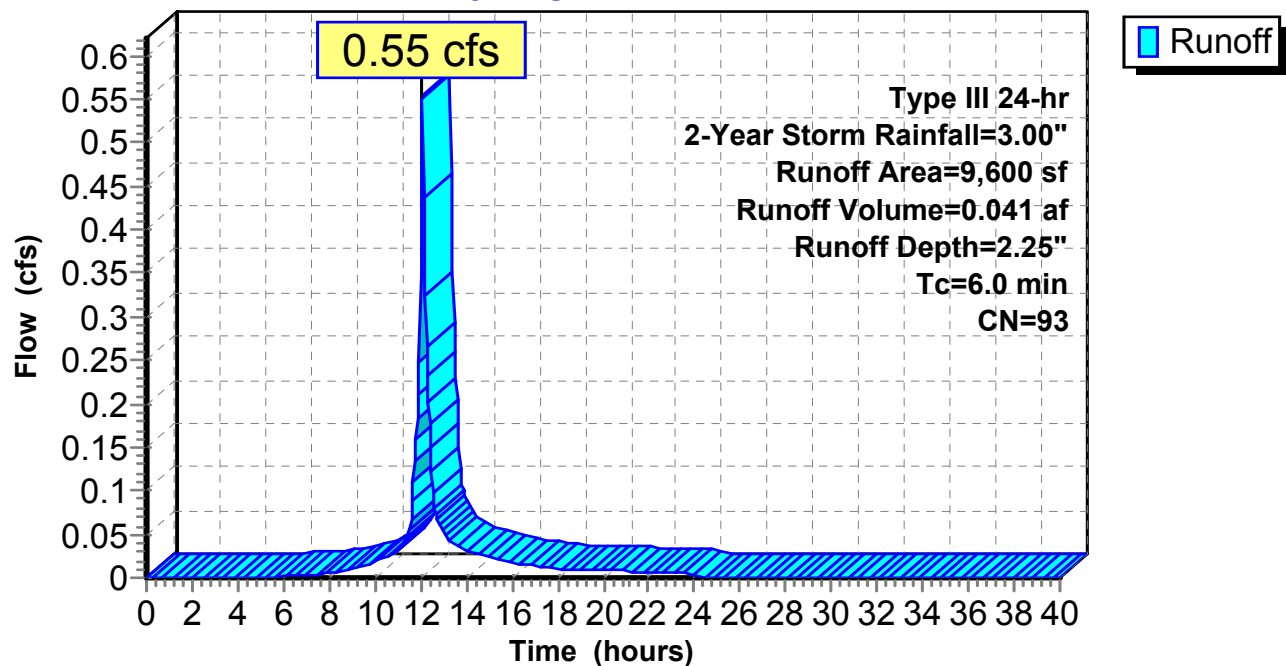
Summary for Subcatchment 224: Roof Area to Drip Strip 4

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

	Area (sf)	CN	Description
*	7,600	98	Roofs
*	2,000	76	Drip stone, HSG A
	9,600	93	Weighted Average
	2,000		20.83% Pervious Area
	7,600		79.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 224: Roof Area to Drip Strip 4**Hydrograph**

Summary for Subcatchment 301A: Area to Rain Garden # 1A

Runoff = 0.09 cfs @ 12.11 hrs, Volume= 0.009 af, Depth= 0.54"

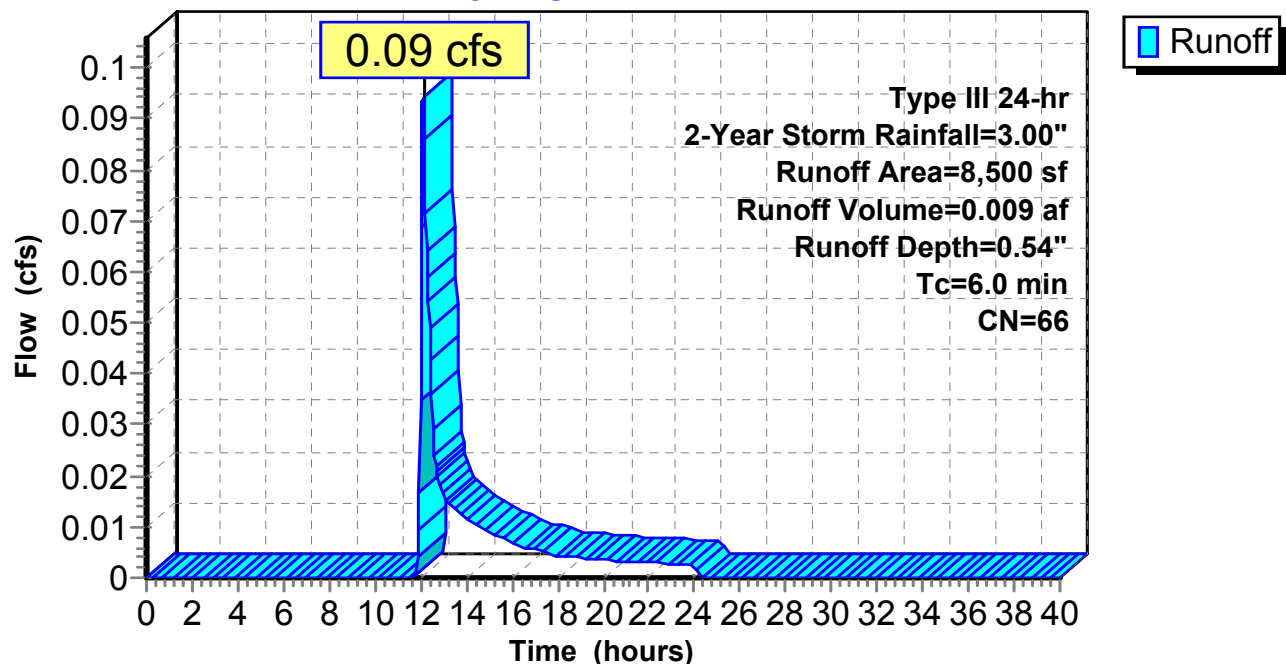
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

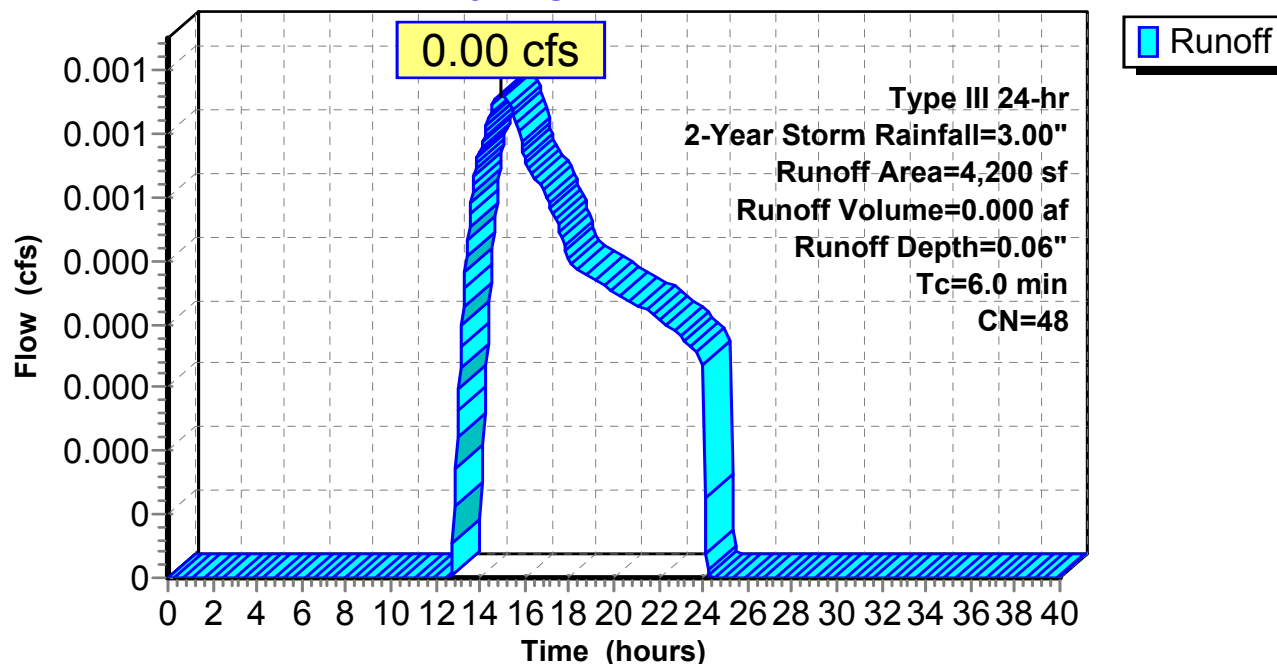
Area (sf)	CN	Description
3,900	98	Paved parking, HSG A
4,600	39	>75% Grass cover, Good, HSG A
8,500	66	Weighted Average
4,600		54.12% Pervious Area
3,900		45.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 301A: Area to Rain Garden # 1A

Hydrograph





Summary for Subcatchment 302: Roof Area to Drip Strip A

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.064 af, Depth= 2.77"

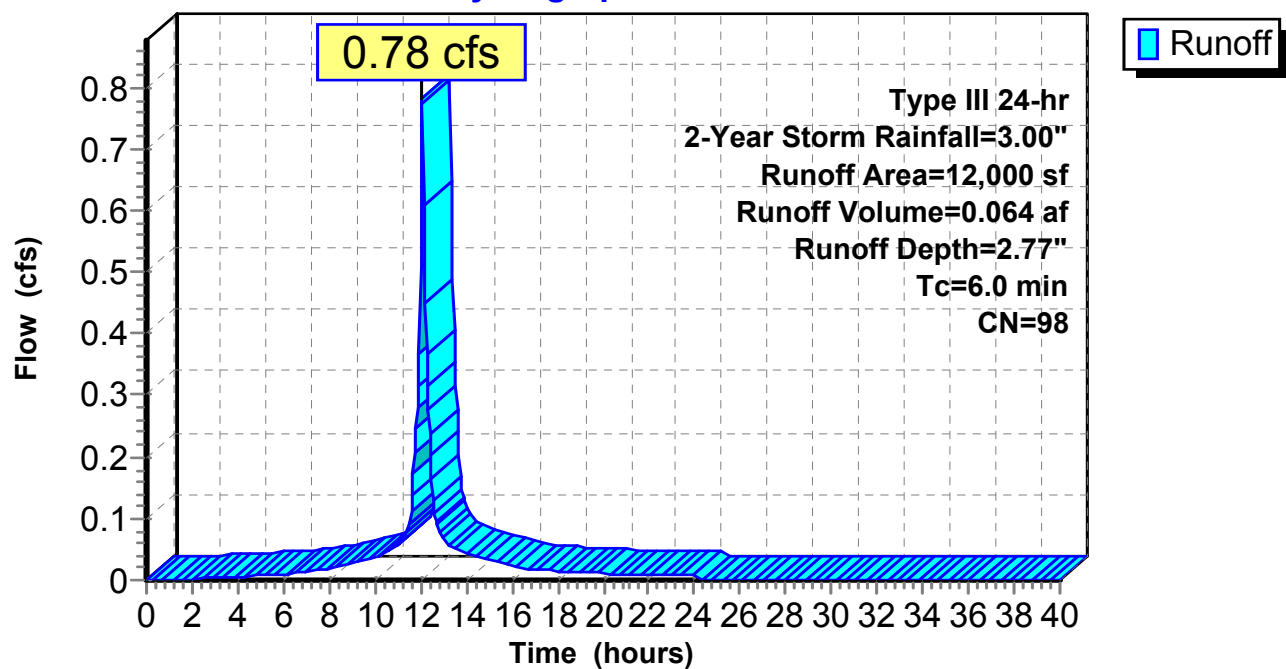
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
12,000	98	Roofs, HSG A
12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 302: Roof Area to Drip Strip A

Hydrograph



605 Stevens Ave - Post-Development

Type III 24-hr 2-Year Storm Rainfall=3.00"

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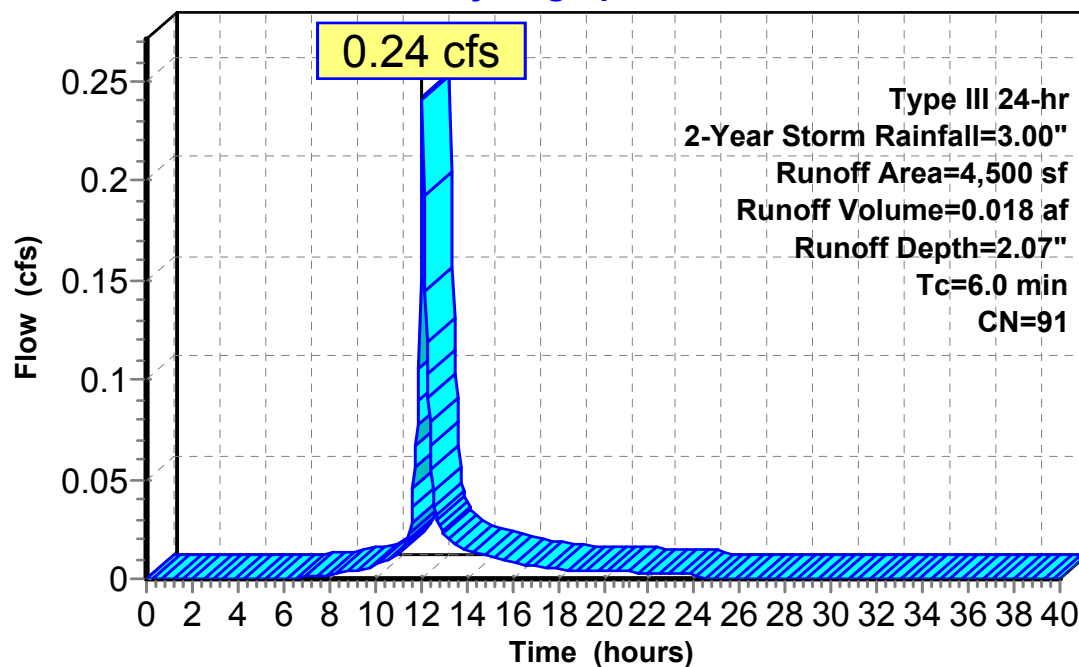
Summary for Subcatchment 303: Area to Pervious Pavement 1

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

	Area (sf)	CN	Description
*	1,794	98	Paved road, HSG A
*	2,106	100	Pervious Pavement, HSG A
	600	39	>75% Grass cover, Good, HSG A
	4,500	91	Weighted Average
	600		13.33% Pervious Area
	3,900		86.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 303: Area to Pervious Pavement 1**Hydrograph**

Summary for Subcatchment 304: Area to Pervious Pavement 2

Runoff = 0.20 cfs @ 12.09 hrs, Volume= 0.017 af, Depth= 2.88"

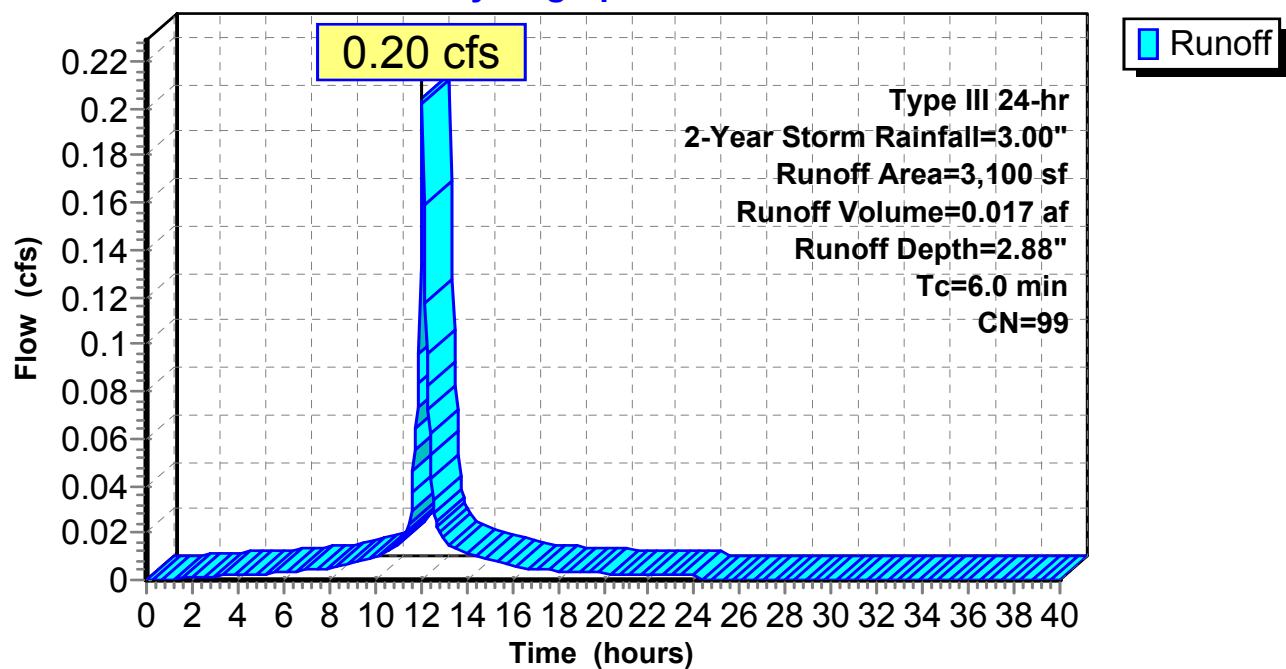
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
1,966	98	Paved parking, HSG A
* 1,134	100	Pervious Pavement, HSG A
3,100	99	Weighted Average
3,100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 304: Area to Pervious Pavement 2

Hydrograph



Summary for Subcatchment 305: Area to Pervious Pavement 3

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.023 af, Depth= 2.35"

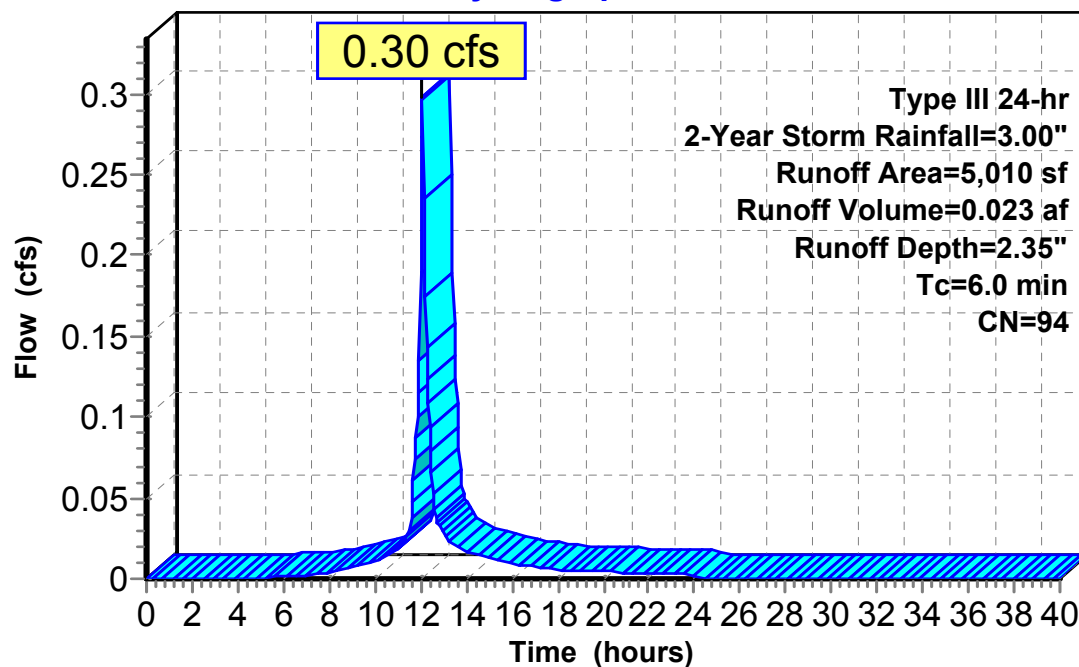
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
3,042	98	Paved parking, HSG A
* 1,548	100	Pervious Pavement, HSG A
420	39	>75% Grass cover, Good, HSG A
5,010	94	Weighted Average
420		8.38% Pervious Area
4,590		91.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 305: Area to Pervious Pavement 3

Hydrograph



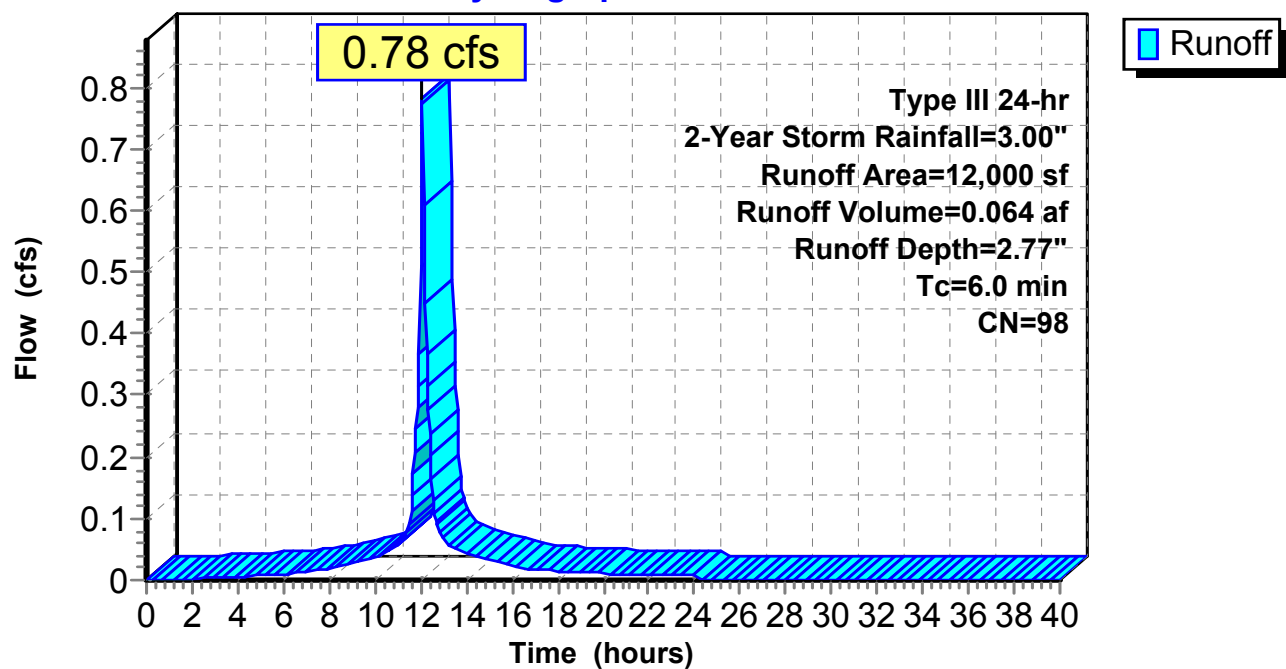
Summary for Subcatchment 306: Roof Area to Drip Strip C

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.064 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
* 12,000	98	Roof, HSG A
12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 306: Roof Area to Drip Strip C**Hydrograph**

Summary for Subcatchment 307: Area to Pervious Pavement 4

Runoff = 1.38 cfs @ 12.09 hrs, Volume= 0.110 af, Depth= 2.66"

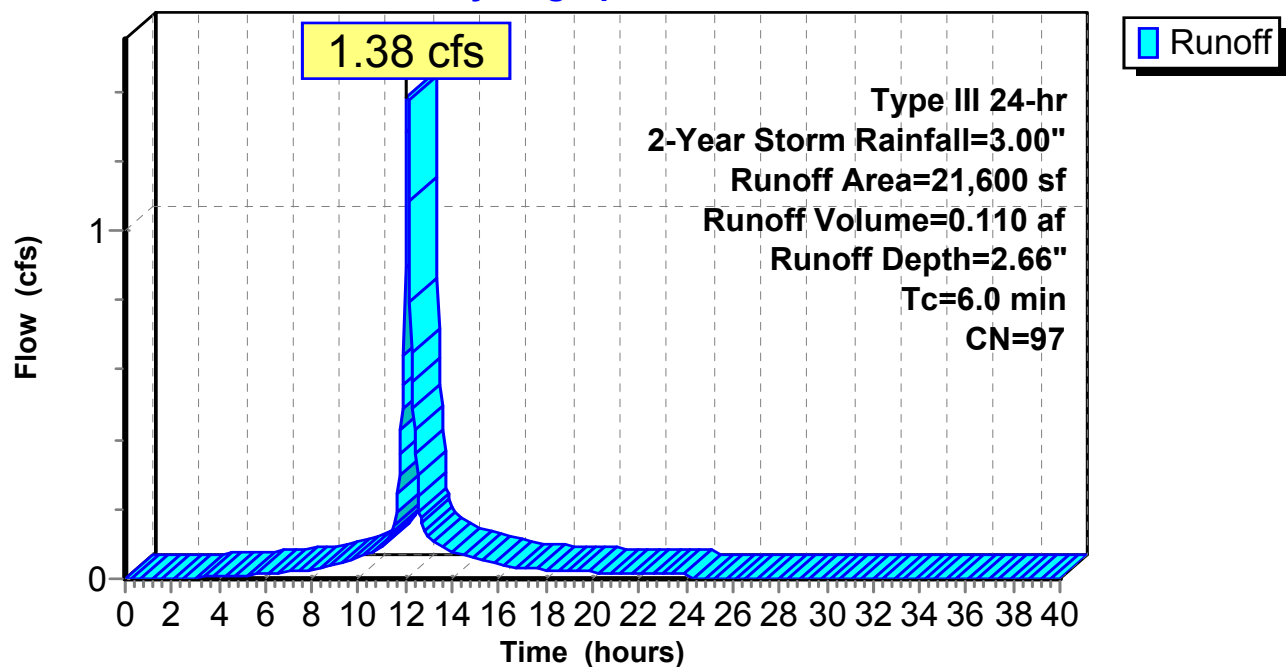
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
10,780	98	Paved parking, HSG A
* 10,100	100	Pervious Pavement, HSG A
720	39	>75% Grass cover, Good, HSG A
21,600	97	Weighted Average
720		3.33% Pervious Area
20,880		96.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 307: Area to Pervious Pavement 4

Hydrograph



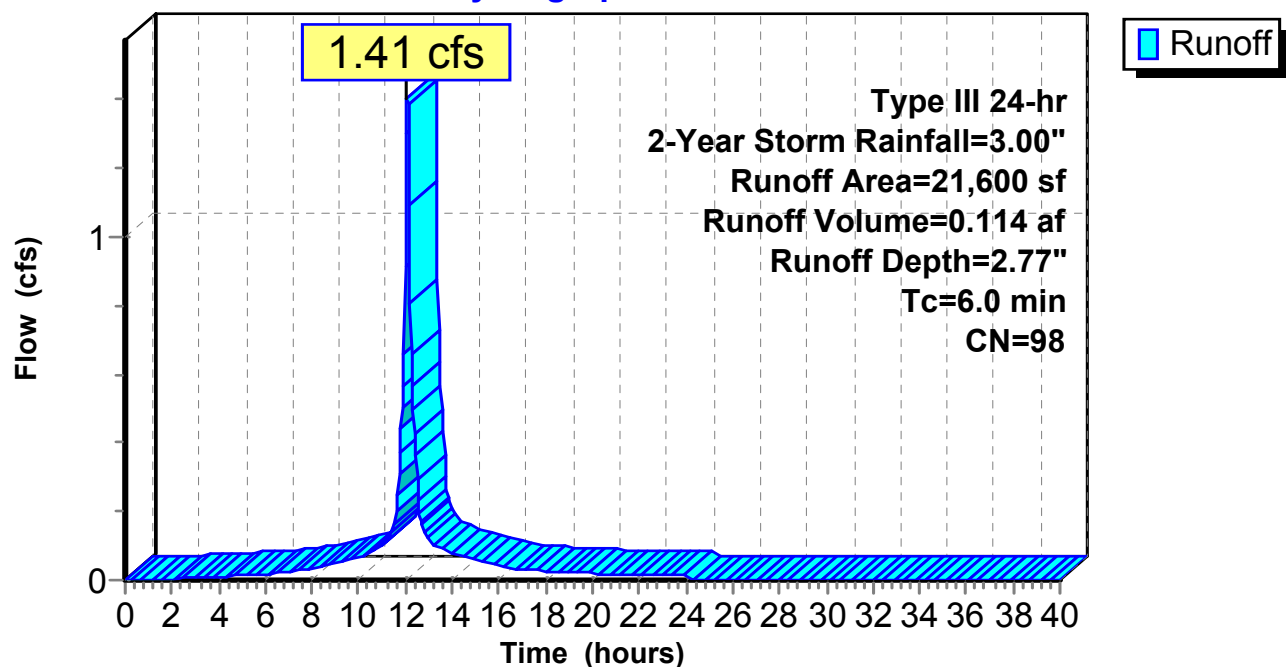
Summary for Subcatchment 308: Roof Area to Drip Strip B

Runoff = 1.41 cfs @ 12.09 hrs, Volume= 0.114 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
21,600	98	Roofs, HSG A
21,600		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 308: Roof Area to Drip Strip B**Hydrograph**

605 Stevens Ave - Post-Development

Type III 24-hr 2-Year Storm Rainfall=3.00"

Prepared by Stantec Consulting Ltd.

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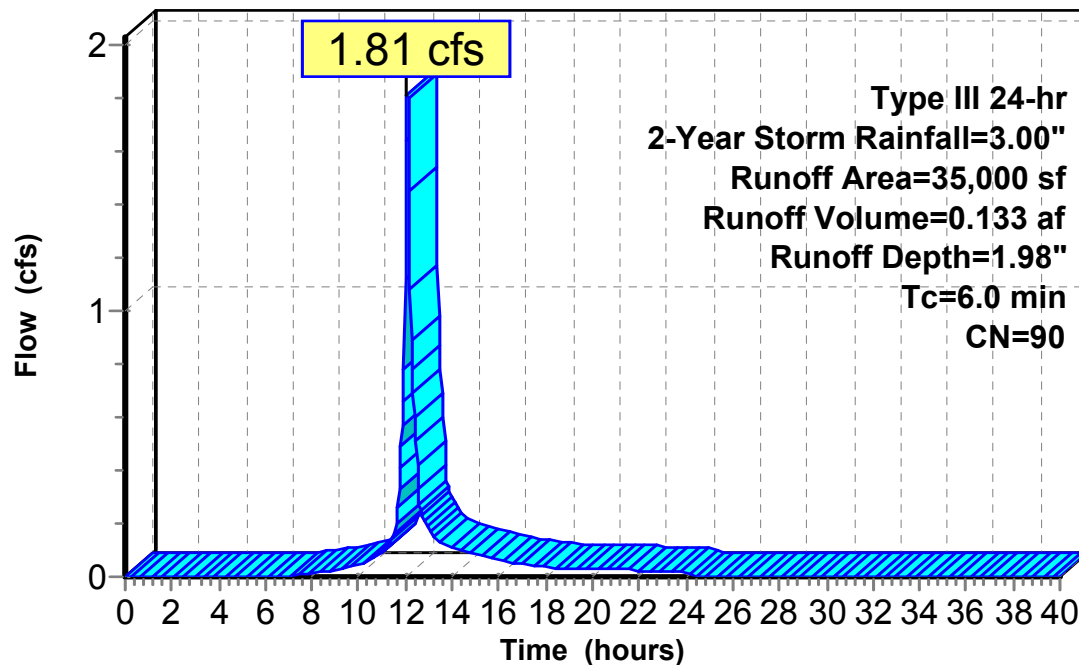
Summary for Subcatchment 309: Area to Pervious Pavement 5

Runoff = 1.81 cfs @ 12.09 hrs, Volume= 0.133 af, Depth= 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
11,600	98	Paved parking, HSG A
* 18,200	100	Pervious Pavement, HSG A
5,200	39	>75% Grass cover, Good, HSG A
35,000	90	Weighted Average
5,200		14.86% Pervious Area
29,800		85.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 309: Area to Pervious Pavement 5**Hydrograph**

Summary for Subcatchment 310: Roof Area to Drip Strip D

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.064 af, Depth= 2.77"

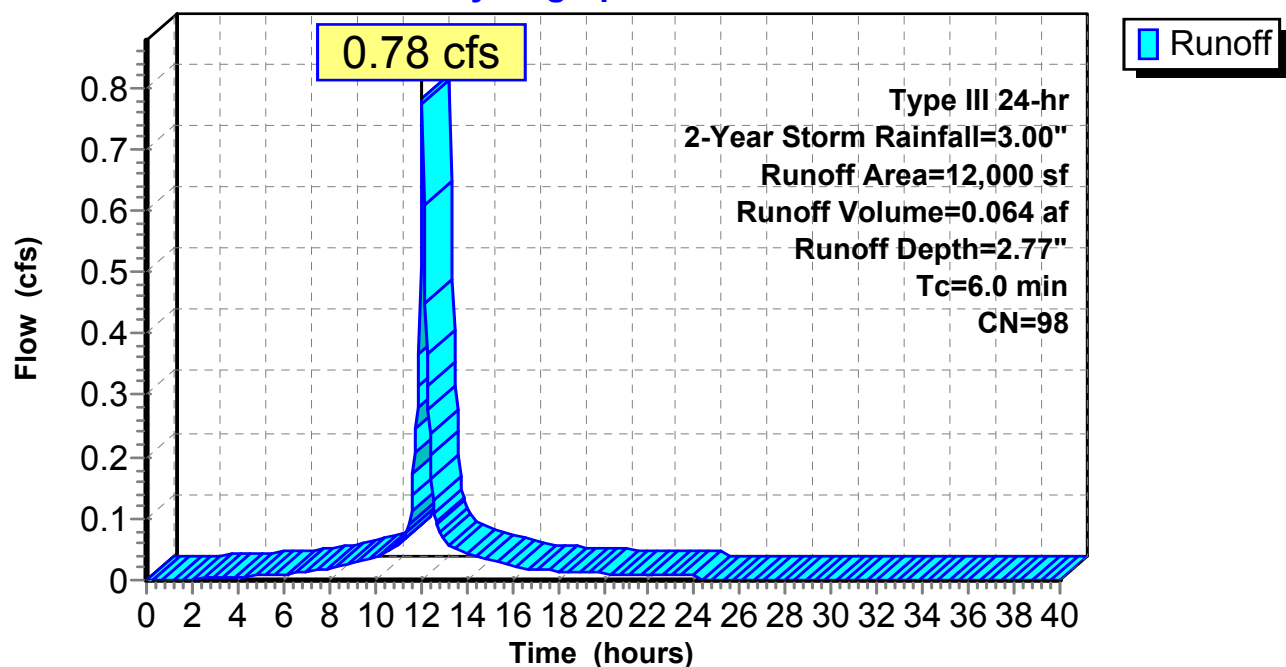
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
12,000	98	Roofs, HSG A
12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 310: Roof Area to Drip Strip D

Hydrograph



Summary for Subcatchment 311: Area to Rain Garden 4

Runoff = 0.07 cfs @ 12.11 hrs, Volume= 0.007 af, Depth= 0.58"

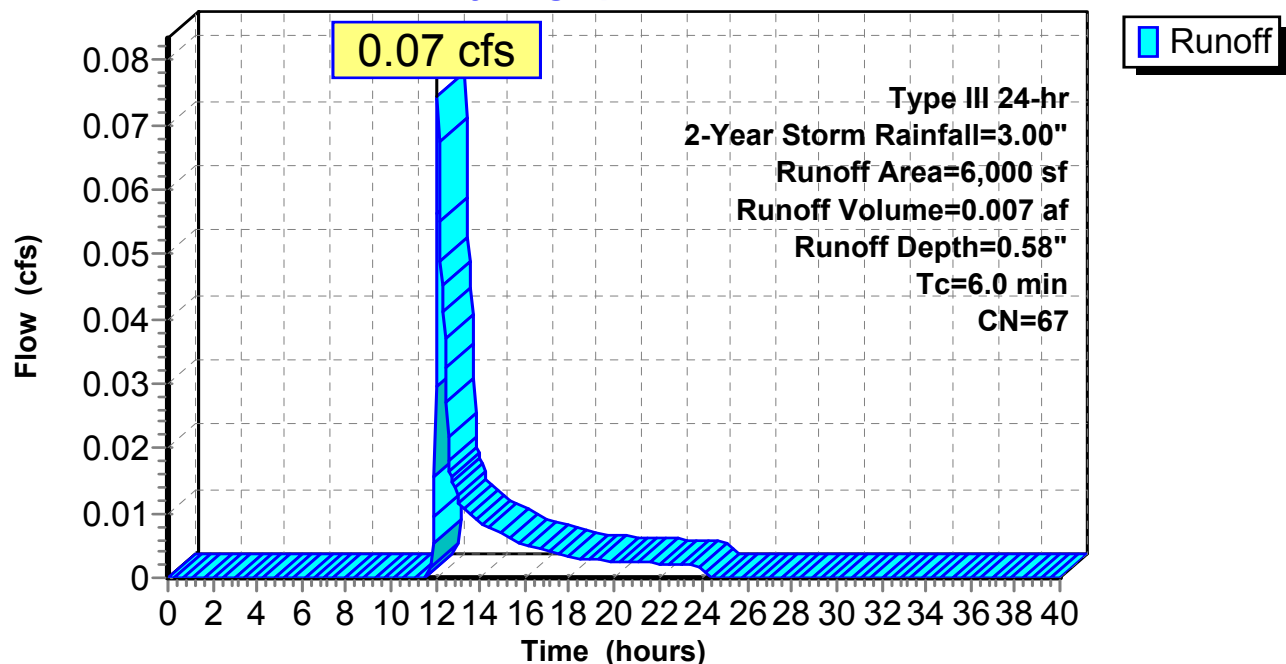
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
2,800	98	Paved parking, HSG A
3,200	39	>75% Grass cover, Good, HSG A
6,000	67	Weighted Average
3,200		53.33% Pervious Area
2,800		46.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 311: Area to Rain Garden 4

Hydrograph



Summary for Subcatchment 312: Roof Area to Drip Strip E

Runoff = 1.41 cfs @ 12.09 hrs, Volume= 0.114 af, Depth= 2.77"

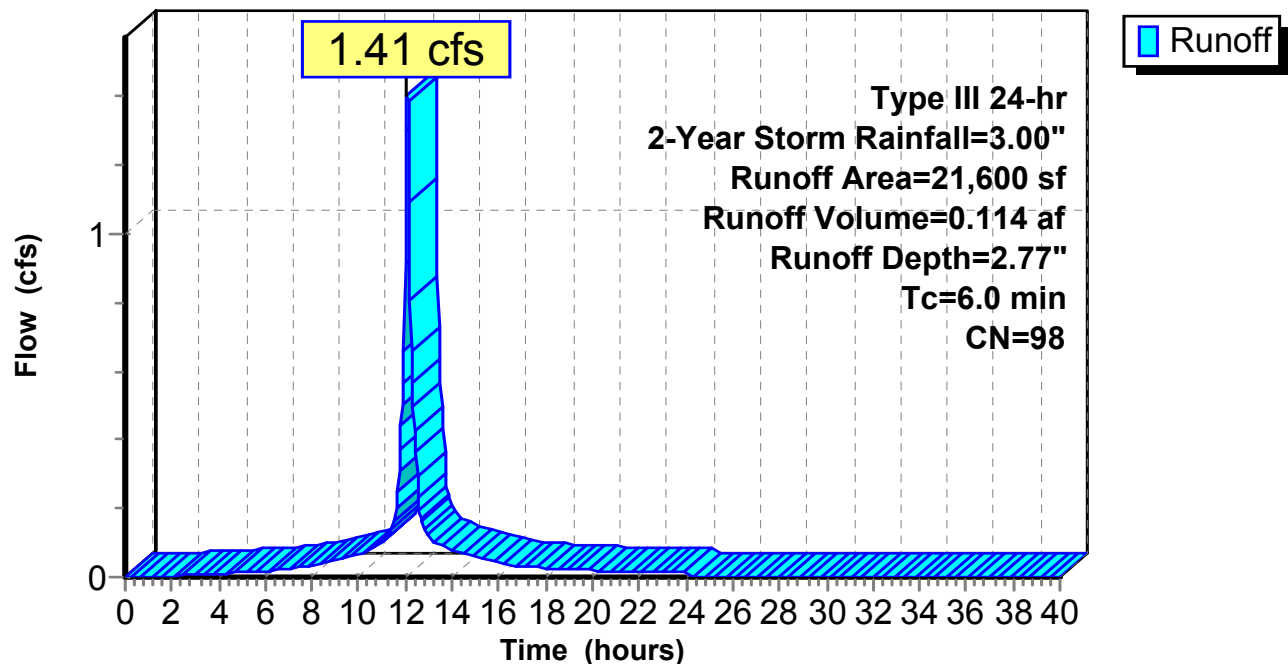
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
21,600	98	Roofs, HSG A
21,600		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 312: Roof Area to Drip Strip E

Hydrograph



Summary for Subcatchment 313: Area to Rain Garden 3

Runoff = 0.07 cfs @ 12.11 hrs, Volume= 0.007 af, Depth= 0.58"

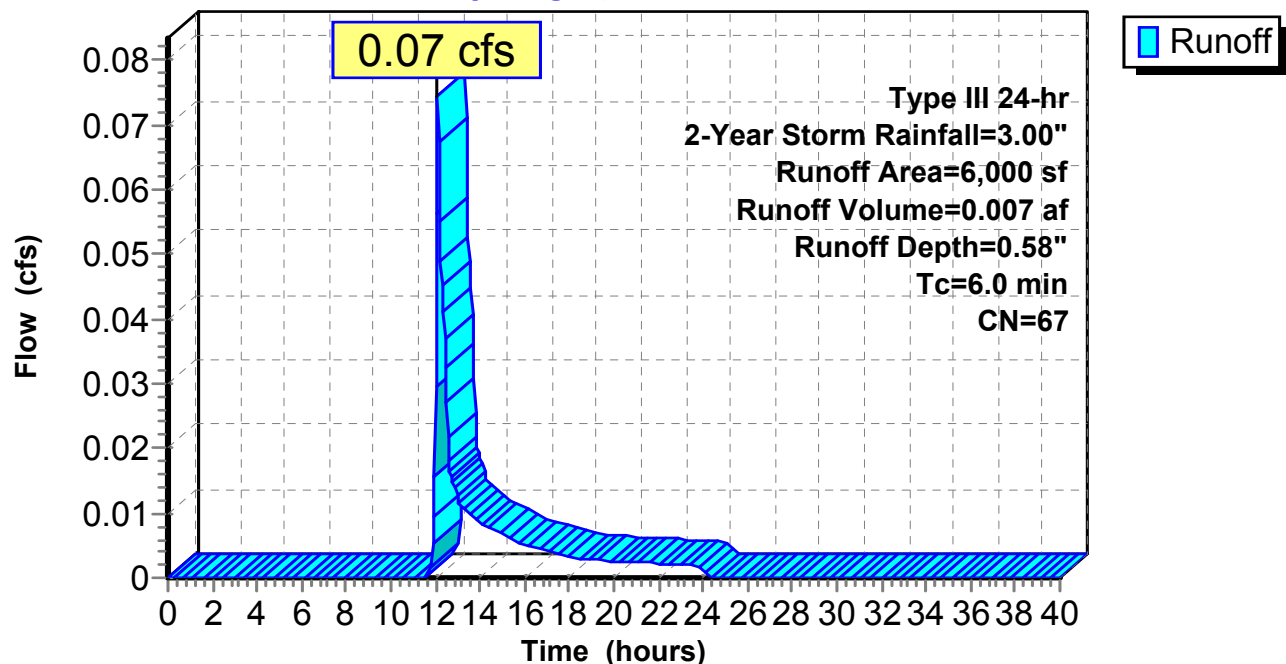
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
2,800	98	Paved parking, HSG A
3,200	39	>75% Grass cover, Good, HSG A
6,000	67	Weighted Average
3,200		53.33% Pervious Area
2,800		46.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 313: Area to Rain Garden 3

Hydrograph



Summary for Subcatchment 314: Area to Infiltration Trench

Runoff = 0.01 cfs @ 12.50 hrs, Volume= 0.005 af, Depth= 0.11"

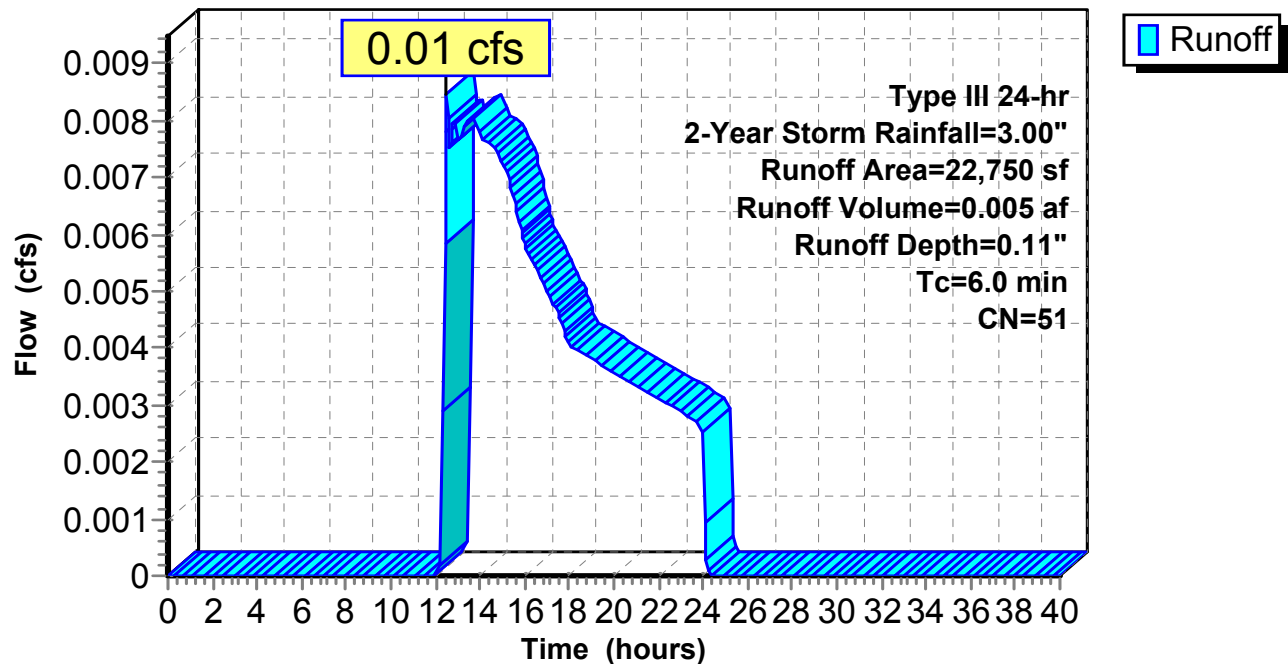
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.00"

Area (sf)	CN	Description
18,000	39	>75% Grass cover, Good, HSG A
4,750	98	Paved parking, HSG A
22,750	51	Weighted Average
18,000		79.12% Pervious Area
4,750		20.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Minimum Tc

Subcatchment 314: Area to Infiltration Trench

Hydrograph



Summary for Pond DS-2: Drip Strip

Inflow Area = 0.220 ac, 79.17% Impervious, Inflow Depth = 2.25" for 2-Year Storm event
 Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af
 Outflow = 0.28 cfs @ 12.00 hrs, Volume= 0.041 af, Atten= 50%, Lag= 0.0 min
 Discarded = 0.28 cfs @ 12.00 hrs, Volume= 0.041 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.26' @ 12.24 hrs Surf.Area= 1,600 sf Storage= 167 cf

Plug-Flow detention time= 3.6 min calculated for 0.041 af (100% of inflow)
 Center-of-Mass det. time= 3.6 min (798.5 - 794.9)

Volume	Invert	Avail.Storage	Storage Description
#1	115.00'	3,040 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	1,600	0.0	0	0
116.00	1,600	40.0	640	640
117.00	1,600	30.0	480	1,120
118.00	1,600	40.0	640	1,760
119.00	1,600	40.0	640	2,400
120.00	1,600	40.0	640	3,040

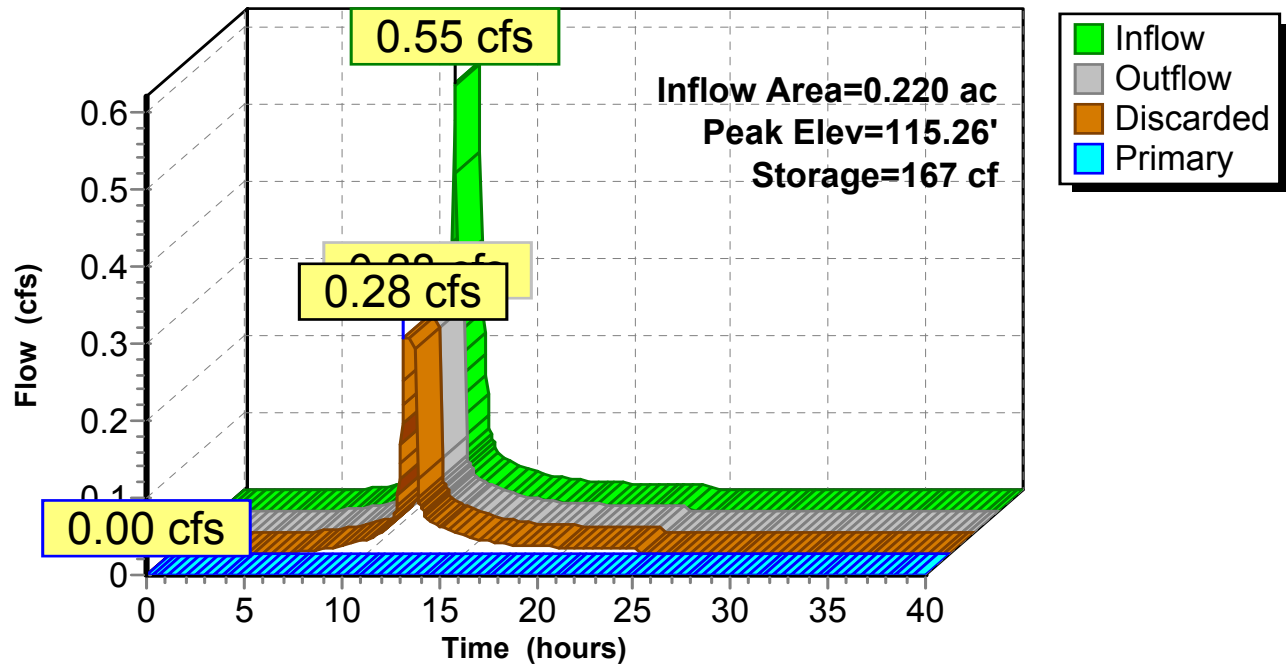
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.28 cfs @ 12.00 hrs HW=115.05' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.28 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS-2: Drip Strip

Hydrograph



Summary for Pond DS-3: Drip Strip

Inflow Area = 0.220 ac, 79.17% Impervious, Inflow Depth = 2.25" for 2-Year Storm event
 Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af
 Outflow = 0.28 cfs @ 12.00 hrs, Volume= 0.041 af, Atten= 50%, Lag= 0.0 min
 Discarded = 0.28 cfs @ 12.00 hrs, Volume= 0.041 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.26' @ 12.24 hrs Surf.Area= 1,600 sf Storage= 167 cf

Plug-Flow detention time= 3.6 min calculated for 0.041 af (100% of inflow)
 Center-of-Mass det. time= 3.6 min (798.5 - 794.9)

Volume	Invert	Avail.Storage	Storage Description	
#1	115.00'	3,040 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	1,600	0.0	0	0
116.00	1,600	40.0	640	640
117.00	1,600	30.0	480	1,120
118.00	1,600	40.0	640	1,760
119.00	1,600	40.0	640	2,400
120.00	1,600	40.0	640	3,040

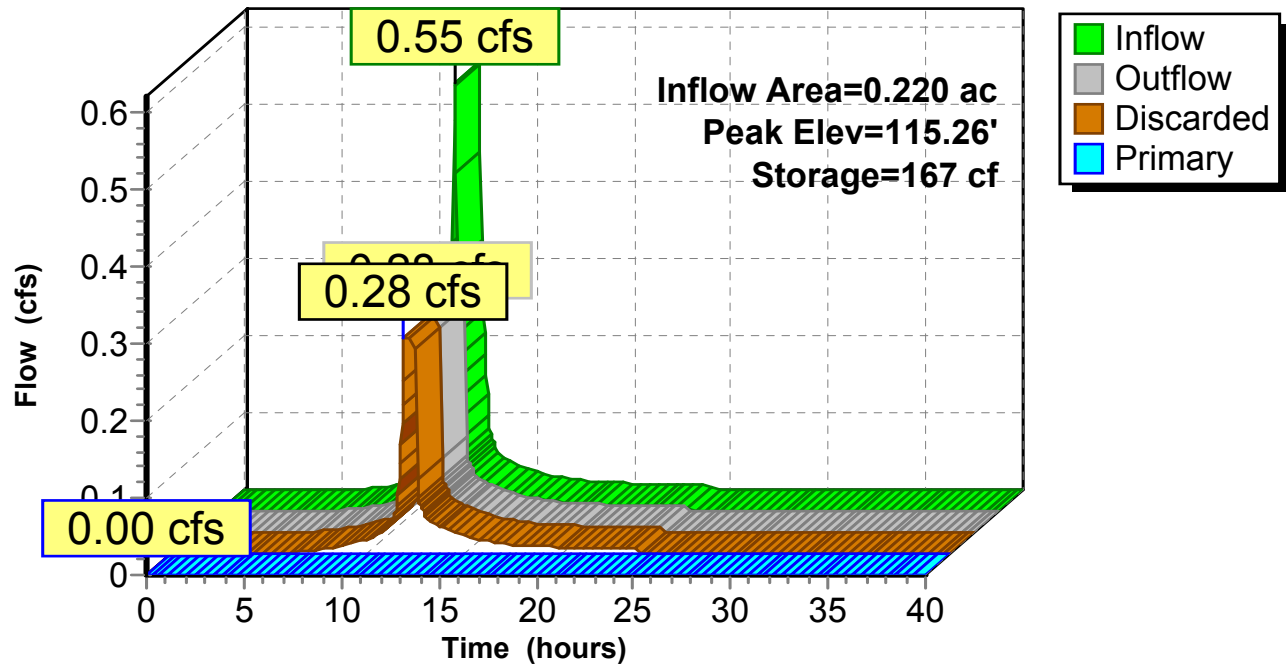
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.28 cfs @ 12.00 hrs HW=115.05' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.28 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS-3: Drip Strip

Hydrograph



Summary for Pond DS-4: Drip Strip

Inflow Area = 0.220 ac, 79.17% Impervious, Inflow Depth = 2.25" for 2-Year Storm event
 Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af
 Outflow = 0.28 cfs @ 12.00 hrs, Volume= 0.041 af, Atten= 50%, Lag= 0.0 min
 Discarded = 0.28 cfs @ 12.00 hrs, Volume= 0.041 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.26' @ 12.24 hrs Surf.Area= 1,600 sf Storage= 167 cf

Plug-Flow detention time= 3.6 min calculated for 0.041 af (100% of inflow)
 Center-of-Mass det. time= 3.6 min (798.5 - 794.9)

Volume	Invert	Avail.Storage	Storage Description
#1	115.00'	3,040 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	1,600	0.0	0	0
116.00	1,600	40.0	640	640
117.00	1,600	30.0	480	1,120
118.00	1,600	40.0	640	1,760
119.00	1,600	40.0	640	2,400
120.00	1,600	40.0	640	3,040

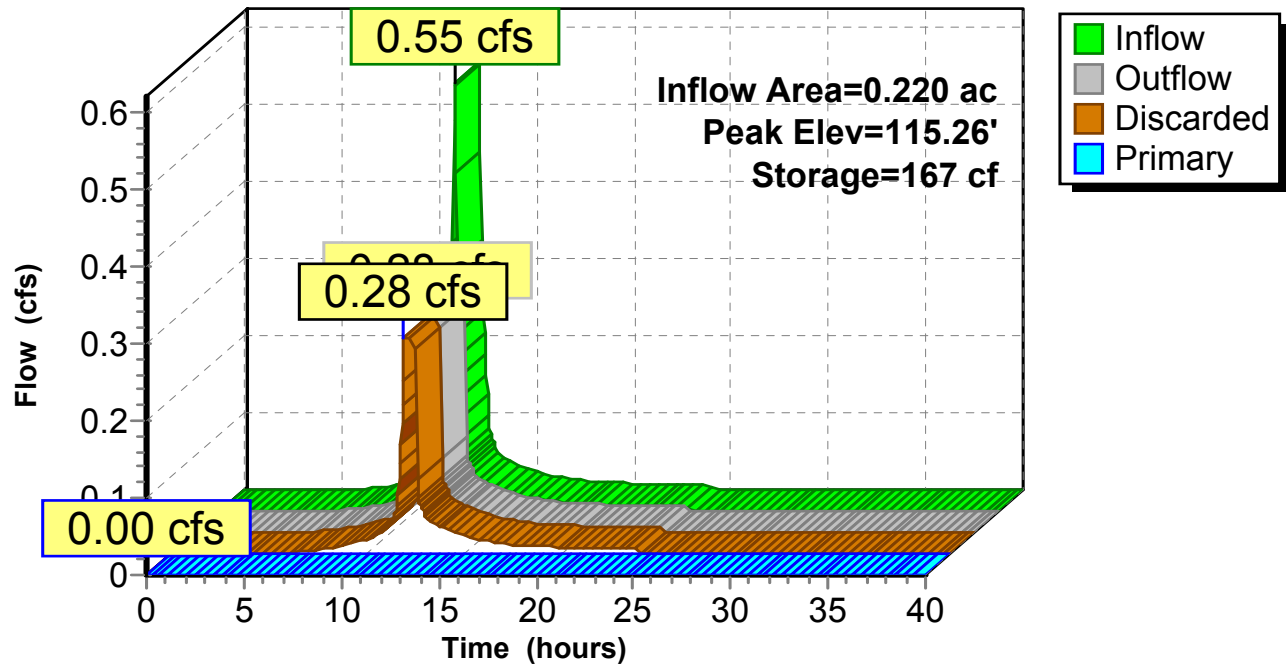
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.28 cfs @ 12.00 hrs HW=115.05' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.28 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS-4: Drip Strip

Hydrograph



Summary for Pond DS-A: Drip Strip

Inflow Area = 0.275 ac, 100.00% Impervious, Inflow Depth = 2.77" for 2-Year Storm event
 Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.064 af
 Outflow = 0.35 cfs @ 12.00 hrs, Volume= 0.064 af, Atten= 56%, Lag= 0.0 min
 Discarded = 0.35 cfs @ 12.00 hrs, Volume= 0.064 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.35' @ 12.27 hrs Surf.Area= 2,000 sf Storage= 283 cf

Plug-Flow detention time= 4.3 min calculated for 0.064 af (100% of inflow)
 Center-of-Mass det. time= 4.3 min (762.1 - 757.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	115.00'	3,800 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	2,000	0.0	0	0
116.00	2,000	40.0	800	800
117.00	2,000	30.0	600	1,400
118.00	2,000	40.0	800	2,200
119.00	2,000	40.0	800	3,000
120.00	2,000	40.0	800	3,800

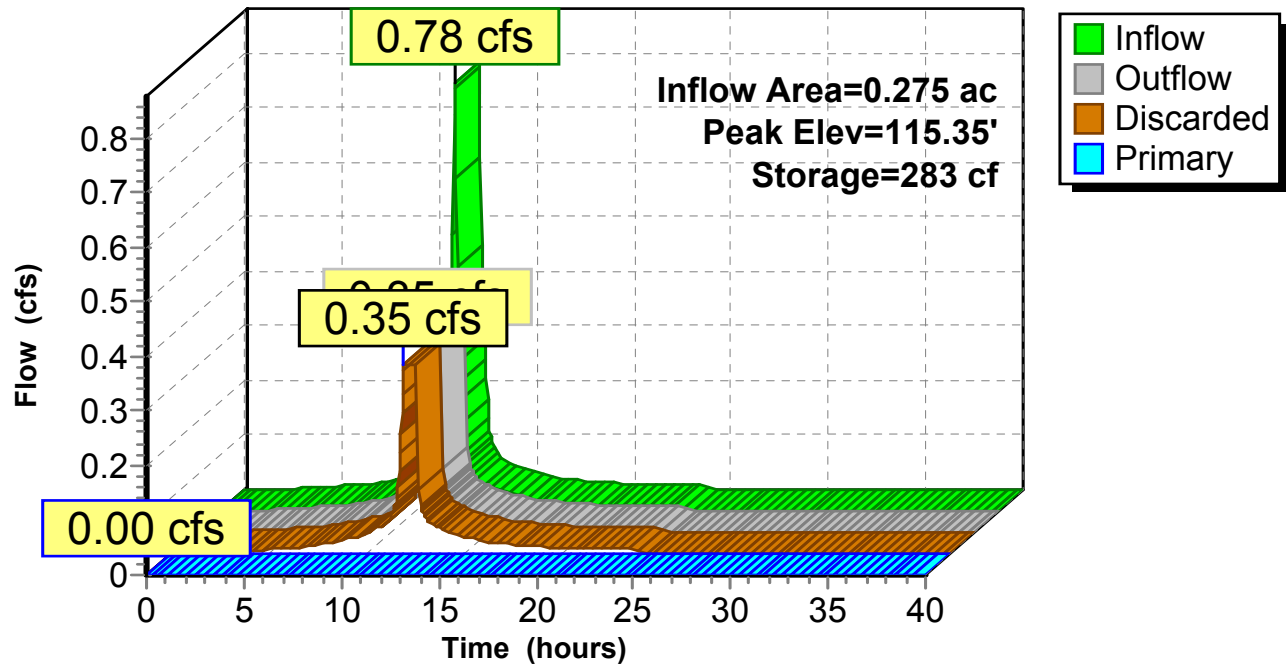
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	4.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.35 cfs @ 12.00 hrs HW=115.07' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.35 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS-A: Drip Strip

Hydrograph



Summary for Pond DS-B: Drip Strip

Inflow Area = 0.496 ac, 100.00% Impervious, Inflow Depth = 2.77" for 2-Year Storm event
 Inflow = 1.41 cfs @ 12.09 hrs, Volume= 0.114 af
 Outflow = 0.62 cfs @ 12.00 hrs, Volume= 0.114 af, Atten= 56%, Lag= 0.0 min
 Discarded = 0.62 cfs @ 12.00 hrs, Volume= 0.114 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.35' @ 12.27 hrs Surf.Area= 3,600 sf Storage= 510 cf

Plug-Flow detention time= 4.3 min calculated for 0.114 af (100% of inflow)
 Center-of-Mass det. time= 4.3 min (762.1 - 757.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	115.00'	6,840 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	3,600	0.0	0	0
116.00	3,600	40.0	1,440	1,440
117.00	3,600	30.0	1,080	2,520
118.00	3,600	40.0	1,440	3,960
119.00	3,600	40.0	1,440	5,400
120.00	3,600	40.0	1,440	6,840

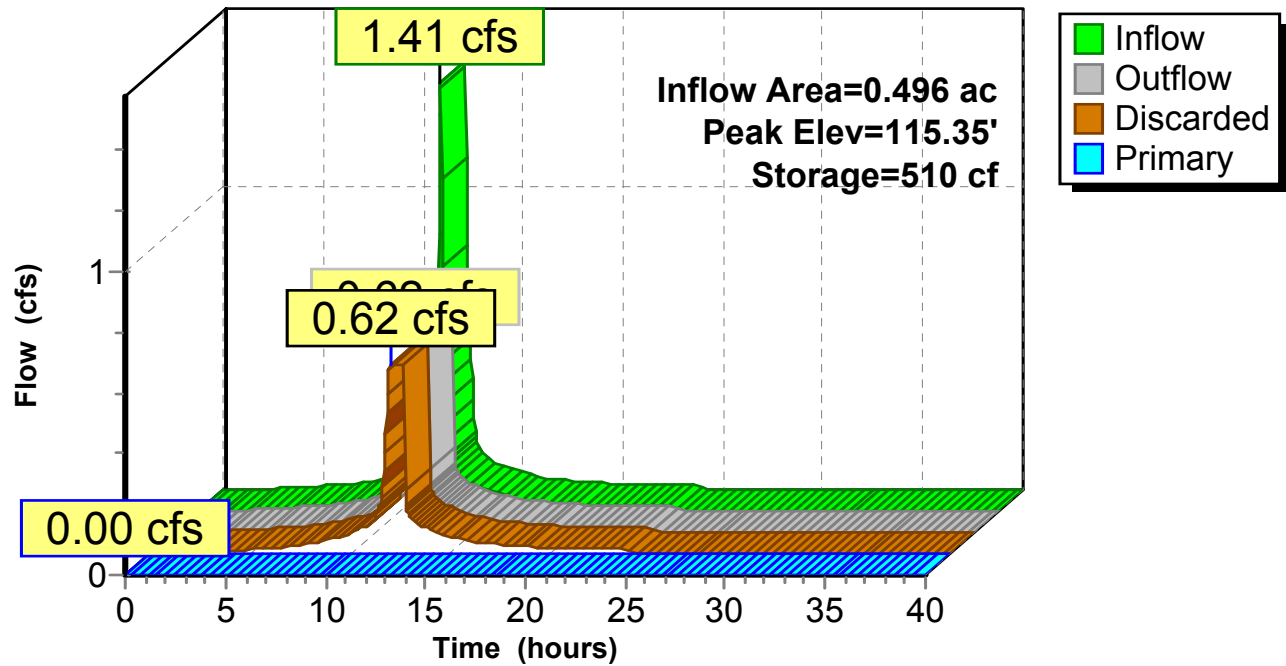
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	4.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.62 cfs @ 12.00 hrs HW=115.07' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.62 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS-B: Drip Strip

Hydrograph



Summary for Pond DS-C: Drip Strip

Inflow Area = 0.275 ac, 100.00% Impervious, Inflow Depth = 2.77" for 2-Year Storm event
 Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.064 af
 Outflow = 0.35 cfs @ 12.00 hrs, Volume= 0.064 af, Atten= 56%, Lag= 0.0 min
 Discarded = 0.35 cfs @ 12.00 hrs, Volume= 0.064 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.35' @ 12.27 hrs Surf.Area= 2,000 sf Storage= 283 cf

Plug-Flow detention time= 4.3 min calculated for 0.064 af (100% of inflow)
 Center-of-Mass det. time= 4.3 min (762.1 - 757.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	115.00'	3,800 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	2,000	0.0	0	0
116.00	2,000	40.0	800	800
117.00	2,000	30.0	600	1,400
118.00	2,000	40.0	800	2,200
119.00	2,000	40.0	800	3,000
120.00	2,000	40.0	800	3,800

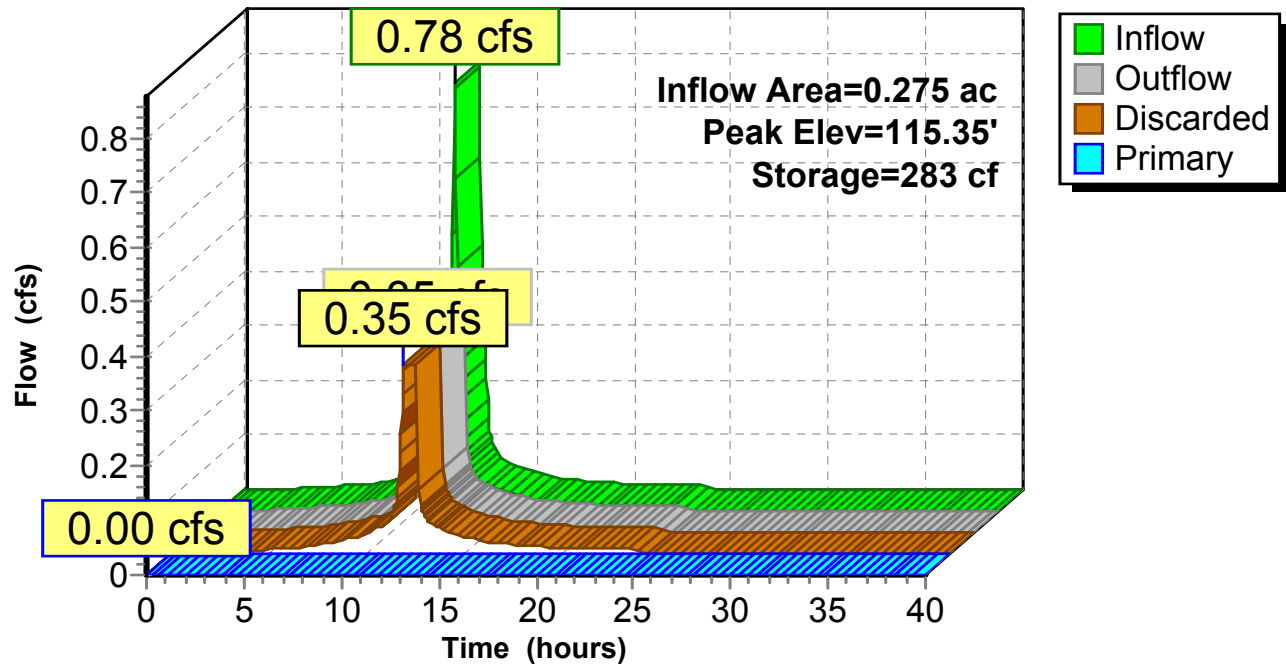
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	4.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.35 cfs @ 12.00 hrs HW=115.07' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.35 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS-C: Drip Strip

Hydrograph



Summary for Pond DS-D: Drip Strip

Inflow Area = 0.275 ac, 100.00% Impervious, Inflow Depth = 2.77" for 2-Year Storm event
 Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.064 af
 Outflow = 0.35 cfs @ 12.00 hrs, Volume= 0.064 af, Atten= 56%, Lag= 0.0 min
 Discarded = 0.35 cfs @ 12.00 hrs, Volume= 0.064 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.35' @ 12.27 hrs Surf.Area= 2,000 sf Storage= 283 cf

Plug-Flow detention time= 4.3 min calculated for 0.064 af (100% of inflow)
 Center-of-Mass det. time= 4.3 min (762.1 - 757.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	115.00'	3,800 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	2,000	0.0	0	0
116.00	2,000	40.0	800	800
117.00	2,000	30.0	600	1,400
118.00	2,000	40.0	800	2,200
119.00	2,000	40.0	800	3,000
120.00	2,000	40.0	800	3,800

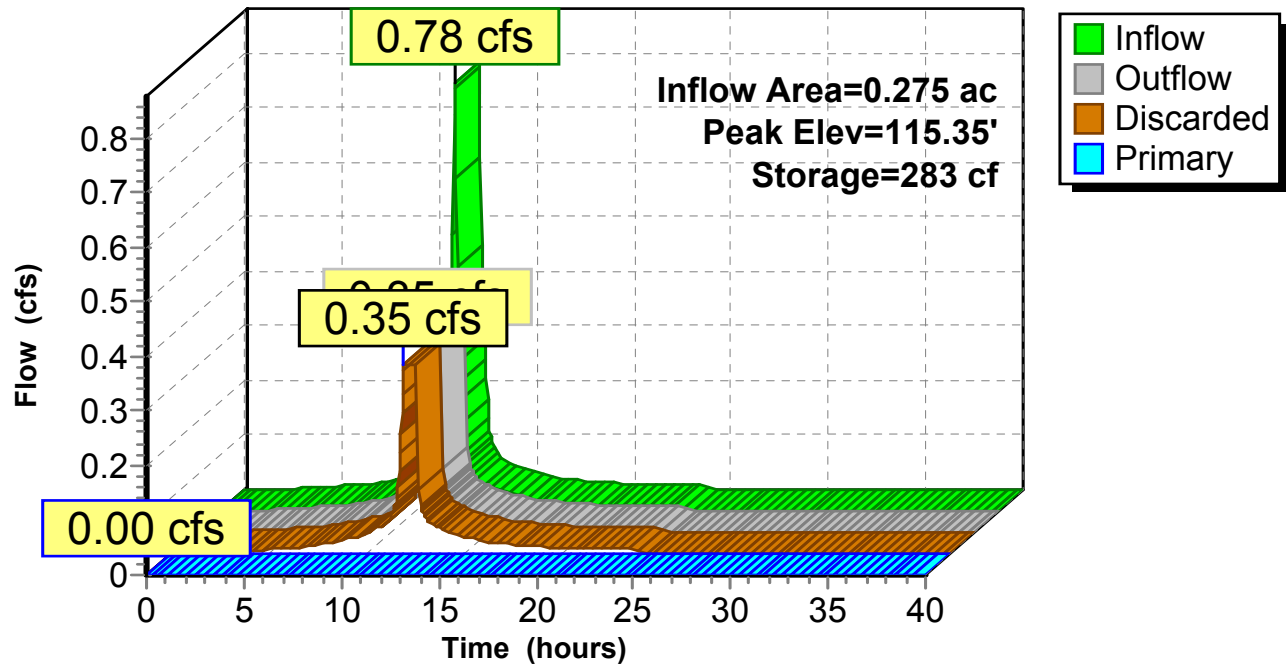
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	4.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.35 cfs @ 12.00 hrs HW=115.07' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.35 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS-D: Drip Strip

Hydrograph



Summary for Pond DS-E: Drip Strip

Inflow Area = 0.496 ac, 100.00% Impervious, Inflow Depth = 2.77" for 2-Year Storm event
 Inflow = 1.41 cfs @ 12.09 hrs, Volume= 0.114 af
 Outflow = 0.62 cfs @ 12.00 hrs, Volume= 0.114 af, Atten= 56%, Lag= 0.0 min
 Discarded = 0.62 cfs @ 12.00 hrs, Volume= 0.114 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.35' @ 12.27 hrs Surf.Area= 3,600 sf Storage= 510 cf

Plug-Flow detention time= 4.3 min calculated for 0.114 af (100% of inflow)
 Center-of-Mass det. time= 4.3 min (762.1 - 757.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	115.00'	6,840 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	3,600	0.0	0	0
116.00	3,600	40.0	1,440	1,440
117.00	3,600	30.0	1,080	2,520
118.00	3,600	40.0	1,440	3,960
119.00	3,600	40.0	1,440	5,400
120.00	3,600	40.0	1,440	6,840

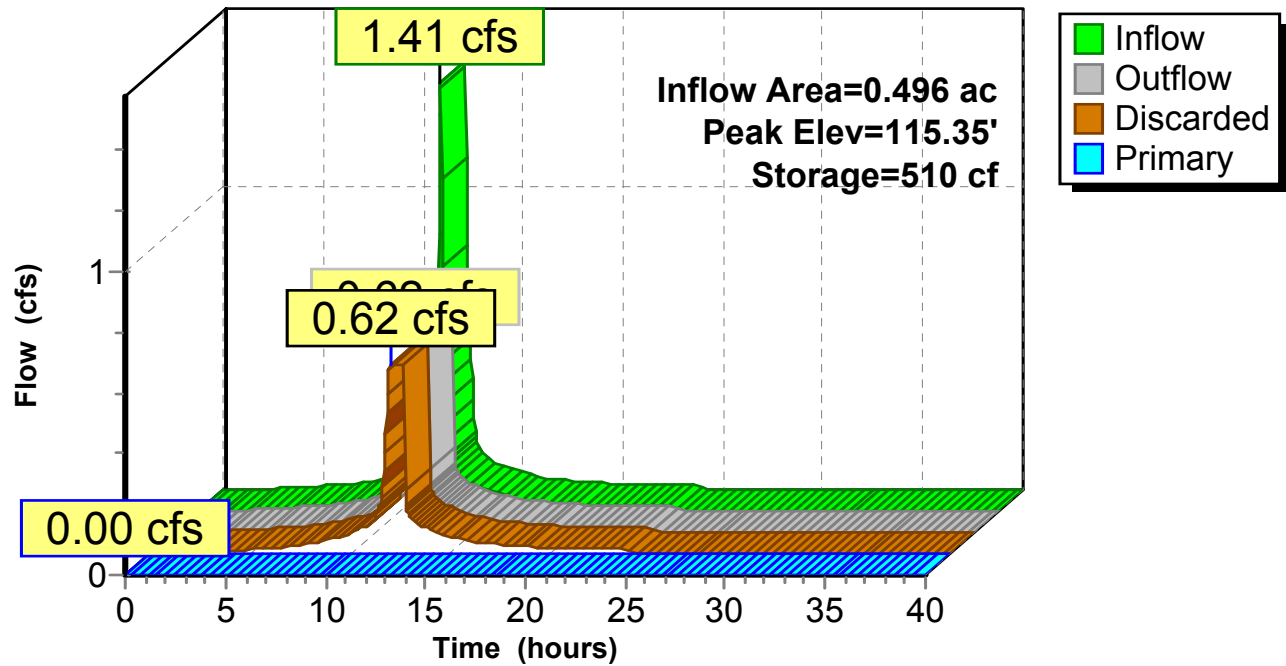
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	4.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.62 cfs @ 12.00 hrs HW=115.07' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.62 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS-E: Drip Strip

Hydrograph



Summary for Pond DS1: Drip Strip

Inflow Area = 0.220 ac, 79.17% Impervious, Inflow Depth = 2.25" for 2-Year Storm event
 Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af
 Outflow = 0.28 cfs @ 12.00 hrs, Volume= 0.041 af, Atten= 50%, Lag= 0.0 min
 Discarded = 0.28 cfs @ 12.00 hrs, Volume= 0.041 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.26' @ 12.24 hrs Surf.Area= 1,600 sf Storage= 167 cf

Plug-Flow detention time= 3.6 min calculated for 0.041 af (100% of inflow)
 Center-of-Mass det. time= 3.6 min (798.5 - 794.9)

Volume	Invert	Avail.Storage	Storage Description	
#1	115.00'	3,040 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	1,600	0.0	0	0
116.00	1,600	40.0	640	640
117.00	1,600	30.0	480	1,120
118.00	1,600	40.0	640	1,760
119.00	1,600	40.0	640	2,400
120.00	1,600	40.0	640	3,040

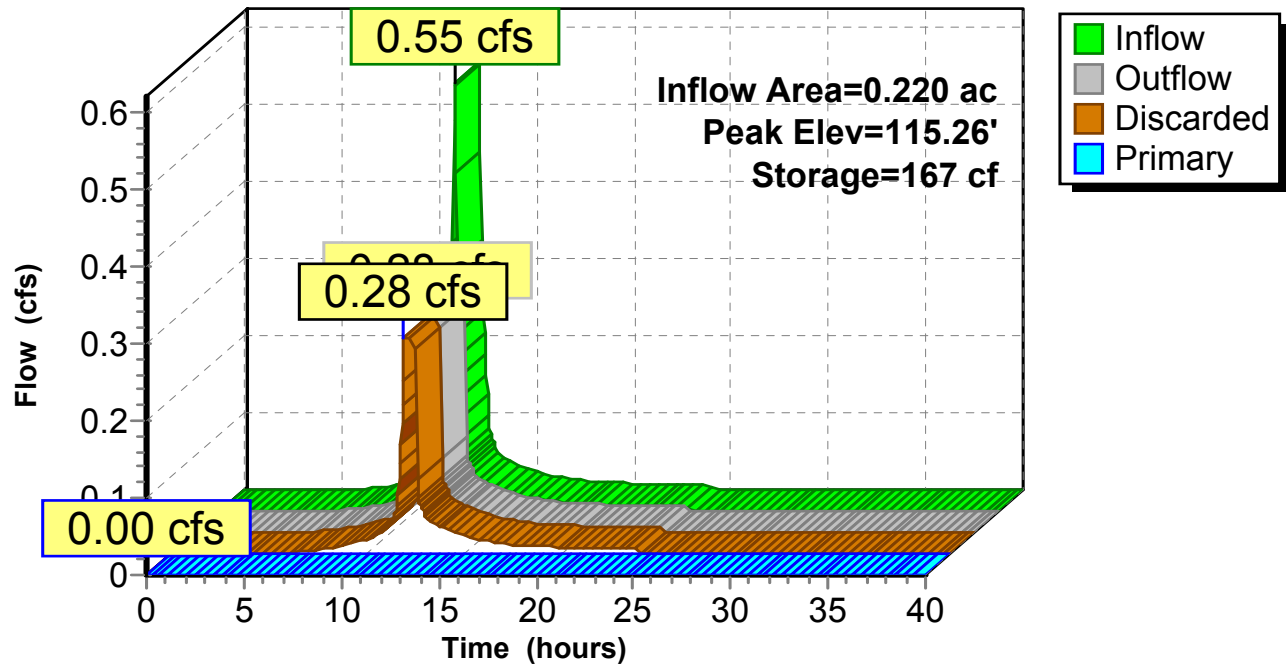
Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	116.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.28 cfs @ 12.00 hrs HW=115.05' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.28 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DS1: Drip Strip

Hydrograph



Summary for Pond IT-1: Infiltration Trench

Inflow Area = 0.360 ac, 71.60% Impervious, Inflow Depth = 1.31" for 2-Year Storm event
 Inflow = 0.54 cfs @ 12.10 hrs, Volume= 0.039 af
 Outflow = 0.28 cfs @ 12.05 hrs, Volume= 0.039 af, Atten= 48%, Lag= 0.0 min
 Discarded = 0.28 cfs @ 12.05 hrs, Volume= 0.039 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 112.31' @ 12.27 hrs Surf.Area= 1,600 sf Storage= 151 cf

Plug-Flow detention time= 3.2 min calculated for 0.039 af (100% of inflow)
 Center-of-Mass det. time= 3.2 min (846.0 - 842.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	112.00'	2,880 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
112.00	1,600	0.0	0	0
113.00	1,600	30.0	480	480
114.00	1,600	30.0	480	960
115.00	1,600	40.0	640	1,600
116.00	1,600	40.0	640	2,240
117.00	1,600	40.0	640	2,880

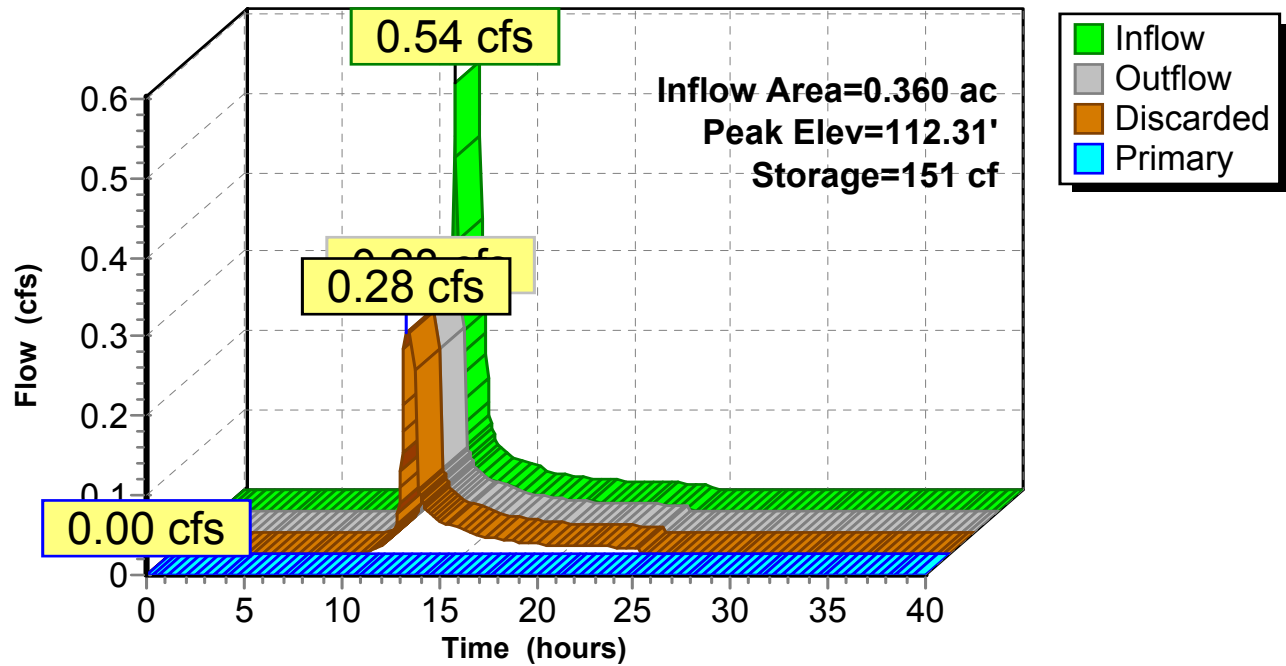
Device	Routing	Invert	Outlet Devices
#1	Discarded	112.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	113.00'	6.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.28 cfs @ 12.05 hrs HW=112.09' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.28 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=112.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond IT-1: Infiltration Trench

Hydrograph



Summary for Pond IT-2: IT - 1

Inflow Area = 0.522 ac, 20.88% Impervious, Inflow Depth = 0.11" for 2-Year Storm event
 Inflow = 0.01 cfs @ 12.50 hrs, Volume= 0.005 af
 Outflow = 0.01 cfs @ 12.53 hrs, Volume= 0.005 af, Atten= 2%, Lag= 1.6 min
 Discarded = 0.01 cfs @ 12.53 hrs, Volume= 0.005 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 112.00' @ 12.53 hrs Surf.Area= 1,600 sf Storage= 1 cf

Plug-Flow detention time= 1.4 min calculated for 0.005 af (100% of inflow)
 Center-of-Mass det. time= 1.4 min (1,020.3 - 1,018.9)

Volume	Invert	Avail.Storage	Storage Description	
#1	112.00'	2,880 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
112.00	1,600	0.0	0	0
113.00	1,600	30.0	480	480
114.00	1,600	30.0	480	960
115.00	1,600	40.0	640	1,600
116.00	1,600	40.0	640	2,240
117.00	1,600	40.0	640	2,880

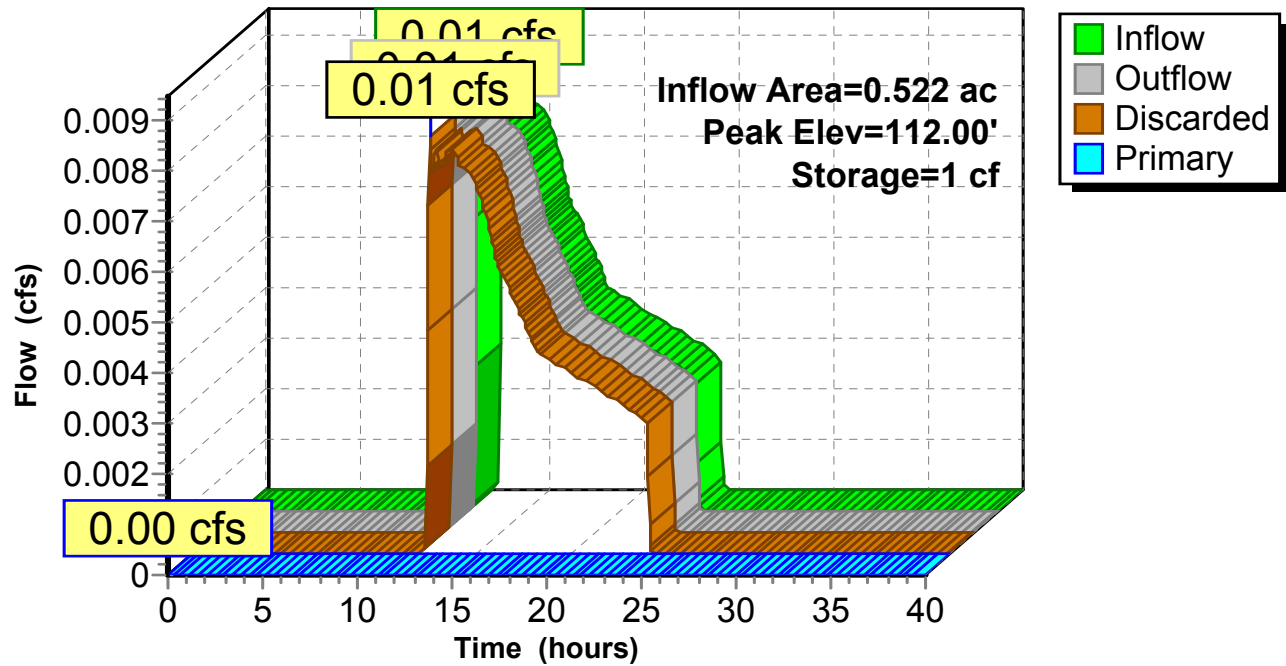
Device	Routing	Invert	Outlet Devices
#1	Discarded	112.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	112.50'	6.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.28 cfs @ 12.53 hrs HW=112.00' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.28 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=112.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond IT-2: IT - 1

Hydrograph



Summary for Pond PP-1: PP 1

Inflow Area = 0.103 ac, 86.67% Impervious, Inflow Depth = 2.07" for 2-Year Storm event
 Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.018 af
 Outflow = 0.23 cfs @ 12.11 hrs, Volume= 0.018 af, Atten= 4%, Lag= 1.4 min
 Discarded = 0.23 cfs @ 12.11 hrs, Volume= 0.018 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 114.04' @ 12.11 hrs Surf.Area= 1,794 sf Storage= 20 cf

Plug-Flow detention time= 1.4 min calculated for 0.018 af (100% of inflow)
 Center-of-Mass det. time= 1.4 min (806.3 - 804.9)

Volume	Invert	Avail.Storage	Storage Description	
#1	114.00'	3,229 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
114.00	1,794	0.0	0	0
115.00	1,794	30.0	538	538
116.00	1,794	30.0	538	1,076
117.00	1,794	40.0	718	1,794
118.00	1,794	40.0	718	2,512
119.00	1,794	40.0	718	3,229

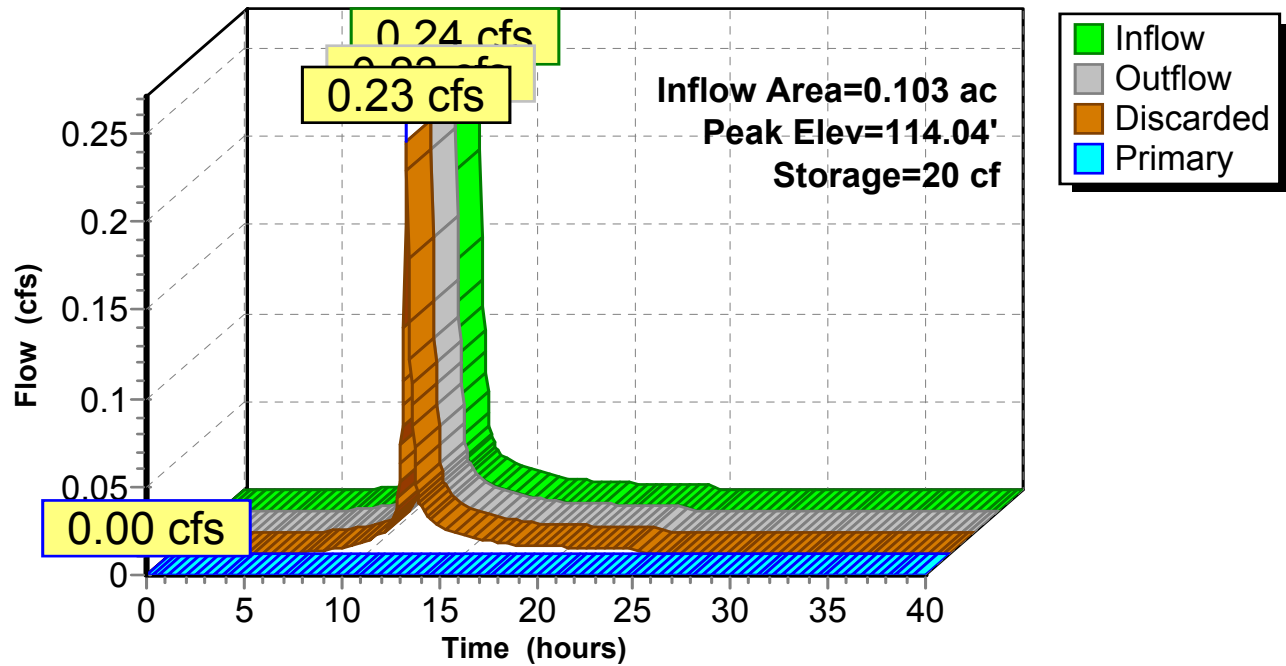
Device	Routing	Invert	Outlet Devices
#1	Discarded	114.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	114.33'	6.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.31 cfs @ 12.11 hrs HW=114.04' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.31 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=114.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond PP-1: PP 1

Hydrograph



Summary for Pond PP-2: PP 2

Inflow Area = 0.071 ac, 100.00% Impervious, Inflow Depth = 2.88" for 2-Year Storm event
 Inflow = 0.20 cfs @ 12.09 hrs, Volume= 0.017 af
 Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.017 af, Atten= 3%, Lag= 1.4 min
 Discarded = 0.20 cfs @ 12.11 hrs, Volume= 0.017 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 113.05' @ 12.11 hrs Surf.Area= 1,134 sf Storage= 17 cf

Plug-Flow detention time= 1.4 min calculated for 0.017 af (100% of inflow)
 Center-of-Mass det. time= 1.4 min (746.4 - 745.0)

Volume	Invert	Avail.Storage	Storage Description	
#1	113.00'	2,041 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
113.00	1,134	0.0	0	0
114.00	1,134	30.0	340	340
115.00	1,134	30.0	340	680
116.00	1,134	40.0	454	1,134
117.00	1,134	40.0	454	1,588
118.00	1,134	40.0	454	2,041

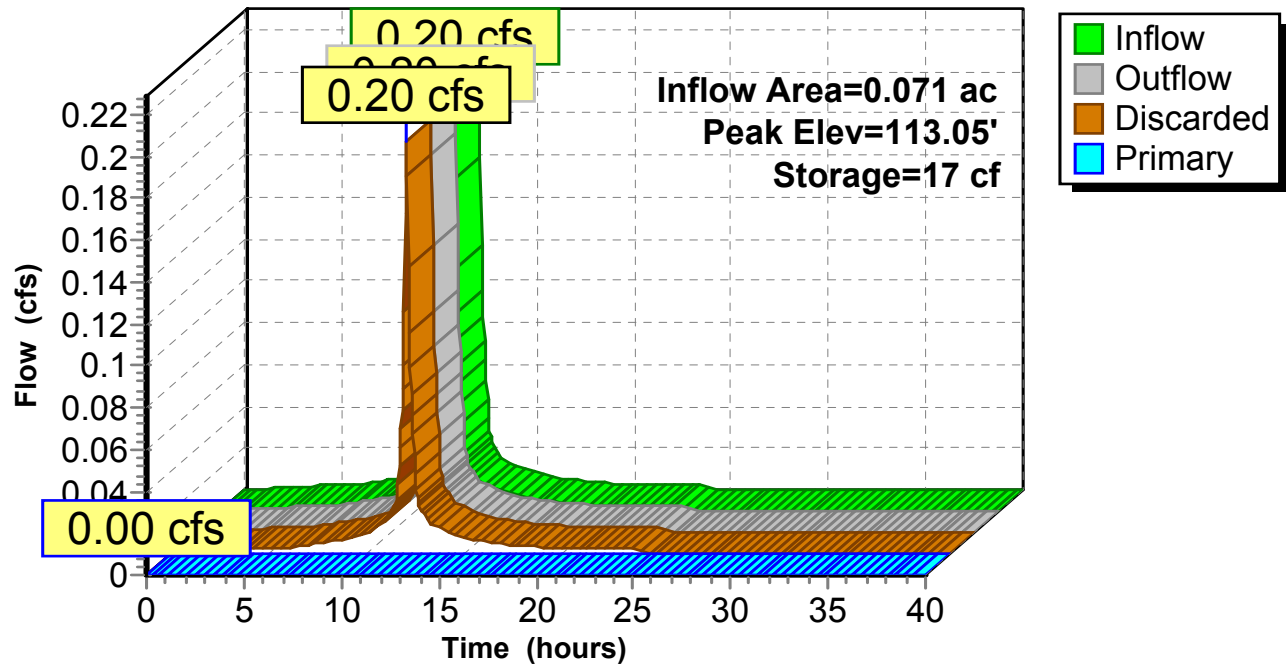
Device	Routing	Invert	Outlet Devices
#1	Discarded	113.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	113.50'	6.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.20 cfs @ 12.11 hrs HW=113.05' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=113.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond PP-2: PP 2

Hydrograph



Summary for Pond PP-3: PP 3

Inflow Area = 0.115 ac, 91.62% Impervious, Inflow Depth = 2.35" for 2-Year Storm event
 Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.023 af
 Outflow = 0.27 cfs @ 12.13 hrs, Volume= 0.023 af, Atten= 8%, Lag= 2.2 min
 Discarded = 0.27 cfs @ 12.13 hrs, Volume= 0.023 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 113.06' @ 12.12 hrs Surf.Area= 1,548 sf Storage= 27 cf

Plug-Flow detention time= 1.5 min calculated for 0.022 af (100% of inflow)
 Center-of-Mass det. time= 1.5 min (790.7 - 789.3)

Volume	Invert	Avail.Storage	Storage Description	
#1	113.00'	2,786 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
113.00	1,548	0.0	0	0
114.00	1,548	30.0	464	464
115.00	1,548	30.0	464	929
116.00	1,548	40.0	619	1,548
117.00	1,548	40.0	619	2,167
118.00	1,548	40.0	619	2,786

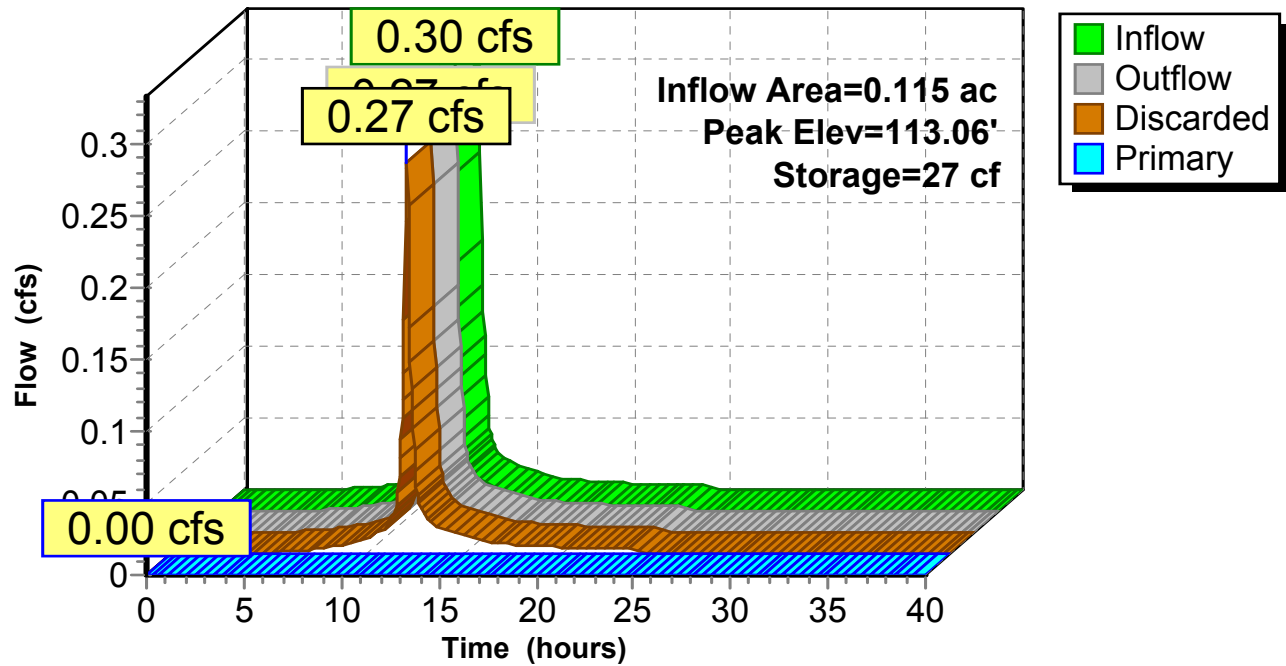
Device	Routing	Invert	Outlet Devices
#1	Discarded	113.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	113.50'	6.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.27 cfs @ 12.13 hrs HW=113.06' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.27 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=113.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond PP-3: PP 3

Hydrograph



Summary for Pond PP-4: PP 4

Inflow Area = 0.496 ac, 96.67% Impervious, Inflow Depth = 2.66" for 2-Year Storm event
 Inflow = 1.38 cfs @ 12.09 hrs, Volume= 0.110 af
 Outflow = 1.34 cfs @ 12.11 hrs, Volume= 0.110 af, Atten= 3%, Lag= 1.4 min
 Discarded = 1.34 cfs @ 12.11 hrs, Volume= 0.110 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 111.04' @ 12.11 hrs Surf.Area= 10,100 sf Storage= 116 cf

Plug-Flow detention time= 1.4 min calculated for 0.110 af (100% of inflow)
 Center-of-Mass det. time= 1.4 min (769.1 - 767.7)

Volume	Invert	Avail.Storage	Storage Description	
#1	111.00'	18,180 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
111.00	10,100	0.0	0	0
112.00	10,100	30.0	3,030	3,030
113.00	10,100	30.0	3,030	6,060
114.00	10,100	40.0	4,040	10,100
115.00	10,100	40.0	4,040	14,140
116.00	10,100	40.0	4,040	18,180

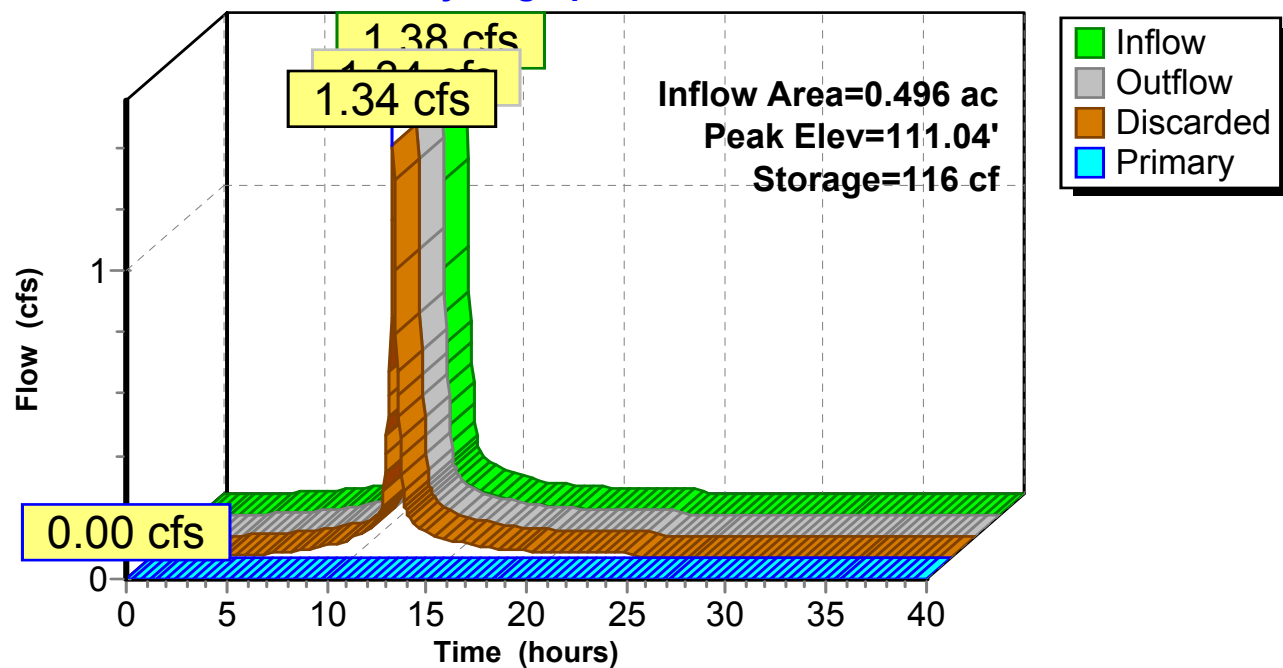
Device	Routing	Invert	Outlet Devices
#1	Discarded	111.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	111.50'	6.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=1.75 cfs @ 12.11 hrs HW=111.04' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 1.75 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=111.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond PP-4: PP 4

Hydrograph



Summary for Pond PP-5: PP 5

Inflow Area = 0.803 ac, 85.14% Impervious, Inflow Depth = 1.98" for 2-Year Storm event
 Inflow = 1.81 cfs @ 12.09 hrs, Volume= 0.133 af
 Outflow = 1.75 cfs @ 12.11 hrs, Volume= 0.133 af, Atten= 4%, Lag= 1.4 min
 Discarded = 1.75 cfs @ 12.11 hrs, Volume= 0.133 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 112.03' @ 12.11 hrs Surf.Area= 18,200 sf Storage= 151 cf

Plug-Flow detention time= 1.4 min calculated for 0.133 af (100% of inflow)
 Center-of-Mass det. time= 1.4 min (810.9 - 809.4)

Volume	Invert	Avail.Storage	Storage Description	
#1	112.00'	32,760 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
112.00	18,200	0.0	0	0
113.00	18,200	30.0	5,460	5,460
114.00	18,200	30.0	5,460	10,920
115.00	18,200	40.0	7,280	18,200
116.00	18,200	40.0	7,280	25,480
117.00	18,200	40.0	7,280	32,760

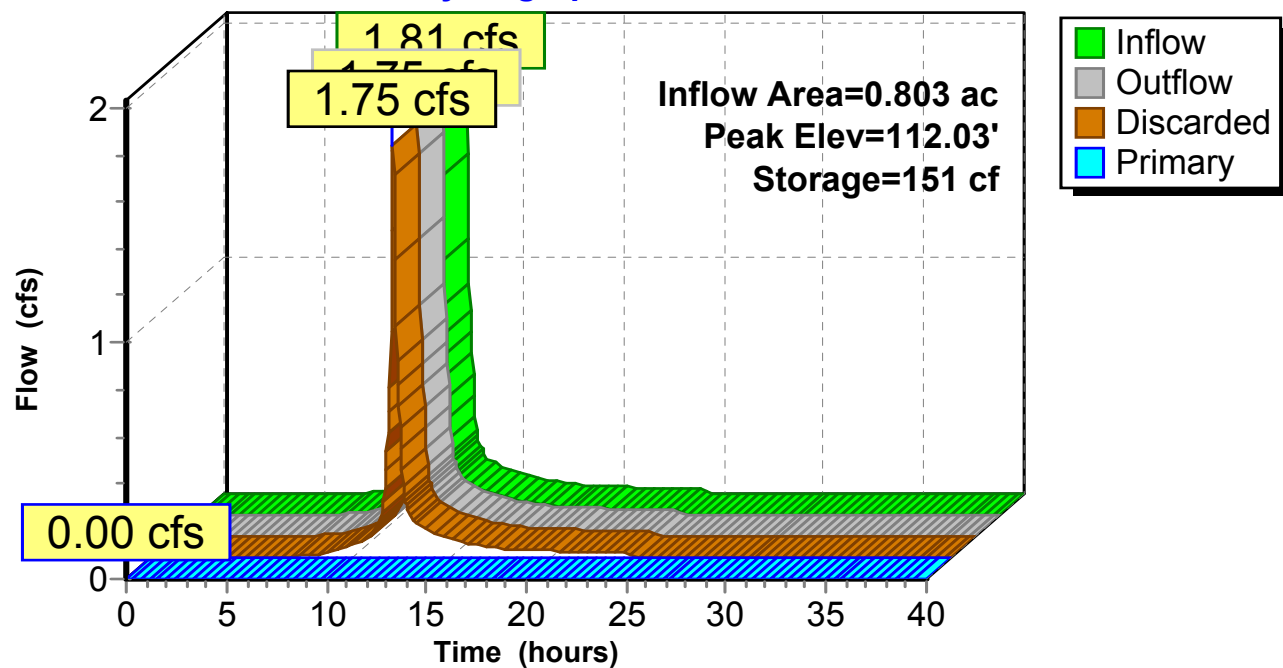
Device	Routing	Invert	Outlet Devices
#1	Discarded	112.00'	7.500 in/hr Exfiltration over Surface area
#2	Primary	112.50'	8.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=3.16 cfs @ 12.11 hrs HW=112.03' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 3.16 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=112.00' (Free Discharge)
 ↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond PP-5: PP 5

Hydrograph



Summary for Pond RG-1: Rain Garden

Inflow Area = 0.168 ac, 58.87% Impervious, Inflow Depth = 0.91" for 2-Year Storm event
 Inflow = 0.16 cfs @ 12.10 hrs, Volume= 0.013 af
 Outflow = 0.08 cfs @ 12.05 hrs, Volume= 0.013 af, Atten= 51%, Lag= 0.0 min
 Discarded = 0.08 cfs @ 12.05 hrs, Volume= 0.013 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 114.84' @ 12.33 hrs Surf.Area= 460 sf Storage= 51 cf

Plug-Flow detention time= 3.4 min calculated for 0.013 af (100% of inflow)
 Center-of-Mass det. time= 3.4 min (869.7 - 866.3)

Volume	Invert	Avail.Storage	Storage Description	
#1	114.50'	1,185 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
114.50	460	33.0	0	0
115.00	460	33.0	76	76
115.50	460	33.0	76	152
116.00	460	33.0	76	228
116.50	460	100.0	230	458
117.00	460	100.0	230	688
117.50	505	100.0	241	929
118.00	520	100.0	256	1,185

Device	Routing	Invert	Outlet Devices
#1	Discarded	114.50'	7.500 in/hr Exfiltration over Surface area
#2	Device 3	115.00'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	114.50'	8.0" Round Culvert L= 150.0' Ke= 0.500 Inlet / Outlet Invert= 114.50' / 111.00' S= 0.0233 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#4	Device 3	117.50'	10.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 12.05 hrs HW=114.57' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=114.50' (Free Discharge)

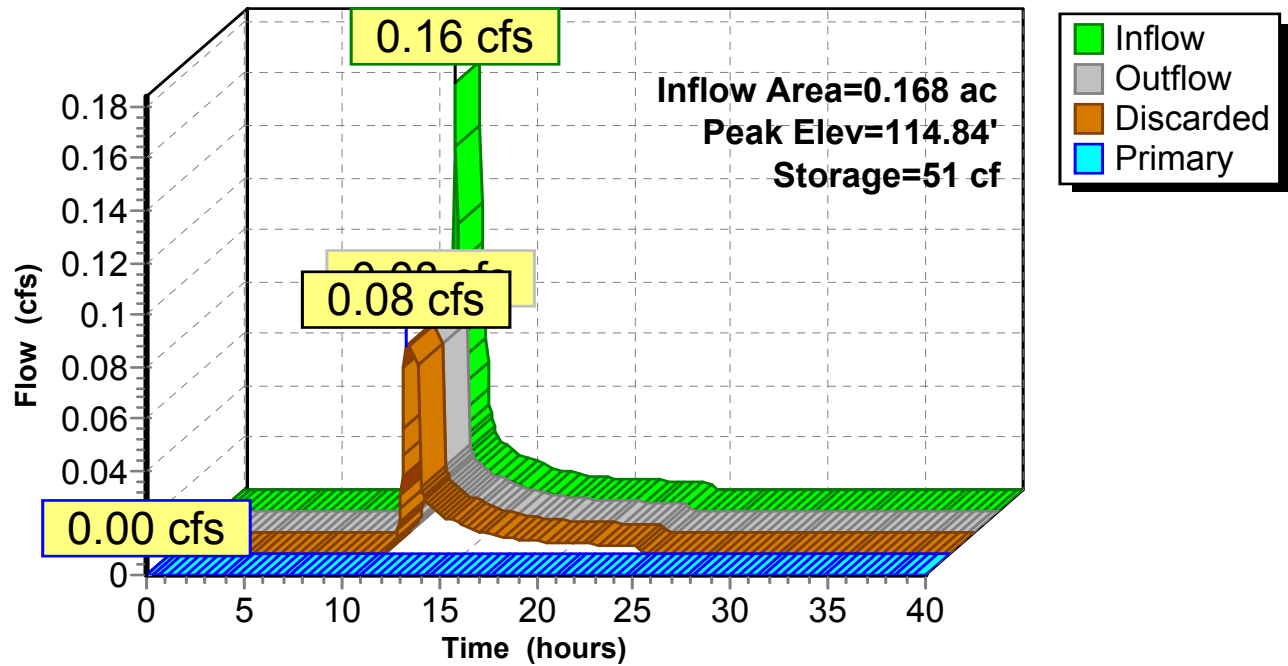
↑ **3=Culvert** (Controls 0.00 cfs)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Pond RG-1: Rain Garden

Hydrograph



Summary for Pond RG-1A: Rain Garden

Inflow Area = 0.195 ac, 45.88% Impervious, Inflow Depth = 0.54" for 2-Year Storm event
 Inflow = 0.09 cfs @ 12.11 hrs, Volume= 0.009 af
 Outflow = 0.09 cfs @ 12.14 hrs, Volume= 0.009 af, Atten= 4%, Lag= 1.5 min
 Discarded = 0.09 cfs @ 12.14 hrs, Volume= 0.009 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 116.53' @ 12.14 hrs Surf.Area= 714 sf Storage= 6 cf

Plug-Flow detention time= 1.1 min calculated for 0.009 af (100% of inflow)
 Center-of-Mass det. time= 1.1 min (898.5 - 897.4)

Volume	Invert	Avail.Storage	Storage Description	
#1	116.50'	2,156 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.50	700	0.0	0	0
117.00	980	33.0	139	139
117.50	980	33.0	162	300
118.00	980	33.0	162	462
118.50	980	33.0	162	624
119.00	980	100.0	490	1,114
119.50	1,020	100.0	500	1,614
120.00	1,150	100.0	543	2,156

Device	Routing	Invert	Outlet Devices
#1	Discarded	116.50'	7.500 in/hr Exfiltration over Surface area
#2	Device 3	116.83'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	116.50'	8.0" Round Culvert L= 150.0' Ke= 0.500 Inlet / Outlet Invert= 116.50' / 114.50' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#4	Device 3	119.50'	10.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.12 cfs @ 12.14 hrs HW=116.53' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.12 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=116.50' (Free Discharge)

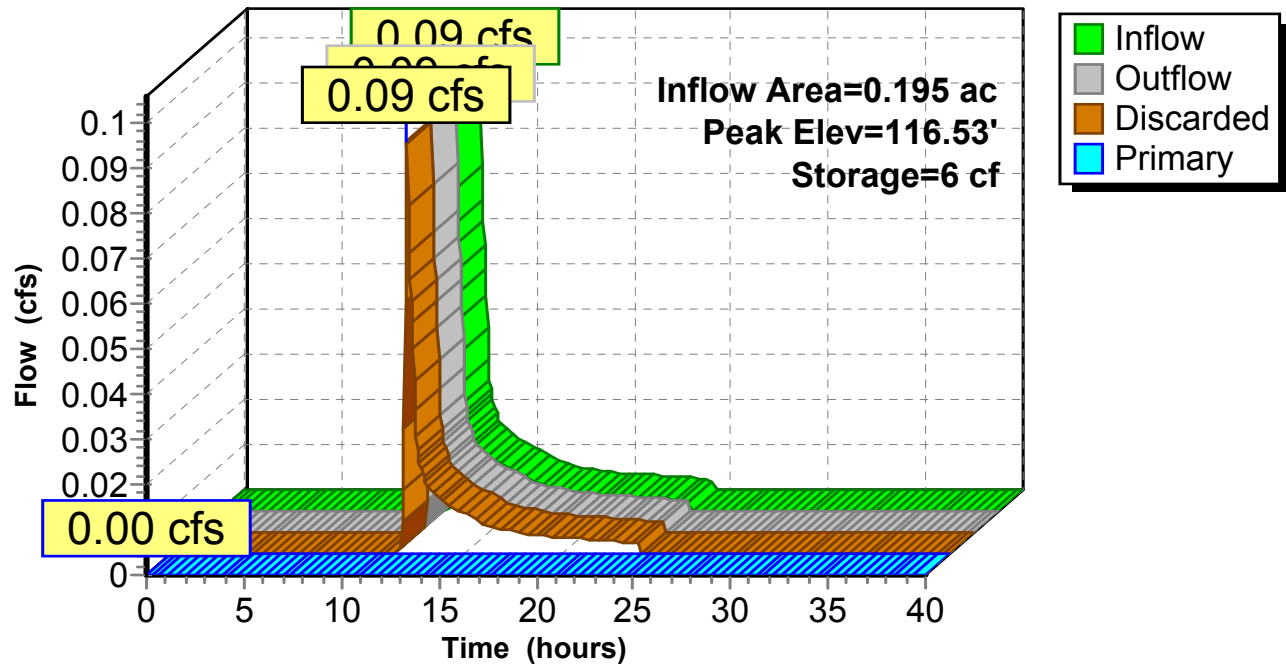
↑ **3=Culvert** (Controls 0.00 cfs)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Pond RG-1A: Rain Garden

Hydrograph



Summary for Pond RG-1B: Rain Garden

Inflow Area = 0.096 ac, 15.00% Impervious, Inflow Depth = 0.06" for 2-Year Storm event
 Inflow = 0.00 cfs @ 14.95 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 14.97 hrs, Volume= 0.000 af, Atten= 0%, Lag= 1.1 min
 Discarded = 0.00 cfs @ 14.97 hrs, Volume= 0.000 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 115.00' @ 14.97 hrs Surf.Area= 500 sf Storage= 0 cf

Plug-Flow detention time= 1.1 min calculated for 0.000 af (100% of inflow)
 Center-of-Mass det. time= 1.1 min (1,074.5 - 1,073.4)

Volume	Invert	Avail.Storage	Storage Description	
#1	115.00'	1,136 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.00	500	0.0	0	0
115.50	500	33.0	83	83
116.00	500	33.0	83	165
116.50	500	33.0	83	248
117.00	500	33.0	83	330
117.50	500	100.0	250	580
118.00	550	100.0	263	843
118.50	625	100.0	294	1,136

Device	Routing	Invert	Outlet Devices
#1	Discarded	115.00'	7.500 in/hr Exfiltration over Surface area
#2	Device 3	115.33'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	115.00'	8.0" Round Culvert L= 150.0' Ke= 0.500 Inlet / Outlet Invert= 115.00' / 111.00' S= 0.0267 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#4	Device 3	118.00'	10.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.09 cfs @ 14.97 hrs HW=115.00' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=115.00' (Free Discharge)

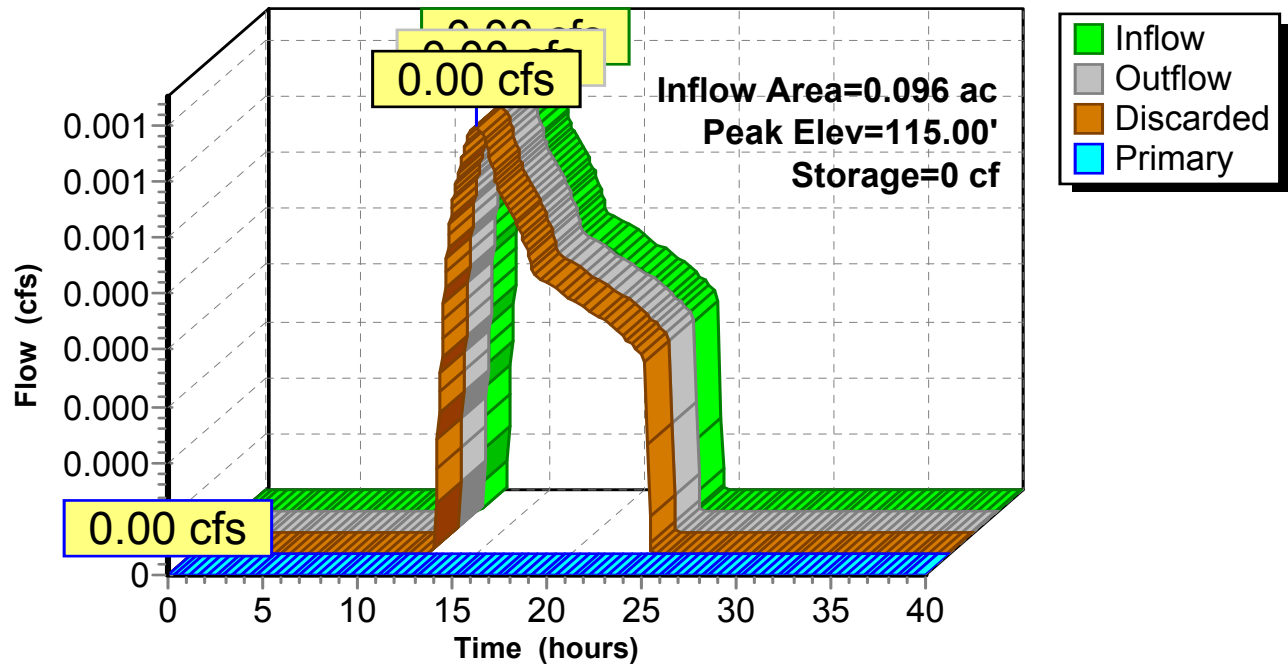
↑ **3=Culvert** (Controls 0.00 cfs)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Pond RG-1B: Rain Garden

Hydrograph



Summary for Pond RG-2: Rain Garden

Inflow Area = 0.223 ac, 57.38% Impervious, Inflow Depth = 0.86" for 2-Year Storm event
 Inflow = 0.20 cfs @ 12.10 hrs, Volume= 0.016 af
 Outflow = 0.17 cfs @ 12.10 hrs, Volume= 0.016 af, Atten= 18%, Lag= 0.0 min
 Discarded = 0.17 cfs @ 12.10 hrs, Volume= 0.016 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 114.56' @ 12.16 hrs Surf.Area= 960 sf Storage= 19 cf

Plug-Flow detention time= 1.2 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 1.2 min (870.9 - 869.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	114.50'	2,174 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
114.50	960	33.0	0	0
115.00	960	33.0	158	158
115.50	960	33.0	158	317
116.00	960	33.0	158	475
116.50	960	33.0	158	634
117.00	960	100.0	480	1,114
117.50	1,040	100.0	500	1,614
118.00	1,200	100.0	560	2,174

Device	Routing	Invert	Outlet Devices
#1	Discarded	114.50'	7.500 in/hr Exfiltration over Surface area
#2	Device 3	115.00'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	114.50'	8.0" Round Culvert L= 150.0' Ke= 0.500 Inlet / Outlet Invert= 114.50' / 111.00' S= 0.0233 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#4	Device 3	117.50'	10.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.17 cfs @ 12.10 hrs HW=114.55' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.17 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=114.50' (Free Discharge)

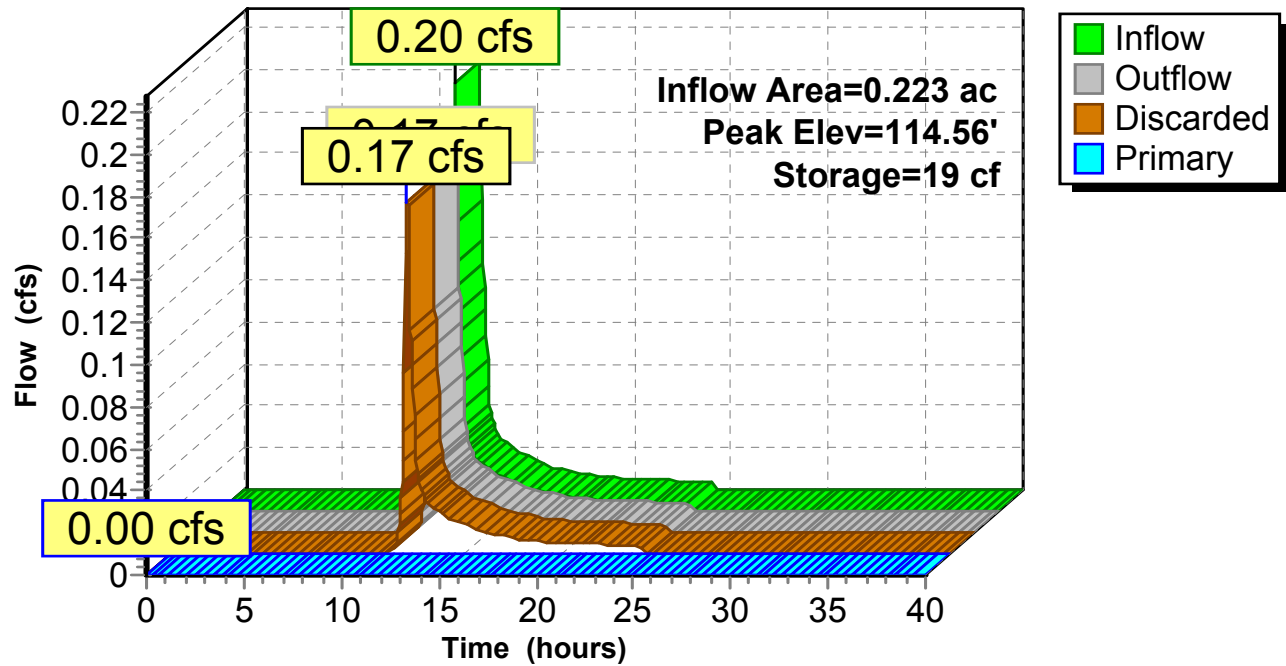
↑ **3=Culvert** (Controls 0.00 cfs)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Pond RG-2: Rain Garden

Hydrograph



Summary for Pond RG-3: Rain Garden

Inflow Area = 0.138 ac, 46.67% Impervious, Inflow Depth = 0.58" for 2-Year Storm event
 Inflow = 0.07 cfs @ 12.11 hrs, Volume= 0.007 af
 Outflow = 0.07 cfs @ 12.14 hrs, Volume= 0.007 af, Atten= 4%, Lag= 1.5 min
 Discarded = 0.07 cfs @ 12.14 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 111.02' @ 12.14 hrs Surf.Area= 800 sf Storage= 5 cf

Plug-Flow detention time= 1.1 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 1.1 min (894.1 - 893.0)

Volume	Invert	Avail.Storage	Storage Description	
#1	111.00'	1,813 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
111.00	800	0.0	0	0
111.50	800	33.0	132	132
112.00	800	33.0	132	264
112.50	800	33.0	132	396
113.00	800	33.0	132	528
113.50	800	100.0	400	928
114.00	880	100.0	420	1,348
114.50	980	100.0	465	1,813

Device	Routing	Invert	Outlet Devices
#1	Discarded	111.00'	7.500 in/hr Exfiltration over Surface area
#2	Device 3	111.33'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	111.00'	8.0" Round Culvert L= 150.0' Ke= 0.500 Inlet / Outlet Invert= 111.00' / 110.00' S= 0.0067 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#4	Device 3	114.00'	10.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.14 cfs @ 12.14 hrs HW=111.02' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.14 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=111.00' (Free Discharge)

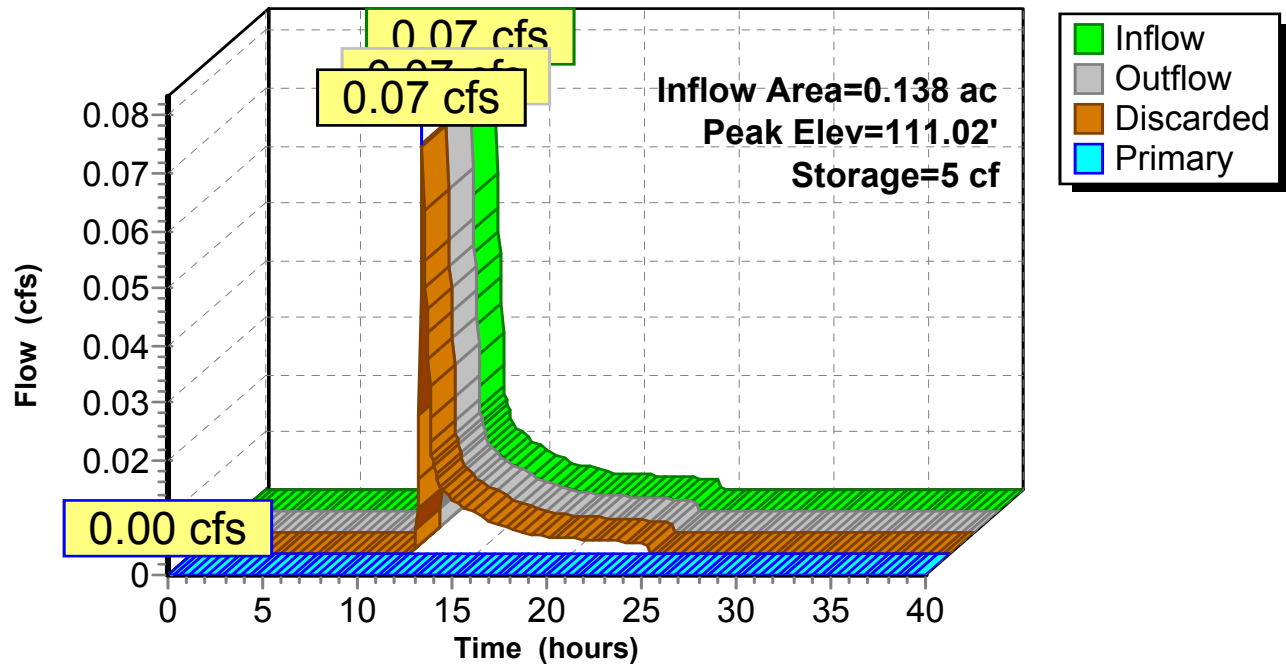
↑ **3=Culvert** (Controls 0.00 cfs)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Pond RG-3: Rain Garden

Hydrograph



Summary for Pond RG-4: Rain Garden

Inflow Area = 0.138 ac, 46.67% Impervious, Inflow Depth = 0.58" for 2-Year Storm event
 Inflow = 0.07 cfs @ 12.11 hrs, Volume= 0.007 af
 Outflow = 0.07 cfs @ 12.14 hrs, Volume= 0.007 af, Atten= 4%, Lag= 1.5 min
 Discarded = 0.07 cfs @ 12.14 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 111.52' @ 12.14 hrs Surf.Area= 900 sf Storage= 5 cf

Plug-Flow detention time= 1.1 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 1.1 min (894.1 - 893.0)

Volume	Invert	Avail.Storage	Storage Description	
#1	111.50'	2,004 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
111.50	900	0.0	0	0
112.00	900	33.0	149	149
112.50	900	33.0	149	297
113.00	900	33.0	149	446
113.50	900	33.0	149	594
114.00	900	100.0	450	1,044
114.50	960	100.0	465	1,509
115.00	1,020	100.0	495	2,004

Device	Routing	Invert	Outlet Devices
#1	Discarded	111.50'	7.500 in/hr Exfiltration over Surface area
#2	Device 3	111.83'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	111.50'	8.0" Round Culvert L= 150.0' Ke= 0.500 Inlet / Outlet Invert= 111.50' / 111.00' S= 0.0033 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf
#4	Device 3	114.50'	10.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.16 cfs @ 12.14 hrs HW=111.52' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.16 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=111.50' (Free Discharge)

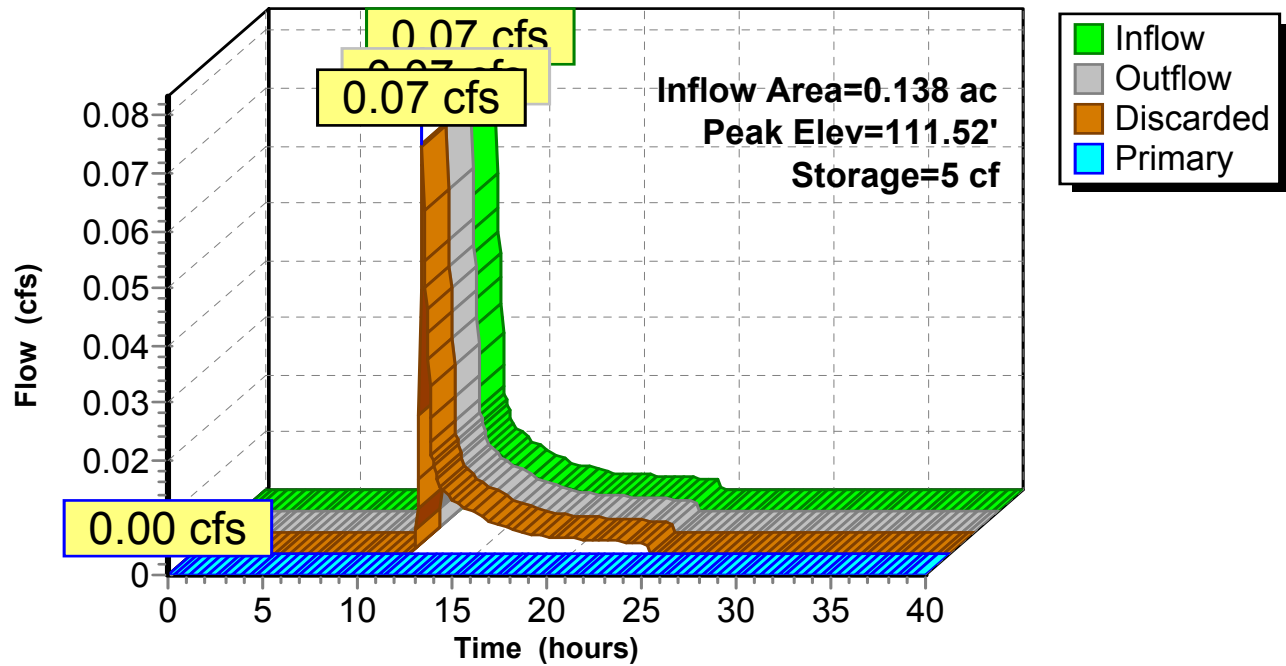
↑ **3=Culvert** (Controls 0.00 cfs)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Pond RG-4: Rain Garden

Hydrograph



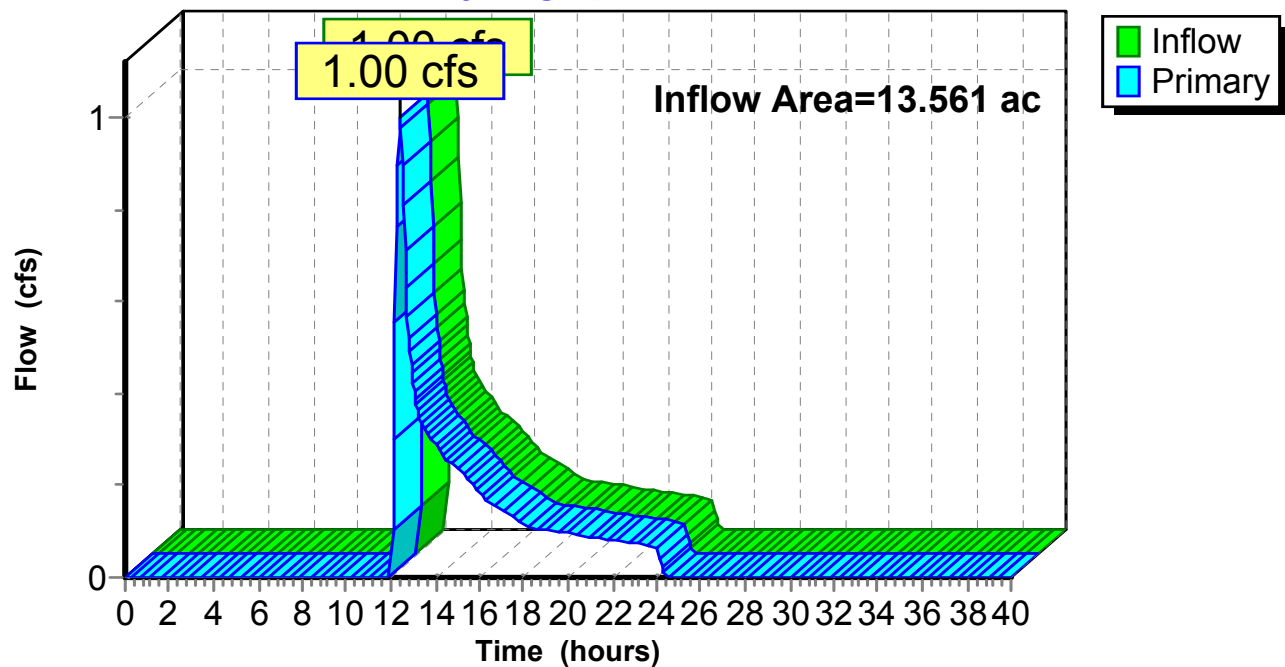
Summary for Link DP#1: Design Point

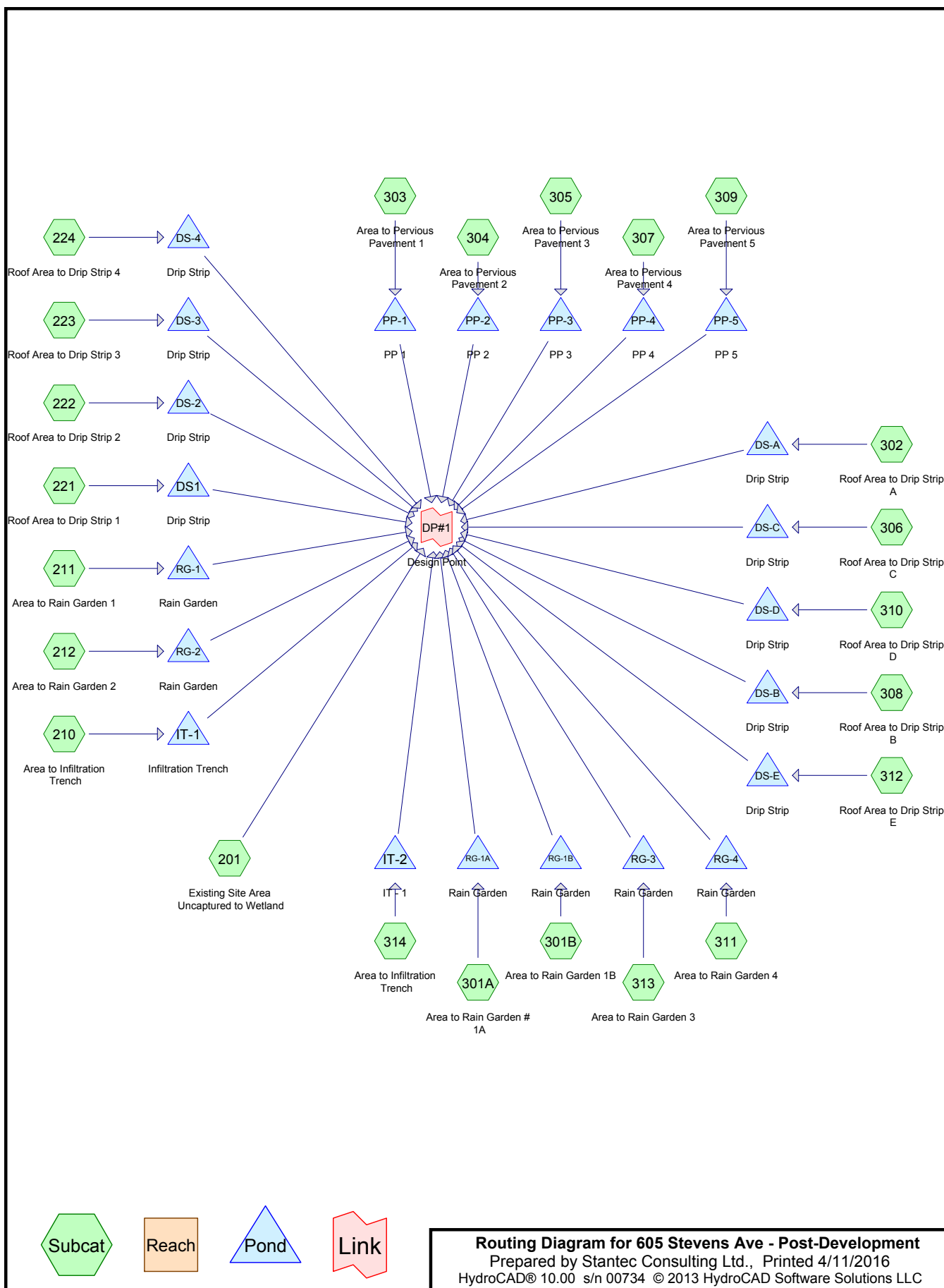
Inflow Area = 13.561 ac, 52.60% Impervious, Inflow Depth = 0.17" for 2-Year Storm event
 Inflow = 1.00 cfs @ 12.42 hrs, Volume= 0.188 af
 Primary = 1.00 cfs @ 12.42 hrs, Volume= 0.188 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link DP#1: Design Point

Hydrograph





605 Stevens Ave - Post-Development

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.191	39	>75% Grass cover, Good, HSG A (201, 210, 211, 212, 301A, 301B, 303, 305, 307, 309, 311, 313, 314)
0.267	74	>75% Grass cover, Good, HSG C (201)
0.184	76	Drip stone, HSG A (221, 222, 223, 224)
0.195	76	Gravel roads, HSG A (201)
0.484	98	Paved parking & roofs (210, 211, 212)
3.097	98	Paved parking, HSG A (201, 301A, 301B, 304, 305, 307, 309, 311, 313, 314)
0.041	98	Paved road, HSG A (303)
0.760	100	Pervious Pavement, HSG A (303, 304, 305, 307, 309)
0.275	98	Roof, HSG A (306)
0.934	98	Roofs (201, 221, 222, 223, 224)
1.543	98	Roofs, HSG A (302, 308, 310, 312)
0.591	32	Woods/grass comb., Good, HSG A (201)
13.561	72	TOTAL AREA

605 Stevens Ave - Post-Development*Type III 24-hr 10-Year Storm Rainfall=4.70"*

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Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment201: Existing Site Area	Runoff Area=323,793 sf 31.78% Impervious Runoff Depth=1.07" Tc=15.5 min CN=59 Runoff=5.84 cfs 0.662 af
Subcatchment210: Area to Infiltration	Runoff Area=15,676 sf 71.60% Impervious Runoff Depth=2.72" Tc=6.0 min CN=81 Runoff=1.12 cfs 0.082 af
Subcatchment211: Area to Rain Garden 1	Runoff Area=7,303 sf 58.87% Impervious Runoff Depth=2.13" Tc=6.0 min CN=74 Runoff=0.41 cfs 0.030 af
Subcatchment212: Area to Rain Garden 2	Runoff Area=9,701 sf 57.38% Impervious Runoff Depth=2.05" Tc=6.0 min CN=73 Runoff=0.52 cfs 0.038 af
Subcatchment221: Roof Area to Drip Strip 1	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=3.90" Tc=6.0 min CN=93 Runoff=0.93 cfs 0.072 af
Subcatchment222: Roof Area to Drip Strip 2	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=3.90" Tc=6.0 min CN=93 Runoff=0.93 cfs 0.072 af
Subcatchment223: Roof Area to Drip Strip 3	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=3.90" Tc=6.0 min CN=93 Runoff=0.93 cfs 0.072 af
Subcatchment224: Roof Area to Drip Strip 4	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=3.90" Tc=6.0 min CN=93 Runoff=0.93 cfs 0.072 af
Subcatchment301A: Area to Rain Garden #	Runoff Area=8,500 sf 45.88% Impervious Runoff Depth=1.53" Tc=6.0 min CN=66 Runoff=0.33 cfs 0.025 af
Subcatchment301B: Area to Rain Garden	Runoff Area=4,200 sf 15.00% Impervious Runoff Depth=0.48" Tc=6.0 min CN=48 Runoff=0.02 cfs 0.004 af
Subcatchment302: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=4.46" Tc=6.0 min CN=98 Runoff=1.24 cfs 0.102 af
Subcatchment303: Area to Pervious	Runoff Area=4,500 sf 86.67% Impervious Runoff Depth=3.69" Tc=6.0 min CN=91 Runoff=0.42 cfs 0.032 af
Subcatchment304: Area to Pervious	Runoff Area=3,100 sf 100.00% Impervious Runoff Depth=4.58" Tc=6.0 min CN=99 Runoff=0.32 cfs 0.027 af
Subcatchment305: Area to Pervious	Runoff Area=5,010 sf 91.62% Impervious Runoff Depth=4.01" Tc=6.0 min CN=94 Runoff=0.49 cfs 0.038 af
Subcatchment306: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=4.46" Tc=6.0 min CN=98 Runoff=1.24 cfs 0.102 af
Subcatchment307: Area to Pervious	Runoff Area=21,600 sf 96.67% Impervious Runoff Depth=4.35" Tc=6.0 min CN=97 Runoff=2.21 cfs 0.180 af

605 Stevens Ave - Post-Development

Type III 24-hr 10-Year Storm Rainfall=4.70"

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Subcatchment308: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=4.46" Tc=6.0 min CN=98 Runoff=2.22 cfs 0.184 af
Subcatchment309: Area to Pervious	Runoff Area=35,000 sf 85.14% Impervious Runoff Depth=3.59" Tc=6.0 min CN=90 Runoff=3.20 cfs 0.240 af
Subcatchment310: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=4.46" Tc=6.0 min CN=98 Runoff=1.24 cfs 0.102 af
Subcatchment311: Area to Rain Garden 4	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=1.60" Tc=6.0 min CN=67 Runoff=0.24 cfs 0.018 af
Subcatchment312: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=4.46" Tc=6.0 min CN=98 Runoff=2.22 cfs 0.184 af
Subcatchment313: Area to Rain Garden 3	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=1.60" Tc=6.0 min CN=67 Runoff=0.24 cfs 0.018 af
Subcatchment314: Area to Infiltration	Runoff Area=22,750 sf 20.88% Impervious Runoff Depth=0.62" Tc=6.0 min CN=51 Runoff=0.22 cfs 0.027 af
Pond DS-2: Drip Strip	Peak Elev=115.86' Storage=548 cf Inflow=0.93 cfs 0.072 af Discarded=0.28 cfs 0.072 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.072 af
Pond DS-3: Drip Strip	Peak Elev=115.86' Storage=548 cf Inflow=0.93 cfs 0.072 af Discarded=0.28 cfs 0.072 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.072 af
Pond DS-4: Drip Strip	Peak Elev=115.86' Storage=548 cf Inflow=0.93 cfs 0.072 af Discarded=0.28 cfs 0.072 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.072 af
Pond DS-A: Drip Strip	Peak Elev=115.98' Storage=780 cf Inflow=1.24 cfs 0.102 af Discarded=0.35 cfs 0.102 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.102 af
Pond DS-B: Drip Strip	Peak Elev=115.98' Storage=1,404 cf Inflow=2.22 cfs 0.184 af Discarded=0.62 cfs 0.184 af Primary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.184 af
Pond DS-C: Drip Strip	Peak Elev=115.98' Storage=780 cf Inflow=1.24 cfs 0.102 af Discarded=0.35 cfs 0.102 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.102 af
Pond DS-D: Drip Strip	Peak Elev=115.98' Storage=780 cf Inflow=1.24 cfs 0.102 af Discarded=0.35 cfs 0.102 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.102 af
Pond DS-E: Drip Strip	Peak Elev=115.98' Storage=1,404 cf Inflow=2.22 cfs 0.184 af Discarded=0.62 cfs 0.184 af Primary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.184 af
Pond DS1: Drip Strip	Peak Elev=115.86' Storage=548 cf Inflow=0.93 cfs 0.072 af Discarded=0.28 cfs 0.072 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.072 af
Pond IT-1: Infiltration Trench	Peak Elev=113.30' Storage=622 cf Inflow=1.12 cfs 0.082 af Discarded=0.28 cfs 0.076 af Primary=0.23 cfs 0.005 af Outflow=0.50 cfs 0.082 af
Pond IT-2: IT - 1	Peak Elev=112.04' Storage=19 cf Inflow=0.22 cfs 0.027 af Discarded=0.22 cfs 0.027 af Primary=0.00 cfs 0.000 af Outflow=0.22 cfs 0.027 af

Pond PP-1: PP 1

Peak Elev=114.11' Storage=58 cf Inflow=0.42 cfs 0.032 af
Discarded=0.31 cfs 0.032 af Primary=0.00 cfs 0.000 af Outflow=0.31 cfs 0.032 af

Pond PP-2: PP 2

Peak Elev=113.20' Storage=66 cf Inflow=0.32 cfs 0.027 af
Discarded=0.20 cfs 0.027 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.027 af

Pond PP-3: PP 3

Peak Elev=113.27' Storage=125 cf Inflow=0.49 cfs 0.038 af
Discarded=0.27 cfs 0.038 af Primary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.038 af

Pond PP-4: PP 4

Peak Elev=111.08' Storage=253 cf Inflow=2.21 cfs 0.180 af
Discarded=1.75 cfs 0.180 af Primary=0.00 cfs 0.000 af Outflow=1.75 cfs 0.180 af

Pond PP-5: PP 5

Peak Elev=112.05' Storage=267 cf Inflow=3.20 cfs 0.240 af
Discarded=3.09 cfs 0.240 af Primary=0.00 cfs 0.000 af Outflow=3.09 cfs 0.240 af

Pond RG-1: Rain Garden

Peak Elev=115.45' Storage=144 cf Inflow=0.41 cfs 0.030 af
Discarded=0.08 cfs 0.024 af Primary=0.23 cfs 0.006 af Outflow=0.30 cfs 0.030 af

Pond RG-1A: Rain Garden

Peak Elev=116.90' Storage=107 cf Inflow=0.33 cfs 0.025 af
Discarded=0.16 cfs 0.025 af Primary=0.01 cfs 0.000 af Outflow=0.17 cfs 0.025 af

Pond RG-1B: Rain Garden

Peak Elev=115.01' Storage=2 cf Inflow=0.02 cfs 0.004 af
Discarded=0.02 cfs 0.004 af Primary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.004 af

Pond RG-2: Rain Garden

Peak Elev=115.21' Storage=223 cf Inflow=0.52 cfs 0.038 af
Discarded=0.17 cfs 0.036 af Primary=0.09 cfs 0.002 af Outflow=0.25 cfs 0.038 af

Pond RG-3: Rain Garden

Peak Elev=111.21' Storage=55 cf Inflow=0.24 cfs 0.018 af
Discarded=0.14 cfs 0.018 af Primary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.018 af

Pond RG-4: Rain Garden

Peak Elev=111.64' Storage=43 cf Inflow=0.24 cfs 0.018 af
Discarded=0.16 cfs 0.018 af Primary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.018 af

Link DP#1: Design Point

Inflow=6.34 cfs 0.675 af
Primary=6.34 cfs 0.675 af

Total Runoff Area = 13.561 ac Runoff Volume = 2.384 af Average Runoff Depth = 2.11"
47.40% Pervious = 6.427 ac 52.60% Impervious = 7.134 ac

605 Stevens Ave - Post-Development*Type III 24-hr 25-Year Storm Rainfall=5.50"*

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Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment201: Existing Site Area	Runoff Area=323,793 sf 31.78% Impervious Runoff Depth=1.53" Tc=15.5 min CN=59 Runoff=8.93 cfs 0.946 af
Subcatchment210: Area to Infiltration	Runoff Area=15,676 sf 71.60% Impervious Runoff Depth=3.43" Tc=6.0 min CN=81 Runoff=1.41 cfs 0.103 af
Subcatchment211: Area to Rain Garden 1	Runoff Area=7,303 sf 58.87% Impervious Runoff Depth=2.77" Tc=6.0 min CN=74 Runoff=0.53 cfs 0.039 af
Subcatchment212: Area to Rain Garden 2	Runoff Area=9,701 sf 57.38% Impervious Runoff Depth=2.68" Tc=6.0 min CN=73 Runoff=0.68 cfs 0.050 af
Subcatchment221: Roof Area to Drip Strip 1	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=4.69" Tc=6.0 min CN=93 Runoff=1.11 cfs 0.086 af
Subcatchment222: Roof Area to Drip Strip 2	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=4.69" Tc=6.0 min CN=93 Runoff=1.11 cfs 0.086 af
Subcatchment223: Roof Area to Drip Strip 3	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=4.69" Tc=6.0 min CN=93 Runoff=1.11 cfs 0.086 af
Subcatchment224: Roof Area to Drip Strip 4	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=4.69" Tc=6.0 min CN=93 Runoff=1.11 cfs 0.086 af
Subcatchment301A: Area to Rain Garden #	Runoff Area=8,500 sf 45.88% Impervious Runoff Depth=2.08" Tc=6.0 min CN=66 Runoff=0.45 cfs 0.034 af
Subcatchment301B: Area to Rain Garden	Runoff Area=4,200 sf 15.00% Impervious Runoff Depth=0.78" Tc=6.0 min CN=48 Runoff=0.06 cfs 0.006 af
Subcatchment302: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=5.26" Tc=6.0 min CN=98 Runoff=1.45 cfs 0.121 af
Subcatchment303: Area to Pervious	Runoff Area=4,500 sf 86.67% Impervious Runoff Depth=4.47" Tc=6.0 min CN=91 Runoff=0.50 cfs 0.038 af
Subcatchment304: Area to Pervious	Runoff Area=3,100 sf 100.00% Impervious Runoff Depth=5.38" Tc=6.0 min CN=99 Runoff=0.38 cfs 0.032 af
Subcatchment305: Area to Pervious	Runoff Area=5,010 sf 91.62% Impervious Runoff Depth=4.80" Tc=6.0 min CN=94 Runoff=0.58 cfs 0.046 af
Subcatchment306: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=5.26" Tc=6.0 min CN=98 Runoff=1.45 cfs 0.121 af
Subcatchment307: Area to Pervious	Runoff Area=21,600 sf 96.67% Impervious Runoff Depth=5.15" Tc=6.0 min CN=97 Runoff=2.59 cfs 0.213 af

605 Stevens Ave - Post-Development*Type III 24-hr 25-Year Storm Rainfall=5.50"*

Prepared by Stantec Consulting Ltd.

Printed 4/11/2016

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Subcatchment308: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=5.26" Tc=6.0 min CN=98 Runoff=2.61 cfs 0.217 af
Subcatchment309: Area to Pervious	Runoff Area=35,000 sf 85.14% Impervious Runoff Depth=4.36" Tc=6.0 min CN=90 Runoff=3.85 cfs 0.292 af
Subcatchment310: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=5.26" Tc=6.0 min CN=98 Runoff=1.45 cfs 0.121 af
Subcatchment311: Area to Rain Garden 4	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=2.16" Tc=6.0 min CN=67 Runoff=0.34 cfs 0.025 af
Subcatchment312: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=5.26" Tc=6.0 min CN=98 Runoff=2.61 cfs 0.217 af
Subcatchment313: Area to Rain Garden 3	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=2.16" Tc=6.0 min CN=67 Runoff=0.34 cfs 0.025 af
Subcatchment314: Area to Infiltration	Runoff Area=22,750 sf 20.88% Impervious Runoff Depth=0.97" Tc=6.0 min CN=51 Runoff=0.44 cfs 0.042 af
Pond DS-2: Drip Strip	Peak Elev=116.10' Storage=689 cf Inflow=1.11 cfs 0.086 af Discarded=0.28 cfs 0.083 af Primary=0.17 cfs 0.003 af Outflow=0.45 cfs 0.086 af
Pond DS-3: Drip Strip	Peak Elev=116.10' Storage=689 cf Inflow=1.11 cfs 0.086 af Discarded=0.28 cfs 0.083 af Primary=0.17 cfs 0.003 af Outflow=0.45 cfs 0.086 af
Pond DS-4: Drip Strip	Peak Elev=116.10' Storage=689 cf Inflow=1.11 cfs 0.086 af Discarded=0.28 cfs 0.083 af Primary=0.17 cfs 0.003 af Outflow=0.45 cfs 0.086 af
Pond DS-A: Drip Strip	Peak Elev=116.21' Storage=925 cf Inflow=1.45 cfs 0.121 af Discarded=0.35 cfs 0.116 af Primary=0.19 cfs 0.005 af Outflow=0.54 cfs 0.121 af
Pond DS-B: Drip Strip	Peak Elev=116.28' Storage=1,738 cf Inflow=2.61 cfs 0.217 af Discarded=0.62 cfs 0.211 af Primary=0.22 cfs 0.007 af Outflow=0.85 cfs 0.217 af
Pond DS-C: Drip Strip	Peak Elev=116.21' Storage=925 cf Inflow=1.45 cfs 0.121 af Discarded=0.35 cfs 0.116 af Primary=0.19 cfs 0.005 af Outflow=0.54 cfs 0.121 af
Pond DS-D: Drip Strip	Peak Elev=116.21' Storage=925 cf Inflow=1.45 cfs 0.121 af Discarded=0.35 cfs 0.116 af Primary=0.19 cfs 0.005 af Outflow=0.54 cfs 0.121 af
Pond DS-E: Drip Strip	Peak Elev=116.28' Storage=1,738 cf Inflow=2.61 cfs 0.217 af Discarded=0.62 cfs 0.211 af Primary=0.22 cfs 0.007 af Outflow=0.85 cfs 0.217 af
Pond DS1: Drip Strip	Peak Elev=116.10' Storage=689 cf Inflow=1.11 cfs 0.086 af Discarded=0.28 cfs 0.083 af Primary=0.17 cfs 0.003 af Outflow=0.45 cfs 0.086 af
Pond IT-1: Infiltration Trench	Peak Elev=113.54' Storage=741 cf Inflow=1.41 cfs 0.103 af Discarded=0.28 cfs 0.089 af Primary=0.51 cfs 0.014 af Outflow=0.79 cfs 0.103 af
Pond IT-2: IT - 1	Peak Elev=112.20' Storage=96 cf Inflow=0.44 cfs 0.042 af Discarded=0.28 cfs 0.042 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.042 af

Pond PP-1: PP 1

Peak Elev=114.19' Storage=102 cf Inflow=0.50 cfs 0.038 af
Discarded=0.31 cfs 0.038 af Primary=0.00 cfs 0.000 af Outflow=0.31 cfs 0.038 af

Pond PP-2: PP 2

Peak Elev=113.30' Storage=103 cf Inflow=0.38 cfs 0.032 af
Discarded=0.20 cfs 0.032 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.032 af

Pond PP-3: PP 3

Peak Elev=113.42' Storage=195 cf Inflow=0.58 cfs 0.046 af
Discarded=0.27 cfs 0.046 af Primary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.046 af

Pond PP-4: PP 4

Peak Elev=111.15' Storage=443 cf Inflow=2.59 cfs 0.213 af
Discarded=1.75 cfs 0.213 af Primary=0.00 cfs 0.000 af Outflow=1.75 cfs 0.213 af

Pond PP-5: PP 5

Peak Elev=112.08' Storage=416 cf Inflow=3.85 cfs 0.292 af
Discarded=3.16 cfs 0.292 af Primary=0.00 cfs 0.000 af Outflow=3.16 cfs 0.292 af

Pond RG-1: Rain Garden

Peak Elev=115.73' Storage=187 cf Inflow=0.53 cfs 0.039 af
Discarded=0.08 cfs 0.029 af Primary=0.32 cfs 0.010 af Outflow=0.40 cfs 0.039 af

Pond RG-1A: Rain Garden

Peak Elev=117.06' Storage=160 cf Inflow=0.45 cfs 0.034 af
Discarded=0.17 cfs 0.031 af Primary=0.11 cfs 0.002 af Outflow=0.28 cfs 0.034 af

Pond RG-1B: Rain Garden

Peak Elev=115.02' Storage=4 cf Inflow=0.06 cfs 0.006 af
Discarded=0.05 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.006 af

Pond RG-2: Rain Garden

Peak Elev=115.43' Storage=294 cf Inflow=0.68 cfs 0.050 af
Discarded=0.17 cfs 0.043 af Primary=0.21 cfs 0.006 af Outflow=0.38 cfs 0.050 af

Pond RG-3: Rain Garden

Peak Elev=111.44' Storage=117 cf Inflow=0.34 cfs 0.025 af
Discarded=0.14 cfs 0.024 af Primary=0.03 cfs 0.001 af Outflow=0.17 cfs 0.025 af

Pond RG-4: Rain Garden

Peak Elev=111.86' Storage=107 cf Inflow=0.34 cfs 0.025 af
Discarded=0.16 cfs 0.025 af Primary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.025 af

Link DP#1: Design Point

Inflow=11.42 cfs 1.019 af
Primary=11.42 cfs 1.019 af

Total Runoff Area = 13.561 ac Runoff Volume = 3.032 af Average Runoff Depth = 2.68"
47.40% Pervious = 6.427 ac 52.60% Impervious = 7.134 ac

Portland, Maine



Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

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

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

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

- ☐ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- ☒ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- ☐ I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.

Applicant Signature:

Date:

I have provided digital copies and sent them on:

Date:

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

389 Congress Street * Portland Maine 04101-3509 * Phone: (207) 874-8703 * Fax: (207) 874-8716
<http://www.portlandmaine.gov/planning/buildinsp.asp> * E-Mail: buildinginspections@portlandmaine.gov



Master Development Plan Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

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

Purpose of a Master Development Plan:

- The purpose of a Master Development Plan is to provide for a mix of land uses at designated locations to achieve a land development responsive to the assets of a site. A Master Development Plan is a well-integrated development in terms of land uses, functional activities, and major design elements such as buildings, roads, utilities, drainage systems and open space. The Master Development Plan is deemed appropriate to large scale mixed use projects that are intended to be developed in phases. The Master Development Plan shall be reviewed by the Planning Board and may be reviewed independently or concurrently with review of a Level III site plan application for a phased development.

A Master Development Plan is applicable as follows:

- A Master Development Plan is applicable for a site with one acre or larger in cumulative lot area that is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements proposed to be built in phases.
- The Master Development Plan option shall not apply in residential zones, except for institutional uses.

Planning Board Decision:

- A Master Development Plan approval shall not be construed as final authorization of the development. An approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the Master Development approval remains valid (6 years from date of approval), including permissible extensions if granted (two 2-year extensions may be granted based upon criteria). All Level III site plans for each phase shall be in general conformance with the Master Development Plan.

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

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

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

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

Planning Division

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

Office Hours

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

PROJECT NAME: 605 Stevens Avenue

PROPOSED DEVELOPMENT ADDRESS:

605 Stevens Avenue

PROJECT DESCRIPTION:

Master planned Senior Housing community consisting of 88 affordable and market rate apartments created through renovation of the former St. Joseph's Convent (Lot 3) and new construction of 161 market rate condominiums to be located on land directly behind and south of the convent building (Lot 4)

CHART/BLOCK/LOT: 135 X003/ 136-E006001/ 143-F004/ 144-B001

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Kevin Bunker/ Matthew Teare Business Name, if applicable: Seacoast at Baxter Woods, LLC Address: 100 Commercial St, Suite 414 City/State : Portland, ME Zip Code: 04101	Applicant Contact Information Work # Kevin Bunker Matthew Teare Home# 207-766-1632 (c) 207-837-2418(c) Cell # Fax# e-mail: kbunker@gmail.com mteare@highlandgreenlifestyle.com
Owner – (if different from Applicant) Name: St. Joseph's Convent and Hospital C/O Sisters of Mercy of the Americas Northeast Community, Inc. Address: 15 Highland View Road City/State : Cumberland, RI Zip Code: 02864	Owner Contact Information Work # Attn: Sister Lindora Cabral Home# Cell # Fax# 207-333-6450 e-mail: lcabral@mercyn.org
Agent/ Representative Name: Frederic (Rick) Licht, PE, LSE Licht Environmental Design Address: 35 Fran Circle City/State : Gray, ME Zip Code: 04039	Agent/Representative Contact information Work # Cell # e-mail:
Billing Information Name: Matthew Teare SeaCoast at Baxter Woods Associates, LLC Address: 100 Commercial Street, Suite 414 City/State : Portland, ME Zip Code: 04101	Billing Information Work # Cell # 207-837-2418 Fax# e-mail: mteare@highlandgreenlifestyle.com

Engineer Name: Andrew Johnston Stantec, Inc. Address: 778 Main Street, Suite 8 South Portland, ME 04106 City/State : Zip Code:	Engineer Contact Information Work # 207-775-1121 Cell # Fax# 207-879-0896 e-mail: ajohnston@fstinc.com
Surveyor Name: David Titcomb, PLS Titcomb Associates Address: 133 Gray Road Falmouth, ME 04105 City/State : Zip Code:	Surveyor Contact Information Work # 207-797-9199 Cell # 207-797-9018 Fax# e-mail: dtitcomb@titcombsurvey.com
Architect Name: David Lloyd Archtype 48 Union Wharf Portland, ME 04101 Address: Patrick Carroll Carroll Associates City/State : 217 Commercial St, Portland, ME 04101 Zip Code:	Architect Contact Information Work # Archtype- 207-772-6022 (w) 207-772-4056 (f) Cell # Carroll Associates Fax# 207-772-1552(w) 207-772-0712(f) e-mail: lloyd@archtype.com pcarroll@carroll-assoc.com
Attorney Name: Ron Epstein/ Natalie Burns Jensen, Baird, Gardner, and Henry Address: 10 Free Street, PO Box 04112 Portland, ME 04112 City/State : Zip Code:	Attorney Contact Information Work # 207-775-7271 Cell # Fax# 207-775-7935 e-mail: repstein@jbgh.com nburns@jbgh.com

APPLICATION FEES:

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

Master Development Plan (check applicable reviews) ☒ Application Fee (\$1,000.00)	The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.
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APPLICATION SUBMISSION:

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

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

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

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

APPLICANT SIGNATURE:

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

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

Signature of Applicant		Date:	02/16/2016
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PROJECT DATA

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

	Lot 3	Lot 4
Total Area of Site	191,066	394,110 sq. ft.
Proposed Total Disturbed Area of the Site	135,036	268,100 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland		
Impervious Surface Area		
Impervious Area (Total Existing)		0 sq. ft.
Impervious Area (Total Proposed)	123,481*	149,465* sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	24,065	0 sq. ft.
Building Footprint (Total Proposed)	24,065	74,188 sq. ft.
Floor Area (Total Existing)	102,241	0 sq. ft.
Floor Area (Total Proposed)	102,241	349,626 sq. ft.
Zoning		
Existing	R-5/ R-5A	R-5/ R-5A
Proposed, if applicable	NA	NA
Land Use		
Existing	Former Convent and Campus	
Proposed	Senior Living Campus	
Residential, If applicable		
# Residential Units (Total Existing)	0	0
# Residential Units (Total Proposed)	88	161
# Number of Lots (Total Proposed)	1	1
# Affordable Housing Units (Total Proposed)	66	0
Proposed Bedroom Mix		
# Efficiency Units (Total Proposed)	68	0
# One-Bedroom Units (Total Proposed)	20	0
# Two-Bedroom Units (Total Proposed)	0	161
# Three-Bedroom Units (Total Proposed)	0	0
Parking Spaces		
# Parking Spaces (Total Existing)	Lot 3- 34+/-	Campus = +/- 155
# Parking Spaces (Total Proposed)	77	322 (139 surface/ 183 covered)
# Handicapped Spaces (Total Proposed)	9	10 (inc in 322 # above)*
Bicycle Parking Spaces		
# Bicycle Spaces (Total Existing)	0	
# Bicycle Spaces (Total Proposed)	12 ext/ 24 int= 36	20 ext + 45 int = 65
Estimated Cost of Project		TBD

*Revised 03/17/16

MASTER DEVELOPMENT PLAN SUBMISSIONS			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)
x		1	Completed Application form
x		1	Application fees
x		1	Written description of project
x		1	A written statement and/or plan as to the general impact of the proposed Master Development plan upon the area, relationship to surrounding properties, and measures to create appropriate transitions and access to abutting public properties and neighboring tracts.
x		1	Evidence of right, title and interest
NA		1	Evidence of state and/or federal approvals, if applicable
x		1	Written assessment of proposed project's compliance with applicable zoning requirements
x		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
x		1	Written requests for waivers from site plan or technical standards, if applicable
x		1	Evidence of financial and technical capacity
x		1	General statements concerning storm water management techniques.
Pending		1	Traffic Analysis and recommendations prepared by a registered professional engineer, including current traffic counts, existing street capacity, traffic generation projections, and ability to absorb the increased traffic. If Traffic Movement Permit applies, the TMP submissions and review supersede. (Section 14-527 (e) xii)
x		1	Utilities analysis and recommendations prepared by registered professional engineer. (see utility plan below) Analysis shall assess capacity, identify deficiencies and recommend improvements, including timing, funding mechanisms and coordination with City (14-527 (e) xiii)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)
x		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
x		1	Master Development Plan Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase) – scale not less than 1 inch equaling 50 feet
x			Neighborhood context map, at a scale not less than 1 inch 100 feet
x			Approximate boundary lines of existing and proposed lots with areas and dimensions
x			Plan show north arrow, date, scale, legend, title Master Development Concept Site Plan, followed by project name, applicant, engineer, designer, and/or agents
x			For residential areas, proposed density, lot configuration, circulation and plot plan
x			Analysis of natural features of the site, including natural waterways, wetlands, floodplains, topography, soil conditions and other natural features
x			Analysis of designated view corridors, historic resources, and archeological resources associated with the site
x			Existing/proposed buildings and other significant structures, building groupings, exterior building elevations and entrances, parking areas and other significant physical features of the site

Pending		Context drawings, perspective renderings, photographic montages, or computer generated graphics depicting the proposed development within the surrounding building and environmental context
Pending		Building elevation drawings shall include: • Illustration of all sides of the structures
		• Views of major entries or prominent building features
		• Illustration of building articulation and elements
		• Building finish composition
Pending		• Pedestrian and streetscape elements of the Master Development Plan
Pending		Digital 3-D model tied to specific location that is submitted as a KML, KMZ, DXF or DWG file on a CD or DVD or such format as approved by the Planning Authority (Sec. 14527 (e)2)
x		Major circulation patterns surrounding and serving the site, existing and proposed street lines, ways, easement and public areas within or next to the site
x		Major landscaping elements, features, open space, and plans for preservation of natural features
x		Analysis of the public safety services needed to support the Master Development Plan
x		Analysis of the anticipated impacts on the public school system to support the Master Development Plan
x		Generalized drainage plan for the site, drainage ways, flows, points of outfall and indicating impacts of development on affected drainage basins. Contour information at not less than 2 ft. intervals and document run-off characteristics
x		Inventory of existing utilities (storm water, sanitary, electrical , fire alarm boxes & lines, gas, water, lighting, curb and gutter and etc.) illustrating locations, sizes, diameters carrying capacity and present load



**PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST**

A separate drawing[s] shall be provided to the Portland Fire Department for all site plan reviews.

1. Name, address, telephone number of applicant.
2. Name address, telephone number of architect
3. Proposed uses of any structures [NFPA and IBC classification]
4. Square footage of all structures [total and per story]
5. Elevation of all structures
6. Proposed fire protection of all structures
 - **As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)**
7. Hydrant locations
8. Water main[s] size and location
9. Access to all structures [min. 2 sides]
10. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

Some structures may require Fire flows using annex H of NFPA 1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail: fjb@portlandmaine.gov

Date: _____

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: _____

Chart Block Lot Number: _____

Proposed Use: _____

Previous Use: _____

Existing Sanitary Flows: _____ GPD

Existing Process Flows: _____ GPD

Description and location of City sewer that is to
receive the proposed building sewer lateral.

Site Category | Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

(Clearly, indicate the proposed connections, on the submitted plans)

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____

Owner/Developer Name: _____

Owner/Developer Address: _____

Phone: _____

Fax: _____

E-mail: _____

Engineering Consultant Name: _____

Engineering Consultant Address: _____

Phone: _____

Fax: _____

E-mail: _____

*(Note: Consultants and Developers should allow +/- 15 days, for capacity status,
prior to Planning Board Review)*

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: _____ GPD

Peaking Factor/ Peak Times: _____

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)

*(Note: Please submit calculations showing the derivation of your design flows,
either on the following page, in the space provided, or attached, as a separate sheet)*

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

(Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet)

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

GPD

Do you currently hold Federal or State discharge permits?

Yes ☐ No ☐

Is the process wastewater termed categorical under CFR 40?

Yes ☐ No ☐

OSHA Standard Industrial Code (SIC):

[http://www.osha.gov/oshstats/sicser.h
tml](http://www.osha.gov/oshstats/sicser.html)

Peaking Factor/Peak Process Times:

(Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps)

(Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided below, or attached, as a separate sheet)

Notes, Comments or Calculation



A Guide to Holding Neighborhood Meetings Portland, Maine

Planning and Urban Development Department
Planning Division and Planning Board

In order to improve communication between applicants and neighbors, the City of Portland requires applicants who are proposing certain types of development review projects, to hold a neighborhood meeting.

Developments requiring a neighborhood meeting

- Proposed map amendments, contract zones and zoning text amendments that would result in major development;
- Subdivisions of five or more units or lots;
- Master Development Plans; and
- Level III site plan proposals as defined in Section 14-523.

(The Land Use Code, including Article II (Planning Board) and Article V (Site Plan – which contains the neighborhood meeting requirements), are available on the City's web site at www.portlandmaine.gov/citycode/chapter014.pdf)

Timing of meeting

- **Subdivisions of 5 or more units or lots, zone changes, contract zones, zoning text amendments and Level III site plans:**
 - Preliminary Site Plan - The meeting should be held within 30 calendar days of filing the application.
 - Final Site Plan – If only a final plan is submitted, the meeting should be held within 21 calendar days of filing the application and no less than 7 calendar days before the public hearing.
- **Master Plan Development:**
 - The meeting should be held within 30 calendar days of filing the application.
 - The meeting should be held on a date no less than 7 calendar days before a public workshop or public hearing.
 - The meeting shall not be combined with any required neighborhood meeting for the Level III applications.

Location of meeting

- The meeting should be held in the evening, during the week, at a convenient location within the Portland neighborhood surrounding the proposed site. Community meeting spaces at libraries, schools or other places of assembly are recommended. Neighborhood schools are usually available for evening meetings.
- Meetings should not be held on the same day as scheduled Planning Board or City Council meetings. The City Council generally meets on the 1st and 3rd Monday of each month and the Planning Board generally meets on the 2nd and 4th Tuesday of each month; however additional meetings may be scheduled. An updated schedule may be found on the City's website: www.portlandmaine.gov

Invitation List

- Property owners within 500 feet of the proposed development (1000 feet for proposed industrial subdivisions and industrial zone changes)
- Interested citizens and neighborhood groups.

The Planning Division provides the mailing labels. We require at least 48 hours notice to generate the mailing labels and a charge of \$1.00 per sheet will be payable upon receipt of the labels. An electronic version (excel or word format) of the labels can also be e-mailed upon request.

A digital copy of the notice must be provided to the Planning Office (jmy@portlandmaine.gov and ldobson@portlandmaine.gov) and the assigned planner, which will then be forwarded to those on the interested citizen list who receive e-mail notices.

When to Send Invitations

- Invitations must be sent **no less than 10 days (to include weekends)** prior to the neighborhood meeting.
- Notices may be sent by regular mail and do not need to be sent by certified mail.

Notice Description

A recommended invitation format is included in this packet of material.

Attendance Sheet and Meeting Minutes

- Sign-in sheet must be circulated for those in attendance.
- Applicant shall take accurate minutes of the meeting.
- The sign-in sheet and minutes shall be submitted to the Planning Division.

A public hearing will not be scheduled until the meeting minutes and sign-up sheet are submitted to the Planning Division.

A Certification form is included with this packet to be completed and signed by the applicant.

Please call the Planning Division at 874-8721 or 874-8719 if you have any questions.

Attachments

1. Neighborhood Meeting Invitation Format
2. Neighborhood Meeting Certification

EXAMPLE: Neighborhood Meeting Invitation Format

**Applicant/Consultant
Letterhead**

(Date)

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for a (development proposal) located at (location/number and street address).

Meeting Location: _____

Meeting Date: _____

Meeting Time: _____

(The City code requires that property owners within 500 feet (1000 feet for proposed industrial subdivisions and industrial zone changes) of the proposed development and residents on an “interested parties list”, be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.)

If you have any questions, please call (telephone number of applicant or consultant).

Sincerely,

(Applicant)

Note:

Under Section 14-32(C) and 14-524(a)d of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within 30 days of submitting a preliminary application or 21 days of submitting a final site plan application, if a preliminary plans was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street Portland, ME 04101 or by email: to bab@portlandmaine.gov

EXAMPLE: Neighborhood Meeting Certification

I, (applicant/consultant) hereby certify that a neighborhood meeting was held on (date) at (location) at (time).

I also certify that on (date at least ten (10) days prior to the neighborhood meeting), 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 or within 1000 feet of a proposed industrial subdivision or industrial zone change.
2. Residents on the "interested parties" list.
3. A digital copy of the notice was also provided to the Planning Division (jmy@portlandmaine.gov and ldobson@portlandmaine.gov) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Signed,

_____ (date)

Attached to this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes



February 16, 2016

J14.067

Ms. Barbara Barhydt
Development Review Manager
Planning and Urban Development Department
Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04101

605 Stevens Avenue
Master Development Plan Preliminary Application
(CBL 135 X003, 136 E006001, 143 F004000, 144 B001000)

Dear Barbara:

We are pleased to submit this application for Master Plan Review of the former Sisters of Mercy campus located at 605 Stevens Avenue on behalf of Motherhouse Associates, LP (for the Motherhouse redevelopment project) and Sea Coast at Baxter Woods Associates, LLC (for the market rate active adult community). Our team is seeking to redevelop the Motherhouse and the surrounding grounds into a senior living / active adult community. This Master Plan application comes after a rezoning of portions of the campus and level III site plan approval of the Motherhouse project in 2015.

As part of the earlier zoning and approval process, our team agreed to participate in the Master Plan Review process due to our lengthy and positive experience with master planning in other Maine communities. Sea Coast Management has utilized a master plan process to update and expand the OceanView at Falmouth Retirement Community since the passage of a special overlay district by the Town of Falmouth in the late 1990's. In Topsham, the Highland Green active adult community has utilized a master planning process with both the Town of Topsham and the Maine Department of Environmental Protection since 2000. The Developers Collaborative utilized a similar approach with its redevelopment of the historic Brick Hill campus located in South Portland.

In each example, the master planning process allowed both the development team and the local planning authorities to take a holistic, comprehensive approach to the development and this generally leads to a better, more integrated design. Neighbors and other stakeholders can also participate in the master planning process to ensure that their concerns and input are addressed in a comprehensive manner with no surprises during future phases of development. Once the master plan is approved, it is quick and efficient to review and approve the subsequent, specific phases of the development. The planning board knows how the specific phases fit into the overall plan for the development and the development team knows that it will receive approval of subsequent phases in a timely manner as long as they remain generally consistent with the master plan.

As we begin this master planning process, we note that the City of Portland's requirements for a master plan application are quite detailed. We look forward to working with the City, neighbors, various planning consultants and other stakeholders during this evolutionary process. This first application is simple and basic. As we proceed with the numerous meetings and complete the various planning studies, the application and the details of the master plan will evolve until a detailed blueprint for the redevelopment of the campus.

This application is being submitted pursuant to the Portland Land Use Code Articles IV Subdivision and Article V Site Plan Sections 14-523 through 14-527 - Master Development Plan review. The project proposes development of a residential senior living campus on the grounds of the former Joseph's Convent and McAuley High School fields. This application and the following sections follow the MDP Application Checklist with additional information added as deemed necessary to provide a thorough summary of the proposed project.

PROJECT DESCRIPTION

The former Sisters of Mercy campus is located at the corner of Stevens Avenue and Walton Streets in the Deering Center neighborhood of Portland. The entire campus is 18.98 acres and includes Catherine McAuley High School (Lot 1), Saint Catherine's residence hall (Lot 2), Saint Joseph's Convent (the Motherhouse / Lot 3) and the surrounding land (Lot 4). This Master Development Plan (MDP) application commences the formal review process for the creation of a senior living / active adult community on Lot 4 and the integration of the Lot 3 Motherhouse into the overall campus masterplan. At this time, the status of the school and St. Catherine's is unchanged and those elements of the property will remain "as is" for the purpose of the master plan but will be integrated in terms of access, parking and circulation. The master planning process will focus on the redevelopment and repurposing of the historic Motherhouse and its surrounding land. This land, rather than the entire campus, was rezoned in 2015 from the R-5 zone to the R-5A zone.

The redevelopment of the iconic Motherhouse into a mixed income project of affordable and market rate senior housing is the first phase of the project and the centerpiece of the master planned campus. The Motherhouse project will be financed in part through Low Income Housing Tax Credits (LIHTC) and Historic Tax Credits (HTC). Sixty six (66) apartments will be offered at affordable rents and twenty two (22) will be offered at market rate rents. Consistent with the parameters of the Maine State Housing Authority's LIHTC program, the residents can access the assistance of a part-time resident service coordinator but the services will otherwise be minimal. However, there will be an abundance of shared common areas to facilitate congregate living at the Motherhouse.

The second component of the community will be a market rate active adult community with approximately 160 apartments located in new buildings to the side and rear of the Motherhouse. This community will target younger seniors from age 55 to 75 looking to simplify their living arrangements and spend more time enjoying an active lifestyle. The general idea is to offer younger seniors a wide array of senior-friendly apartment living options that include a number of shared amenities and spaces. This is a concept generally known as congregate living for independent residents. Layered on top of the physical design of the community is an array of services – some included / some ala carte -- that support healthy, active and independent living as residents age.

The following are some of the important aspects of the active adult market rate community:

- The five apartment buildings will be marketed, pre-sold and constructed in phases to ensure the financial stability of the new community. Each building will include parking underneath the building to reduce surface parking and to provide an attractive amenity to residents. The buildings will range from three to four floors in height not including the under building parking.
- The apartments will be sold as condominiums and include both one and two bedroom models. They will all be single level, senior friendly apartments designed to accommodate a residents changing needs as they age.
- The community will include a series of amenities and common spaces designed to encourage an active, healthy lifestyle. These amenities may include common living rooms

and libraries, a fitness center, a café, a theater, a conference room, a private dining room and a variety of outdoor common spaces.

- The service component of the community will include comprehensive building maintenance and concierge services from housekeeping and laundry to fitness classes and transportation. As a residents need for support increases, the community will contract with an in-home providers of senior services – from homemaking assistance to personal care and assistance with the activities of daily living.

The design of the new campus is a careful balance of several important and sometimes competing elements. These elements include the preservation of the historic streetscape and view of the Motherhouse along Stevens Avenue; the preservation of a playing field for the school; and provision of an over-sized buffer along the property line with Baxter Woods. As a result, the new buildings are grouped in a close-knit neighborhood to the side and rear of the Motherhouse. This grouping of buildings and preservation of open spaces – combined with sidewalks, pathways, landscaping and hardscaping running throughout the campus and new buildings – will create an attractive campus setting.

The new community can also integrate the former Sisters of Mercy campus into the surrounding community as never before. Pathway connections with Baxter Woods can be re-established and the entire corridor cleaned up and landscaped. The large green spaces along Stevens Avenue can be literally opened up by establishing new entrances and/or removing fencing (consistent with the National Park Service Review); re-establishing proper and well-maintained landscaping; and creating new sitting areas. The entrance and parking areas along Walton Street will be upgraded, landscaped and maintained to ensure an attractive, safe and welcoming view of the new community.

AFFORDABILITY

At a time when the City of Portland is facing a serious challenge due to the lack of affordable housing, it is important to note that this project provides a significant contribution of housing. Of the 249 apartments planned for the site, 66 of those apartments are just under 25% are affordable per the terms of the Maine State Housing Authorities Low Income Tax Credit Program. Additionally, the remaining 22 market rate apartments in the Motherhouse are moderate in price.

In addition to the new apartments created with this project, the project is designed to appeal to older adults living throughout Portland and particularly in the off-peninsula neighborhoods. To the extent that individuals move to the new housing from these neighborhoods, numerous existing homes will become available for younger families. We believe this new project – and other like it – are an important step toward addressing the housing crises.

IMPACT ON SCHOOLS / SERVICES

The new community will have an impact on the local schools and services and it will be extremely positive. The Sea Coast senior communities are the number one tax payer in both Topsham and Falmouth – by far. This includes both residential and commercial taxpaying entities. A preliminary projection for the tax revenues from this project is approximately \$900,000 per year. These tax revenues can be utilized in a number of ways and with instruments such as the TIF program to direct funds directly into the Deering Center neighborhood. In addition to tax revenues, our senior communities have been strong supporters of the local schools. This support includes intergenerational programs of all types and specific fundraising efforts to support the schools.

Another impact on the local community comes from general economic development. Seniors moving into a market rate community bring their savings and investments with them and reinvest it

into the local community and its businesses and services. These seniors are affluent and the investment is significant – amounting to tens of millions of dollars. The significant, positive impact of senior communities was heralded by the Governor Angus King administration is an effort entitled “The Golden Opportunity”.

An often repeated misconception of market rate senior communities is that they are a major drain on municipal services. In fact, the opposite is true. Senior communities utilize very few municipal services while paying significant amount of taxes. While this is partially due to the fact that they place no children in the schools, it extends to many other services as well. For example, we recently did an analysis of the fire and ambulance trip to our 175 home active adult community in Topsham, Maine. Records indicate that there were 17 emergency service visits over a six month period in 2014. This equates to just over 1 trip every 2 weeks.

Lastly, the design of the new buildings reduces and simplifies the burden placed on emergency responders. First, all of our buildings are fully covered by the modern, fully code compliant fire sprinkler systems. Second, there is a comprehensive life safety system in each building – from an emergency call system to security to all of the required smoke, fire and carbon monoxide detectors. Third, the size of the building requires that it is designed and approved in conjunction with the State Fire Marshall’s Office.

NEIGHBORHOOD CONTEXT

The Sisters of Mercy Convent and Campus have been located in Deering Center for well over 100 years. Its early neighbors included the remarkable greens spaces represented by Baxter Woods and Evergreen Cemetery but since those early days a truly diverse neighborhood has grown up around it. There is a wide variety of commercial, industrial, residential and institutional uses in the immediate vicinity in and around the campus. While the Motherhouse has long been an iconic presence along Stevens Avenue, this project provides an opportunity to fully realize the potential of the campus to become an attractive, integrated part of its surrounding community.

The first and most important element of the campus in terms of the surrounding community is the Motherhouse. The Sisters of Mercy have spent millions of dollars maintaining and studying a potential reuse of the Motherhouse since approximately 1995. The Motherhouse has been empty for the past 10 years but still requires over \$200,000 annually to maintain. This project will renovate and repurpose the Motherhouse so that it will remain impressive and financially viable for the next 100 years. Equally important, it will continue to serve the Sisters of Mercy legacy of caring for those in the surrounding community.

There are several large housing, institutional and educational uses in direct proximity to the campus. These include the abutting 11 story Deering Pavilion, the University of New England, the Park Danforth, Saint Brigid School, Lincoln Middle School and Deering High School to name a few. Deering Pavilion, UNE and the Park Danforth are more institutional in practice and appearance while the schools form a remarkable continuum of education along Stevens Avenue.

The proposed campus – from the preserved Motherhouse to the McAuley School to the new senior housing – is an important and consistent part of this neighborhood. But while the larger entities are more institutional, the design of the proposed senior community will be more residential in nature. It will provide a smooth transition from the larger institutional and commercial buildings on the north end of Stevens Avenue and the nearby Forest Avenue to the residential neighborhoods that dominate in and around Deering Center. The new buildings will be shorter and smaller than both

Deering Pavilion and the Motherhouse itself. Moreover, they will be set back from both Stevens Avenue and Walton Street.

Unlike the institutional and educational entities lining Stevens Avenue, the proposed senior community will be quiet and attractive. All seniors, including youthful seniors, generate significantly less traffic and parking than a young family or a business or a school. Additionally, it is the development team's intention that the campus is designed so that all parking will be contained on campus. This is accomplished in an attractive, sustainable manner but placing a significant amount of required parking under the apartment buildings.

Additionally, it is important that the new community properly integrate with and compliment the surrounding green spaces at Baxter Woods and Evergreen Cemetery. This is the most important element of the site design as it relates to neighborhood context. We believe this can be accomplished in three ways. First, the proposed new buildings will be grouped in a close-knit neighborhood to the side and the rear of the campus. This will provide significant green space and distance between the primary view sheds along Stevens and Walton Street. Second, an oversized buffer and planting will occur along the border with Baxter Woods. There is already a significant wooded buffer between the main pathways in Baxter Woods and the campus but clean up and additional landscaping will improve the appearance and enjoyment of this buffer area. Lastly, the campus will be opened up and integrated with the neighborhood as never before via a network of drives, sidewalks, pathways, hardscaping and landscaping. And the residents of the new community – along with family, friends and neighbors – can enjoy the campus.

Finally, we have heard from those who oppose the development that the proposed community is completely out of context with the surrounding residential neighborhoods. First, a review of the surrounding neighborhood indicates that is simply not true. There is a wide variety of residential, commercial and institutional uses in the neighborhood and they are housed a wide variety of buildings and settings. Second, and more importantly, to attempt design the campus so that it mimics the surrounding single family home neighborhoods is inadvisable. This would require covering the entire campus with streets and smaller homes and a proliferation of cars and parking throughout the campus and beyond. It would eliminate all green space and detract from the Motherhouse, the school and Baxter Woods. It would appear both out of place and out of time. The proposed design fits into the context of the existing campus. Moreover, it is a sustainable design with preserved open spaces, parking underneath and attractive buildings.

RIGHT, TITLE & INTEREST

The applicants have secured a Purchase Option for the campus from Saint Joseph's Convent and Hospital, included as *Attachment 1*.

The draft Declaration of Condominium and Declaration of Covenants and Easements for the Lot 3 Motherhouse are also included as Attachment 1.

STATE & FEDERAL APPROVALS

The project will develop 3 or more acres of impervious area meeting the thresholds for a Department of Environmental Protection Site Law permit. A formal DEP Permit is not required as the City Portland has delegated review and will review the project as part of the formal site plan submission.

No wetland impacts are anticipated for the project and no permit from the Corps of Engineers under Section 404 of the Clean Water Act will be required.

COMPLIANCE WITH ZONING

The project site contains areas of R-5 and R-5A zone districts as a result of an extensive rezoning process that was adopted in 2015. All proposed building and site development is located entirely within the R-5A zone. A summary of the Space and Bulk requirements for Lot 4 is included on the Conceptual Site Plan (Sheet L-2). We believe that the project meets or exceeds all Spatial Standards for the R-5A Zone District.

EASEMENTS AND RIGHTS OF WAYS

Existing Easements: The existing site contains a 33-foot right of way easement along the southern property line at Baxter Woods deeded in 1908 by James Baxter as part of a 66-foot wide paper street. The applicants intend to preserve that right of way as a natural buffer subject to any rights or interests the City may have in the right of way.

The site is subject to an overhead utility line easement over Lot 1 to service the Motherhouse.

Proposed Easements: As a 4-lot subdivision and master planned site, cross-easements are typically required for shared utilities, access, stormwater management, etc. Shared easements for sewer, water and storm drainage are shown on the Subdivision Plat. It is anticipated that shared parking and access easements may be required between the subdivision lots which will be added to the updated subdivision plan for the campus.

A reciprocal easement agreement will be created between Lots 3 and 4 providing covenants and restrictions as required.

The stormwater easement across Lot 4 will be conditioned to allow that storm drain line to be moved upon development of Lot 4 Senior Housing.

WAIVER REQUESTS

The following MDP Application waiver is requested:

- a. Ordinance 14-527 (e) 1. – Scale of Context Map. We respectfully request a waiver of the plan scale of one inch = 100 ft. to one inch = 150 feet. This request is being made to fit the neighborhood context map on to a standard plan sheet size.

FINANCIAL AND TECHNICAL CAPACITY

- a. **Financing:** A letter of Financial Capacity from from Bath Savings Institution is attached to this application as Exhibit 2.
- b. **Technical Capacity:**

The development team for this project includes Sea Coast Management Company based in Falmouth, Maine; the Developers Collaborative of Portland, Maine; and a team of very qualified and experienced consultants.

Sea Coast Management Company is Maine's leading developer, owner and operator of market rate senior living communities including OceanView at Falmouth and Highland Green in Topsham. Over the last 30 years, our communities have grown and prospered. Some of their development related projects include:

- OceanView at Falmouth, a full service retirement community located in Falmouth, Maine.

- Highland Green, an active adult community located in Topsham, Maine.
- The Highlands of Topsham, a full service retirement community located in Topsham, Maine.
- Granite Hill Estates, a full service retirement community located in Augusta, Maine.

Developers Collaborative of Portland is the leading developer of community-oriented smart growth projects with a strong emphasis on the creative use of tax credits to support the redevelopment of in-town historic buildings and sites. Many of their projects include the same qualities and challenges posed by the Motherhouse redevelopment project. Some of their development projects include:

- Nathan Clifford School, historic rehabilitation into market rate apartments, Portland, Maine
- Healy Terrace, historic rehabilitation of a former Catholic children's home in senior affordable apartments, Lewiston, ME
- Gilman School, historic rehabilitation into workforce housing, Lewiston, ME
- Brick Hill, redevelopment of the former Maine Youth Center campus, South Portland, ME

Our design team includes a seasoned team of the following professionals:

- Licht Environmental Design, LLC – Project Manager
- Carroll Associates – Master Planning and Landscape Architecture
- Stantec– Civil Engineering
- Archetype, PA –Architecture
- Maine Traffic Resources – Traffic Assessment
- Titcomb Associates – Surveying
- Tremont Preservation Services/ Christine Beard – Historical Consultant

9. STORMWATER MANAGEMENT

The project will take a Low Impact Development (LID) approach to stormwater management. This will focus on source capture, treatment and detention of runoff from newly developed areas of the site using a series of small, localized Best Management Practices (BMPs). The design approach is intended to mimic existing drainage patterns and maintain surface runoff and groundwater recharge rates at predevelopment levels. The project site is underlain by Adams series, coarse grained, sandy soils, providing ideal conditions for the use of infiltrating stormwater BMPs, similar to those used on the recently approved adjacent Motherhouse - McAuley project.

Several types of BMP will be proposed for use at the site, all of which are designed to fit with the site topography and be incorporated into the existing and proposed landscape features. These include small-scale planted rain gardens adjacent to the buildings, filtering drip edge filters to capture and treat roof runoff, and infiltration trenches along linear impervious edges with low pollutant loading potential. The use of pervious pavement sections is also an option particularly for lightly loaded parking areas. This approach will be vetted to ensure viability from a cost and maintenance perspective, but offers potential aesthetic value in addition to the stormwater treatment and detention benefits. All BMPs will be designed with underdrain and overflow outlets to a piped storm drain system. However, it is anticipated that during all but the largest storm events, the majority of runoff from the developed site will drain by infiltration to the underlying soils.

All stormwater BMPs will be designed to current State of Maine Chapter 500 Stormwater Law standards. The design will ensure that post-development surface runoff rates do not increase over

the existing conditions for the 2-year, 10-year and 25-year design storm events, and the downstream discharge points from the new stormwater system will remain the same as currently exist at the site.

10. TRAFFIC ANALYSIS and PARKING

- a. Traffic Analysis: The project traffic engineer, Diane Morabito, PE, PTOE of Maine Traffic Resources is preparing a traffic impact analysis for the proposed campus development of the additional 161 senior housing units together with the Motherhouse trips for the submission of a Traffic Movement Permit (TMP) application if the 100-200 pce trip rates are triggered. Trip generation data and study area limits will be reviewed with the City traffic consultant, Tom Errico of TYLin International as part of the scoping process.

A scoping meeting and final traffic impact study and TMP Application will be provided as part of the Master Development review process.

- b. Parking Summary: The proposed project envisions a mixture of covered and surface spaces to meet its parking demand. A total of 322 parking spaces are provided for residents and guests, a parking ration of 2.0 PS/ Dwelling Unit. The majority of parking is provided in the lower level of the buildings, allowing convenient and desirable parking for residents and freeing up a significant portion of the site for open space. This number meets the existing R-5A zoning requirement for Multiplex use.

The project has always been envisioned as a campus, and there is great opportunity for the project to share parking needs with McAuley High School and the Motherhouse if necessary. The school needs are typically during daytime hours and residential parking is an evening activity, so the school could benefit for event parking and residents/ guests could utilize other on-site parking as needed.

11. UTILITIES ANALYSIS

The project proposes a comprehensive utility masterplan to provide the following utility services. Appropriate utility easements will be provided as needed to service Lot 4 over Lots 1, 2 and 3. The final utility design will be submitted for the respective utility company approvals. The campus utility infrastructure improvements will be financed by the developers and coordinated with City staff with respect to sewer CSO's and street opening connections.

Refer to the Conceptual Stormwater and Utility Plan and *Attachment 3* for Letters of Serviceability.

1. Natural Gas – To be provided from Stevens Avenue with a new main servicing the Motherhouse and extending into Lot 4 to service the 5 new campus buildings.
2. Water – A new fire and domestic service will be connected from Stevens Ave. to the Motherhouse and extended into Lot 4. An main extension easement will be provided to the Portland Water District across Lot 3.

3. Sanitary Sewer – An onsite 8 -inch sewer main services the existing Motherhouse and discharges to the City sewer in Walton Street. That main is expected to be utilized and upgraded as necessary to service the additional Lot 4 development. A new service connection and manhole at Walton Street will be installed as part of the Motherhouse project and coordinated with the Department of Public Services. Cross easements between Lots 2,3 and 4 will be provided and updated on the subdivision plan.

The applicant has submitted the Wastewater Capacity Application and supporting flows to the Department of Public Services (DPS) for review with estimated flows of 6,776 gallons per day of water/wastewater projected for the Motherhouse development. Updated flow data will be provided to the DPS for the 161 unit Lot 3 development as part of the MDP review process.

4. Electric/Communications – Electric and communications service to the Motherhouse is currently provided from Walton Street via an overhead line and easement to the rear of the Motherhouse and Smith Wing. The approved LIII Motherhouse project will continue to use the overhead lines upgrading from single to 3-phase power and provide a pad mounted 3-phase transformer at the Motherhouse (refer to approved Motherhouse LIII Site Plans.)

The Lot 4 campus development anticipates replacing the overhead lines from Walton Street with a new underground service and extending into Lot 4 from the new pad mounted transformer at the Motherhouse. The final utility design will be reviewed with Central Maine Power Company. Appropriate utility easements will be provided between the campus lots.

5. Site Lighting – Site lighting has been approved for the Motherhouse project parking and pedestrian areas and access drive from Walton Street. A similar phased site lighting theme will be carried forward into the Lot 4 senior housing project as part of the final review of the campus buildings.

Enclosed are one (1) hard copy of the following materials and Site Plans and PDF copies on an attached CD-ROM:

- Cover Letter
- City of Portland Master Development Plan Review Application
- Site Plan/Subdivision Application Fee (Submitted separately)
- Sections
 - 1 – Project Description & Consistency with Comprehensive Plan
 - 2 – Neighborhood Context
 - 3 - Right, Title & Interest
 - 4 - State & Federal Approvals
 - 5 - Compliance with Zoning
 - 6 - Easements & ROWs
 - 7 – Waiver Requests
 - 8 - Financial and Technical Capacity
 - 9 – Stormwater Management
 - 10 –Traffic Analysis
 - 11 – Utilities Analysis

Attachments:

1. RT&I -P&S Agreement and Lot 3 Condominium Documents

2. Financial Ability
3. Utility Serviceability Letters

Site Plans

- A. Cover Sheet
- B. Subdivision Plan
- C. Context Plan
- D. Conceptual Site Master Plan
- E. Circulation Plan
- F. Phasing Plan
- G. Conceptual Stormwater and Utilities
- H. Architectural Plans and Elevations

We look forward to working closely with staff towards a series of workshops with the Planning Board over the coming months. A neighborhood meeting will be noticed and held in accordance with the MDP process requirements and we envision additional meetings as the project progresses. In the meantime our project team remains available to meet with staff to review the application in further detail or to provide any additional information if required.

Sincerely,



Frederic (Rick) Licht, PE, LSE
Principal

Matthew Teare
Seacoast at Baxter Woods Associates, LLC

Encl: As Noted

Cc: (via email - PDF copy)
John Wasileski; Sea Coast at Baxter Woods Associates, LLC
Sister Lindora Cabral; Sisters of Mercy of the Americas Northeast Community, Inc.
Daniel Justynski; Sisters of Mercy of the Americas Northeast Community, Inc.
Dennis Keeler; Pierce Atwood, LP
Kevin Bunker; Motherhouse, LLC
Ron Epstein; Jensen, Baird, Gardner & Henry
Natalie Burns; Jensen, Baird, Gardner & Henry
Pat Carroll; Carroll Associates, Landscape Architects
Andrew Johnston; Stantec
Diane Morabito, Maine Traffic Resources

Att. C

Memorandum of Purchase and Sale Agreement

Notice is hereby given of the existence of a Purchase and Sale Agreement, dated June 16, 2014 (the "Agreement") between St. Joseph's Convent and Hospital, a Maine non-profit corporation (hereinafter called "Seller") and Sea Coast Healthcare, Inc., a corporation existing under the laws of the State of Maine or its nominee (hereinafter called "SCH"), and of an Assignment, dated September 15, 2014 by SCH to Sea Coast at Baxter Woods Associates, LLC ("Purchaser") of all of its rights as Purchaser under said Agreement.

Under the Agreement, Purchaser has the right and obligation to purchase, on and subject to the terms and conditions of the Agreement, the following property at the First Closing, as hereafter defined: (i) a portion of that certain real property consisting of the real estate situated at 605 Stevens Avenue in Portland, Maine, which portion is to contain approximately 17.36 acres, and all buildings and improvements thereon, including the Motherhouse, the Catherine McAuley school, the land between the Motherhouse and Baxter Woods and the "ball fields" and being the premises described in Exhibit A hereto (but excluding the St. Catherine's Parcel, as hereafter described) and generally shown as Lots 1, 3, 4 and 5 on the Conditional Zone Concept Plan, McAuley Place at Baxter Woods, Stevens Avenue, Portland, Maine prepared by Belanger Engineering, March 21, 2014 attached hereto as Exhibit A (hereinafter the "Plan"), together with easements over the St. Catherine's Parcel for existing and proposed underground drainage and utilities, including sewer, water and other utilities, a parking easement for use of up to a 20 parking space expansion of the parking lot on the St. Catherine's Parcel, and an easement for secondary ingress and egress from Walton Street, all for the benefit of said Lots 1, 3, 4 and 5 (with Purchaser to have the right but not the obligation after the First Closing to construct the drainage and utility lines, parking lot expansion and secondary access permitted by such Easements) (collectively, the "Easements"), which Easements shall be located substantially as shown on the Plan attached hereto as Exhibit A-1 (hereinafter the "Property"), and (ii) an assignment by McAuley Place at Baxter Woods Retirement Community, Inc. of the Credit Enhancement Agreement, dated May 2009 between the City of Portland and McAuley Place at Baxter Woods Retirement Community, Inc. (which is an affiliate of Seller), to the extent assignable, relating to the existing tax increment financing district, with no representations or warranties other than the fact that Seller has not assigned or caused to be assigned such agreement to any third party. At the Second Closing, as hereinafter defined, Purchaser has the right and obligation to purchase, on and subject to the terms and conditions of the Agreement, the following property, for the price and upon the terms and conditions hereinafter set forth, the St. Catherine's Residence, being the land and 18 unit apartment building generally as depicted as Lot 2 on the Plan and referred to herein as the "St. Catherine's Parcel" and also as generally depicted on Exhibit A-1.

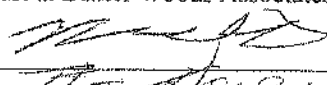
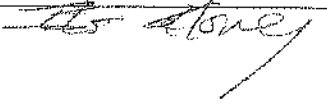
The First Closing shall occur on the earlier of the following dates: (a) the date of the construction loan closing with Maine State Housing Authority relating to an award of low income housing tax credits (such loan closing is anticipated to be in April 2015 if low income housing tax credits are awarded to Purchaser or its nominee in the fall of 2014, or in April 2016 if low income housing tax credits are awarded to Purchaser or its nominee in the fall of 2015); or (b) June 30, 2016. The First Closing shall also occur on any earlier date as specified by Purchaser by at least ten days prior written notice to Seller. The Second Closing shall occur on the earlier of: (i) the date that is ten years after the date of this Agreement, or (ii) the date that is 180 days after Seller certifies to Purchaser in writing that all Non-Market Rate Leases have expired or been terminated, and that the Second Closing Date has been scheduled for 180 days after the date of such certification.

This Memorandum does not modify or alter the terms of the Purchase and Sale Agreement in any way.

Dated as of this ___ day of October 2014.

WITNESS:

Sea Coast at Baxter Woods Associates, LLC

By: 


DECLARATION OF CONDOMINIUM OF 605 STEVENS AVENUE CONDOMINIUM

This Declaration of Condominium is executed as of this 1st day of _____ 2015 by Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, pursuant to the Maine Condominium Act, Chapter 31 of Title 33 of the Maine Revised Statutes of 1964, as amended, 33 M.R.S.A. §1601-101 et seq. (hereinafter the "Act").

ARTICLE I: CREATION OF CONDOMINIUM: DEFINED TERMS

A. Declaration of Property. Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, with an address of 20 Blueberry Lane, Falmouth, Maine, owner in fee simple of the land described in Schedule A annexed hereto, located in the City of Portland, Cumberland County, Maine (hereinafter the "Land"), hereby submits the Land, together with all buildings, improvements, easements, rights, privileges and appurtenances now or hereafter thereon or pertaining thereto (hereinafter the "Property") and together with the rights and easements described in Schedule hereto and subject to all covenants, restrictions, and easements described or referred to in Schedule A, to the provisions of the Act, as amended from time to time, and hereby creates with respect to the Property a condominium, known as 605 Stevens Avenue Condominium (hereinafter the "Condominium"). The Property is depicted on the plat prepared by Titcomb Associates and floor plans prepared by _____, which plat and plans, as amended from time to time, being herein referred to respectively as "Plats" and "Plans", are recorded in the Cumberland County Registry of Deeds. The Property shall hereafter be held, sold and conveyed subject to the terms, conditions, covenants, easements and restrictions set forth in this Declaration of Condominium as amended from time to time (hereinafter the "Declaration") and in the Act, which shall run with the Property and bind and inure to the benefit of all owners of the Property or any portion thereof, their respective heirs, successors and assigns. Pursuant to the Act, 605 Stevens Avenue Condominium Association, a Maine nonprofit corporation under Title 13-B of the Maine Revised Statutes of 1964, as amended (hereinafter the "Association") shall be the Unit Owners' Association under the Act.

B. Defined Terms. Capitalized terms used in this Declaration shall have the meaning specified hereinabove or hereinbelow or, if not otherwise defined in this Declaration, as it may be amended from time to time, or in the Plats and Plans, shall have the same meanings as specified in the Act:

- (1) "Allocated Interests" mean: (a) the Common Element Interest, (b) the Common Expense Liability and (c) the votes in the Association, allocated to each Unit pursuant to this Declaration.
- (2) "Assignable Limited Common Elements" has the meaning provided in Article IV(C) of this Declaration.
- (3) "Building(s)" means the building or buildings now existing or hereafter erected on the Land containing one or more Units whether in vertical or horizontal arrangement, as well as other improvements comprising a part of the Buildings.
- (4) "Bylaws" means the Bylaws of the Association as are adopted pursuant to the Act and this Declaration for the regulation and management of the Property, including such amendments thereof as may be adopted from time to time.

(5) "Common Elements" mean all portions of the Condominium other than the Units.

(6) "Common Element Interest" has the meaning provided in Article IV(E) of this Declaration.

(7) "Common Expenses" mean expenditures made by or financial liabilities of the Association together with any allocation to reserves and include, but are not limited to, (a) the cost of maintenance, management, operation, repair and replacement of the Common Elements and such Limited Common Elements and such parts of the Units as to which pursuant to this Declaration it is the responsibility of the Association to maintain, repair and replace, (b) the cost of all insurance premiums on all policies of insurance required to be or which have been obtained by the Executive Board pursuant to the provisions of this Declaration and the fees and disbursements of the Insurance Trustee, if any, (c) such amounts as the Executive Board may deem necessary for general operating reserve funds, reserve funds for replacements and such other reserve funds as the Executive Board may periodically establish, (d) such amounts as the Executive Board may deem necessary to compensate for any deficits in receipts over expenses for previous periods of time, (e) the charges and fees for energy, electricity, heat, water, gas and sewer services furnished to the Condominium to the extent not separately metered to individual Units and charged to individual Unit Owners; and (f) such other costs and expenses that may be declared by the Act, this Declaration, the Bylaws, or resolution or agreement by the Executive Board or Unit Owners to be Common Expenses of the administration, operation, maintenance and repair of the Condominium and Property and the rendering to Unit Owners of all related services.

(8) "Common Expense Liability" has the meaning provided in Article VI(A) of this Declaration.

(9) "Condominium Documents" mean this Declaration, the Plats, Plans and the Bylaws, as amended from time to time.

(10) "Declarant" means Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, its successors and assigns and all successors to any Special Declarant Rights hereunder.

(11) "Development Rights" has the meaning specified in Article V of this Declaration and Section 1601-103(11) of the Act.

(12) "Eligible Mortgage Holder" means the holder of record of a recorded first Mortgage on a Unit in the Condominium which has delivered written notice to the Association by prepaid United States mail, return receipt requested, or by delivery in hand securing a receipt therefor, stating the name and address of such holder, the name and address of the Owner of the Unit encumbered by such Mortgage, the identifying number of such unit, and containing a statement that such Mortgage is a recorded first mortgage.

(13) "Executive Board" means the Executive Board or Board of Directors of the Association authorized to act pursuant to this Declaration and the Act on behalf of the Association.

(14) "Insurance Trustee" has the meaning provided in Article XI(B)(7) of this Declaration.

(15) "Limited Common Elements" mean those portions of the Common Elements the exclusive use of which is reserved as an appurtenance to one or more, but fewer than all, of the Units as allocated pursuant to this Declaration.

(16) "Limited Common Expenses" mean the Common Expense for services benefiting fewer than all the Units, which are assessed pursuant to this Declaration exclusively against the Units benefited in accordance with Section 1603-115(c)(2) of the Act pursuant to Article IV(k) hereof.

(17) "Mortgage" means a recorded mortgage or deed of trust encumbering a Unit in the Condominium held by a Mortgagee; "Mortgagee" means the holder of a recorded Mortgage or deed of trust encumbering a Unit in the Condominium.

(18) "Recorded" means that an instrument has been duly entered of record in the Registry of Deeds in and for Cumberland County, Maine.

(19) "Special Declarant Rights" has the meaning provided in Article V of this Declaration and Section 1601-103(25) of the Act.

(20) "Unit" means a part of the Property designated for separate ownership or occupancy.

ARTICLE II: IDENTIFICATION AND LOCATION OF CONDOMINIUM; ASSOCIATION

The name of the Condominium is 605 Stevens Avenue Condominium. The name of the Association organized under the Act is 605 Stevens Avenue Condominium Association. The Condominium is located in the City of Portland, County of Cumberland and State of Maine (which location is more particularly described in Schedule A hereto) and the address of the Condominium is 605 Stevens Avenue, Portland, Maine.

ARTICLE III: DESCRIPTION OF PROPERTY AND UNITS

A. Description of the Property. A legally sufficient description of the Property included in the Condominium is set forth in Schedule A attached hereto and made a part hereof.

B. Maximum Number of Units. Declarant has created 2 units pursuant to this Declaration. Declarant reserves the right to create up to 2 additional units, and accordingly the maximum number of units that the Declarant has the right to create in the Condominium is 4 Units.

C. Description and Boundaries of Units. The unit numbers, location of units created by this Declaration and their approximate dimensions are shown on the Plats and Plans.

A general description of the Units is as follows (provided, however, that nothing in this paragraph shall alter in any way the Unit boundaries as described below and the unit numbers, location of units created by this Declaration and their approximate dimensions are shown on the Plats and Plans): (1) Unit 1 is a substantial portion of the four-story Motherhouse or convent building that was designed in the Italian Renaissance style and constructed in 1908-1909 but excluding the portions thereof described as Common Elements or Limited Common Elements herein and also excluding the portions thereof shown as part of Unit 2 on the Plans; and Unit 2 is the three-story Smith House building that was constructed in the 1800s, and which is currently used as part of the Catherine McAuley High School and a portion of the basement of the Motherhouse, but excluding the portions thereof described as Common Elements or Limited Common Elements herein. Units 3 and 4, if created by Declaration pursuant to its Development Rights reserved hereunder, would be new construction in the areas as shown on the survey Plat.

A list of all unit numbers, locations (all as shown more fully on the Plats and Plans), and Common Element Interests and Common Expense Liability and votes in the Association appurtenant to each unit is attached hereto as Schedule B.

The boundaries of each unit created by this Declaration are as follows:

Each Unit includes the following items:

- (a) All interior partitions (excepting those portions thereof which are load-bearing), interior doors located entirely within a Unit including without limitation their frames, locking systems, hinges and sills, and interior halls and stairways located wholly within the Unit;
- (b) Finish flooring, floor coverings, carpeting and the like, and finish walls and ceilings and coverings including the paint, wallpaper, furring, gypsum board, moldings, the panels, framework, lighting, and acoustical tile ceilings if any, and any other materials constituting any part of the finished surfaces thereof which are nonstructural), but excluding exterior masonry or brick walls, exterior windows and excluding interior or exterior doors providing access to the Common Elements or public streets;
- (c) Plumbing, electrical, sewer, heating, air conditioning, air handling and ventilating fixtures, pipes, lines, equipment, chimneys, vents, flues, systems, Unit specific security and door access systems, controls and components thereof serving a single Unit, even if located outside of a Unit's general boundaries;
- (d) Electrical wiring, equipment, outlets and lighting devices from the point where the feed wire enters the Unit's meter box inwards, and telecommunication and data wiring and equipment serving only a single Unit; and
- (e) Fuel, gas, electric, water and utility lines, pipes and equipment serving only a single Unit from the meters inwards, even if located outside of a Unit's general boundaries.

A Unit generally does not include the exterior walls, the roofs, rafters, floor joists, subfloors, foundations, land, sidewalks, and parking areas, nor does a Unit include the pipes, wires, conduits, flues, ducts, pipes, heating, flues, chase ways, roof drains, fuel, telecommunications, data and utility lines running through a Unit which serve more than one Unit, which serve the Common Elements or which serve another Unit. Any internal room configuration shown on the Plans is illustrative only, and is not binding on an Declarant except that the structural support of the Building must be preserved.

Each Unit and the Common Elements shall have an easement for lateral and subjacent support from every other Unit and the Common Elements, and shall have the easement for encroachments established under Section 1602-114 of the Condominium Act.

Subject to such security and card/keypad access restrictions as the Association may establish from time to time, each Unit has an perpetual right of ingress and egress: to such Unit; to emergency egress areas, and stairs; and to the Limited Common Elements which are appurtenant to such Unit, all of which rights shall automatically transfer with a transfer of title to the Unit. Any conveyance, encumbrance, judicial sale, or other transfer (whether voluntary or involuntary) of an interest in the Common Elements shall be void unless the Unit to which that Common Element interest is allocated is also transferred.

If any Unit components or any Common Elements, including without limitation as utility, heating, ventilation, fuel, life safety and sprinkler systems, electrical, telecommunications and data wiring, equipment, ducts, chases and the like which service other Units or the Common Elements extend into or are accessible only through another Unit, then such other Unit is subject to an easement for reasonable access upon prior notice except in an emergency but the other Unit may relocate such items or alter the access at its expense so long as the functionality of such items or access are maintained and any disruption of the use of such items or access is minimized.

Subject to the foregoing provisions, the general boundaries of each Unit created and each Unit that may be created under this Declaration are generally shown on the Plat and Plans, and consist of:

(a) *Horizontal Boundary*: The upper and lower boundaries of each Unit are generally the following boundaries extended to an intersection with the vertical (perimeter) boundaries:

1. Upper Boundaries: The lowest level planes at the lowermost surfaces of: the upper side of any gypsum board or acoustical tiles of the ceiling and any other materials constituting any part of the finished ceiling surfaces; if there is no finished ceiling, then upper boundary is the lowermost surfaces of the floor joists and structural members supporting each Unit and/or Common Elements above; or if there is no floor above, the lowermost surfaces of surfaces of rafters and structural members supporting the roof above, extending to the intersection with the vertical boundaries.

2. Lower Boundary: The horizontal plane at the upper surface of the undecorated upper surface of the sub-floor or of any concrete or masonry floor slab extending to the intersection with the vertical boundaries.

The subsequent alteration of the Property, such as to add an acoustical tile ceiling, shall not alter the initial Unit boundaries hereunder.

(b) *Vertical Boundaries*: The vertical boundaries of each Unit shall be the vertical planes at the interior surfaces of exterior masonry walls or the stud line at the exterior or outer-most surface of the gypsum-board, sheetrock or other wall materials forming its exterior or common walls, extended to the intersections with each other and with the horizontal boundaries.

(c) *Interior Finishes*. A Unit shall include all lath, furring, wallboard, plasterboard, plaster, paneling, tiles, wallpaper, paint, acoustical tiles, grids and supports, finished flooring, carpeting and any other materials constituting any part of the finished surfaces thereon located within the boundaries of the Unit.

(d) *Interior Space/Other*. All other spaces, interior partitions and other fixtures and improvements within the boundaries of a Unit are a part of the Unit except as otherwise provided herein.

(e) *Relocation and Subdivision*. Relocation of boundaries between Units is permitted by amendment to the Declaration in compliance with the provisions of the Condominium Act. The subdivision of Units is permitted.

D. Subdivision or Relocation of Unit Boundaries. Subject to applicable provisions of this Declaration or law and environmental, subdivision and land-use ordinances and regulations the subdivision of Units and/or relocation of boundaries between Units will be permitted at the expense of the Unit Owners of the Unit or Units to be so subdivided and the boundaries of which are to be so relocated, upon the prior written approval of the Association and subject to compliance with the provisions therefor set forth in Section 1602-113 and Section 1602-112 of the Act. The subdivision of an original Unit created hereby into multiple Units or into Common Areas shall not alter the Unit boundaries except through the exercise of the rights otherwise established herein.

E. Alteration of Partitions. Subject to applicable provisions of law, ordinances, and land-use regulations, a Unit Owner may, after acquiring a horizontally or vertically adjoining Unit or adjoining part of an adjoining Unit, remove or alter any intervening partition or create apertures therein, even if the partition in whole or in part is a Common Element, if such acts do not impair the structural integrity or mechanical systems of the Buildings in which such Units are located or lessen the support of any portion of the Property. Removal of partitions or creation of apertures under this subparagraph is not an alteration of

boundaries.

F. Maintenance Responsibilities. Notwithstanding the ownership of the various portions of the Common Elements and the Units by virtue of the foregoing boundary descriptions, the Units shall be maintained and repaired by each Unit Owner and the Common Elements shall be maintained and repaired by the Association except that if damages are inflicted to any Common Elements, the Unit Owner responsible for the damage is liable for the prompt repair thereof, all in accordance with the provisions of Section 1603-107(a) of the Act, except as may be expressly set forth to the contrary in this Declaration.

ARTICLE IV: COMMON ELEMENTS AND LIMITED COMMON ELEMENTS

A. Common Elements. The Common Elements are all parts of the Property other than the Units. The term "Common Elements" includes:

- i. The land, parking areas and drives together with the benefit of and subject to all the accompanying rights and easements described in Exhibit A;
- ii. The Chapel located in the Motherhouse building;
- iii. Elevators, hallways, vestibules, and stairways serving or providing access to more than one Unit or serving or providing access to the Common Element chapel;
- iv. All utility, heating, air conditioning and ventilating, drainage, and life safety system chases, lines, pipes, conduits, ducts, transmission wires, distribution boxes, utility and lines, pipes, conduits and equipment which serve more than one Unit (excepting lines and equipment owned by public and municipal utilities, or which service only a single Unit and are defined as a part of the Unit above), utility chase areas, roof drains, and all fire sprinklers and alarms and life safety and security access systems; and
- v. All other parts of the property necessary or convenient to its existence, maintenance and safety or normally in common use, except as otherwise expressly provided in this Declaration.

B. Allocation of Limited Common Elements. A description, including the location and dimensions of all Limited Common Elements other than portions of the Property described as Limited Common Elements pursuant to Section 1602-102(2) and (4) of the Act, and the identifications of the Unit or Units to which the Limited Common Elements are hereby allocated are set forth in or shown on the Plats or Plans and/or described herein. The allocation of Limited Common Elements to the Units cannot be altered except with the written consent of the Owners and Mortgagees of record of the Units affected by the reallocation of Limited Common Elements, and in compliance with the provisions of Section 1602-108(b) of the Act. Limited Common Elements other than those described in Sections 1602-102(2) and (4) of the Act consist of the following:

- i. All utility, heating, air conditioning and ventilating equipment, controls, chases, lines, pipes, wires, distribution boxes, ducts, conduits and related accessories if any located outside of a Unit's boundaries (excepting lines and equipment owned by public and municipal utilities) which are not a defined part of a Unit but designed to serve one or more but less than all Units are Limited Common Elements allocated exclusively to such Unit(s);
- ii. The areas shown and designated as Limited Common Elements on the Plans, including

without limitation the Limited Common Element parking spaces and areas as set forth below:

To Unit 1, 73 assigned Limited Common Element parking spaces to be designated by the Association; and

To Unit 2, any parking spaces in excess of the first 73 spaces, .

Generally all other parking spaces designated on the Floor Plans and/or Plat which are not assigned pursuant to the foregoing are Common Elements;

- iii. All doors, steps, stoops, thresholds and windows, including without limitation their glass, frames, hinges, locks, bolts, handles and sills and any other similar fixture which are not a defined part of a Unit but designed to serve one or more but less than all Units are Limited Common Elements allocated exclusively to such Unit(s);
- iv. The elevators and related controls, equipment, structures, shafts, car and controls, and applicable security systems, if any, located in a Building including without limitation those designated as "LCE" on the Plat and/or Floor Plans are Limited Common Elements allocated exclusively to the Units located in the Building serviced;
- v. Any HVAC equipment, chimneys, vents and flues servicing a Unit or its Limited Common Elements, if any, which are not otherwise a defined part of the Unit;
- vi. The foundations, roofs, exterior walls, exterior windows, doors, fire escapes, chimneys, chase ways, sub-floors, utility lines and conduits, roof drains and all joists, rafters, structural and load bearing portions of the Motherhouse building and the triple-based gilded cupola and gold Celtic cross thereof are limited common elements assigned to Unit 1 and the foundations, roofs, exterior walls, exterior windows, doors, fire escapes, chimneys, chase ways, sub-floors, utility lines and conduits, roof drains and all joists, rafters, structural and load bearing portions of the Smith House Building are limited common elements assigned to Unit 2; and for an additional Unit(s) created pursuant to the Development Rights reserved by Declarant under this Declaration, the foundations, roofs, exterior walls, exterior windows, doors, fire escapes, chimneys, chase ways, sub-floors, utility lines and conduits, roof drains and all joists, rafters, structural and load bearing portions of the building in which such additional Unit is located are limited common elements assigned to such Unit; and
- vii. the portions of the Property shown on the Plat and Plans or as described as Limited Common Elements pursuant to Section 1602-102(2) and (4) of the Condominium Act.

C. Limited Common Elements to be Subsequently Allocated by Declarant. There is no real estate which may be subsequently allocated as Limited Common Elements, other than Limited Common Elements specified in Section 1602-102(2)-(4) of the Act or the Limited Common Elements already allocated, except that Declarant reserves the right to create additional Limited Common Elements as described herein. If Declarant creates Unit 3 and/or Unit 4 in the Condominium pursuant to the Development Rights reserved herein by Declarant, the portions of the new Building(s) that are not within the Unit boundaries, as defined herein, and that are not Common Elements, as defined herein, shall be Limited Common Elements allocated to the adjoining Unit. In addition, Declarant may allocate to Unit 3 or Unit 4, as Limited Common Elements, parking lot spaces shown on the Plats or Plans and not already allocated to specific units and such parking spaces are hereafter called "Assignable Limited Common Elements". Pursuant to Section 1602-105(a)(7) of the Act, the Declarant reserves the exclusive right to assign each Assignable Limited Common

Element as a Limited Common Element for the exclusive use of the respective Unit Owner to whose Units such Assignable Limited Common Elements shall be assigned and become appurtenant. The Declarant may, without consent or action by the Unit Owners or any Mortgagee, allocate each Assignable Limited Common Element as a Limited Common Element pursuant to the provisions of the Section 1602-108 of the Act by causing appropriate amendments to this Declaration or to the Plats or Plans to be executed and recorded by Declarant, which amendments may be set forth in any Unit Deed to a Purchaser. The Declarant shall evidence the right to such an allocation either in the deed to the Unit to which such Assignable Limited Common Element shall appertain as a Limited Common Element or in writing recorded in the Cumberland County Registry of Deeds. After all Units have been sold by Declarant, the Association shall have the right to use or to assign any unallocated Assignable Limited Common Element pursuant to the provisions of Section 1602-108 of the Act.

D. Association Rights to Reserve Common Elements. "Reserved Common Elements" are those parts of the Common Elements (including the parking rights over the Secondary Parking Easement Area described in Schedule A and the "chapel") which the Executive Board may designate from time to time for use by less than all Unit Owners or by non-Unit Owners for specified periods of time. The Executive Board of the Association shall have the power in its discretion from time to time to grant revocable licenses in designated Reserved Common Elements and to establish a reasonable charge for the use and maintenance thereof. Such designation by the Board shall not be construed as a sale or disposition of the Common Elements.

E. Common Element Interest. The fraction of undivided interest in the Common Elements appurtenant to each Unit (the "Common Element Interest") is listed and allocated to each Unit in Schedule B. The Common Element Interest appurtenant to each Unit is a fraction determined as follows: The formula or method used to establish those allocations of votes and common expense liability and interest is as follows: The percentage of each Unit's Common Element Interest and Common Expense Liability is allocated by a formula represented by a fraction wherein the numerator is the number of interior square feet of each Unit located within a Building measured at the boundaries with the Common Element as shown on the Plans, and the denominator is the total such square footage of all the Units subject to rounding in order to permit ease of administration, provided however that the percentage stated in Exhibit B (as it may be amended) shall control in any event. Such square footage measurements may differ from leasing square footage calculations.

In the event a Unit is subsequently divided, a Unit is converted to Common Elements or is withdrawn, or Common Elements are converted to Units or if additional Units are added to the Condominium, then the percentages of all Units shall be allocated and re-determined based on such resulting interior floor areas of the Units.

F. Common Elements to Remain Undivided. The Common Element Interest of a Unit shall be inseparable from each Unit, and any conveyance, lease, devise or other disposition or mortgage or other encumbrance of any Unit shall extend to and include the Common Element Interest, whether or not expressly referred to in the instrument effecting such transfer. Except as otherwise provided by law or this Declaration, the Common Element Interests and the fee titles to the respective Units conveyed therewith shall not be separately conveyed, transferred, alienated or encumbered and each of said Common Element Interests shall be deemed to be conveyed, transferred, alienated or encumbered with its respective Unit notwithstanding that the description in the instrument of conveyance, transfer, alienation or encumbrance may refer only to the fee title to the Unit.

G. Partition or Division of Common Elements. The Common Elements shall remain undivided and no action for partition or division of any part thereof shall be permitted, unless otherwise provided by law and permitted by this Declaration.

H. Amendment of Interest in Common Elements. Except with respect to the subdivision or conversion of Units as provided in Article III(D), or as otherwise provided in the Act, the Common Element Interest appurtenant to each Unit shall have a permanent character, shall be inseparable from each Unit and shall not be altered or changed except by the recording of an amendment to this Declaration, duly executed by all of the Unit Owners and all of the holders of record of any first Mortgage liens upon the Units.

I. Use of Common Elements. Except as their use may otherwise be limited by this Declaration or the By-Laws or otherwise by the Executive Board pursuant to its powers, each Unit Owner, tenant and occupant of a Unit, and the family members and guests of such Unit Owner, tenant and occupant, may use the Common Elements in common with all other Unit Owners and tenants or occupants of other Units, and their respective family members and guests, in accordance with the purposes for which they are intended without hindering or encroaching upon the lawful rights of the other Unit Owners, upon the following terms:

(1) The parking spaces are provided for the parking of private motor vehicles and shall not be used for the parking of commercial vehicles, trailers, motor homes, or trucks with a gross weight of over 6,000 pounds except with the prior written approval of the Executive Board. Parking of permitted motor vehicles by Unit Owners and guests shall be only in any Limited Common Elements or other areas designated as spaces for parking. No unattended vehicles shall at any time be left in such a manner as to impede the passage of traffic or to impair access to parking areas. Parking areas and Common Elements shall at all times be kept free of unreasonable accumulations of debris or rubbish of any kind and no junk or derelict vehicle or other vehicle on which current registration plates are not displayed shall be kept upon any of the Common Elements. Vehicle repairs other than ordinary light maintenance are not permitted on the Property.

(2) Except for such signs as may be posted by the Declarant for promotional or marketing purposes, no signs of any character shall be erected, posted or displayed upon, in, from or about any Unit or Common Element without the prior written approval of the Executive Board. The foregoing provisions of this subparagraph shall not apply to a Mortgagee in possession of a Unit as a result of foreclosure, judicial sale or a proceeding in lieu of foreclosure.

(3) No Unit Owner shall obstruct any of the Common Elements nor shall any Unit Owner place or cause or permit anything to be placed on or in any of the Common Elements without the approval of the Board. Nothing shall be altered or constructed in or removed from the Common Elements except with the prior written consent of the Executive Board. The Common Elements shall be kept clean and free of debris.

(4) The Executive Board, the Association, any Unit Owner and the Declarant shall not be considered a bailee, however, of any personal property stored on the Common Elements (including vehicles parked on the Common Elements), whether or not exclusive possession of the particular area is given to a Unit Owner for parking purposes, and shall not be responsible for the security of such personal property or for any loss or damage thereto, whether or not due to negligence, except to the extent covered by insurance in excess of any applicable deductible.

J. Alteration to Common Elements by Unit Owner. A Unit Owner may make improvements and alterations to the interior of his Unit but no Unit Owner may make any improvements or alterations or do any work whatsoever which would impair the structural integrity or mechanical systems of the Buildings, lessen the support of any portion of the Condominium, or jeopardize the soundness or safety of the Property. No Unit Owner shall impair any easement or hereditament therein without the unanimous consent of the Unit Owners affected thereby. No Unit Owner shall alter any of the Common Elements or paint or otherwise change the appearance of the Common Elements (including the Limited Common Elements) or

paint or otherwise change the exterior appearance of his Unit or any other portion of the Condominium without the prior written approval of the Association acting by the Executive Board, which approval will not be unreasonably withheld. Subject to this Declaration, the Bylaws and the Rules and Regulations of the Association as amended from time to time, a Unit Owner may make nonstructural improvements and alterations within the interior of the Unit in compliance with all applicable governmental requirements and in a good and workmanlike manner, but using reasonable efforts to mitigate disturbance to other Units, even if increased costs result. Any expenses of Americans with Disabilities Act, Maine Human Rights Act, life safety code, building code or other governmental compliance required as a result of such improvements shall be borne by the Unit Owner, even if the required improvements are to be made to the Common Elements but such work shall be subject to approval by the Board of Directors.

The Association shall have the right to require that: (i) copies of the plans and specifications and evidence of compliance with all governmental requirements be submitted to the Board of Directors prior to commencing any work within the interior of the Unit and (ii) to approve all work that takes place in or affects Common Elements upon such terms and conditions as the Board may reasonably require, including without limitation the submission of plans, specifications and permits, evidence of insurance for all contractors, peer review of plans and specifications performed by professionals engaged the Board and the reasonable mitigation of the impact of such construction on other occupants of the Property. The Board may regulate and grant temporary licenses for construction parking, dumpsters and storage of construction materials and waste and other similar activities on the Property and adjacent public areas.

No Unit Owner may make any improvements or alterations or do any work whatsoever which would materially impair the structural integrity or mechanical systems or the walls separating Units, impair life safety or sprinkler systems of the building, lessen the support of any portion of the Condominium, or jeopardize the soundness, noise control components or safety of the Property, all without prior Board consent. All work shall reasonably mitigate any disturbance on other occupants of the Property even if additional costs would result.

All Unit Owner work shall be completed promptly and in a good and workmanlike manner and shall be performed in such a manner that no mechanics, materialmen or other similar liens shall attach to the Property. No Unit Owner shall permit, suffer or authorize any such liens or other claims to be asserted against the Association, other Units or the Common Elements, other than the allocated interest in the Common Elements appurtenant to a Unit. At the completion of all work each Unit Owner shall obtain waivers of mechanics and materialmen's liens from all persons performing work on or furnishing material and upon request provide the Association with copies.

No Unit Owner shall alter any of the Common Elements or paint or otherwise change the appearance of the Common Elements (including without limitation the Limited Common Elements, except for rights to alter Limited Common Element signage as provided in this Declaration) or paint or otherwise change the exterior appearance of the Unit in violation of this Declaration (including, but not limited to, signage or the exterior surfaces of doors or windows leading to a Common Element or a Limited Common Element) or any other portion of the Condominium, without first obtaining: (i) the prior written approval of the Board of Directors of the Association, which shall not be unreasonably withheld, but the applicant shall comply with such standards of general application as may then be established in the Rules and Regulations; and no such approval is required for improvements made pursuant to the exercise of Special Declarant and Development Rights or to change signage located in signage Limited Common Areas, (ii) all required approvals from the City of Portland and the Maine Department of Public Safety including any approvals required under the City of Portland's Historic Preservation Ordinance, if applicable, and Building-Life Safety Codes.

K. Limited Common Elements and Expense. The Association shall maintain, repair and replace all Limited Common Elements except as may otherwise be provided in this Declaration and shall assess except

as otherwise provided herein as a Common Expense the Common Expenses associated with the maintenance, repair or replacement of such Limited Common Elements. The Association shall also have the right to assess an individual Unit for Common Expenses associated with said purposes applicable to such Unit if the Common Expenses shall be incurred due to the negligence, neglect or misconduct of the Owner of such Unit. Maintenance and repair of any shared mechanical equipment will be assessed as a Limited Common Expense against the unit or units benefited.

L. Maintenance of Common Elements. The Association shall be responsible for the maintenance, repair and replacement (unless, in the opinion of the Executive Board such expense was necessitated by the negligence, misuse or neglect of a Unit Owner) of all of the Common Elements (including the Limited Common Elements) whether located inside or outside of the Units, the cost of which shall be charged to the Unit Owners as a Common Expense except as otherwise provided in Article IV(K). Except as otherwise provided in this paragraph, the Association shall be responsible for the maintenance (including but not limited to (i) minimum annual and as needed inspection and maintenance of all drainage facilities; (ii) snow and ice removal; (iii) repair and replacement (unless, such expense was necessitated by the negligence, misuse or neglect of a Unit Owner)) of all of the Common Elements whether located inside or outside of the Units, the cost of which shall be charged to the Unit Owners as a Common Expense. The maintenance, repair and replacement of Common Elements located within a Unit, or for which the Unit Owner is otherwise responsible, to the extent required for the functioning of or for connecting utilities to the Property and Units shall be furnished by the Association as part of the Common Expenses except as provided in Article IV(J) and/or in Article VI(B). The maintenance, repair and replacement of Common Elements located within a Unit, or for which the Unit Owner is otherwise responsible, to the extent required for the functioning of or for connecting utilities to the Property and Units shall be furnished by the Association as part of the Common Expenses except as provided in Article IV(K).

M. Maintenance of Unit. Each Unit Owner shall keep and maintain his Unit and its equipment, appliances and appurtenances in good order, condition and repair and in clean and sanitary condition, whether such maintenance and repair shall be structural or nonstructural, ordinary or extraordinary, and shall do all redecorating, painting and varnishing which may at any time be necessary to maintain the good appearance and condition of his Unit. No Unit Owner shall sweep or throw, or permit to be swept or thrown, from his Unit any dirt, debris or other substance. In addition, each unit Owner shall be responsible for all damage to any other Units or to the Common Elements resulting from his failure or negligence to make any of the repairs required by this Article. Each Unit Owner shall perform his responsibility in such manner as shall not unreasonably disturb or interfere with the other Unit Owners. Each Unit Owner shall promptly report to the Executive Board or the managing agent any defect or need for repairs for which the Association is responsible.

N. Liability of Owner. Each Unit Owner shall be liable, and the Association shall have a lien against his Unit for the expense of maintenance, repair or replacement of any damage to the Common Elements or to another Unit caused by such Unit Owner's act, neglect or carelessness or by that of any member of such Unit Owner's family, or such Unit Owner's guest or tenants, or their pets. Such liability shall include any increase in fire insurance rates occasioned by use, misuse, occupancy, or abandonment of any Unit or its appurtenances. Nothing herein contained, however, shall be construed so as to modify any waiver by insurance companies of rights of subrogation against such Unit Owner.

O. Maintenance, Owner Self-Help. If the Association fails to comply with its obligation to maintain, replace or repair any part of the Condominium as specified in this Declaration, within a reasonable time after the owner of a Unit requests that such required maintenance, replacement or repair be performed by the Association, then such Unit owner shall have the right to perform the required maintenance, replacement or repair, provided that no work done by a Unit Owner shall impair or jeopardize the structural integrity of the Building or any part of the Condominium. Any Unit Owner may at any time

commission an engineer's report regarding the necessity or advisability of such maintenance, replacement or repair, and may present that report to the Association. If the Unit Owner has performed such maintenance, replacement or repair pursuant to this paragraph, the Unit Owner may seek reimbursement from the Association as a Common Expense for any portion of any expense so incurred by the Unit Owner, the cost of which would not have been allocated to such Unit Owner. If, after a reasonable time, a Unit Owner is not satisfied with or disagrees with the Association's response, such Unit Owner may submit the dispute, including, without limitation, any request for reimbursement of expenses, if applicable, to arbitration in accordance with the terms of this Article VII(B). The expenses of such arbitration shall be a Common Expense. If the arbitrator finds in favor of the Unit Owner that commissioned the engineering report, the expense of such report shall be a Common Expense. Otherwise, such expense shall be borne by said Unit Owner.

ARTICLE V: SPECIAL DECLARANT RIGHTS

A. Development Rights. Declarant shall have and hereby reserves the Development Rights: (i) to create up to 2 additional or new units on the Property (and/or on property added to the Condominium) and associated Common Elements and Limited Common Elements, such Units to be located on the Property described in Schedule A to the Declaration and with Units 3 and 4 to be substantially as shown on the Plats and Plans, with any changes thereto as may be approved by the City of Portland Planning Board; (ii) to add all or any portion of Lot 1, Lot 2 and/or Lot 4 as shown on said Plan to the Condominium; and (iii) to create Common Elements and/or Limited Common Elements (including the parking spaces and drives as shown on the Plats and Plans, as the same may be modified from time to time with the approval of the Portland Planning Board, and shared mechanical equipment and rooms) in connection with the additional or new units described hereinabove, with the Units, Common Elements and Limited Common Elements for Units 3 and 4 to be substantially as shown on the Plats and Plan with any changes thereto as may be approved by the City of Portland Planning Board and the related additional parking spaces, driveways and shared mechanical equipment and rooms to be substantially as may be hereafter approved by the Portland Planning Board. The other Units may be declared and built as separate phases, not necessarily in numerical order. The Development Rights may be declaration and built as separate phases, not necessarily in numerical order, and such Development Rights may be exercised with respect to different parcels of the real estate at different times, and no assurances are made in regard to the fixing of the boundaries of those portions and regulating the order in which those portion may be subjected to the exercise of each Development Right, and if any Development Right is exercised in any portion of the real estate subject to that Development Right, that Development Right need not be exercised in all or in any other portion of the remainder of the real estate. Any improvements to future Units, Limited Common Elements and Common Elements created under this Section A including the Buildings, appurtenances, and improvement need not be consistent with the initial Buildings or the initial architectural style, layout and principal materials but shall be constructed substantially consistent with all approvals of the Portland Planning Board.

To exercise any rights under this Section, the Declarant shall prepare, execute and record an amendment to the Declaration pursuant to the Condominium Act, which amendment may include a Condominium Plat and Plans as required by the Condominium Act to the extent not previously recorded and the establishment of said cross easements. Said amendment shall become effective upon recording, without need for the consent of any other person except as otherwise specifically provided herein.

Upon the alteration, conversion or addition of such Units to the Condominium, the Allocated Interests of all Units shall be reallocated in accordance with this Declaration and Exhibit B shall be amended accordingly. Upon the addition of a Unit, the Declarant may create and assign additional Limited Common Elements appurtenant to a Unit.

The exercise of Development Rights shall be subject to the following restrictions: (a) no changes shall be

made by the Declarant or any other person, unless any applicable approvals are obtained pursuant to the City of Portland's and State of Maine's statutes, laws, ordinances and rules to the extent applicable; and (b) any construction shall be at the sole expense of the Declarant and such construction shall reasonably minimize any disruption to the other Units during business hours in a manner consistent with the exercise of such rights, even if extra costs would result.

B. Condominium Association and Executive Board Access. Declarant reserves in favor of itself, the Association and its Executive Board, officers, agents and employees, any managing agent and every other person authorized by the Executive Board the irrevocable right and easement to have access to each Unit as provided in Section 1603-107(a) of the Act as may be necessary for the inspection, maintenance, repair or replacement of any of the Common Elements and Limited Common Elements therein or accessible therefrom or the making of any addition or improvements thereto; or to make repairs to any Unit, the Common Elements or the Limited Common Elements if such repairs are reasonably necessary for the public safety or to prevent damage to any other Unit or Units, the Common Elements or the Limited Common Elements; or to abate any violation of law, orders, rules or regulations of the Association or of any governmental authorities having jurisdiction thereof. In case of an emergency, such right of entry shall be immediate whether or not the Unit Owner is present at the time. The Association and its Executive Board shall have the right to grant to third parties permits, licenses and easements over and through the Common Elements for utilities and other purposes reasonably necessary or useful for the proper maintenance and operation of the Condominium.

C. Declarant's Easement for Marketing. The Declarant reserves the right with respect to its marketing of Units to use the Common Elements and Limited Common Elements for the ingress and egress of itself, its officers, employees, agents, contractors and subcontractors and for prospective purchasers of Units, including the right of such prospective purchasers to park in parking spaces. The Declarant also reserves the right to use any Units owned or leased by the Declarant as models, management offices, sales offices for this and other projects or customer service offices. The Declarant reserves the right to relocate the same from time to time within the Property; upon relocation, the furnishings thereof may be removed. The Declarant further reserves the right to maintain on the Property such advertising signs and lighting as may comply with applicable governmental regulations, which may be placed in any location on the Property and may be relocated or removed, all at the sole discretion of the Declarant. The Declarant shall have the right to restrict the use of certain Common Element parking spaces to sales purposes and to use such spaces for sales purposes. Further, the Declarant shall have the right to erect temporary offices on the Common Elements for models, sales, management, customer service and similar purposes. This easement shall continue until the Declarant has conveyed all Units to Purchasers.

D. Declarant's Easements for Construction. The Declarant reserves the easement, right and privilege without let or hindrance with respect to the creation of the Units, Common Elements, Limited Common Elements, the Development Rights specified in Paragraph A hereinabove and other improvements of the Condominium, to go upon any and all of the Property except for Units conveyed to Purchaser for purposes of construction, reconstruction, maintenance, repair, renovation, replacement, improvement or correction of the Units and Common Elements and for completion of the improvements indicated on the Plats and Plans. Furthermore, the Declarant reserves an easement in the Units and Common Elements pursuant to Section 1602-116 of the Act for the purpose of discharging Declarant's obligations and exercising the Special Declarant rights reserved pursuant to this Declaration. These easements shall continue until all Units in the Condominium are conveyed by Declarant.

E. Declarant's Right to Connect With Utilities. The Declarant further reserves an easement to connect with and make use of utility lines, wires, pipes and conduits located on the Property for construction purposes on the Property, provided that Declarant shall be responsible for the cost of service so used, and to use the Common Elements for ingress and egress and construction activities and for the storage of

construction materials and equipment used in the completion of the Units and Common Elements. This easement shall continue until the Declarant has conveyed all Units.

F. Declarant's Right to Grant Easements. The Declarant shall have the right, until the Declarant has conveyed all Units to Purchasers, to grant and reserve easements and rights of way through, under, over and across the Property for construction purposes, and for the installation, maintenance and inspection of the liens and appurtenances for public or private water, sewer, drainage, gas, electricity, telephone and other utilities. The Units and Common Elements shall be, and are hereby, made subject to easements in favor of the Declarant, appropriate utility and service companies and governmental agencies or authorities for such utility and service lines and equipment as may be necessary or desirable to serve any portion of the Property. The easements created in this Paragraph shall include, without limitation, rights of Declarant, or the providing utility or service company, or governmental agency or authority to install, lay, maintain, repair, relocate and replace gas lines, pipes and conduits, water mains and pipes, sewer and drain lines, elevators, telephone wires and equipment, air conditioning, heating systems, ventilation systems, electric wires, conduits and equipment and ducts and vents over, under, through, along and on the Units and Common Elements.

G. Alteration of Common Elements by Declarant. The Declarant reserves the right (but shall have no obligation) to modify, alter, remove or improve defective, obsolete or nonfunctional portions of the Common Elements, including without limitation any equipment, fixtures and appurtenances when in the Declarant's judgment it is necessary or desirable to do so, until all Units have been conveyed to Purchasers.

H. Transfer of Special Declarant Rights; Termination and Surrender. Declarant reserves the right to transfer from time to time to any one or more transferees any or all reserved Special Declarant Rights in accordance with Section 1603-104 of the Act. Notwithstanding any other provisions in this Declaration, this Article may not be amended without the prior written consent of the Declarant. Notwithstanding the foregoing, Declarant may surrender or terminate any rights reserved under this Article at any time by recording an instrument so providing in the Cumberland County Registry of Deeds.

I. Time. The Development Rights and Special Declarant Rights may be exercised at any time within 50 years after the date of this Declaration.

ARTICLE VI: ASSESSMENTS FOR COMMON EXPENSES

A. Common Expense Liability. Except as provided in Article IV(K), Article IV(L), and Article VI(B), the Common Expense Liability (which is the allocation to each Unit or Unit Owner of the respective liability of each Unit Owner for Common Expenses) allocated to each Unit is a fraction of the Common Expenses assessed against all of the Units that is equal to the Common Element Interest appurtenant to the respective Unit as set forth in Schedule B.

B. Allocation of Assessments of Common Expenses. The total amount of Common Expenses shall be assessed against the Units in the following proportions: (1) the Common Expenses that are not Limited Common Expenses shall be assessed against all of the Units in proportion to the relative Common Expense Liabilities of all the Units; (2) the Limited Common Expenses shall be assessed solely against each Unit benefited except as otherwise provided in this Declaration; except as provided in Article IV(K) and Article IV(L), if a Limited Common Expense benefits more than a single Unit, that Limited Common Expense shall be assessed solely against each Unit benefited equally against the Units to which Limited Common Elements are assigned or appurtenant; (3) assessments to pay a judgment against the Association shall be made as a Limited Common Expense against the Units included in the Condominium at the time such judgment was entered; (4) any utilities which are or are made by Declarant to be separately metered shall be supplied by the public utility company serving the area directly to each Unit through a separate meter and

each Unit Owner shall be required to pay the bills for utilities consumed or used in his Unit; any utilities which are not separately metered shall be paid by the Executive Board as a Common Expense.

The Declarant shall not be liable for any assessments for any Units until after the later to occur of the first conveyance of a Unit to a third person other than an affiliate of the Declarant or the first Common Expense assessment by the Association. Assessments for Common Expenses shall commence on the first day of the first month following the date of the first conveyance of a Unit to a person other than the Declarant.

C. Payment Obligations. Each Unit Owner shall pay to the Association or its authorized representative on the first day of each month, or on such other date that the Association may determine in writing, one-twelfth of the Common Expenses including Limited Common Expenses assessed on an annual basis against his Unit in the proportions required in Paragraph B of this Article in accordance with the By-Laws and subject to Section 1603-103(c) of the Act. If for any reason the Association shall revise the annual budget of the Association in accordance with the By-Laws and subject to Section 1603-103(c) of the Act whereby the Common Expenses or any component thereof may be increased, thence commencing on the first day of the first month subsequent to the adoption of such revised budget each Unit Owner shall pay to the Association or its authorized representative one-twelfth of any such revised annual Common Expenses including Limited Common Expenses assessed against his Unit in the proportions required in Paragraph B of this Article.

D. Interest; Acceleration. In the event of a default by any Unit Owner in paying any sum assessed against his Unit which continues for a period in excess of thirty (30) days, interest at a rate of interest to be established annually by the Executive Board which shall not exceed the lower of the maximum interest rate allowed by law which may be charged by the Association at such time or eighteen percent per annum shall be imposed on the principal amount unpaid from the date when due until paid. If the Executive Board shall fail to set such rate, it shall be deemed to have been set at the rate of Eighteen Percent (18%) per annum. The Association shall have the right to establish and impose charges for late payment of assessments. In any case where an assessment against a Unit Owner is payable in installments, upon a default by such Unit Owner in the timely payment of any two consecutive installments, the maturity of the remaining total of the unpaid installments of such assessments may be accelerated at the option of the Executive Board, and the entire balance of the annual assessment may be declared due and payable in full by the service of notice to such effect upon the defaulting Unit Owner by the Executive Board or its representatives.

E. Lien for Assessments. The total annual assessment levied against each Unit for Common Expenses including Limited Common Expenses, revised Common Expenses including Limited Common Expenses, or any special assessment, and any other sums duly levied against the Unit pursuant to this Declaration, the By-Laws, or the Act and all interest thereon and charges for late payment thereof and legal fees and other costs of collection thereof shall constitute the personal liability of the Owner of the Unit so assessed and also shall, until fully paid, constitute a lien against the Unit in favor of the Association from the date upon which such assessment, special assessment or other sum such as interest becomes due as provided in Section 1603-116 of the Act. Such lien shall, with respect to annual assessments, be effective on the first day of each fiscal year of the Association as to the full amount of the annual assessment, and, as to special assessments and other sums duly levied, on the first day of the next month which begins more than ten (10) days after delivery to the Unit Owner of notice of such special assessment or levy. Such lien is prior to all other liens and encumbrances on a Unit except (a) liens and encumbrances recorded before the recordation of this Declaration, (b) a first Mortgage recorded before or after the date on which the assessment sought to be enforced becomes delinquent, and (c) liens for real estate taxes and other governmental assessments or charges against the Units; provided, however, that such lien is not subject to the provisions of 14 M.R.S.A. §4561 and 18-A M.R.S.A. §2-201, et seq., as they or their equivalents may be amended or modified from time to time.

F. Enforcement. The lien for assessments described in Paragraph E of this Article may be enforced and foreclosed by the Association in like manner as a mortgage on real estate as provided in Section 1603-116(a) of the Act or by any other means presently or hereafter provided by law or in equity. A suit to recover a money judgment for unpaid assessments, interests, penalties, and costs of collection may be maintained against the Unit Owner personally without foreclosing or waiving the lien securing such assessments and a foreclosure may be maintained notwithstanding the pendency of any suit to recover a money judgment. During the pendency of any such suit, the Unit Owner shall be required to pay a reasonable rental of the Unit for any period prior to the sale pursuant to any judgment or order of any Court having jurisdiction over such sale.

G. Exemption from Expenses by Waiver of Use of Common Elements or Unit Elements. No Unit Owner may exempt himself from Common Expense Liability with respect to the payment of assessments for Common Expenses by waiver of the enjoyment of the right to use any of the Common Elements or by abandonment of his Unit or otherwise. The obligation to pay assessments for Common Expenses is absolute and unconditional and shall not be subject to set-offs or counterclaims.

H. Reduction of Expenses. All receipts from payments, fees or charges for the use, rental, operation, or allocation as a Reserved Common Element, of any and all Common Elements shall be applied first to reduce the Common Expense relating to the use of that Common Element giving rise to such Common Expense and any excess thereof shall be applied to Common Expenses generally.

I. Surplus Funds. If at the end of any fiscal year any amounts accumulated from assessments for Common Expenses and income from the operation of the Common Elements to which such Common Expenses pertain shall exceed the amount required or actual Common Expenses and provision for Common Expenses and any payment of reserves for future Common Expenses, such excess shall be applied to the reserve fund unless credited by the Association to each Unit Owner in proportion to their respective Common Expense Liabilities to reduce until exhausted the next monthly installments due from Unit Owners. Similarly, any surplus funds of the Association not so applied to the reserve fund and remaining after payment of or provision for Limited Common Expenses after application to Common Expenses as provided in Paragraph H of this Article, shall be credited to the Owners of the Units giving rise to such Limited Common Expenses in the proportions provided in Paragraphs B and H of this Article to reduce until exhausted the next monthly installments of assessments for such respective Expenses due from such Unit Owners. Surplus funds shall not otherwise be paid or credited to Unit Owners.

J. Service Charges. The Association shall have the express power to separately charge a unit and the owner thereof for services rendered to that unit. Such charges shall be a lien on the unit with the same status as a lien for common expense assessment under this Declaration and By-Laws, which lien for service charges may be foreclosed in like manner as a mortgage on real estate. The recordation of this Declaration constitutes record notice of the lien. Service charges shall include without limitation: (1) if a Unit Owner, members of his family, guests or tenants request the Association to perform repair and maintenance work on his Unit or damages the Common Elements or fails to perform maintenance and repair work required, the expense thereof as determined by the Executive Board or its designee may be assessed as a Service Charge; (2) fees, if any, which may be established by the Executive Board for use and maintenance of water, sewer, heat and/or other utility services; and (3) insurance premiums on permanent improvements to Units installed by Unit Owners and insured by the request of the Unit Owner with the Association's hazard insurance carrier.

K. Liability. In a voluntary conveyance, the Purchaser of a Unit shall be jointly and severally liable with the Seller for all unpaid common charges, assessments, service charges, interest and costs of collection up to the time of the grant or conveyance, although the Purchaser shall not be prevented from exercising any

right to recover from the Seller the amounts paid for those assessments and common charges. A Purchaser or prospective purchaser under a purchase and sale contract for a Unit may obtain, upon request and the payment of such fee as may be established from time to time by the Executive Board, a statement from the Association setting forth the amount of unpaid common charges, assessments and service charges, interest and costs of collection against the unit as of the date of grant or conveyance and such other items required by the Act. The Purchaser shall not be liable for, and the Unit conveyed shall not be subject to a lien for any unpaid amounts due from the Seller before the statement date in excess of the amount set forth in the statement except interest and costs of collection accrued thereafter.

ARTICLE VII: UNIT OWNERS ASSOCIATION

A. Owners Association and Bylaws. Each Unit Owner shall be a member of the Association, a non-profit corporation organized under the laws of the State of Maine known as 605 Stevens Avenue Condominium Association. Membership shall be appurtenant to the Units, and the transfer of title to a Unit shall automatically transfer the membership appurtenant to that Unit to the transferee or transferees. A mortgage, however, shall not transfer membership until foreclosure or sale in lieu of foreclosure. The Bylaws of the Association, which, except as otherwise provided for herein govern the operation and management of the Association, are attached hereto as Schedule C.

B. Disputes. The Association and any aggrieved Unit Owner shall have an appropriate right of action, together with any and all appropriate remedies under the Act, in law or equity, against any of the Unit owners or the Association for failure to comply with any provision of this Declaration or with any decision of the Association made pursuant thereto. The Executive Board shall have the authority to seek a declaratory judgment or other appropriate judicial relief in order to assist it in carrying out its responsibilities under this Article, except as hereinafter provided. Notwithstanding the rights of action described in the preceding two sentences, any dispute resulting in a deadlock among the Executive Board members or described in Article III or Article IV hereof shall be submitted to arbitration in accordance with the procedures set forth herein. In such cases, all of the members of the Executive Board shall, within thirty days after such deadlock occurs, attempt to agree upon a single arbitrator to settle the dispute. If the members are unable to agree on a single arbitrator within such thirty-day period, then the dispute shall be settled by a single arbitrator in accordance with the rules of the American Arbitration Association. The expenses of such arbitration shall be a Common Expense. All Unit Owners and the Association shall be bound by the arbitration decision, including, without limitation, any determination regarding the entitlement of a Unit owner to reimbursement of expenses incurred pursuant to Article IV(O). No other right of action shall arise with respect to a dispute arising out of an Executive Board deadlock or a dispute over maintenance, replacement or repair of all or any part of the Common Elements.

ARTICLE VIII: LIMITATION OF LIABILITY

A. Limited Liability of the Executive Board. No member of the Executive Board or officer of the Association, except to the extent of his or her willful misconduct or gross negligence: (1) shall be liable for the failure of any service to be obtained by the Executive Board and paid for by the Association, or for injury or damage to persons or property caused by the elements or by another Unit Owner or person on the Property, or resulting from electricity, gas, water, rain, dust or sand which may leak or flow from the outside or from any part of the Buildings, or from any of its pipes, drains, conduits, appliances, or equipment, or from any other place; (2) shall be liable to the Unit Owners as result of the performance of the Executive Board members' duties for any mistake of judgment, negligence or otherwise; (3) shall have any personal liability in contract to a Unit Owner or any other person or entity under any agreement, check, contract, deed, lease, mortgage, instrument or transaction entered into by them on behalf of the Executive Board or the Association in the performance of the Executive Board members' duties; (4) shall be liable to a Unit Owner, or such Unit Owner's tenants, employees, agents, customers or guests, for loss or damage

caused by theft of or damage to personal property left by guests in a Unit, or in or on the Common Elements or Limited Common Elements; (5) shall have any personal liability in tort to a Unit Owner or any other person or entity, direct or imputed, by virtue of acts performed by or for them; or (6) shall have any personal liability arising out of the use, misuse or condition of the Buildings, or which might in any other way be assessed against or imputed to the Executive Board members as a result of or by virtue of the performance of their duties.

B. Indemnification. Each member of the Executive Board, in his capacity as an Executive Board member, officer or both, shall be indemnified by the Association against all expenses and liabilities, including attorney's fees, reasonably incurred by or imposed upon him in connection with any proceeding in which he may become involved by reason of his being or having been a member and/or officer of the Executive Board, or any settlement of any such proceeding, whether or not he is an Executive Board member, officer or both at the time such expenses are incurred, except in such cases wherein such Executive Board member and/or officer is adjudged guilty of willful misconduct or gross negligence in the performance of his duties; provided that, in the event of a settlement, this indemnification shall apply only if and when the Executive Board (with the affected member abstaining if he is then an Executive Board member) approves such settlement and reimbursement as being in the best interests of the Association; and provided further that, indemnification hereunder with respect to any criminal action or proceeding is permitted only if such Executive Board member and/or officer had no reasonable cause to believe his conduct was unlawful. The indemnification by the Unit Owners set forth in this Paragraph shall be paid by the Association on behalf of the Unit Owners and shall constitute a Common Expense and shall be assessed and collectible as such. Such right of indemnification shall not be deemed exclusive of any other rights to which such Executive Board member and/or officer may be entitled as a matter of law or agreement or by vote of the Unit Owners or otherwise.

C. Defense of Claims. Complaints brought against the Association, the Executive Board or the officers, employees or agents thereof in their respective capacities as such, or the Condominium as a whole, shall be directed to the Executive Board of the Association, which shall promptly give written notice thereof to the Unit Owners and the Eligible Mortgage Holders and the Mortgagees of Units identified to the Association, and such complaints shall be defended by the Association. The Unit Owners shall have no right to participate in such defense other than through the Association.

ARTICLE IX: EMINENT DOMAIN

A. Entire Unit. If any Unit shall be taken or condemned by any authority having the power of eminent domain, or if part of a Unit is taken or condemned by any authority having the power of eminent domain leaving the Unit Owner with a remnant which may not practically or lawfully be used for any purpose permitted by this Declaration, the award for such taking or condemnation shall be paid to the Unit Owner as compensation for his Unit and its Allocated Interest in the Common Elements, whether or not any Common Elements are taken or condemned. Upon such taking or condemnation, unless the decree provides otherwise, that Unit's entire Allocated Interests shall be automatically reallocated to the remaining Units in proportion to the respective Allocated Interests of those Units prior to the taking or condemnation, and the Association shall promptly prepare, execute and record as a Common Expense an amendment to this declaration reflecting such reallocation. Any remnant of a Unit remaining after part of a Unit is taken or condemned under this Article IX(A) shall thereafter be a Common Element.

B. Part of Unit. Except as otherwise provided in Paragraph A, if part of a Unit is taken or condemned by any authority having the power of eminent domain, any award therefor shall be paid to the Owner of such Unit as compensation for the reduction in value of the Unit and its Allocated Interest in the Common Elements, whether or not any Common Elements are taken or condemned. After such part of a Unit is taken or condemned: (1) That Unit's Allocated Interests shall be reduced in proportion to the

reduction in relative value of the Unit as determined by the Executive Board; and (2) The portion of the Allocated Interests, Common Element Interest, Votes and Common Expense Liability which has been divested by virtue of the taking or condemnation from the partially-acquired Unit shall be automatically reallocated to such Unit and the remaining Units in proportion to the respective Allocated Interests appurtenant to each of the Units before the taking or condemnation, and the Association shall promptly prepare, execute and record as a Common Expense an amendment to this Declaration reflecting such reallocation, with the partially taken or condemned Unit participating in the reallocation on the basis of its reduced Allocated Interests.

C. Common Elements. If part of the Common Elements shall be taken or condemned by any authority having the power of eminent domain, the Association shall represent the Unit Owners in any condemnation proceedings or in negotiations, settlements and agreements with the condemning authority, and the portion of the award attributable to the Common Elements taken shall be paid to the Association for the use and benefit of the Unit Owners and their Mortgagees as their interests may appear. Each Unit Owner appoints the Association as attorney-in-fact for this purpose. Subject to the provisions of Article IX(D), the Association shall divide any portion of remaining Common Elements among the Unit Owners and their Mortgagees, in proportion to their respective interests in the Common Elements prior to such taking or condemnation, but the portion of the award attributable to the acquisition of any Limited Common Element shall be equally divided among the Owners of the Units to which such Limited Common Element was allocated at the time of such taking or condemnation. The Association shall promptly prepare, execute and record as a Common Expense an amendment to this Declaration reflecting such reallocation.

D. Decree, Prior Liens. The court decree shall be recorded. Notwithstanding anything to the contrary in this Article, lien holders on any Unit, Common Element or Limited Common Element, shall have a lien on any such awards in order of priority of their respective liens.

ARTICLE X: REPAIR AND RECONSTRUCTION AFTER FIRE OR OTHER CASUALTY

A. Required Repair and Reconstruction. In the event of damage to or destruction of all or any part of the Property as a result of fire or other casualty, the Executive Board on behalf of the Association shall promptly arrange for and supervise the prompt repair, replacement and restoration thereof (including any damaged Units, service fixtures, service machinery and other apparatus initially installed therein by the Declarant, but not including any other furniture, furnishings, fixtures, equipment or other personal property supplied or installed by the Unit Owners in the Units), substantially in accordance with this Declaration, Plats and Plans, the original elevation thereof and the original plans and specifications therefor unless (a) the Condominium is terminated, or (b) repair, replacement or restoration would be illegal under any state or local health, safety, land-use or environmental statute, code or ordinance, or (c) eighty percent (80%) of the Unit Owners vote not to repair, restore or replace the damaged or destroyed Property, and such decision is approved by every Owner of a Unit or Limited Common Element, which will not be repaired, replaced or restored, and by all Eligible Mortgage Holders of all Mortgages thereon.

B. Procedure for Reconstruction and Repair. If repair, replacement or restoration shall be required pursuant to Paragraph A of this Article: (1) Cost Estimates: The Executive Board shall promptly obtain reliable and detailed estimates of the cost of repairing and restoring such portion (including any damaged Units, fixtures, service machinery and other apparatus initially installed by Declarant, but not including any other furniture, furnishings, fixtures or equipment installed by the Unit Owner in the Unit) substantially in accordance with this Declaration, the Plats and Plans, the original elevation thereof and original building plans and specifications therefor unless other action or repair or replacement is approved by at least 80% of the Unit Owners and 51% of the Eligible Mortgage Holders; such costs may also include professional fees and premiums for such bonds as the Insurance Trustee may determine to be necessary; (2) Assessments: If the net proceeds of insurance, if any, are not sufficient to defray such estimated costs of reconstruction,

repair and replacement, or if upon completion of reconstruction and repair the funds for the payment of the costs thereof are insufficient, the amount necessary to complete such reconstruction and repair may be obtained from the appropriate reserve for replacement funds, and any such costs in excess of insurance proceeds and reserves shall be deemed a Common Expense and a special assessment therefor shall be levied by the Association; and (3) Construction Fund and Disbursement: The proceeds on insurance collected on account of the casualty, and the sums received by the Association from collections of assessments against Unit Owners pursuant to Paragraph B(2) of this Article on account of such casualty, shall constitute a construction fund which shall be held in trust by the Insurance Trustee or Association as provided in this Declaration and disbursed in payment of the costs of reconstruction and repair in the following manner: (a) if the estimated cost of reconstruction and repair is less than Two Hundred Thousand (\$200,000.00) Dollars, then the construction fund shall be disbursed in appropriate progress payments, or upon order of the Executive Board; provided, however, that upon request of fifty percent (50%) of the Eligible Mortgage Holders (based upon one vote for each mortgage held) such funds shall be disbursed pursuant to subparagraph B(3)(b); (b) if the estimated cost of reconstruction and repair is Two Hundred Thousand (\$200,000.00) Dollars or more, then the construction fund shall be disbursed in payment of such costs upon approval of an architect qualified to practice in the State of Maine employed by the Association (the "Architect") or Insurance Trustee to supervise such work and approved by such fifty percent (50%) of the Eligible Mortgage Holders, payment to be made from time to time as the work progresses; the Architect shall be required to furnish a certificate giving a brief description of the services and materials furnished by various contractors, subcontractors, materialmen, the architect and other persons who have rendered services or furnished materials in connection with the work stating that: (i) the sums requested by them in payment are justly due and owing and that such sums do not exceed the value of the services and materials furnished; (ii) there is no other outstanding indebtedness known to such Architect for the services and materials described; (iii) the cost as estimated by such Architect for the work remaining to be done subsequent to the date of such certificate does not exceed the amount of the construction fund remaining after payment of the sum so requested; and (c) when the damage is to both Common Elements and Units, the insurance proceeds shall be applied first to the cost of repairing the Common Elements and thereafter to the cost of repairing the Units; and (d) the first monies disbursed in payment of the cost of reconstruction and repair shall be from any insurance proceeds and, if there is a balance in the construction fund after the payment of all of the costs of the reconstruction and repair for which the fund is established, such balance shall be distributed among all Unit Owners, Mortgage holders and lien holders, as their respective insurable interests may appear, in proportion to their respective Common Element Interests or the Common Element Interests to which their respective Mortgages are subject.

C. Damage or Destruction; No Repair or Replacement. If the entire Condominium is not repaired or replaced: (1) the insurance proceeds attributable to the damaged Common Elements shall be used to restore the damaged areas of the Common Elements to a condition compatible with the remainder of the Condominium as determined by the Executive Board or Architect; (2) the insurance proceeds attributable to Units and Limited Common Elements which are not rebuilt shall be distributed to the Owners and Mortgagees of those Units as their insurable interests appear and the Owners and Mortgagees of the Units to which those Limited Common Elements were assignable or allocated, as their insurable interests may appear; and (3) the remainder of the proceeds shall be distributed to all the Unit Owners and Mortgagees, as their insurable interest may appear, in proportion to their respective Common Element Interests or the Common Element Interests to which their respective Mortgagees are subject.

If the Unit Owners and their Mortgagees vote not to rebuild any unit, that Unit's entire Allocated Interests shall be automatically reallocated upon said vote as if the Unit had been condemned as provided in Article IX of this Declaration and the Association shall prepare, execute and record an amendment to this Declaration reflecting the reallocations. Notwithstanding any provisions of this Article to the contrary, Section 1602-118 of the Act governs the distribution of insurance proceeds if the Condominium is terminated.

ARTICLE XI: INSURANCE

A. General. No later than the date of the first conveyance of a Unit to a person other than the Declarant, the Association, shall obtain and maintain as a Common Expense, the policies of insurance described below to the extent such policies shall be reasonably available. If such insurance is not maintained, then the Association shall give written notice thereof to the Unit Owners and the Eligible Mortgage Holders. To the extent that such insurance subsequently becomes unavailable, the Association shall obtain as a substitution the most comparable insurance available. The Board of Directors is hereby irrevocably appointed as attorney-in-fact for each Unit Owner and for each Mortgagee and Eligible Mortgage Holder and for each owner of any other interest in the Property, for purchasing and maintaining the insurance, for the collection and disposition of any insurance, including distribution pursuant to Section 1603-113(c) of the Condominium Act, for the negotiation of losses and execution of releases of liability, and for the execution of all documents, and performance of all other acts necessary to accomplish these purposes.

B. Property and Casualty Insurance for Units and Common Elements. The Association shall obtain and maintain in effect an "extended coverage" fire and casualty insurance policy covering the Units and Common Elements (including the Limited Common Elements) with vandalism, malicious mischief, windstorm, debris removal, cost of demolition and water damage endorsements, issued by an insurance company authorized to do business in the State of Maine, excluding the land, foundations and excavations and other similar items customarily excluded from property insurance policies, excluding risks customarily excluded from commercial property insurance policies as determined by the Board of Directors, and excluding furniture, furnishings, inventory, equipment and other personal property supplied or installed by Unit Owners. The policy shall cover the interests of and benefit as insureds the Association, the Board of Directors, and all Unit Owners and their Mortgagees as their insurable interests may appear.

The Association's blanket or master insurance policy shall be in an amount equal to one hundred percent (100%) of the then current fair market value of such insured Units and Common Elements (exclusive of the land, excavations, foundations and other similar items customarily excluded from such coverage), without deduction for depreciation, which coverage may be "replacement cost" coverage if the Board of Directors determines such coverage is reasonably available. Such insurance policy may, at the option of the Board of Directors, contain such deductible and exclusions as the Board of Directors shall reasonably deem appropriate but the deductible not to exceed the lesser of \$10,000 or one (1) percent of the policy's face amount, unless approved by a majority vote of the Owners.

Unless otherwise established under Rules and Regulations adopted by the Board of Directors from time to time, a Unit Owner shall pay the expense of repair of damage to its Unit, to the Common Elements or to another Unit if caused by the neglect of the Unit Owner in the amount of the Association's insurance deductible (or such greater amount as may be established by the Rules and Regulations adopted by the Board of Directors from time to time); the Association shall not be responsible to such Unit Owner for the costs of such repair or damage. In the event of a casualty affecting both the Common Elements and Unit(s) the Board of Directors may allocate responsibility for the insurance deductible among the Common Elements and Unit(s).

Notwithstanding the foregoing, each Unit Owner shall procure "builder's risk" insurance coverage on a Unit while the Unit is undergoing construction or significant repairs and renovations such that the Unit is not otherwise covered by the Association's policy, and the Association shall have no responsibility for any design error, faulty workmanship or defective construction carried on by or at the request of a Unit Owner

Since the Common Elements are believed to have been originally constructed a number of years ago, the Association is not required to carry casualty insurance for the replacement or repair of the Common

Elements to their exact prior state and the Board of Directors may limit the scope of insurance coverage to the market value of the Common Elements and limit repair or replacement to more modern materials and techniques based on available casualty insurance proceeds.

Such casualty insurance policy shall also include the following provisions:

(i) The following endorsements or their equivalent: (a) "no control," meaning that coverage shall not be prejudiced by any act or neglect of any occupant or Unit Owner or their agents, when such act or neglect is not within the control of the insured, or the Unit Owners collectively, nor by any failure of the insured, or the Unit Owners collectively, to comply with any warranty or condition with regard to any portion of the Condominium over which the insured, or the Unit Owners collectively, have no control; (b) "Construction Code Endorsement" or "increased cost of construction," (c) "agreed amount" or elimination of co-insurance clause; and (d) "inflation guard," when it can be obtained.

(ii) That any "no other insurance" clause shall expressly exclude individual Unit Owners' policies from its operation, so that the physical damage policy purchased by the Board of Directors shall be deemed primary coverage and any individual Unit Owners' policies shall be deemed excess coverage, and in no event shall the insurance coverage obtained and maintained by the Board of Directors hereunder provide for or be brought into contribution with insurance purchased by individual Unit Owners or their Mortgagees;

(iii) The recognition of any Insurance Trust Agreement whereby the Board of Directors may designate in writing an Insurance Trustee to hold any insurance proceeds in trust for disbursement, as provided in Section C below; and

(iv) A standard "mortgagee clause" which shall: (a) provide that any reference to a mortgagee in such policy shall mean and include all holders of mortgages of any Unit, in their respective order and preference, whether or not named therein; (b) provide that such insurance as to the interest of any mortgagee shall not be invalidated by any act or neglect of the Association or owners or any persons under any of them; and (c) waive any provision invalidating such mortgagee clauses by reason of the failure of any mortgagee to notify the insurer of any hazardous use or vacancy, and requirement that the mortgagee pay any premium thereon, and any contribution clause.

C. Casualty Losses, Adjustment and Payment; Insurance Trustee. Any loss covered by the insurance policy described in Section B above shall be adjusted with the Association acting through its Board of Directors, but the insurance proceeds shall be payable to the Insurance Trustee designated for that purpose by the Board of Directors, if any, as provided in the Condominium Act and otherwise to the Association, and not to any Mortgagee.

The Insurance Trustee or the Association as applicable shall hold any insurance proceeds in trust for Unit Owners, Mortgagees and other lien holders as their interests may appear. The Board of Directors shall cause the Insurance Trustee or the Association to obtain a surety bond in 100% of the amount of the insurance proceeds for the faithful performance of the duties as insurance trustee before it shall be entitled to receive such proceeds. Subject to the provisions of this Article, the Bylaws and Section 1603-113(e) of the Condominium Act, the proceeds shall be disbursed first for the repair or restoration of the damage to the Common Elements. Unit Owners, Mortgagees and other lien holders are not entitled to receive payment of any portion of the proceeds, unless either (i) there is a surplus of proceeds after the damaged Units and Common Elements have been repaired or restored, or (ii) the decision has been made not to repair or restore the damage as provided in Section 1603-113(h) of the Condominium Act, or (iii) the Condominium is terminated in whole or part.

D. Liability Insurance. The Board of Directors shall obtain and maintain, as a Common Expense,

comprehensive general public liability insurance (including medical payments insurance) and property damage insurance in such limits as the Board may from time to time determine, insuring each Board of Directors member, the managing agent, each Unit Owner and the Declarant against any liability to the public or to the Unit Owners (and their invitees, agents and employees) covering all occurrences commonly insured against for death, bodily injury or property damage, arising out of the maintenance, ownership or use of the Common Elements, and for any legal liability resulting from suits or actions related to employment contracts to which the Association is a party. Such insurance shall be issued on a comprehensive liability basis and shall contain: (a) a cross liability endorsement, under which the rights of a named insured under the policy shall not be prejudiced with respect to his action against another named insured; (b) hired and non-owned vehicle coverage; (c) a "severability of interest" endorsement, which shall preclude the insurer from denying liability to a Unit Owner because of negligent acts of the Association or of another Unit Owner; and (d) a broad form liability extension endorsement including "personal injury," contractual liability, and other coverage commonly included in such broad form endorsement. The Board of Directors shall review such limits once each year, but in no event shall such insurance be less than two million dollars (\$2,000,000.00) covering all claims for bodily injury or property damage arising out of one occurrence.

E. Additional Required Provisions. All insurance policies required to be carried by the Association under this Article shall in addition contain the following provisions or features:

- i. The insurer waives any right to claim by way of subrogation against the Declarant, the Association, the Board of Directors, the managing agent or the Unit Owners, and their respective agents, employees, guests and, in the case of the Unit Owners, the members of their households;
- ii. The Declarant, so long as the Declarant shall own any Unit, shall be protected by all such policies as a Unit Owner.
- iii. Each Unit Owner is an insured person under the policy with respect to liability arising out of the ownership of an undivided interest in the Common Elements or membership in the Association;
- iv. The insurer waives its right to subrogation under the policy against any Unit Owner, its principles, managers, officers, employees or directors or members of his household;
- v. No act or omission by any Unit Owner, unless acting within the scope of his authority on behalf of the Association, will void the policy or be a condition to recovery under the policy; and
- vi. If at the time of a loss under the Association's policy, there is other insurance in the name of a Unit Owner covering the same risk covered by the policy, the Association's policy provides primary insurance.

F. Other Insurance. The Board of Directors shall obtain and maintain as a Common Expense:

(i) To the extent reasonably available, "directors' and officers'" liability insurance, to satisfy the indemnification obligations of the Association;

(ii) Workers' compensation insurance, if and to the extent necessary to meet the requirements of law;

(iii) Flood insurance if any or all of the Property is located in a special flood hazard area equal to the greater of 100% of the insurable value of the Property or the maximum coverage available under the appropriate national Flood Insurance Administration program. A blanket or master policy shall be obtained which includes a maximum deductible of one percent (1.00%) of the policy face amount; and

(iv) Such other insurance as the Board of Directors may determine, as may be requested by a majority of the Unit Owners (including, without limitation, "fidelity bond" or employee dishonesty coverage).

G. Memoranda and Cancellation. All insurers that shall issue an insurance policy or policies under this Article shall issue certificates or memoranda of insurance to the Association, and, upon request, to any Unit Owner or Mortgagee.

All such insurers issuing the policy may not cancel (including cancellation for non-payment of premium), substantially modify, or refuse to renew such policy or policies until twenty (20) days (10 days notice for non-payment of premiums) after notice of the proposed cancellation of non-renewal has been mailed to the Association, the managing agent, each Unit Owner and each Mortgagee to whom a certificate or memorandum of insurance has been issued at their respective last known addresses.

H. Separate Insurance Required to be Maintained by Owners. Each Unit Owner should obtain at its own expense, a condominium insurance policy for damage to its Unit not insured through the Association, and all personal property located in a Unit for its own benefit and for its personal liability, as well as upon any improvements made by him to its Unit under coverage normally called "improvements and betterments coverage;" provided, however, that no Unit Owner shall be entitled to exercise its right to acquire or maintain such insurance coverage which would decrease the amount which the Association on behalf of all Unit Owners may realize under any insurance policy maintained by the Association, or to cause any insurance coverage maintained by the Association to be brought into contribution with insurance coverage obtained by a Unit Owner.

All such Unit Owner's policies must contain waivers of subrogation in favor of the Association.

The Association shall have no responsibility for ascertaining whether or not the Unit Owner maintains such insurance in effect.

Each Unit Owner shall notify the Board of Directors in writing of all structural improvements made by the Unit Owner to his Unit; provided, however, that this sentence shall not be construed as an authorization to Unit Owners to make structural improvements to Units otherwise than in accordance with this Declaration, the Bylaws and Rules and Regulations promulgated by the Board of Directors. Any premium increase caused by such improvements may be assessed to the Owner of the improved Unit. No Unit Owner shall be entitled to receive insurance proceeds for the repair, restoration or rebuilding of any such improvements not so reported to the Board of Directors and not insured by the Association, unless otherwise consented to by vote of the Board of Directors.

At the request of the Association, any Unit Owner who obtains an individual insurance policy covering any portion of the Condominium shall file a certificate or copy of such individual policy or policies with the Board of Directors within thirty (30) days after the purchase of such insurance but failure to request or provide such certificate or insurance copies shall not impair any terms of this Declaration.

ARTICLE XII: ADDITIONAL RESTRICTIONS ON USE, OCCUPANCY OR ALIENATION

A. Use and Occupancy Restrictions. Each Unit shall be occupied and used subject to the following restrictions: (1) Unit 1 will be used solely for residential purposes; and (2) each Unit will be subject to reasonable rules and regulations as adopted by the Association from time to time. Nothing in this Declaration shall be construed to prohibit the Declarant from exercising any easements and rights reserved by the Declarant pursuant to this Declaration for any purposes including promotional, marketing or display purposes, from using any appropriate portion of the Common Elements for exercising these reserved rights,

settlement of sales of Units and for customer service purposes, or from leasing Units owned by Declarant as provided in this Declaration.

B. Leasing Restrictions. No Unit Owner shall lease a Unit other than on written form of lease requiring the lessee to comply with the Condominium Documents and rules and regulations of the Association. Each Unit Owner shall, promptly following the execution of any lease of a Unit, notify the Association in writing of the name of the tenant and the term of the lease and any options in the lease to renew, extend or purchase. The Declarant retains and reserves the right, without complying with the restrictions contained in the foregoing Paragraphs, to enter into leases with any persons for the occupancy of any of the Units owned by the Declarant during the period ending 30 years from the date of this Declaration.

C. Voluntary Resale of Units. The following provisions apply to the sales of Units by all Unit Owners other than the Declarant: No Unit Owner shall be liable for the payment of any part of the Common Expenses assessed against his Unit subsequent to the date of recordation of a bona fide conveyance in fee of such Unit by the Owner. In a voluntary transfer of a Unit, the grantee of the Unit shall be jointly and severally liable with the grantor for all unpaid assessments and special assessments for Common Expenses made by the Executive Board against the latter up to the time of the recordation of grantor's transfer, without prejudice to the grantee's right to recover from the grantor the amounts paid by the grantee therefor. However, any person who shall have entered into an agreement to purchase a Unit from a Unit Owner shall be entitled to a certificate from the Executive Board as provided by Section 1604-108(b) of the Act, and the grantee shall not be liable for, nor shall the Unit conveyed by subject to a lien for, any assessments or unpaid special assessments made by the Executive Board against the grantor for Common Expenses in excess of those disclosed on such certificate. All Unit Owners shall comply with Section 1604-108 of the Act. Except as provided in this Article, there are no other restrictions governing the voluntary transfer of a Unit.

D. Restriction on Demolition and Rehabilitation of Unit 2: Unit 2 (the Smith Wing) shall not be demolished within five years of the completion of the initial rehabilitation of Unit 1; and any work on the Unit 2 within 5 years of Unit 1 placement in service of the Unit 1 (Motherhouse) rehabilitation project must be performed in accordance with NPS standards for historic preservation to the extent required so that such rehabilitation shall not adversely affect historic tax credits arising from the rehabilitation of Unit 1.

E. Rules and Regulations. Each Unit, appurtenant Limited Common Elements and the Common Elements shall be subject to all restrictions contained in the Unit deed, this Declaration, the By-Laws of the Association, and any reasonable Rules and Regulations adopted by the Association from time to time, as amended from time to time.

ARTICLE XIII: APPLICABILITY; COMPLIANCE AND DEFAULT

A. Applicability. All present and future Owners and tenants, their guests, servants, agents and employees and any other person or persons that shall be permitted to use the Common Elements shall be subject to this Declaration, the By-Laws and to such rules and regulations as may be issued by the Executive Board of the Association from time to time to govern the conduct of its members and the use and occupancy of the Property. Ownership, rental or occupancy of any of the Units in the Condominium shall be conclusively deemed to mean that said Owner, tenant or occupant has accepted and ratified this Declaration, the By-Laws and the rules and regulations of the Association and will comply with them. The acceptance of a deed or conveyance (other than as security) or the entering into of a lease or the entering into of occupancy of any Unit (other than possession by a Mortgagee prior to either the completion of foreclosure or the acceptance of a deed to the Unit subject to the Mortgage held by such Mortgagee) shall signify that the provisions of this Declaration and the By-Laws, the rules and regulations of the Condominium and the decisions of the Executive Board are accepted and ratified by such Owner, tenant or

occupant, and all of such provisions shall be deemed and taken to be covenants running with the land and shall bind any person having at any time any interest or estate in such Unit, as though such provisions were recited and stipulated at length in each and every deed or conveyance or lease thereof.

B. Compliance and Default. (1) Each Unit Owner shall be governed by and shall comply strictly with the terms, covenants, conditions and restrictions of this Declaration, By-Laws and the rules and regulations adopted pursuant thereto, and the same as they may be amended from time to time. The Executive Board shall have the power to adopt, amend and enforce compliance with such reasonable rules and regulations relative to the operation, use and occupancy of the Units and the Common Elements consistent with the provisions of this Declaration and the Act, including, but not limited to the appointment of such committees and the enactment and enforcement of such enforcement procedures and penalties for violations as the Executive Board shall deem appropriate. Any such rules and regulations shall be adopted or amended, from time to time, by means of appropriate resolutions duly approved by the Executive Board in accordance with the By-Laws. A copy of such rules and regulations and copies of any amendments thereto shall be delivered or mailed to each Owner or occupant of a Unit promptly after the adoption thereof. Failure of the Unit Owner to comply therewith shall entitle the Association or Unit Owners to the remedies provided in this Declaration and the Act, and also to the following relief, none of which remedies shall be exclusive of any other remedies: (1) Suits: Failure to comply with the terms of this Declaration, the By-Laws and the rules and regulations adopted pursuant thereto, as the same may be amended from time to time, shall entitle the Association or any aggrieved Unit Owner to sue for the recovery of damages or for injunctive relief, or both. Such relief shall not be exclusive of other remedies provided by law; (2) Costs and Attorney's Fees: In any proceeding arising because of an alleged failure of a Unit Owner to comply with the terms of the Condominium Documents and rules and regulations adopted pursuant thereto, as the same may be amended from time to time, the prevailing party shall be entitled to recover the costs of the proceeding and reasonable attorney's fees; provided, however, that no attorney's fees may be recovered against the Executive Board in any such action unless the court shall first expressly find that the Executive Board acted in bad faith. (3) No Waiver of Rights: The failure of the Declarant, or the Executive Board, or any Unit Owner to enforce any covenant, restriction or other provision of the Act, the Condominium Documents or the rules and regulations adopted pursuant thereto, shall not constitute a waiver of the right to do so thereafter.

C. Appeal and Hearing Procedure; Actions by Owners. No Unit Owner shall have the right to object, challenge, commence any suit at law or in equity or take any other action under any act, power or authority now in force or hereafter adopted except after following such procedures as are established by the Executive Board by rule or regulation consistent with the provisions of this Paragraph. The Executive Board, or a committee as may be appointed by the Executive Board, shall hear appeals from Unit Owners or lessees of alleged violations of the Condominium Documents and rules and regulations of the Association. Unit Owners shall not have the right to appeal assessments for or collections of assessments for Common Expenses. The Executive Board or such committee shall hold a hearing on any such appeal within thirty (30) days after the receipt by the Executive Board of a formal notice of appeal from a Unit Owner or resident. A decision shall be issued in writing by the Executive Board within ten (10) days after the conclusion of the hearing. The Executive Board shall have the right to establish various rules and procedures governing the operation and administration of the appeal and hearing process and the enforcement of the Condominium Documents and rules and regulations. Unless the internal remedies provided by this Paragraph and such rules and regulations as may be promulgated by the Executive Board shall be expressly waived by the Association or the Association fails or refuses to act, no action at law or in equity shall be commenced by any Unit Owner or resident until such internal remedy is pursued to exhaustion. Any action by a Unit Owner against any other Unit Owner or resident arising out of any term, covenant or condition contained in the Condominium Documents or any rule or regulation made pursuant thereto shall be subject to the same procedures. In hearings before the Executive Board or the committee designated by the Executive Board, all parties shall be entitled to be represented by counsel.

ARTICLE XIV: MORTGAGES OF UNITS; RIGHTS OF MORTGAGEES

A. Right to Mortgage. Each Unit Owner shall have the right to mortgage or encumber his own respective Unit together with the Allocated Interests appurtenant to such Unit. Except as otherwise permitted by Section 1603-112 of the Act and subject to this Declaration, no Unit Owner shall have the right or authority to mortgage or otherwise encumber in any manner whatsoever the Common Elements or any part thereof except his own Unit and the Limited Common Elements and Allocated Interests appurtenant to his Unit. A Unit Owner who mortgages his Unit shall notify the Executive Board in writing of the name and address of his Mortgagee(s) and shall file a conformed copy of the note and mortgage with the Executive Board; provided, however, that failure to do so shall not in any way affect the validity or enforceability of any mortgage.

B. Mortgage Foreclosure. Any Mortgagee of a Unit holding a recorded first mortgage on a Unit that obtains title to the Unit pursuant to the remedies provided in the Mortgage, or through a completed foreclosure of the Mortgage, or through deed (or assignment) in lieu of foreclosure, shall take the Unit with the Allocated Interests appurtenant thereto free of such claims and liens for unpaid assessments for Common Expenses, interest and costs levied against such Unit which accrue prior to the acquisition of title to such Unit by the Mortgagee, other than the proportionate share of the Common Expenses which become due and payable from and after the date on which the Mortgagee shall acquire title to the Unit through a completed foreclosure of deed (or assignment) in lieu of foreclosure.

C. Notices to Eligible Mortgage Holder. The Association shall send written notice by prepaid United States mail to each Eligible Mortgage Holder at the address identified pursuant to Article XVII(C) of this Declaration of the following proposed actions either within a reasonable period prior to the taking of any such proposed actions or at the time that notice thereof is given to Unit Owners unless another time is specified herein: (1) any condemnation loss or any casualty loss which affects a material portion of the Condominium or any unit in which there is a first Mortgage held by such Eligible Mortgage Holder; (2) notice of any default or delinquency in the payment of assessments for Common Expenses or any other charges owed by an Owner of a Unit subject to a Mortgage held of record by such an Eligible Mortgage Holder, or any other default in the performance or payment by such an Owner of a Unit of any obligation under this Declaration, the By-Laws or any rules and regulations of the Association, which delinquency or other default continues for a period of sixty (60) days, to the Eligible Mortgage Holder of the Mortgage to which such Owner's Unit is subject; (3) any lapse, cancellation or material modification of any insurance policy or fidelity bond required to be maintained under the Declaration or By-Laws by the Association; (4) the proposed use of any proceeds of Property Insurance required to be obtained and maintained by the Association pursuant to Section 1603-113, subsection (a) of the Act, for purposes other than repair or restoration of the damaged property; (5) the adoption by the Executive Board of any proposed budget under Section 1603, subsection (c) of the Act, the date of the meeting of Unit Owners scheduled to consider ratification of such proposed budget, and a summary of the proposed budget; (6) any proposed action which would require the consent of a specified percentage of Eligible Mortgage Holders as specified in Paragraph E of this Article; (7) the termination of the Condominium pursuant to Section 1602-118 of the Act and this Declaration; (8) a change in the Allocated Interests appurtenant to any Unit, a change in the boundaries of a Unit, or the subdivision of a Unit; (9) the merger or consolidation of the Condominium with another condominium; or (10) the conveyance or subjection to a security interest of any portion of the Common Elements. Upon written request of any Eligible Mortgage Holder, the Association will provide an audited financial statement of the Association for the preceding fiscal year.

D. Mortgagee Approval Rights. For purposes of this Paragraph and the following subparagraphs, where approval by a stated percentage of Eligible Mortgage Holders is required, such approval shall be based upon one (1) vote for each Unit on which a mortgage is held. Any repair, replacement or restoration

of the Condominium, after a partial condemnation or damage due to an insurable hazard, shall be performed as provided in this Declaration, unless other action is approved by at least fifty-one (51%) percent of Eligible Mortgage Holders. Any election to terminate the legal status of the Condominium pursuant to Section 1602-118 of the Act, and this Declaration after substantial destruction or a substantial taking in condemnation of the Condominium Property shall require the approval of at least fifty-one (51%) percent of all Eligible Mortgage Holders. Any abandonment or termination of the legal status of the Condominium pursuant to Section 1602-118 of the Act by act or omission for reasons other than said substantial destruction or taking shall require the prior written approval of at least fifty-one (51%) percent of Eligible Mortgage Holders of first Mortgages on Units. Any abandonment, partition, subdivision, encumbrance, sale or transfer of any of the Common Elements (except for grant easements for utilities or other public purposes consistent with the intended use of the Common Elements) by act or omission shall require the prior written approval of at least fifty-one (51%) percent of the Eligible Mortgage Holders. With respect to amendments to the Condominium Documents other than amendments to the Condominium Documents or termination of the Condominium made as a result of destruction, damage, or condemnation as provided in this Article, the approval of at least fifty-one percent (51%) of the Eligible Mortgage Holders shall be necessary to terminate the Condominium as provided hereinabove.

The written consent or approval of at least fifty-one (51%) percent of the Eligible Mortgage Holders of Units affected by such amendments, shall be required to add or amend any material provisions of the Condominium Documents which establish, provide for, govern or regulate any of the following matters: (i) Voting; (ii) assessments, assessment liens or subordination of such liens; (iii) reserves for maintenance, repair and replacement of the Common Elements (or Units if applicable); (iv) insurance or fidelity bonds; (v) rights to use of the Common Elements; (vi) responsibility for maintenance and repair of the Common Elements of the Condominium; (vii) expansion or contraction of the Condominium or the addition, annexation or withdrawal of property to or from the Condominium; (viii) the interests in the Common Elements or Limited Common Elements; (ix) convertibility of Units into Common Elements or of Common Elements into Units; (x) leasing of Units; (xi) imposition of any restriction on a Unit Owner's right to sell, transfer, or otherwise convey his Unit; (xii) any proposed action described in Paragraph C(4), C(7), C(8), C(9) or C(10) of this Article; (xiii) a decision by the Association to establish self-management when professional management had previously been required by an Eligible Mortgagee; or (xiv) any provisions which are for the express benefit of Eligible Mortgage Holders. An addition or amendment to the Condominium Documents shall not be considered material if it is for the purpose of correcting technical errors.

An Eligible Mortgage Holder who receives a written request to approve any additions or amendments which do not constitute either a material change to the Condominium Documents or any amendment described in the preceding paragraph hereof and who does not deliver to the requesting party a negative response within thirty (30) days after the giving of notice shall be deemed to have approved such request in writing.

E. Voting and Other Rights of Eligible Mortgage Holders. In the event of any default by a Unit Owner in payment of assessments or performance of obligations pursuant to the Condominium Documents as more fully described in Paragraph C(2) of this Article, the Eligible Mortgage Holder of the Mortgage on such Owner's Unit shall have the right but not the obligation to cure such default. In addition to, but not by way of limitation of, all rights granted to Eligible Mortgage Holders pursuant to this Declaration to cast the votes allocated to a Unit in lieu of the Unit Owner, any Eligible Mortgage Holder, or its representative, shall have the right to attend meetings of the Association and Executive Board of the purposes of discussing the matters described in Paragraphs C(4), C(5), C(7), C(8), C(9) and C(10). No provision of the Condominium Documents shall be deemed or construed to give a Unit Owner, or any other person, priority over the rights of any Eligible Mortgage Holder pursuant to its Mortgage in the case of a distribution to Unit Owners of insurance proceeds or condemnation awards for losses to or a taking of Units, Common Elements, or both.

Each Eligible Mortgage Holder shall be entitled to examine the financial records and books of account of the Association upon reasonable prior written notice to the Association.

F. Rights of First Refusal. Notwithstanding anything to the contrary elsewhere contained in this Declaration, the By-Laws or said rules and regulations, in the event that the Unit Owners in the future adopt any right of first refusal (which right may be adopted only by amending this Declaration) in the case of the sale of any Unit, such right of first refusal shall not affect, impair or apply to the right of any Mortgagee to: (1) foreclose or take title to the Unit pursuant to the remedies provided in the Mortgage, (2) accept a deed (or assignment) in lieu of foreclosure in the event of a default by a mortgagor, or (3) sell or lease a Unit acquired by the procedures hereinabove set forth.

ARTICLE XV: AMENDMENT

Except in cases of amendments to this Declaration that may be unilaterally executed and recorded by the Association as described in Sections 1601-107, Eminent Domain, 1602-108(c), Allocation of Limited Common Elements, 1602-113(a) Reallocation of Boundaries Between Adjoining Units, 1602-113, Subdivision of Units and 1602-1117(a), Amendment of Declaration, of the Act and except in cases of amendments to this Declaration by certain Unit Owners, as described in Sections 1602-108(b), Reallocation of Limited Common Elements, 1602-1112(a), Relocation of Boundaries Between Adjoining Elements, 1602-1113(a), Relocation of Boundaries Between Adjoining Units, 1602-113(b), Subdivision of Units, or 1606-118(b), Termination of Condominium, of the Act, and except in cases of amendments to the Declaration that may be executed by the Declarant under Section 1602-109(f) Plats and Plans or under Section 1602-110, Exercise of Development Rights of the Act, and subject to the other provisions of this Declaration and of the Act, this Declaration, the Plats and Plans may be amended as follows:

A. Before Any Conveyance. Prior to the conveyance of any Unit by the Declarant to a Unit Owner other than as security for an obligation, the Declarant shall have the right to amend and re-amend this Declaration in any manner that the Declarant may deem appropriate.

B. After First Conveyance. After the first conveyance of a Unit by a Declarant, the terms of the following subparagraphs shall apply to the amendment of this Declaration:

(1) Notice. Notice of the subject matter of a proposed amendment shall be included in the notice of any meeting of the Executive Board in which a proposed amendment is considered, and shall be served upon all Unit Owners in the manner provided in Article XVII(a) for service of notices and upon Eligible Mortgage Holders in the manner identified in Article XVII(C).

(2) Resolution. An amendment may be proposed by either the Executive Board or by Unit Owners holding in the aggregate no less than 1/5th of the votes in the Association. No resolution of the Executive Board adopting a proposed amendment shall be effective unless it has been adopted at a meeting of the Association duly called and held in accordance with the By-Laws of the affirmative vote of at least 2/3rds in voting interest of the Unit Owners and then executed and recorded as provided in Paragraph B(5) of this Article.

(3) Agreement. In the alternative, an amendment may be made by an agreement signed by the record Owners of the Units to which at least 2/3rds of the votes in the Association are allocated in the manner required for the execution of a deed and acknowledged by at least one of them, and such amendment shall be effective when recorded.

(4) Certain Amendments. Notwithstanding the foregoing provisions of this Article, except as otherwise permitted by the Act and provided in this Declaration, no amendment may increase the number of

Units or change the boundaries of any Unit, the Allocated Interests allocated to a Unit, or the uses to which any Unit is restricted without the unanimous consent of the Unit Owners and the consent of the Eligible Mortgage Holders representing or holding mortgages on Units having at least 2/3rds of the votes in the Association. No amendment of this Declaration shall make any change which would in any way affect any of the rights, privileges, powers and options of the Declarant, its successors or assigns, unless the Declarant, or its successors or assigns shall join in the execution of such amendment.

(5) Execution and Recording. A copy of each amendment shall be attached to or included with a certificate, certifying that the amendment was duly adopted, which certificate shall be executed and acknowledged by such officer or officers of the Association and/or member or members of the Executive Board designated for that purpose in the By-Laws. The amendment shall be effective when such certificate and copy of the amendment are recorded.

(6) Notice and Challenge. No action to challenge the validity of an amendment to this Declaration adopted by the Association pursuant to this Article may be brought more than one year after such amendment is recorded. After each amendment to this Declaration adopted pursuant to this Article has been recorded, notice thereof shall be sent to all Unit Owners and to all Eligible Mortgage Holders at the address last furnished to the Executive Board, but failure to send such notices shall not affect the validity of such amendment. The Association shall make copies of the Declaration and all amendments thereto available for inspection at reasonable times upon reasonable request for such inspection.

ARTICLE XVI: EASEMENTS AND LICENSES

A. Recorded Easements and Licenses. The recording data for recorded easements and licenses appurtenant to or included in the Condominium or by virtue of any reservation contained in this Declaration, are stated and set forth in Schedule A hereto.

B. Utilities, Pipes and Conduits. Each Unit Owner shall have an easement in common with all other Unit Owners to use all pipes, wires, ducts, cables, conduits, public utility lines and other Common Elements serving his Unit and located in any of the other Units. Each Unit shall be subject to an easement in favor of all other Unit Owners to use the pipes, ducts, cables, wires, conduits, public utility lines and other Common Elements serving such other Units and located in such Unit.

C. Structural Support. Each Unit shall have an easement to the extent necessary for structural and subjacent support over every other Unit and over the Common Elements, and each Unit and the Common Elements shall be subject to an easement for structural and lateral support in favor of every other Unit.

D. Ingress, Egress and Regress. Each Unit Owners shall have an easement, subject to any rules and regulations established by the Executive Board, in common with all other Unit Owners to use the entrances, exists, corridors and other Common Elements as a means of ingress, egress and regress to and from the Property and the adjoining public streets. The Executive Board shall not and cannot establish any rules and regulations depriving any Unit Owner of reasonable ingress, egress and regress to and from his Unit, the Property and Common Elements, and the adjoining public streets.

E. Encroachments. If any portion of the Common Elements or Limited Common Elements hereafter encroaches upon any Unit, or if any Unit hereafter encroaches upon any other Unit or upon any portion of the Common Elements or Limited Common Elements, as a result of settling or shifting of any Building or Buildings in which they are located or otherwise than as a result of the purposeful or negligent act or omission of the Owner of the encroaching Unit, or of the Association in the case of encroachments by the Common Elements or Limited Common Elements, a valid easement appurtenant to the encroaching Units, Common Elements or Limited Common Elements for the encroachment and for the maintenance of

the same shall exist for so long as the encroachment shall exist. In the event that any Building shall be partially destroyed as a result of fire or other casualty or as a result of taking by the power of, or in the nature of, eminent domain or by an action or deed in lieu of condemnation, and then is rebuilt, encroachments of a portion or portions of the Common Elements or Limited Common Elements upon any Unit or of any Unit upon any other Unit or upon any portion of the Common Elements or Limited Common Elements, due to such rebuilding, shall be permitted, and valid easements appurtenant to the encroaching Units, Common Elements or Limited Common Elements for such encroachments and the maintenance thereof shall exist so long as the Building as so rebuilt shall stand.

F. Common Elements Easement in Favor of Unit Owners. The Common Elements (including, but not limited to, the Limited Common Elements) shall be and are hereby made subject to the following easements in favor of the Units benefited: (1) for the installation, repair, maintenance, use, removal and/or replacement of lighting fixtures, electrical receptacles, and other electrical installations which are Common Elements adjacent to such Unit; provided that the installation, repair, maintenance, use, removal or replacement of any such item does not unreasonably interfere with the use of any part of the Common Elements, adversely affect either the thermal or acoustical character of any Building or impair or structurally weaken any Building; (2) for driving and removing nails, screws, bolts and other attachment devices into the Unit side surface of the stone, block, brick or other masonry walls bounding the Unit and the Unit side surface of the studs which support the dry wall or plaster perimeter walls bounding the Unit the bottom surface of floor joists above the Unit to the extent such nails, screws, bolts and other attachment devices may encroach into a part of a Common Elements adjacent to such unit; provided that any such action will not unreasonably interfere with the common use of any part of the Common Elements, adversely affect either the thermal or acoustical character of any Building or impair or structurally weaken any Building; and (3) for the maintenance of the encroachment of any lighting devices, outlets, exhaust fans, ventilation ducts, registers, grilles and similar fixtures which serve only one Unit but which encroach into any part of any Common Elements or Limited Common Elements on the date this Declaration is recorded.

G. Association's Rights. The Association shall have a reasonable right of entry upon any Unit to make emergency repairs and to do other work reasonably necessary for the proper maintenance or operation of the Condominium. The Association shall have the right to grant permits, licenses and easements over the Common Elements for utilities, ways and other purposes reasonably necessary or useful for the proper maintenance or operation of the Condominium. The Association has a right of access to each Unit for the purpose of making inspections or for the purpose of correcting any condition originating in this Unit or elsewhere and threatening another Unit or a Common Elements, or for the purpose of performing installations, alterations or repairs to the mechanical or electrical services, other Common Elements or units, provided that requests for entry are made in advance and that any such entry is at a time reasonably convenient to the Unit Owner, and provided further that judicial proceedings shall be instituted by the Association before any items of construction can be altered or demolished. In case of an emergency, such right of entry shall be immediate, whether the Unit Owner is present at the time or not.

H. Special Declarant Rights. The Association, Executive Board and others and Declarant, its successors and assigns have the easements specified in this Article of this Declaration entitled Special Declarant Rights.

ARTICLE XVII: NOTICES TO UNIT OWNERS BY ASSOCIATION

A. To Unit Owners. All notices, demands, bills, statements or other communications affecting the Condominium shall be given to Unit Owners by the Association in writing and shall be deemed to have been duly given if delivered personally or sent by United States mail, postage prepaid, or if such notification is of a default or lien, sent by registered or certified United States mail, return receipt requested, postage prepaid, addressed to the Unit Owner at the address which the Unit Owner shall designate in writing and file

with the Secretary of the Association, or if no such address is so designated, the address of the Unit of such Unit Owner who is the record owner thereof.

B. To the Association. All notices, demands, statements or other communications affecting the Condominium given by the Association shall be in writing and shall be deemed to have been duly given to the Association if delivered personally or sent by United States mail, postage prepaid, return receipt requested, addressed to the Association at the principal office of the managing agent, or if there shall be no managing agent, then to the Secretary of the Association at the address of the Unit of which the Secretary is the record Unit Owner thereof.

C. Eligible Mortgage Holder. All notices, demands or other communications affecting the Condominium given by the Association to any Eligible Mortgage Holder shall be in writing and shall be deemed to have been duly given if delivered personally or sent by United States mail, postage prepaid, addressed to the Eligible Mortgage Holder at the address identified pursuant to this Declaration.

ARTICLE XVIII: TAXATION

A. Separate Taxation. If there is any Unit Owner other than the Declarant, each Unit and its Allocated Interests shall be deemed to be a separate tax parcel and shall be separately taxed and assessed by the City of Portland. Except to any extent required by law, neither the Buildings, the Property nor any of the Common Elements shall be deemed to be or assessed as a separate tax parcel.

B. Units Not Yet Separately Assessed. In the event that for any year real estate taxes assessed by the City of Portland are not separately taxed and assessed to each separate Unit Owner but are taxed on the Property as a whole, then each Unit Owner shall pay his proportionate share thereof in accordance with his respective Common Element Liability.

ARTICLE XIX: TERMINATION OF CONDOMINIUM

The Condominium shall not be terminated except as provided in and subject to Section 1602-118 of the Act and by agreement of Unit Owners of Units to which at least eighty (80%) percent of the votes in the Association are allocated and at least 80% of the votes of Eligible Mortgage Holders.

ARTICLE XX: MISCELLANEOUS

A. Interpretation; Conflict. In the event of any conflict or discrepancy between this Declaration, the By-laws and the Plats and Plans, this Declaration shall govern. If any provision of this Declaration, the By-Laws or the rules and regulations, or any section, sentence, clause, phrase, or word therein, or the application thereof in any circumstances be judicially held in conflict with any applicable laws, including, but not limited to, the Condominium Act, then the laws shall be deemed controlling; but the validity of the remainder of this Declaration, the By-Laws and rules and regulations, and the application of any such provision, section, clause, phrase, or word in other circumstances shall not be affected thereby and all of the other provisions of this Declaration shall continue in full force and effect as if such invalid provision had never been included herein. The captions herein are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of this Declaration or the intent of any provisions hereof. The use of the singular number in this Declaration shall be deemed to include the plural, and the use of any one gender shall be deemed applicable to all genders. No provision contained in this Declaration shall be deemed to have been abrogated or waived by reason of any failure to enforce the same irrespective of the number of violations or breaches which may occur. Any dispute or disagreement between Unit Owners with respect to interpretation or application of this Declaration or the By-Laws or rules and regulations shall be determined by the Board of Directors, which determination shall be final and

binding on all parties.

B. Remedies Cumulative. All rights, remedies and privileges granted to the Executive Board of a Unit Owner pursuant to any terms, provisions, covenants or conditions of the Condominium Documents shall be deemed to be cumulative, and the exercise of any one or more shall not be deemed to constitute an election of remedies nor shall it preclude the party thus exercising the same from exercising such other and additional rights, remedies, or privileges as may be granted to such party hereunder or by any instruments or documents incorporated herein by reference or at law or in equity.

IN WITNESS WHEREOF, Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, by its Manager, hereunto duly authorized, has executed and delivered this Declaration as of the date first above written.

Signed, Sealed and Delivered
In the Presence of:

Sea Coast at Baxter Woods Associates, LLC

By: _____
John B. Wasileski, Its Manager

STATE OF MAINE
CUMBERLAND, ss.

Personally appeared the above-named John B. Wasileski, this __ day of _____, 2016 and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of said limited liability company.

Notary Public/Attorney-at-Law

SCHEDULE A
605 STEVENS AVENUE CONDOMINIUM DECLARATION OF CONDOMINIUM

A certain lot or parcel of land situated on the easterly side of Stevens Avenue and the southerly side of Walton Street in the City of Portland, County of Cumberland, State of Maine, being Lot #3 as shown on the Overall Subdivision Plan 605 Stevens Avenue, Stevens Avenue and Walton Street, Portland, Maine, made for Sea Coast at Baxter Woods Associates, LLC by Titcomb Associates, dated June 24, 2015, as revised from time to time (hereinafter the "Subdivision Plan").

Said Lot #3 is bound by the covenants and is subject to the easements and rights over such lot excepted and reserved for the benefit of Lots 1, 2 and 4 shown on said Subdivision Plan set forth in the Declaration of Covenants and Easements, by Sea Coast at Baxter Woods Associates, LLC, as Declarant, dated _____, 2016 and recorded in the Cumberland County Registry of Deeds, Book __, Page _____ (the "Declaration of Covenants and Easements"). Said Lot #3 is submitted to this Declaration of Condominium together with the benefit of the easements and rights over said Lots 1, 2 and 4 and together with the benefit of the covenants set forth in said Declaration of Covenants and Easements. Said covenants, rights and easements shall be appurtenant to and shall burden and run with the land.

The premises described above as Lot 3 are also subject to:

1. Rights and easements reserved and set forth in the deed from James P. Baxter to the Roman Catholic Bishop of Portland, dated March 10, 1908 and recorded in the Cumberland County Registry of Deeds, Book 821, Page 59.

2. Declarant, its successors and assigns, except and reserve, for the benefit of Declarant in gross and for the benefit of Lots #1, 2 and 4 shown on the Subdivision Plan, a non-exclusive easement, in common with the Unit owners and others, to access and use the chapel located in the Motherhouse building located on Lot #3; the Association shall establish procedures for the scheduling of events in the chapel and for communication to all unit owners and to Declarant, its successors and assigns, when events are scheduled that will affect use of such chapel in order to avoid having multiple events scheduled for the same time that would impact use of such chapel. The Association may also establish reasonable times when the chapel is available for events and reasonable rules for use of and access to the chapel.

3. Rights and easements excepted and reserved by St. Joseph's Hospital and Convent in its deed to Sea Coast at Baxter Woods Associates, LLC, dated _____, 2016 and recorded in the Cumberland County Registry of Deeds, Book __, Page ____.

SCHEDULE B
605 STEVENS AVENUE CONDOMINIUM
DECLARATION OF CONDOMINIUM

The unit numbers, fraction of ownership of Common Elements, fraction assessment of Common Element expense, and number of votes in the 605 Stevens Avenue Condominium Association are as follows:

<u>Unit Number</u>	<u>Votes</u>	<u>Fraction or percentage of ownership of common elements and fraction assessment of Common Element expense</u>
1	1	__%
2	1	__%

The percentage of each Unit's Common Element Interest and Common Expense Liability is allocated by a formula represented by a fraction wherein the numerator is the number of interior square feet of each Unit located within a Building measured at the boundaries with the Common Element as shown on the Plans, and the denominator is the total such square footage of all the Units subject to rounding in order to permit ease of administration, provided however that the percentage stated in Exhibit B (as it may be amended) shall control in any event. Such square footage measurements may differ from leasing square footage calculations. If any additional Unit or Units are added to the Condominium, each Unit will have one vote and the fraction or percentage of ownership of common elements and fraction assessment of Common Element expense of each Unit will be revised in accordance with the formula set forth in this paragraph.

SCHEDULE C
605 STEVENS AVENUE CONDOMINIUM DECLARATION OF CONDOMINIUM

BYLAWS OF 605 STEVENS AVENUE CONDOMINIUM ASSOCIATION

ARTICLE I: Name, Location, and Fiscal Year

Section 1. Name. The name of the corporation is 605 Stevens Avenue Condominium Association (the "Corporation").

Section 2. Location. The principal office of the Corporation shall be located at 605 Stevens Avenue, Portland, Maine.

Section 3. Fiscal Year. The fiscal year of the Corporation shall, unless otherwise decided by the Board of Directors, ends December 31.

ARTICLE II: Purposes

Section 1. Purposes. The purposes of said Corporation are to act on behalf of its members collectively as their governing body with respect to the administration, maintenance, repair and replacement of certain property which will be submitted to the provisions of Maine Condominium Act, Title 33, Chapter 31, Section 1601-101 *et seq.* and to be known as 605 Stevens Avenue Condominium Association and as such to own and acquire any real estate or interest or rights therein or appurtenances thereto and any and all personal property in connection therewith as may be incidental or necessary to such purpose.

ARTICLE III: Members

Section 1. Membership. The owner or owners of record from time to time of each unit of the Condominium, shall constitute one member of the Corporation, and each such member shall have the fraction of common interest, common expenses liabilities and voting rights in the Corporation that are set forth in the Declaration of 605 Stevens Avenue Condominium, recorded in the Cumberland County Registry of Deeds, as it may be amended from time to time.

Section 2. Termination of Membership. The membership of each unit owner shall terminate when he ceases to be a unit owner, and upon the sale, transfer or other disposition of his ownership interest in the property his membership in the Corporation shall automatically be transferred to the new unit owner succeeding to such ownership interest.

Section 3. Meetings and Notice. Meetings of members shall be held at the Condominium in Portland, Maine. An annual meeting of the members shall be held on the first Tuesday in October in each year, commencing with October 1, 2016 at 7 p.m. Special meetings of the members may be called by the President, the Board of Directors or upon a petition signed by fifty (50) percent of the members. Written notice of any meeting shall be given to each member by the Secretary not less than ten (10) days nor more than thirty (30) days before the meeting by mailing it postage prepaid to the member's mailing address or to any other mailing address designated in writing by the member. The notice shall specify the time and place of the meeting and the items on the agenda.

Section 4. Quorum. A quorum for any meeting shall be constituted by persons entitled to cast 50 percent of the votes for election of the executive board, attending in person or represented by proxy.

ARTICLE IV: The Board of Directors

Section 1. Composition. The Board of Directors shall consist of four members. Two Directors shall be elected by the owner of Unit 1; and two Directors shall be elected by the owner of Unit 2.

Section 2. Election and Term. The directors, except as provided in Article III, Section 5 and Sections 7 and 8 of this Article, shall be elected at the annual meeting from among the members or spouses of members. The directors shall hold office until their successors have been elected.

Section 3. Powers. The business of the Corporation shall be managed by the Board of Directors which shall have and may exercise all the powers of the Corporation, except those powers reserved to the members by the Act or by these Bylaws. The Board shall have the power to engage a managing agent for the property and to fix the term, compensation and authority of the manager or managing agent which, initially, shall be the Declarant.

Section 4. Meetings of Directors. Meetings of the Board of Directors may be held at any time and place upon call by the President or by a majority of the Directors, reasonable notice thereof being given to each Director. Notice that a meeting has been called may be given by the President, Secretary or Assistant Secretary, if one is appointed, or by one of the Directors. Notice of any meeting of the Board of Directors may be waived in writing signed by the person or persons entitled to such notice, whether before or after the time of such meeting, and shall be equivalent to the giving of such notice. Attendance of a Director at such meeting shall constitute a waiver of notice thereof, except where a Director attends a meeting for the express purpose of objecting to the transaction of any business because such meeting is not lawfully convened. Neither the business to be transacted at, nor the purpose of, any meeting of the Board of Directors need be specified in the notice, or waiver of notice, of such meeting.

Section 5. Quorum and Voting. A majority of the directors then in office shall constitute a quorum. A majority of less than a quorum may, from time to time postpone to a new time or place any meeting and the adjourned meeting may be held without further notice. If a quorum exists, a majority of the directors present may take any action, except the removal of a director for cause which shall require a majority vote of all directors then in office.

Section 6. Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting if a written consent thereto is signed by all the directors. The Secretary shall file such written consent with the records of the meetings of the Board of Directors. Such consent shall be treated as a vote of the Board of Directors for all purposes.

Section 7. Vacancies. A vacancy in the Board of Directors shall be filled by the owner of the Unit that appointed the Director to hold office for the unexpired term of the director whose place is vacant and until his successor is elected.

Section 8. Removal. A director may be removed from office by a vote of all of the owner of the Unit or Units that elected such Director. A director may be removed for cause by a majority vote of all directors then in office.

Section 9. Compensation. Directors shall not receive compensation for their services except as provided by resolution of a majority of the members of the Corporation. Directors shall be reimbursed for any out-of-pocket expenses incurred which are reasonable and necessary in performing their duties on behalf of the Corporation.

Section 10. Delegation to Managing Agent. The Board of Directors may delegate to a managing

agent all of the powers of the Board, except the responsibility of preparing the annual budget and any supplemental budgets and any powers requiring approval of any specified percentage of members.

ARTICLE V: Officers

Section 1. Designation and Qualification. The officers of the Corporation shall consist of a President, a Treasurer, a Secretary and such other officers as the Board of Directors may elect. The President and Treasurer shall be members, or spouses of members, or in the case of a unit owner which is a Corporation, partnership, trust or estate, a designated agent thereof. The Secretary need not be a member, but shall be a resident of Maine.

Section 2. Election and Term. All officers shall be elected by the Board of Directors at its first meeting following the annual meeting of the members and shall hold office until the first meeting of the Board of Directors following the next annual meeting of members and until their successors are elected.

Section 3. President. The President shall be a Director and shall be the chief executive officer of the Corporation. The President shall have general supervision and control of the business of the Corporation subject to the direction of the Board of Directors and shall also have such other powers and duties as the Board of Directors may decide. The President shall preside at all meetings of the members and at all meetings of the Board of Directors. If the President is absent from any meeting of the members or Board of Directors, the Treasurer shall preside at such meeting. The President shall prepare, execute, certify and record amendments to the Declaration on behalf of the Corporation.

Section 4. Treasurer. The Treasurer shall have, subject to the direction of the members or Board of Directors, general charge of the financial affairs of the Corporation and shall keep full and accurate records thereof, which shall always be open to the inspection of any member or holder of a first mortgage on a unit. He shall render to the President and directors, at the regular meetings of the Board of Directors, or whenever they may require it, a statement of the accounts of his transactions as Treasurer and of the financial condition of the Corporation.

Section 5. Secretary. The Secretary shall record the proceedings of all meetings of the members and of the Board of Directors in books kept for that purpose. Record books of members' meetings shall be open at all reasonable times to the inspection of any member or holder of a first mortgage on a unit. The Secretary shall also keep the membership transfer books of the Corporation. He shall notify the members and the directors of all meetings in accordance with the Bylaws. If the Secretary is absent from any meeting of the members or the Board of Directors, a Temporary Secretary shall be chosen to exercise the duties of the Secretary at such meeting.

Section 6. Vacancies. A vacancy in any office may be filled by the Board of Directors by the election of a successor to hold office for the unexpired term of the officer whose place is vacant and until his successor is chosen and qualified.

Section 7. Removal. All officers may be removed from their respective offices by the Board of Directors.

Section 8. Resignation. Any officer may at any time resign his office by a resignation in writing delivered to the Corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt and acceptance thereof shall not be necessary to make it effective unless it so states.

Section 9. Compensation. The officers shall receive no compensation for their services unless expressly provided for in a resolution adopted by the majority of the members of the Corporation. The

officers shall be reimbursed for out-of-pocket expenses incurred which are reasonable and necessary in performing their duties on behalf of the Corporation.

ARTICLE VI: Assessments

Section 1. Budget. The Board of Directors shall cause to be prepared an estimated annual budget for each fiscal year of the Corporation. Such budget shall take into account the estimated common expenses and cash requirements for the year, including salaries, wages, payroll taxes, supplies, materials, parts, services, maintenance, repairs, replacements, landscaping, insurance, fuel, snow removal, trash pickup and other common expenses (as distinguished from individual mortgage payments, real estate taxes and individual telephone, electricity and other individual utility expenses billed or charged to the separate members on an individual or separate basis rather than a common basis). The Board shall establish and maintain an adequate reserve fund for the periodic maintenance, repair and replacement of improvements to the common areas and limited common areas. The reserve fund shall be included in the budget and maintained out of regular assessments for common expenses. To the extent that the assessments and other cash income collected during the preceding year shall be more or less than the expenditures for such preceding year, the surplus or deficit, as the case may be, shall also be taken into account in setting the budget and determining assessments for the current year so as to credit to such assessment any surplus from the preceding year or repay to said reserve fund any deficit from the preceding year.

Section 2. Payment. The estimated annual budget for each fiscal year shall be approved by the Board of Directors, and copies thereof shall be furnished to each member and eligible mortgage holder within thirty (30) days of adoption, and in any event not later than 90 days after the beginning of such year. The Board shall set a date for a meeting of the members to consider ratification of the budget not less than fourteen (14) or more than thirty (30) days after mailing of the budget. Notice of said meeting shall accompany the budget. Unless at that meeting all members reject the budget, the budget is deemed ratified, whether or not a quorum is present. In the event the proposed budget is rejected, the periodic budget last ratified by the members shall be continued until such time as the members ratify a subsequent budget proposed by the Board of Directors. On or before the first day of the next quarter and of each succeeding month or quarter of the year covered by the annual budget, each member shall pay, as his respective monthly or quarterly assessment for the common expenses, one-twelfth (1/12) or one-fourth (1/4), as the case may be, of his proportionate share of the common expenses for such year as shown by the annual budget, all as determined by the Board of Directors. Such proportionate share for each member shall be in accordance with his respective ownership interest in the common areas and facilities. No member shall be relieved of his obligation to pay his assessments for common expenses by abandoning or not using his unit or the common areas and facilities.

Section 3. Statements. Within ninety (90) days after the end of each year covered by an annual budget, or as soon thereafter as shall be practicable, the Treasurer shall cause to be furnished to each member a statement for such year so ended, showing the receipts and expenditures and such other information as he may deem desirable.

Section 4. Separate Accounts. The Treasurer shall cause to be kept a separate account for each member showing the respective assessments charged to and paid by such member, and the status of his account from time to time.

Section 5. Additional Assessments. In the event that during the course of any year, it shall appear to the Treasurer that the monthly assessments, determined in accordance with the estimated annual budget for such year, are insufficient or inadequate to cover the estimated common expenses for the remainder of such year, then the Board of Directors shall prepare and approve a supplemental budget covering the estimated deficiency for the remainder of such year, and shall cause the same to be presented to the

members for ratification in the same manner as the budget. Upon ratification of the supplemental budget, a supplemental assessment shall be made to each member for his proportionate share of such supplemental budget.

Section 6. Common Expenses. It shall be the duty of every member to pay his proportionate share of the common expenses, in the same ratio as his fraction of ownership in the common areas and facilities. If any member shall fail or refuse to make any such payment of the common expenses when due, the amount thereof together with interest at the rate established by the Corporation, costs and reasonable attorney's fees shall constitute a lien on such unit. The Corporation shall have the authority and responsibility to exercise and enforce any and all rights and remedies as provided for in Maine Revised Statutes, Title 33, Chapter 31, the Declaration and these Bylaws, or otherwise available at law or in equity for the collection of all unpaid assessments.

Section 7. Budget Expenses. The President and/or Treasurer, subject to Board direction, shall have the authority to enter into contracts on behalf of the Corporation for work and expenses provided in the budget and to make payment therefor from the funds of the Corporation.

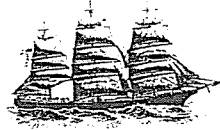
Section 8. Expenses Assessed Subsequent to Conveyance of Unit. A member may not exempt himself from liability for his shares of common expenses subsequently to be assessed by a conveyance of his unit to the Corporation, except by approval of all of the other members and their first mortgagees.

Section 9. Availability of Documents. The Corporation is required to make available to unit owners, lenders and the holders, insurers and guarantors of the first mortgage on any unit current copies of the Declaration, Bylaws and any other rules and regulations governing the condominium and other books, records and financial statements of the Corporation. In addition thereto, the Corporation shall also make available to prospective purchasers current copies of the Declaration, Bylaws, other rules governing the condominium, and the most recent annual audited financial statement, if such is prepared. The Corporation may impose a reasonable charge for copies.

ARTICLE VII: Amendments

Section 1. Amendment of By-Laws. These Bylaws may be amended or modified from time to time by action or approval of all of the members, except that no amendment may violate the provisions of Maine Revised Statutes, Title 33, Chapter 31.

Section 2. Amendment of Declaration. The Declaration may be amended in accordance with the terms thereof. Except for amendments exercising Development Rights by Declarant, the President and/or Treasurer of the Corporation shall execute a certificate setting forth the text of the amendment, which certificate shall be attested by the Secretary and recorded in the Cumberland County Registry of Deeds.



Benj. F. Packard

Bath Savings Institution

Since 1852

Att. E

February 16, 2016

City of Portland
Planning Division
389 Congress Street
Portland, ME 04101

RE: Sisters of Mercy's Master Plan

To Whom It May Concern:

John Wasileski has been a customer of Bath Savings for 25 years. We have financed much of his development activities.

We are familiar with the Sisters of Mercy project and we welcome the opportunity to assist in the financing of this multi-million dollar project.

Our experience with Wasileski and his team has shown us their ability to design, construct, sell and operate a large scale planned community. We believe that John Wasileski has the financial capacity to undertake the Sisters of Mercy project.

Please feel free to contact me regarding the contents of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Geoff Gattis", written over a faint, larger version of the same signature.

Geoff Gattis
EVP Commercial Lending
Bath Savings

State of Maine



Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and that the paper to which this is attached is a true copy from the records of this Department.

In testimony whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this seventh day of October 2014.



Matthew Dunlap
Secretary of State

MAINE
LIMITED LIABILITY COMPANY

STATE OF MAINE

CERTIFICATE OF FORMATION

F. File No. 20150771DC Pages 2
Fee Paid \$ 175
DCN 2142463600085 DLLC
-----FILED-----
08/26/2014


Deputy Secretary of State

A True Copy When Attested By Signature

Deputy Secretary of State

Pursuant to 31-MRSA §1531, the undersigned executes and delivers the following Certificate of Formation:

FIRST: The name of the limited liability company is:

Sea Coast at Baxter Woods Associates, LLC

(A limited liability company name must contain the words "limited liability company" or "limited company" or the abbreviation "LLC," "LLC," "L.C." or "LC" or, in the case of a low-profit limited liability company, "L3C" or "l3c" - see 31 MRSA 150§.)

SECOND: Filing Date: (select one)

☒
☐

Date of this filing; or

Later effective date (specified here): _____

THIRD: Designation as a low profit LLC (Check only if applicable):

☐

This is a low-profit limited liability company pursuant to 31 MRSA §1611 meeting all qualifications set forth here:

A. The company intends to qualify as a low-profit limited liability company;

B. The company must at all times significantly further the accomplishment of one or more of the charitable or educational purposes within the meaning of Section 170(c)(2)(B) of the Internal Revenue Code of 1986, as it may be amended, revised or succeeded, and must list the specific charitable or educational purposes the company will further;

C. No significant purpose of the company is the production of income or the appreciation of property. The fact that a person produces significant income or capital appreciation is not, in the absence of other factors, conclusive evidence of a significant purpose involving the production of income or the appreciation of property; and

D. No purpose of the company is to accomplish one or more political or legislative purpose within the meaning of Section 170(c)(2)(D) of the Internal Revenue Code of 1986, or its successor.

FOURTH: Designation as a professional LLC (Check only if applicable):

☐

This is a professional limited liability company* formed pursuant to 13 MRSA Chapter 22-A to provide the following professional services:

(Type of professional services)

Form No. MLLC-6 (1 of 2)

FIFTH: The Registered Agent is a: (select either a Commercial or Noncommercial Registered Agent)

☐

Commercial Registered Agent

CRA Public Number: _____

(Name of commercial registered agent)

☒

Noncommercial Registered Agent

Ronald A. Epstein

(Name of noncommercial registered agent)

10 Free Street, Portland, ME 04112

(physical location, not P.O. Box – street, city, state and zip code)

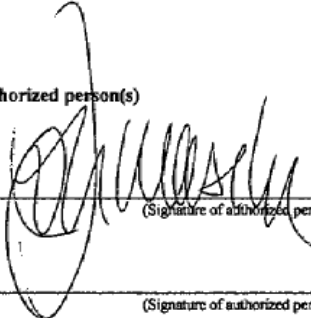
(mailing address if different from above)

SIXTH: Pursuant to 5 MRSA §105.2, the registered agent listed above has consented to serve as the registered agent for this limited liability company.

SEVENTH: Other matters the members determine to include are set forth in the attached Exhibit _____, and made a part hereof.

****Authorized person(s)**

Dated August 1, 2014



(Signature of authorized person)

John B. Wasileski, Member

(Type or print name of authorized person)

(Signature of authorized person)

(Type or print name of authorized person)

***Examples** of professional service limited liability companies are accountants, attorneys, chiropractors, dentists, registered nurses and veterinarians. (This is not an inclusive list – see 13 MRSA §723.7)

****Pursuant to 31 MRSA §1676.1 A, Certificate of Formation MUST be signed by at least one authorized person.**

The execution of this certificate constitutes an oath or affirmation under the penalties of false swearing under 17-A MRSA §453.

Please remit your payment made payable to the Maine Secretary of State.

Submit completed form to:

Secretary of State

Division of Corporations, UCC and Commissions

101 State House Station

Augusta, ME 04333-0101

Telephone Inquiries: (207) 624-7752

Email Inquiries: CEC.Corporations@Maine.gov

Form No. MLLC-6 (2 of 2) Rev. 10/31/2012



3/9/2015

Andrew Johnson

Fay, Spofford & Thorndike

778 Main Street

South Portland, ME 04106

Sent via email to: AJohnston@fstinc.com

RE: Ability to Serve Letter for Redevelopment of McAuley High School Campus in Portland

Dear Mr. Johnson:

CMP has the ability to serve the proposed project located at 605 Stevens Avenue in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com



An equal opportunity employer



For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

[CMP Handbook of Standard Requirements](http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf)

(<http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf>)

If you have any questions, please contact me.

Regards,

A handwritten signature in black ink that reads "Jamie Cough".

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
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207-626-4082 fax

www.cmpco.com



An equal opportunity employer



May 26, 2015

Mr. Frank Brancely
City of Portland
Department of Public Services
55 Portland Street
Portland, Maine 04101-2991

**Subject: Proposed Redevelopment of McAuley High School Campus
605 Stevens Avenue and Walton Street, Portland, Maine
Wastewater Capacity Application**

Dear Mr. Brancely:

Our office is working as a consultant to Sea Coast Management Company with the site engineering and permitting associated with a proposed redevelopment of the Motherhouse Building on the McAuley High School Campus to provide 88 affordable senior housing units. The project site is located on all or a portion of Map 34, Block C, Lots 009 according to the City of Portland Tax Assessor's Maps. On behalf of the developer, we are requesting a letter affirming that the proposed project can be served by the municipal wastewater treatment system.

This redevelopment project will be the first phase of a larger development of the property to construct a senior living community. The first phase of the project will consist of redevelopment of the Motherhouse to provide 88 affordable senior living apartments. As part of the redevelopment, we will be undertaking mapping and condition assessment of the existing sewer system to ascertain whether the infrastructure is suitable for reuse. Where the system is found to be in poor condition, rehabilitation and replacement options will be investigated. In addition, existing sources of inflow to the sewer system will be investigated and removed to a separate stormwater system. This will reduce infiltration and inflow to the onsite system and increase the available capacity of the system for wastewater flow.

Subsequent phasing will include independent senior living residences and assisted living units. A summary of the anticipated unit counts and estimated wastewater flows associated with each phase of development is as follows:

Phase	Full Master Plan Development	Design Flow
1	Affordable Senior Living Apartments – Motherhouse 88 Units @ 77 gpd	6,776

Mr. Frank Brancely
May 26, 2015
Page 2

Subsequent phasing of the project is as follows:

Phase	Full Master Plan Development	Design Flow (gpd)
2	Independent Residences 69 Units Single Occupancy @ 60 gpd 23 Units Double Occupancy @ 120 gpd	6,900
3	Independent/Assisted Living Residences 70 Units Single Occupancy @ 60 gpd 70 Units Double Occupancy @ 120 gpd	12,600
4	Assisted Living Apartments in Motherhouse 36 Units @ 77 gpd	2,772
5	Long Term Redevelopment at St. Catherine's 19 Units Single Occupancy @ 60 gpd 19 Units Double Occupancy @ 120 gpd	3,420
	Total Average Daily Flow	32,468

It should be noted that this information is provided for outline planning purposes only as the exact unit mix and numbers are subject to change. However, it may inform infrastructure and service decisions throughout the project development.

We trust that the existing wastewater collection and treatment system has adequate capacity to serve this project. We are in the process of completing the Site Plan Application for a submission to the City Planning Staff and would appreciate your response to the Planning Department.

If you have any questions concerning this request, please contact me.

Sincerely,

FAY, SPOFFORD & THORNDIKE



Andrew D. Johnston, P.E.
Principal Engineer

ADJ/cmd

Enclosures

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail: fjb@portlandmaine.gov

Date: 05.25.2015

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 605 Stevens Avenue

Chart Block Lot Number: 136 E006001;143 F004000
144 B001000

Proposed Use: Mixed-Use Residential

Previous Use: Mixed-Use Residential

Existing Sanitary Flows: Not Known GPD

Existing Process Flows: None GPD

Description and location of City sewer that is to
receive the proposed building sewer lateral.

Existing site service to Walton Street

Site Category | Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

X

(Clearly, indicate the proposed connections, on the submitted plans)

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____

Owner/Developer Name: Sea Coast at Baxter Woods, LLC and Motherhouse, LLC

Owner/Developer Address: 30 Governors Way - Topsham, ME 04086

Phone: 207-831-2418 Fax: _____ E-mail: MTeare@highlandgreenlifestyle.com

Engineering Consultant Name: Fay, Spofford & Thorndike, Attn: Andrew D. Johnston, P.E.

Engineering Consultant Address: 778 Main Street, Suite 8, South Portland, ME 04106

Phone: 207-775-1121 Fax: 207-879-0896 E-mail: ajohnston@fstinc.com

***(Note: Consultants and Developers should allow +/- 15 days, for capacity status,
prior to Planning Board Review)***

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: Phase 1 - 6,776; Total project 25,692 GPD

Peaking Factor/ Peak Times: 6 (TR-16)

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)
Handbook of Subsurface Wastewater Disposal in Maine-metered flow records from similar facilities.

***(Note: Please submit calculations showing the derivation of your design flows,
either on the following page, in the space provided, or attached, as a separate sheet)***

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

N/A - Residential Only

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

(Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet)

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

N/A

GPD

Do you currently hold Federal or State discharge permits?

Yes

No

Is the process wastewater termed categorical under CFR 40?

Yes

No

OSHA Standard Industrial Code (SIC):

<http://www.osha.gov/oshstats/sicser.html>

Peaking Factor/Peak Process Times:

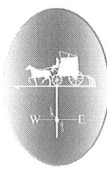
(Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps)

(Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided below, or attached, as a separate sheet)

Notes, Comments or Calculation

McAuley Place Water Demand Estimate

Phase	Use	Demand/Unit	Units	Demand (gpd)
1	Affordable Senior Living Apartments	77	88	6,776
2	Independent Resident Apartments			
	Single Occupancy	60	69	4,140
	Double Occupancy	120	23	2,760
3	Independent Townhouse/Apartment			
	Single Occupancy	60	70	4,200
	Double Occupancy	120	70	8,400
4	Assisted Living Units in Motherhouse	77	36	2,772
5	Independent Apartments - St Catherine's			
	Single Occupancy	60	19	1,140
	Double Occupancy	120	19	2,280
	TOTAL MASTER PLAN WATER DEMAND			32,468



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

April 15, 2015

Fay Spofford & Thorndike
778 Main Street, Suite 8
South Portland, ME 04106

Attn: Andrew Johnston, P.E.
Re: McAuley High School Campus - 605 Stevens Avenue Portland
Ability to Serve with PWD Water

Dear Mr. Johnston:

The Portland Water District has received your request for an Ability to Serve determination for the noted site submitted on March 6, 2015. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter.

Conditions of Service

The following conditions of water service apply:

- The existing services at this site may be used by the proposed development as long as the project team determines that they will provide adequate flow and pressure for the proposed use. If any of the existing services will no longer be used as a result of the development then they must be retired per PWD standards. This includes shutting the corporation valve and cutting the pipe from the water main (for service sizes 2-inch and smaller) or removing the gate valve and capping the tapping sleeve (for service sizes 4-inch and larger).
- Approval of plans will be required for the project prior to construction. As your project progresses, we advise that you submit any preliminary design plans to MEANS for review of the water main and water service line configuration. We will work with you to ensure that the design meets our current standards.

Existing Site Service

According to District records, the project site does currently have a number of existing water services. The following water service lines are located as shown on the attached water service cards:

- Saint Josephs Convent (605 Stevens Avenue) is served by a 6-inch diameter cast iron domestic water service line and an 8-inch cast iron fire service line.
- Catherine McAuley High School (631 Stevens Avenue) is served by a 4-inch diameter cast iron domestic service line
- Saint Catherines Hall (242 Walton Street) is served by a 1.5-inch diameter copper domestic water service line and a 6-inch cast iron fire service line.



Please refer to the "Conditions of Service" section of this letter for requirements related to the use of these services.

Water System Characteristics

According to District records, there is an 8-inch diameter cast iron main water main on the east side and a 12-inch cast iron water main on the west side of Stevens Avenue, a 6-inch cast iron water main on the south side of Walton Street and public fire hydrants located on Stevens Avenue and on Walton Street in front of the site.

The current data from the nearest hydrant with flow test information is as follows:

Hydrant Location:	Stevens Ave 200' S of Walton St	Walton St 100' W of Dingley Ct
Hydrant Number:	POD-HYD01287	POD-HYD01922
Last Tested:	3/9/2013	2/14/2013
Static Pressure:	64 psi	64 psi
Residual Pressure:	Not Measured	Not Measured
Flow:	Not Measured	Not Measured

Public Fire Protection

You have not indicated whether this project will include the installation of new public hydrants to be accepted into the District water system. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

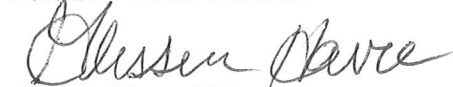
The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact the MEANS Division to request a hydrant flow test and we will work with you to get more complete data.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District


Glissen Havu, E.I.
Design Engineer



Neighborhood Meeting Invitation

March 4, 2016

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for the Master Development Plan for 605 Stevens Avenue Project, located at 605 Stevens Avenue in Portland.

Meeting Location: Catherine McAuley High School , 631 Stevens Avenue
Meeting Date: Monday, March 14, 2016
Meeting Time: 6:00 PM

(The City code requires that property owners within 500 feet (1000 feet for proposed industrial subdivisions and industrial zone changes) of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.)

If you have any questions, please call Matt Teare at 207-837-2418.

Sincerely,

Sea Coast Management Company

Patrick J. Carroll,
On behalf of Sea Coast Management Company

Note:

Under Section 14-32(C) and 14-524(a)d of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within 30 days of submitting a preliminary application or 21 days of submitting a final site plan application, if a preliminary plans was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street Portland, ME 04101 or by email: to bab@portlandmaine.gov

TRAFFIC IMPACT STUDY
605 Stevens Avenue
Portland, Maine

March 15, 2016

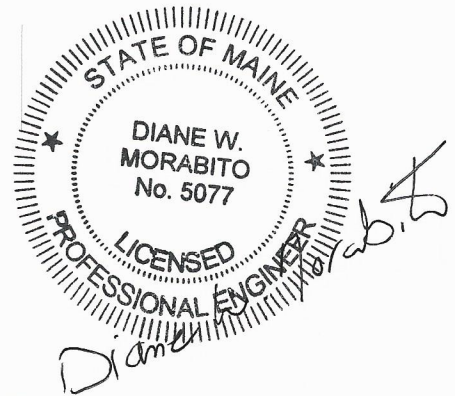
Prepared for:

Sea Coast at Baxter Woods Associates, LLC
and
Motherhouse Associates LP
100 Commercial Street
Suite 414
Portland, Maine 04101

Prepared by:

Maine
Traffic
Resources

25 Vine Street Gardiner, ME 04345
(207) 582-5252 FAX (207) 582-1677
mainetrafficresources.com



Introduction

The purpose of this report is to summarize the traffic impacts of a proposed senior housing development to be located at 605 Stevens Avenue on the McAuley High School Campus in Portland, Maine. The existing Motherhouse building will be renovated to provide eighty-eight (88) senior apartment units. This renovation has already been approved by the City of Portland. Five additional buildings will be constructed to provide 161 additional residential dwelling-units, for a total of 249. Access to the development will be provided by a full-movement drive to Walton Street, by a secondary entrance on Stevens Avenue and by a secondary exit on Stevens Avenue, where exiting movements will be limited to right-turns only. The site location and surrounding area are shown on the map in Figure 1.

Construction of the new buildings is expected to begin in Fall of 2016 with one new building built per year. This results in projected completion and full occupancy in 2021. As a result, 2021 was selected at the staff meeting with the City of Portland as the analysis year.

Trip Generation

The number of trips which will be generated by the proposed senior residential development was estimated using the most recent Institute of Transportation Engineers (ITE) “Trip Generation, 9th Edition” report, published in 2012. Land Use Code 252 – Senior Adult Housing – Attached was used on the basis of 249 total dwelling-units. The results are summarized below:

<u>Time Period</u>	ITE Trip Generation <u>One-way Trip-Ends</u>
Weekday	856
AM Peak Hour – adjacent street	50
Entering Site	17
Exiting Site	33
AM Peak Hour – generator	97
Entering Site	45
Exiting Site	52
PM Peak Hour – adjacent street	62
Entering Site	33
Exiting Site	29
PM Peak Hour – generator	87
Entering Site	48
Exiting Site	39

As can be seen in the preceding table, the senior housing development, when fully occupied in 2021, is expected to generate 97 one-way trips during their weekday AM peak hour and 87 trips during their weekday PM peak hour. During the peak hours of the adjacent street system, the more critical peak hour for analysis purposes, the senior residential units will generate 50 one-way trips during the AM peak hour and 62 during the PM peak hour.

Given that the maximum peak hour trip generation will be under 100 trips, a Traffic Movement Permit (TMP) will not be required from the Maine Department of Transportation (MaineDOT). The trip assignments were based upon the travel patterns observed during turning movement counts. The counts were conducted at the following intersections during the AM (7:00 – 9:00) and PM (3:00 – 6:00) peak hour periods. The count records are included in the appendix of this report and are summarized as follows:

<u>Intersection Description (AM Peak Hour)</u>	<u>Count Date</u>	<u>Peak Hour</u>
Stevens Avenue and Walton Street	April 28, 2015	7:15 – 8:15 AM
Forest Avenue and Walton Street	April 29, 2015	7:15 – 8:15 AM
Stevens Avenue and Pleasant Avenue	April 29, 2015	7:15 – 8:15 AM
Walton Street and McAuley School Drives	March 10, 2016	7:00 – 8:00 AM
<u>Intersection Description (PM Peak Hour)</u>	<u>Count Date</u>	<u>Peak Hour</u>
Stevens Avenue and Walton Street	April 28, 2015	4:30 – 5:30PM
Forest Avenue and Walton Street	April 28, 2015	4:15 – 5:15 PM
Stevens Avenue and Pleasant Avenue	April 29, 2015	4:30 – 5:30 PM
Walton Street and McAuley School Drives	March 11, 2016	2:15 – 3:15 PM

The signalized intersections counts were conducted during the last week of April 2015, which was UNE's last full week of regular classes and when both McAuley High School and Portland City Schools were back from April break. For this reason, the counts are expected to be representative of peak volumes for the study area given all of the schools in the immediate area. The counts conducted in March 2016 at the McAuley school drives were factored to peak school conditions (first week of May) using the MaineDOT Group I urban factor.

The resulting trip assignments are shown in Figure 2. Based upon the trip assignments, the study area for capacity purposes only extends through the site drive intersections. Generally, a project will not have any measurable/noticeable impact off-site on traffic operations unless it generates in excess of 25 trips in a lane per hour. Based upon the trip assignments, the entire residential development, when fully occupied is expected to generate a maximum of 18 lane-hour trips. This minimal level of traffic should have no significant or noticeable impact on traffic operations off-site. Based upon the trip assignments, the study area would only include Walton Street and Stevens Avenue in the immediate vicinity of the site and the site drive intersections. Based upon discussion with the City of Portland staff, the study area was extended to include the signalized Stevens Avenue intersections of both Walton Street and Pleasant Avenue as well as the signalized intersection of Walton Street and Forest Avenue.

Existing Traffic Volumes

Existing average annual daily traffic (AADT) data for the area was obtained from "Traffic Volume Counts, 2014, 2009 and 2006 Annual Reports", published by MaineDOT. This daily traffic data is summarized in the following table:

<u>Location</u>	Average Annual Daily Traffic				
	<u>2002</u>	<u>2005</u>	<u>2007</u>	<u>2010</u>	<u>2013</u>
Stevens Avenue, north of Walton Street	---	11,470	10,370	11,170	10,980
Stevens Avenue, south of Walton Street	12,650	12,950	11,030	12,510	11,680
Stevens Avenue, south of Forest Avenue	10,160	10,810	9,570	10,360	10,050
Walton Street, west of Forest Avenue	3,540	3,740	3,340	2,800	3,120
Forest Avenue, north of Walton Street	22,100	22,100	20,830	---	21,830
Forest Avenue, south of Walton Street	22,080	22,110	20,450	---	21,710

As can be seen above, traffic volumes have been declining on Stevens Avenue over the most recent short-term 2010 to 2013 period. They also declined over the longer term 2002 to 2013 period. The traffic count data for Walton Street shows a longer term decrease but a short-term increase from 2010 to 2013. Based upon the above count data, associated growth rates and discussion with City of Portland staff, a 1 % annual traffic growth rate was selected to project the 2015 volumes to 2021 base conditions, which is expected to be conservative given the historically declining volumes. The 2015 traffic counts were adjusted to 2016 conditions using this growth rate. The resulting 2016 volumes, expected to be representative of existing conditions are shown in Figure 3.

In addition, other developments that have been approved but not yet constructed, or are pending approval, also need to be considered in the future traffic analysis. Only one other development project was identified by City staff that is expected to impact traffic volumes in this area, the expansion of Park Danforth. The trips to be generated by this other development project were obtained from the Traffic Impact Study prepared by Gorrill-Palmer Consulting Engineers and dated October 2014. The projected 2021 no-build volumes, allowing for 1 % annual traffic growth and for the Park Danforth project to be fully occupied, are shown in Figure 4. The projected 2021 Build volumes, with the 605 Stevens Avenue and Motherhouse project also fully occupied, are shown in Figure 5.

Capacity Analysis

Traffic operations are evaluated in terms of level of service (LOS). Level of service is a qualitative measure that describes operations by letter designation. The levels range from A - very little delay to F - extreme delays. Level of service "D" is generally considered acceptable in urban locations while LOS "E" is generally considered the capacity of a facility and the minimum tolerable level. The level of service for signalized intersections is based upon average control delay per vehicle, as defined in the following tables excerpted from the 2010 "Highway Capacity Manual":

Signalized Intersection Level of Service	
<u>LOS</u>	<u>Control Delay per Vehicle</u>
A	< = 10.0 seconds
B	> 10.0 and <= 20.0
C	> 20.0 and <= 35.0
D	> 35.0 and <= 55.0
E	> 55.0 and <= 80.0
F	> 80.0

The level of service for unsignalized intersections is based upon average control delay per vehicle for each minor, opposed movement, as defined below:

Unsignalized Intersection Level of Service	
<u>LOS</u>	<u>Delay Range</u>
A	< = 10.0 seconds
B	> 10.0 and <= 15.0
C	> 15.0 and <= 25.0
D	> 25.0 and <= 35.0
E	> 35.0 and <= 50.0
F	> 50.0

Signalized Intersection Analysis

Synchro 7 was used to analyze the signalized study intersections under existing 2016 conditions and projected 2021 conditions. The analysis was performed using traffic timings observed in the field under peak hour conditions. The results for the signalized study area intersections are included in the appendix and are summarized in the following tables with the LOS followed by the associated delay in seconds:

Intersection of Stevens Avenue and Walton Street			
AM Peak Hour Levels of Service			
<u>Approach/Movement</u>	<u>2016 Existing</u>	<u>2021 No-Build</u>	<u>2021 Build</u>
Westbound Walton Street Lefts	B (19.0)	B (19.7)	C (20.0)
Westbound Walton Street Rights	B (17.2)	B (17.7)	B (18.0)
Westbound Walton Street Overall	B (18.0)	B (18.6)	B (19.0)
Northbound Stevens Avenue Rights	A (9.4)	A (9.4)	A (9.5)
Northbound Stevens Avenue Throughs	B (16.6)	B (17.3)	B (17.6)
Northbound Stevens Avenue Overall	B (15.2)	B (15.8)	B (16.1)
Southbound Stevens Avenue Lefts	A (6.6)	A (6.8)	A (7.0)
Southbound Stevens Avenue Throughs	A (7.5)	A (7.8)	A (7.9)
Southbound Stevens Avenue Overall	A (7.4)	A (7.7)	A (7.8)
Overall Intersection	B (13.0)	B (13.5)	B (13.7)

**Intersection of Stevens Avenue and Walton Street
PM Peak Hour Levels of Service**

<u>Approach/Movement</u>	2016 <u>Existing</u>	2021 <u>No-Build</u>	2021 <u>Build</u>
Westbound Walton Street	B (19.3)	C (20.3)	C (21.8)
Northbound Stevens Avenue Rights	A (7.2)	A (7.2)	A (7.1)
Northbound Stevens Avenue Throughs	B (11.6)	B (11.9)	B (11.5)
Northbound Stevens Avenue Overall	B (10.8)	B (11.0)	B (10.7)
Southbound Stevens Avenue Lefts	A (4.7)	A (4.9)	A (4.9)
Southbound Stevens Avenue Throughs	A (4.9)	A (5.2)	A (5.1)
Southbound Stevens Avenue Overall	A (4.9)	A (5.2)	A (5.1)
Overall Intersection	A (9.3)	A (9.6)	A (9.7)

As can be seen above, the Walton Street and Stevens Avenue intersection operates at LOS “B” overall in the AM peak hour and at LOS “A” overall in the PM peak hour with all movements at LOS “C” or better. The intersection will remain at these levels under projected 2021 full build volumes. Based upon these levels of service, there are no capacity concerns at this intersection. The proposed senior housing facility will have an insignificant impact on this intersection, as evidenced by the minimal increase (0.2 seconds) in delay, as would be expected given the minimal peak hour volumes to be generated by the overall project.

**Intersection of Walton Street and Forest Avenue
AM Peak Hour Levels of Service**

<u>Approach/Movement</u>	2016 <u>Existing</u>	2021 <u>No-Build</u>	2021 <u>Build</u>
Eastbound Walton Street Lefts/Throughs	C (27.1)	C (28.7)	C (29.5)
Eastbound Walton Street Rights	C (24.2)	C (25.3)	C (25.4)
Eastbound Walton Street Overall	C (26.2)	C (27.6)	C (28.1)
Westbound Walton Street Lefts/Throughs	D (36.5)	D (40.0)	D (40.7)
Westbound Walton Street Rights	C (24.6)	C (25.8)	C (25.8)
Westbound Walton Street Overall	C (32.9)	D (35.7)	D (36.2)
Northbound Forest Avenue Lefts	C (25.1)	C (27.8)	C (30.9)
Northbound Forest Avenue Throughs/Rights	B (16.9)	B (16.5)	B (16.7)
Northbound Forest Avenue Overall	B (18.1)	B (18.1)	B (18.8)
Southbound Forest Avenue Lefts	B (10.1)	A (10.0)	B (10.1)
Southbound Forest Avenue Throughs/Rights	C (29.3)	C (29.1)	C (29.9)
Southbound Forest Avenue Overall	C (27.7)	C (27.4)	C (28.2)
Overall Intersection	C (25.3)	C (25.9)	C (26.6)

Intersection of Walton Street and Forest Avenue**PM Peak Hour Levels of Service**

<u>Approach/Movement</u>	2016	2021	2021
	<u>Existing</u>	<u>No-Build</u>	<u>Build</u>
Eastbound Walton Street Lefts/Throughs	C (22.8)	C (24.7)	C (25.1)
Eastbound Walton Street Rights	C (21.3)	C (22.1)	C (22.2)
Eastbound Walton Street Overall	C (22.8)	C (23.7)	C (24.1)
Westbound Walton Street Lefts/Throughs	C (24.1)	C (28.1)	C (29.1)
Westbound Walton Street Rights	C (21.5)	C (22.3)	C (22.3)
Westbound Walton Street Overall	C (24.1)	C (25.6)	C (26.3)
Northbound Forest Avenue Lefts	A (7.8)	A (8.1)	A (8.4)
Northbound Forest Avenue Throughs/Rights	B (18.2)	B (19.8)	B (20.0)
Northbound Forest Stevens Avenue Overall	B (17.7)	B (19.2)	B (19.4)
Southbound Forest Avenue Lefts	B (10.4)	B (11.7)	B (11.9)
Southbound Forest Avenue Throughs/Rights	B (13.2)	B (13.9)	B (14.2)
Southbound Forest Avenue Overall	B (12.9)	B (13.6)	B (13.9)
Overall Intersection	B (17.4)	B (18.6)	B (18.9)

As can be seen above, the Walton Street and Forest Avenue intersection currently operates at LOS “C” overall in the AM peak hour and at LOS “B” overall in the PM peak hour, with all movements at an acceptable LOS “D” or better. The intersection will continue to operate at these levels of service under projected full build 2021 volumes. Again, the senior housing development will have minimal impact on this intersection as shown by the negligible increase in delays.

Intersection of Stevens Avenue and Pleasant Avenue**AM Peak Hour Levels of Service**

<u>Approach/Movement</u>	2016	2021	2021
	<u>Existing</u>	<u>No-Build</u>	<u>Build</u>
Eastbound Pleasant Avenue	C (29.8)	C (26.2)	C (26.2)
Westbound Pleasant Avenue	C (22.0)	C (21.0)	C (21.0)
Northbound Stevens Avenue	A (5.2)	A (6.3)	A (6.4)
Southbound Stevens Avenue	A (8.5)	B (11.0)	B (11.3)
Overall Intersection	B (11.7)	B (12.6)	B (12.7)

**Intersection of Stevens Avenue and Pleasant Avenue
PM Peak Hour Levels of Service**

<u>Approach/Movement</u>	<u>2016 Existing</u>	<u>2021 No-Build</u>	<u>2021 Build</u>
Eastbound Pleasant Avenue	B (18.8)	B (18.8)	B (18.8)
Westbound Pleasant Avenue	B (17.8)	B (17.7)	B (17.8)
Northbound Stevens Avenue	A (7.6)	A (8.3)	A (8.3)
Southbound Stevens Avenue	A (8.7)	A (9.6)	A (9.5)
Overall Intersection	A (10.0)	B (10.6)	B (10.6)

As can be seen above, the Pleasant Avenue and Stevens Avenue intersection operates at LOS “B” overall in the AM peak hour and PM peak hours with all movements at LOS “C” or better, again with no capacity concerns. Under projected 2021 volumes, the intersection will continue to operate at LOS “B” during both peak hours. Again, the senior residential housing will have no significant or measurable impact on operations at this intersection as shown by the insignificant 0.1 second increase in delay. This again would be expected given the very small increase in volumes attributed to the development at this intersection during both peak hour periods.

Unsignalized Site Drives

Level of service was also calculated for the unsignalized site drives under full build 2021 volumes using Synchro to assure acceptable drive operations. The results are shown below:

**Intersection of McAuley Entrance/Site Drive and Walton Street
2021 Build Peak Hour Levels of Service**

<u>Approach/Movement</u>	<u>AM Peak</u>	<u>PM Peak</u>
Westbound Walton Street Lefts into Drive	A (2.1)	A (1.7)
Northbound McAuley/Site Drive Overall	B (11.2)	B (10.8)

**Intersection of McAuley Exit Drive and Walton Street
2021 Build Peak Hour Levels of Service**

<u>Approach/Movement</u>	<u>AM Peak</u>	<u>PM Peak</u>
Northbound McAuley Exit Drive	B (10.7)	B (10.8)
Overall Intersection	A (1.2)	A (1.8)

**Intersection of Northerly Exit Drive and Stevens Avenue
2021 Build Peak Hour Levels of Service**

<u>Approach/Movement</u>	<u>AM Peak</u>	<u>PM Peak</u>
Westbound Site Drive Rights	B (11.9)	B (12.7)

As seen in the preceding tables, there are no capacity concerns at any of the drives under full build volumes. All site drive movements will operate at LOS “B” or better during both the AM and PM peak hours, demonstrating that both Walton Street and Stevens Avenue have plenty of capacity to accept the new trips.

Accident Review

The Maine Department of Transportation uses two criteria to determine high crash locations (HCLs). The first is the critical rate factor (CRF), which is a measure of the accident rate. A CRF greater than one indicates a location which has a higher than expected accident rate. The expected rate is calculated as a statewide average of similar facilities.

The second criterion, which must also be met, is based upon the number of accidents that occur at a particular location. Eight or more accidents must occur over the three-year study period for the location to be considered a high crash location. The CRF and number of accidents are summarized by location for the most recent three-year period 2012 to 2014 below:

<u>Stevens Avenue Location Description</u>	<u># of Acc.</u>	<u>CRF</u>
Intersection of Pleasant Avenue	4	0.24
Between Pleasant Avenue and Brentwood Street	2	0.66
Intersection of Brentwood Street	5	1.03
Between Brentwood Street and Clinton Street	1	0.42
Intersection of Clinton Street	4	0.86
Between Clinton Street and Hartley Street	1	0.25
Between Hartley Street and Percival Street	2	0.55
Intersection of Crosby Street	2	0.41
Between Crosby Street and New Street	2	0.54
Intersection of New Street	1	0.22
Between New Street and Walton Street	4	0.37
Intersection of Walton Street	4	0.24
Intersection of St. Joseph Street	3	0.65
Between St. Joseph Street and Elmwood	7	1.40
Intersection of Elmwood	1	0.22
Between Elmwood and Waverly Street	1	0.25
Intersection of Waverly Street	6	1.30
Between Poland Street and Arbor Street	3	0.58
Intersection of Arbor Street	2	0.47
Between Arbor Street and Non-Intersection of Stevens Avenue	5	0.84
Intersection of Forest Avenue and Bishop Street	31	0.80

<u>Walton Street Location Description</u>	<u># of Acc.</u>	<u>CRF</u>
Intersection of Dingley Court	0	0.00
Intersection of Morgan Court	0	0.00
Intersection of Pershing Street	0	0.00
Intersection of Forest Avenue	34	1.15

As can be seen in the above accident tables, there is one high crash location within the study area, the intersection of Walton Street and Forest Avenue. Additionally, the Stevens Avenue link from St. Joseph's Street to Elmwood Street is approaching the high crash criteria with seven (7) accidents. Individual accident reports were obtained and collision diagrams were prepared to determine if there are any accident patterns or trends evident that may indicate a correctable safety deficiency. The diagrams are included in the appendix and are evaluated below:

Intersection of Walton Street and Forest Avenue

The signalized intersection of Walton Street and Forest Avenue has a CRF of 1.15 with 34 reported accidents. Nine accidents occurred in 2012, twelve in 2013 and thirteen in 2014. Twenty-five of the collisions were rear ends on Forest Avenue, typical of signalized intersections and indicative of a pattern. There was one sideswipe type accident on Walton Street. There were five angle collisions between Forest Avenue and Walton Street vehicles, primarily involving left-turn movements. There were two motor vehicle-bicycle collisions. Lastly, a tractor trailer knocked down a traffic pole turning right. The only pattern of collisions is the rear-ends on the Forest Avenue approaches, which can sometimes be attributed to improper signal timing. A review of the phase change intervals, or clearances, by Maine Traffic Resources did not identify any apparent timing deficiencies. If this pattern of rear-end accidents continues, at a greater than expected rate, then it is recommended that the City of Portland reevaluate the signal timing.

Stevens Avenue between St. Joseph's Street and Elmwood Street

There were 7 accidents reported along this link over the three-year study period; four in 2012 and three in 2013. Five of the seven accidents were rear-end collisions, occurring when vehicles stopped in traffic or for pedestrians. One was a single vehicle accident that went off the road and struck a pole. The remaining accident was a sideswipe as a vehicle exited a parking space. There are no trends or patterns evident that would indicate a correctable safety deficiency along this segment of Stevens Avenue.

Driveway Sight Distance

Typically, sight distances are one of the most important safety aspects to consider in a traffic impact study. Maine Traffic Resources recommends a minimum of 250' of intersection sight distance for the posted 25 mph speed limit on Walton Street. The speed limit is posted at 30 mph on Stevens Avenue in the vicinity of the site so a greater 300' distance is recommended. The City ordinance standards require lesser sight distances of 200' for 25 mph roadways and 250' for 30 mph locations. The sight distances from the proposed exit drives were estimated in the field and are summarized as follows:

<u>Intersection</u>	<u>Required</u>	Available Sight Distance		<u>Adequate</u>
		<u>To Left</u>	<u>To Right</u>	
Walton Street Site Drive	250'	>350'	>350'	Yes
Stevens Avenue Exit Drive	300'	>400'*	400'*	Yes*

* see following discussion

As can be seen above, available sight distances exceed the recommended minimums as well as Portland's requirements. However, it is noted that sight distance from the Stevens Avenue exit, although adequate at the time of the field visit, has the potential to be blocked by cars parked along Stevens Avenue. For this reason it is helpful that the drive will be limited to right-turns out only. Given this limitation, we are only concerned with sight distance to the left. It is recommended that a small no parking zone be located south of the exit drive to assure adequate sight distance for vehicles exiting this drive. It should be noted that the City is considering relocating the existing crosswalk south of this drive, which along with a hydrant, already creates a small no-parking zone to the south. With the removal of this existing crosswalk it will be important to re-establish a "no parking" zone.

It is also important that the intersection sight distances be maintained into the future. No plantings or signage should be located in the sight triangles that could obscure sight distances from the access drives in the future.

SUMMARY

The proposed senior residential development, including the Motherhouse apartments and the five new residential buildings, is expected to generate 97 one-way trips during their AM peak hour and 87 their weekday PM peak hour. During the peak hour of the adjacent street system, the more critical peak hour, the development when fully occupied is expected to generate 50 AM peak hour trips and 62 PM peak hour trips. This level of traffic typically does not have any significant impact on off-site traffic operations, based upon the trip assignments. Given that trip generation will be under 100 trips, a Traffic Movement Permit will not be required for this senior housing development.

The capacity analysis did not identify any capacity constraints within the expanded study area during either the AM or PM peak hours under 2021 build volumes, which included three signalized intersections. The overall project will not have any significant impact on operations at these signalized study area intersections, as shown by the analysis, and as would be expected given the limited number of new lane-hour trips generated by the senior residential development.

In terms of safety, there is one high crash location within the vicinity of 605 Stevens Avenue, the intersection of Walton Street and Forest Avenue. A review of the collision diagram for this intersection shows that there is a pattern of rear-end collisions occurring on the Forest Avenue approaches, which can sometimes be caused by improper signal timing. A review by Maine Traffic Resources did not identify any particular issues with the existing phase change intervals. If rear-end collisions continue at a higher than expected rate in the future then the City of Portland should reevaluate the signal timing. The segment of Stevens Avenue which extends from St. Joseph's Street to Elmwood Street is approaching the high crash criteria. However, a collision diagram prepared for this segment did not identify any accident patterns or correctable deficiencies. Sight distances from the access drive intersections on Stevens Avenue and Walton Street will be more than adequate, exceeding the recommended minimums, with the recommended provision of a small no parking area south of the drive on Stevens Avenue.

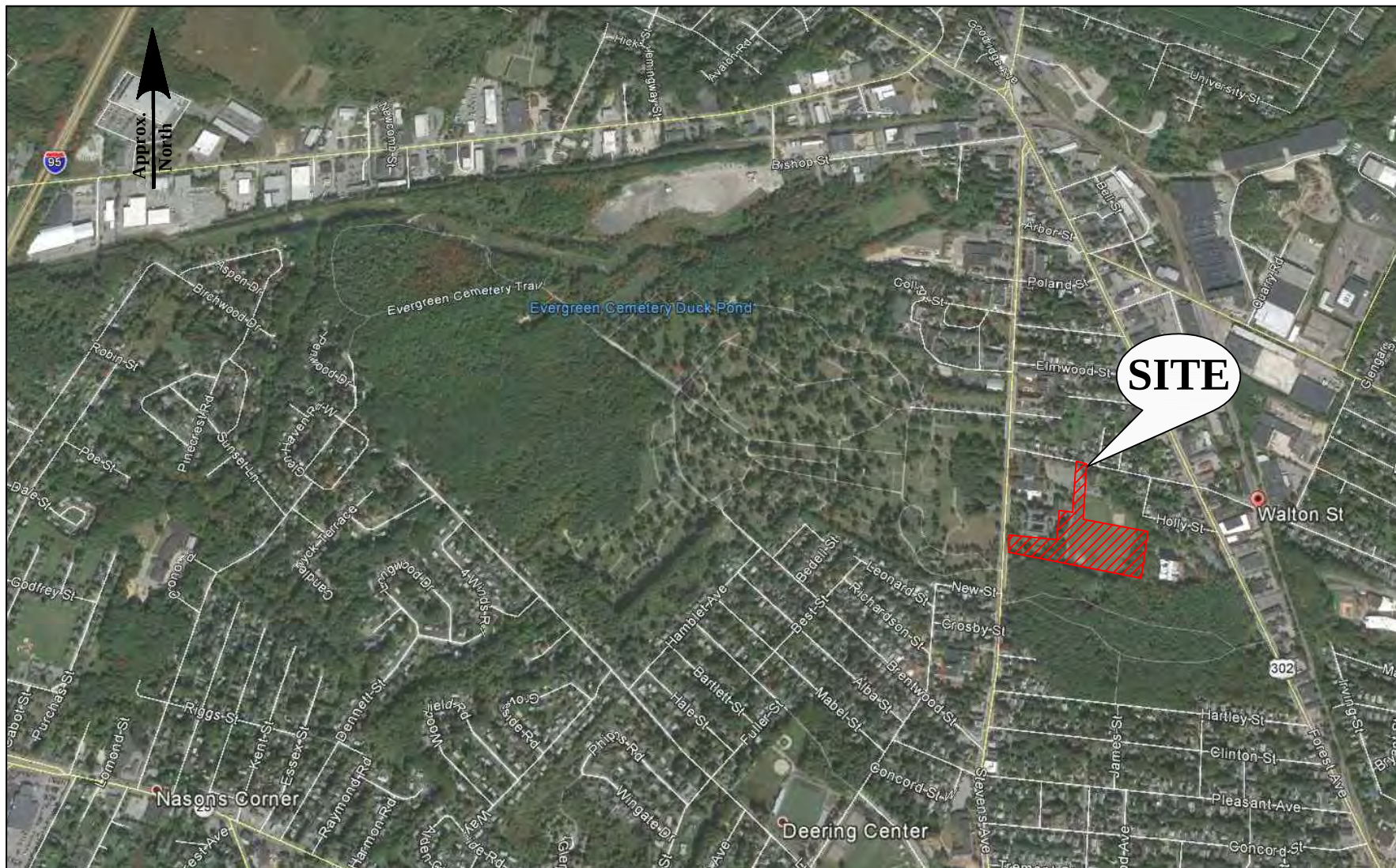


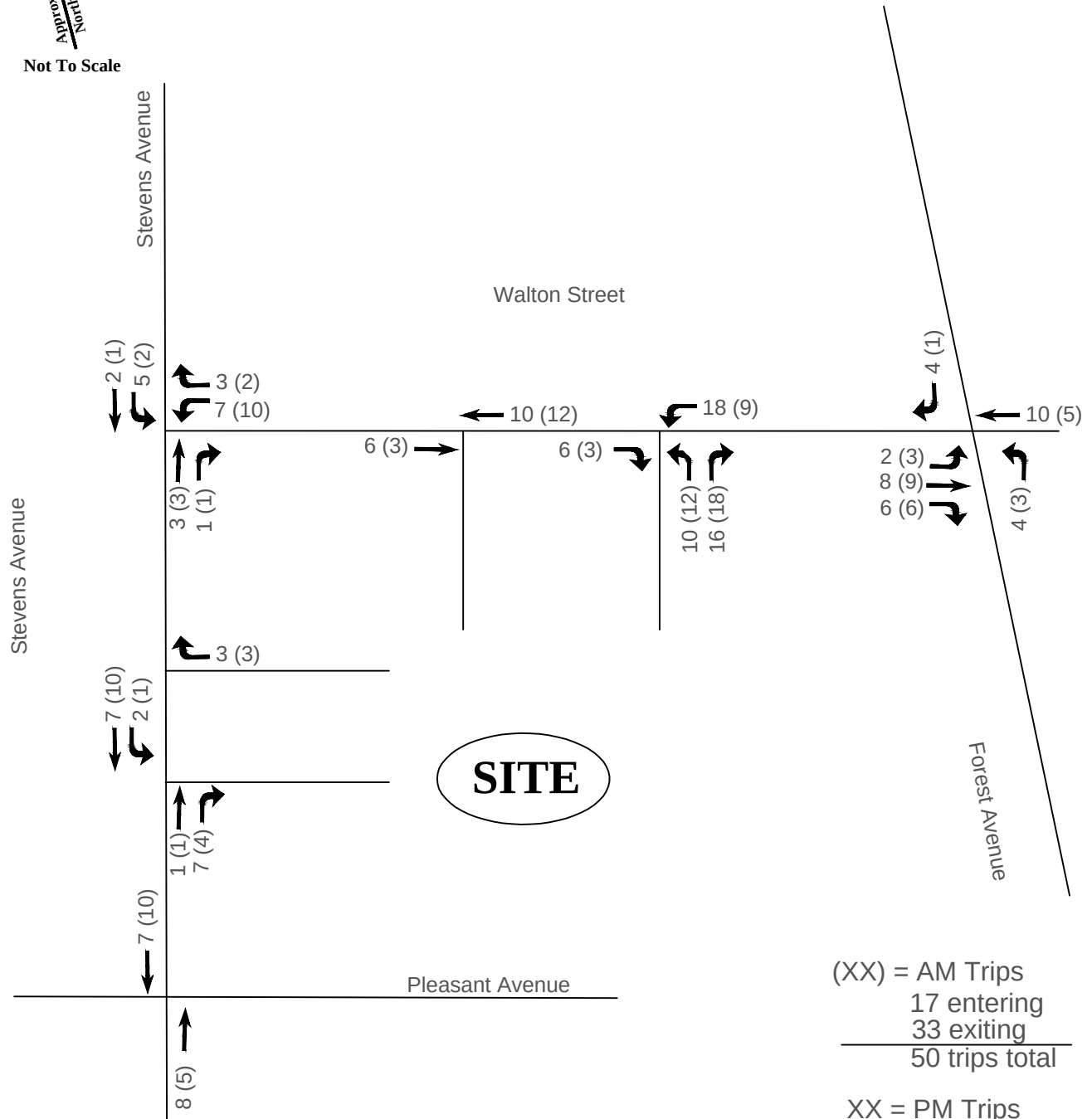
Figure 1

Site Location Map
605 Stevens Avenue Project
Portland, Maine

**Maine
Traffic
Resources**

25 Vine Street
 Gardiner, ME
 04345
 tel: (207) 582-5252
 fax: (207) 582-1677

Approx.
North
Not To Scale



(XX) = AM Trips
 17 entering
 33 exiting
 —————
 50 trips total

XX = PM Trips
 33 entering
 29 exiting
 —————
 62 trips total

Figure 2

Peak Hour Trip Assignments
605 Stevens Avenue Project
Portland, Maine

**Maine
Traffic
Resources**

25 Vine Street
 Gardiner, ME
 04345
 tel: (207) 582-5252
 fax: (207) 582-1677



Not To Scale

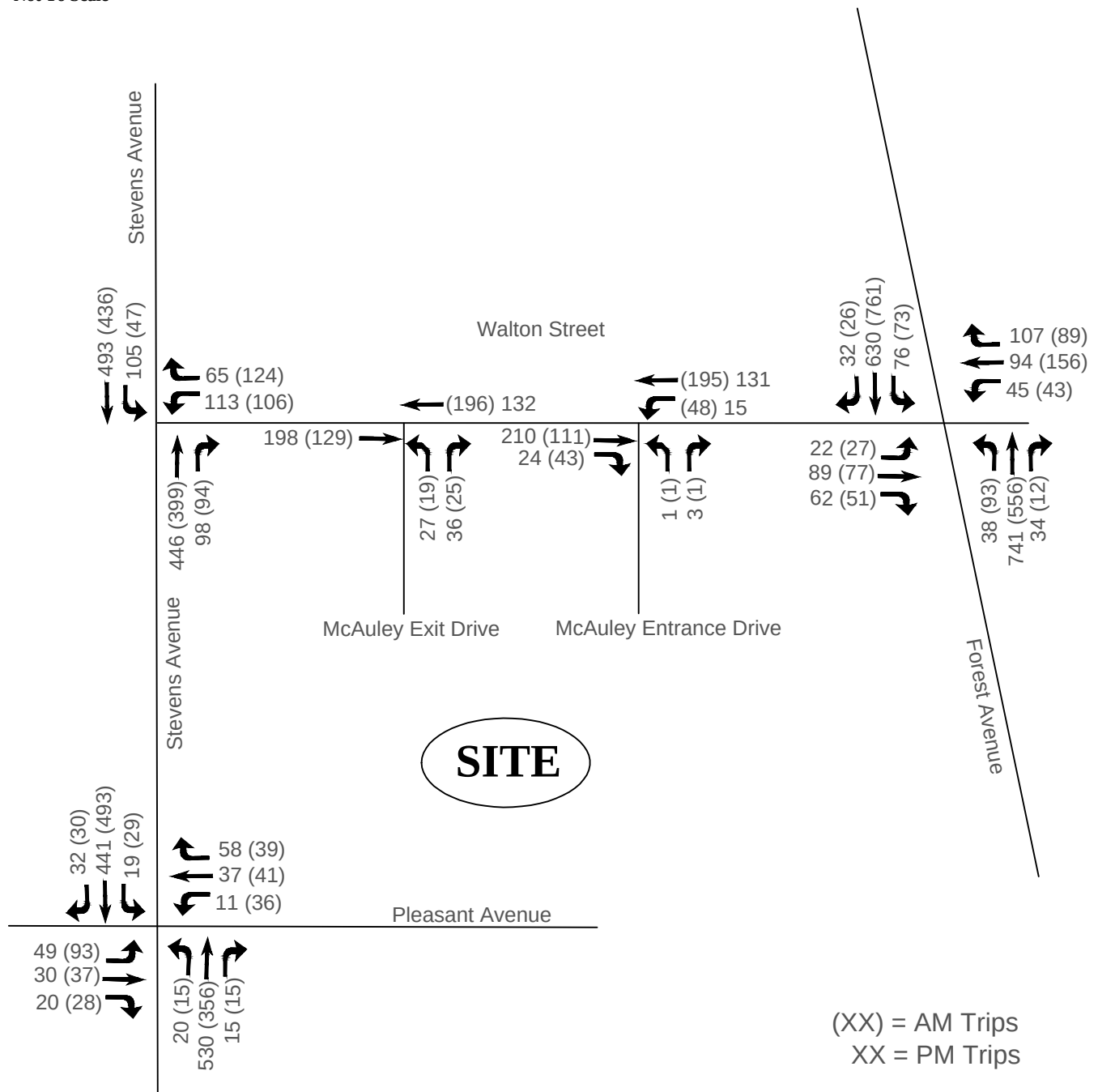


Figure 3

2016 Existing PM Peak Hour Volumes

605 Stevens Avenue Project

Portland, Maine

**Maine
Traffic
Resources**

25 Vine Street
Gardiner, ME
04345
tel: (207) 582-5252
fax: (207) 582-1677



Not To Scale

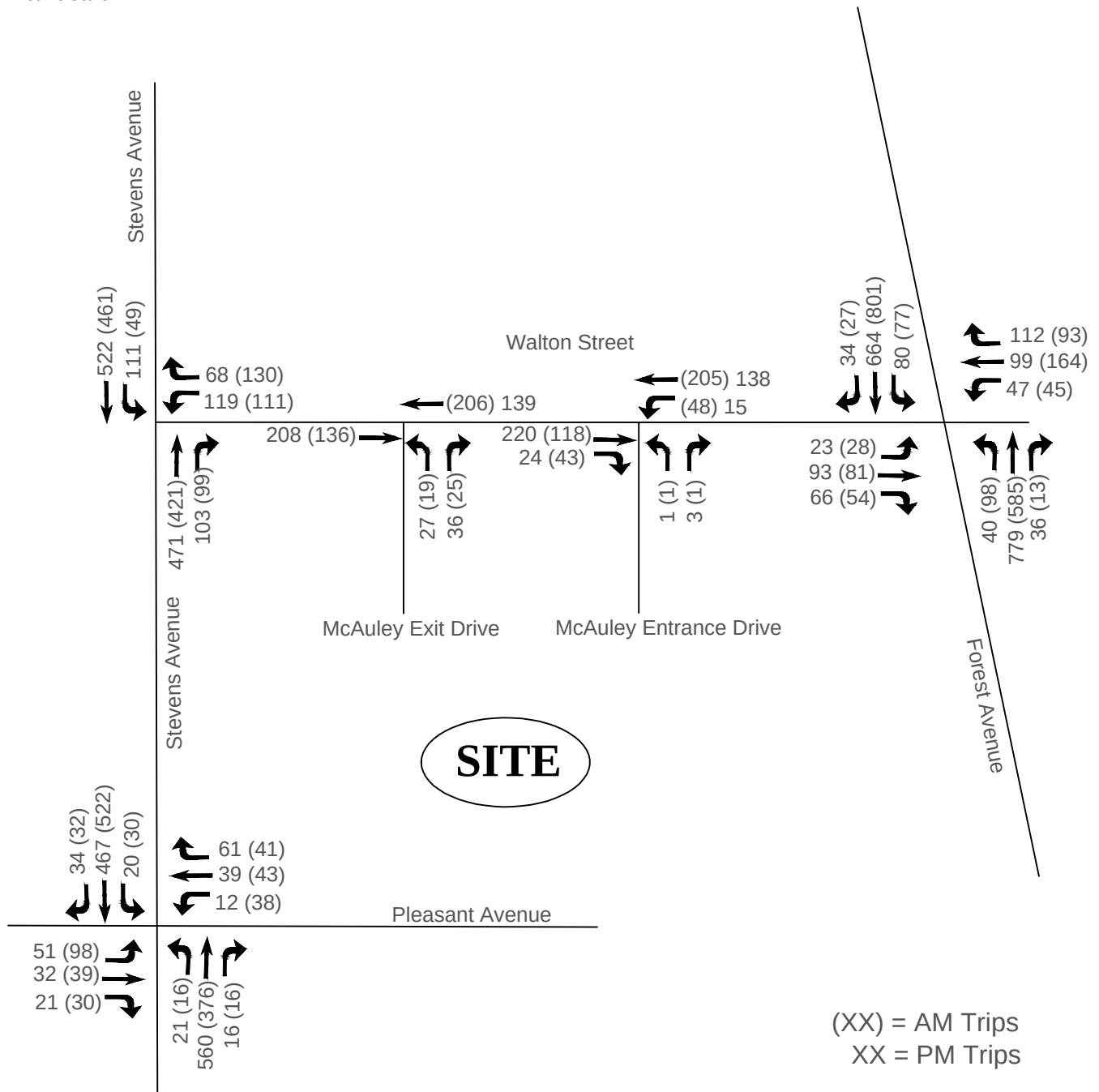


Figure 4

2021 No-Build Peak Hour Volumes
605 Stevens Avenue Project
Portland, Maine

**Maine
Traffic
Resources**

25 Vine Street
Gardiner, ME
04345
tel: (207) 582-5252
fax: (207) 582-1677

Approx.
North

Not To Scale

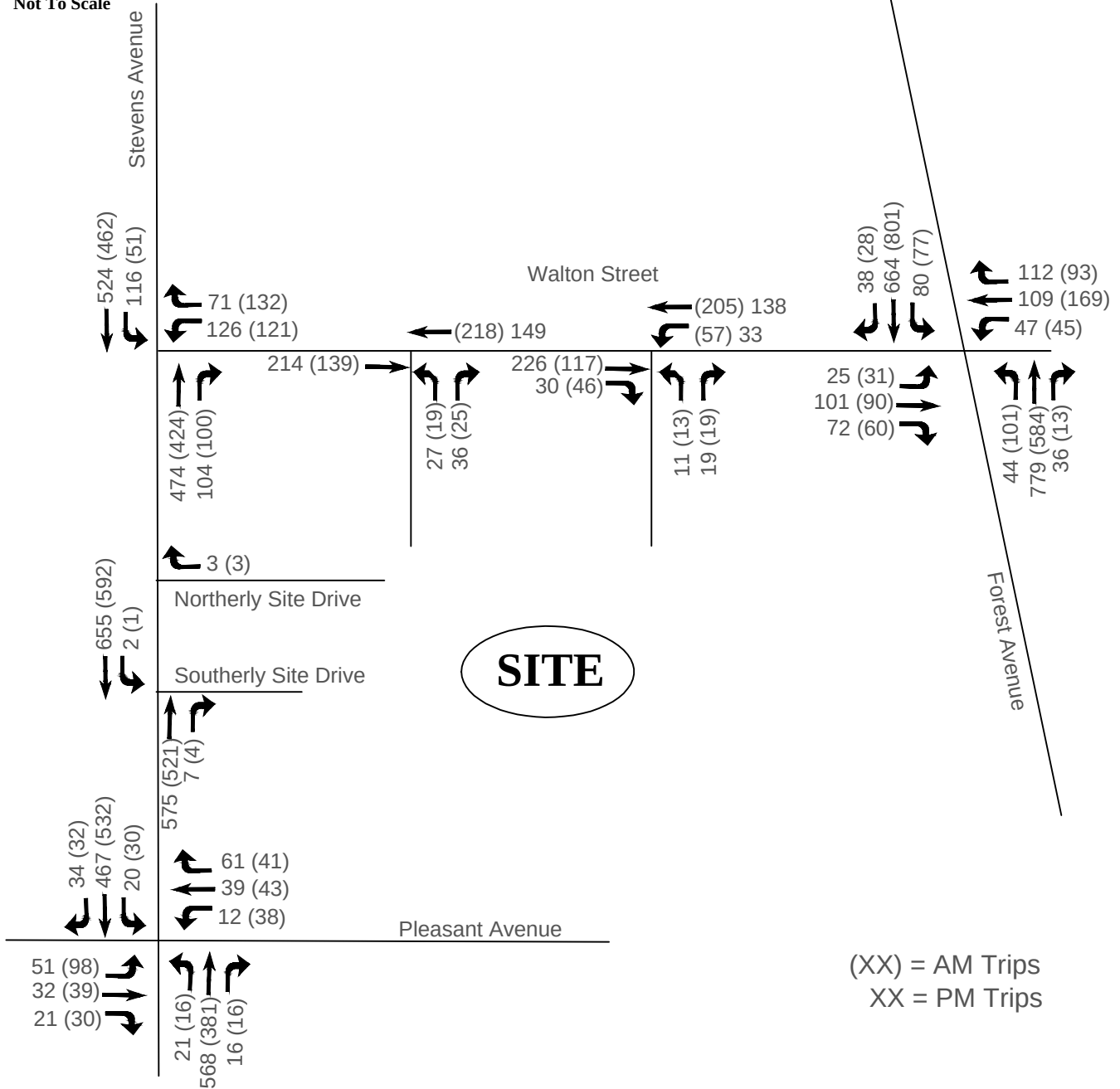


Figure 5

2021 Build Peak Hour Volumes

605 Stevens Avenue Project

Portland, Maine

**Maine
Traffic
Resources**

25 Vine Street
Gardiner, ME
04345
tel: (207) 582-5252
fax: (207) 582-1677

APPENDIX

Turning Movement Counts

Capacity Analyses

Accident Data

Collision Diagrams

Maine Traffic Resources

25 Vine Street

Gardiner, ME 04345

mainetrafficresources.com

Pleasant and Stevens Avenues

City: Portland

Counter: DMF

Weather: Cloudy

File Name : PortlandStevensPleasantPM

Site Code : 00001113

Start Date : 4/29/2015

Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	Stevens Avenue From North					Pleasant Ave From East					Stevens Ave From South					Pleasant Ave From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
03:00 PM	7	94	9	3	113	4	7	2	12	25	0	80	1	7	88	2	7	8	9	26	252
03:15 PM	5	92	5	3	105	10	6	3	4	23	1	92	3	1	97	5	11	8	7	31	256
03:30 PM	5	100	9	6	120	6	12	2	6	26	4	89	1	4	98	4	11	11	1	27	271
03:45 PM	3	103	3	5	114	8	6	6	5	25	7	87	3	0	97	5	3	9	3	20	256
Total	20	389	26	17	452	28	31	13	27	99	12	348	8	12	380	16	32	36	20	104	1035
04:00 PM	4	91	2	15	112	10	8	2	13	33	1	91	7	2	101	5	6	6	4	21	267
04:15 PM	5	113	8	3	129	15	6	5	8	34	3	102	4	1	110	7	9	12	2	30	303
04:30 PM	7	97	2	6	112	12	5	2	10	29	3	132	3	1	139	4	13	10	9	36	316
04:45 PM	4	104	5	1	114	11	7	2	6	26	6	123	5	1	135	2	2	9	6	19	294
Total	20	405	17	25	467	48	26	11	37	122	13	448	19	5	485	18	30	37	21	106	1180
05:00 PM	7	116	5	3	131	18	9	4	14	45	4	126	5	2	137	9	8	17	4	38	351
05:15 PM	14	120	7	8	149	16	16	3	5	40	2	144	7	1	154	5	7	13	1	26	369
05:30 PM	8	99	2	6	115	7	10	5	4	26	5	101	4	3	113	5	6	11	3	25	279
05:45 PM	4	83	6	3	96	10	12	5	7	34	4	90	3	3	100	4	9	8	10	31	261
Total	33	418	20	20	491	51	47	17	30	145	15	461	19	9	504	23	30	49	18	120	1260
Grand Total	73	1212	63	62	1410	127	104	41	94	366	40	1257	46	26	1369	57	92	122	59	330	3475
Apprch %	5.2	86.0	4.5	4.4		34.7	28.4	11.2	25.7		2.9	91.8	3.4	1.9		17.3	27.9	37.0	17.9		
Total %	2.1	34.9	1.8	1.8	40.6	3.7	3.0	1.2	2.7	10.5	1.2	36.2	1.3	0.7	39.4	1.6	2.6	3.5	1.7	9.5	

Start Time	Stevens Avenue From North					Pleasant Ave From East					Stevens Ave From South					Pleasant Ave From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	32	437	19	18	506	57	37	11	35	140	15	525	20	5	565	20	30	49	20	119	1330
Percent	6.3	86.4	3.8	3.6		40.7	26.4	7.9	25.0		2.7	92.9	3.5	0.9		16.8	25.2	41.2	16.8		
05:15 Volume	14	120	7	8	149	16	16	3	5	40	2	144	7	1	154	5	7	13	1	26	369
Peak Factor																					0.901
High Int. Volume	05:15 PM					05:00 PM					05:15 PM					05:00 PM					
Peak Factor	14	120	7	8	149	18	9	4	14	45	2	144	7	1	154	9	8	17	4	38	
						0.849					0.778					0.917					0.783

Maine Traffic Resources

25 Vine Street

Gardiner, ME 04345

mainetrafficresources.com

File Name : PortlandStevensPleasantAM

Site Code : 00001112

Start Date : 4/29/2015

Page No : 1

Stevens Avenue and Pleasant Avenue

City: Portland

Counter: DMF

Weather: Sun/Clouds/Shower

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	Stevens Ave From North					Pleasant Ave From East					Stevens Ave From South					Pleasant Ave From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	4	71	4	5	84	4	2	6	4	16	2	44	1	1	48	3	7	11	5	26	174
07:15 AM	5	114	7	3	129	8	4	9	11	32	4	100	5	3	112	8	5	34	7	54	327
07:30 AM	8	130	8	1	147	11	14	8	5	38	5	95	1	3	104	8	13	33	4	58	347
07:45 AM	9	147	5	3	164	13	16	10	10	49	3	85	4	7	99	9	10	14	21	54	366
Total	26	462	24	12	524	36	36	33	30	135	14	324	11	14	363	28	35	92	37	192	1214
08:00 AM	8	97	9	1	115	7	7	9	2	25	3	72	5	2	82	3	9	11	17	40	262
08:15 AM	7	80	7	2	96	6	3	4	3	16	2	65	5	1	73	8	4	12	3	27	212
08:30 AM	9	77	5	8	99	7	5	12	11	35	2	66	3	2	73	9	7	8	12	36	243
08:45 AM	2	97	7	3	109	13	5	9	2	29	3	67	2	1	73	10	7	14	15	46	257
Total	26	351	28	14	419	33	20	34	18	105	10	270	15	6	301	30	27	45	47	149	974
Grand Total	52	813	52	26	943	69	56	67	48	240	24	594	26	20	664	58	62	137	84	341	2188
Apprch %	5.5	86.2	5.5	2.8		28.8	23.3	27.9	20.0		3.6	89.5	3.9	3.0		17.0	18.2	40.2	24.6		
Total %	2.4	37.2	2.4	1.2	43.1	3.2	2.6	3.1	2.2	11.0	1.1	27.1	1.2	0.9	30.3	2.7	2.8	6.3	3.8	15.6	

	Stevens Ave From North					Pleasant Ave From East					Stevens Ave From South					Pleasant Ave From West					Int. Total
	Start Time	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	30	488	29	8	555	39	41	36	28	144	15	352	15	15	397	28	37	92	49	206	1302
Percent	5.4	87.9	5.2	1.4		27.1	28.5	25.0	19.4		3.8	88.7	3.8	3.8		13.6	18.0	44.7	23.8		
07:45 Volume	9	147	5	3	164	13	16	10	10	49	3	85	4	7	99	9	10	14	21	54	366
Peak Factor																					0.889
High Int.	07:45 AM																				
Volume	9	147	5	3	164	13	16	10	10	49	4	100	5	3	112	8	13	33	4	58	
Peak Factor	0.846					0.735					0.886					0.888					

Maine Traffic Resources

25 Vine Street

Gardiner, ME 04345

mainetrafficresources.com

Stevens Avenue and Walton Street

City: Portland

Counter: DWM

Weather: Sun/Clouds

File Name : PortlandStevensWaltonAM

Site Code : 00011334

Start Date : 4/28/2015

Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	Stevens Avenue From North					Walton Street From East					Stevens Avenue From South					From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	0	83	5	0	88	12	0	16	0	28	13	60	0	0	73	0	0	0	0	0	189
07:15 AM	0	96	22	0	118	26	0	23	1	50	31	87	0	0	118	0	0	0	0	0	286
07:30 AM	0	123	6	0	129	40	0	31	3	74	31	121	0	0	152	0	0	0	0	0	355
07:45 AM	0	123	11	0	134	39	0	39	8	86	12	111	0	3	126	0	0	0	0	0	346
Total	0	425	44	0	469	117	0	109	12	238	87	379	0	3	469	0	0	0	0	0	1176
08:00 AM	0	90	8	0	98	18	0	12	1	31	19	76	0	1	96	0	0	0	0	0	225
08:15 AM	0	85	9	0	94	8	0	14	2	24	15	73	0	0	88	0	0	0	0	0	206
08:30 AM	0	89	11	0	100	27	0	7	8	42	19	83	0	0	102	0	0	0	0	0	244
08:45 AM	0	106	8	1	115	19	0	14	5	38	16	83	0	0	99	0	0	0	0	0	252
Total	0	370	36	1	407	72	0	47	16	135	69	315	0	1	385	0	0	0	0	0	927
Grand Total	0	795	80	1	876	189	0	156	28	373	156	694	0	4	854	0	0	0	0	0	2103
Apprch %	0.0	90.8	9.1	0.1		50.7	0.0	41.8	7.5		18.3	81.3	0.0	0.5		0.0	0.0	0.0	0.0		
Total %	0.0	37.8	3.8	0.0	41.7	9.0	0.0	7.4	1.3	17.7	7.4	33.0	0.0	0.2	40.6	0.0	0.0	0.0	0.0	0.0	

	Stevens Avenue From North					Walton Street From East					Stevens Avenue From South					From West					Int. Total
	Start Time	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	
Peak Hour	From 07:00 AM to 08:45 AM - Peak 1 of 1																				
Intersection	07:15 AM																				
Volume	0	432	47	0	479	123	0	105	13	241	93	395	0	4	492	0	0	0	0	0	1212
Percent	0.0	90.2	9.8	0.0		51.0	0.0	43.6	5.4		18.9	80.3	0.0	0.8		0.0	0.0	0.0	0.0		
07:30 Volume	0	123	6	0	129	40	0	31	3	74	31	121	0	0	152	0	0	0	0	0	355
Peak Factor	0.854																				
High Int.	07:45 AM					07:45 AM					07:30 AM					6:45:00 AM					
Volume	0	123	11	0	134	39	0	39	8	86	31	121	0	0	152						
Peak Factor	0.894					0.701					0.809										

Maine Traffic Resources

25 Vine Street

Gardiner, ME 04345

mainetrafficresources.com

Forest Avenue and Walton Street

City: Portland

Counter: DMF

Weather: Clouds/Sun

File Name : PortlandForestWaltonPM

Site Code : 00001111

Start Date : 4/28/2015

Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	Forest Avenue From North					Walton Street From East					Forest Avenue From South					Walton Street From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
03:00 PM	0	150	6	0	156	31	21	11	2	65	7	200	8	1	216	15	20	6	0	41	478
03:15 PM	3	163	10	1	177	19	18	7	4	48	12	191	7	1	211	13	17	1	2	33	469
03:30 PM	6	197	7	1	211	20	13	11	7	51	4	194	6	2	206	12	9	2	5	28	496
03:45 PM	1	169	13	0	183	15	17	10	5	47	4	194	4	1	203	17	17	6	4	44	477
Total	10	679	36	2	727	85	69	39	18	211	27	779	25	5	836	57	63	15	11	146	1920
04:00 PM	6	143	21	1	171	26	23	11	4	64	5	191	10	0	206	13	22	8	2	45	486
04:15 PM	9	146	11	1	167	28	24	8	2	62	10	193	8	0	211	6	24	3	1	34	474
04:30 PM	9	165	19	0	193	25	18	16	1	60	6	178	13	0	197	20	21	13	1	55	505
04:45 PM	3	159	20	0	182	21	21	8	2	52	11	188	8	0	207	14	21	3	2	40	481
Total	27	613	71	2	713	100	86	43	9	238	32	750	39	0	821	53	88	27	6	174	1946
05:00 PM	11	154	25	3	193	32	30	13	3	78	7	175	9	0	191	21	22	3	4	50	512
05:15 PM	9	171	22	1	203	16	25	10	2	53	8	148	6	0	162	17	21	8	3	49	467
05:30 PM	7	152	10	0	169	19	17	6	2	44	8	176	8	2	194	18	21	4	3	46	453
05:45 PM	4	159	6	1	170	13	21	6	0	40	11	165	7	0	183	9	23	3	2	37	430
Total	31	636	63	5	735	80	93	35	7	215	34	664	30	2	730	65	87	18	12	182	1862
Grand Total	68	1928	170	9	2175	265	248	117	34	664	93	2193	94	7	2387	175	238	60	29	502	5728
Apprch %	3.1	88.6	7.8	0.4		39.9	37.3	17.6	5.1		3.9	91.9	3.9	0.3		34.9	47.4	12.0	5.8		
Total %	1.2	33.7	3.0	0.2	38.0	4.6	4.3	2.0	0.6	11.6	1.6	38.3	1.6	0.1	41.7	3.1	4.2	1.0	0.5	8.8	

	Forest Avenue From North					Walton Street From East					Forest Avenue From South					Walton Street From West					Int. Total
	Start Time	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	
Peak Hour	From 03:00 PM to 05:45 PM - Peak 1 of 1																				
Intersection	04:15 PM																				
Volume	32	624	75	4	735	106	93	45	8	252	34	734	38	0	806	61	88	22	8	179	1972
Percent	4.4	84.9	10.2	0.5		42.1	36.9	17.9	3.2		4.2	91.1	4.7	0.0		34.1	49.2	12.3	4.5		
05:00 Volume	11	154	25	3	193	32	30	13	3	78	7	175	9	0	191	21	22	3	4	50	512
Peak Factor																					0.963
High Int. Volume	04:30 PM					05:00 PM					04:15 PM					04:30 PM					
Peak Factor	9	165	19	0	193	32	30	13	3	78	10	193	8	0	211	20	21	13	1	55	
					0.952					0.808					0.955					0.814	

Maine Traffic Resources

25 Vine Street

Gardiner, ME 04345

mainetrafficresources.com

Forest Avenue and Walton Street

City: Portland

Counter: DWM

Weather: Clouds/Shower/Sun

File Name : PortlandForestWaltonAM

Site Code : 00007768

Start Date : 4/29/2015

Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

	Forest Avenue From North					Walton Street From East					Forest Avenue From South					Walton Street From West						
Start Time	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Int. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0			
07:00 AM	5	163	10	0	178	11	18	5	2	36	3	101	8	1	113	5	17	3	1	26	353	
07:15 AM	9	193	12	4	218	22	40	6	1	69	0	139	18	0	157	9	19	6	1	35	479	
07:30 AM	11	177	22	0	210	34	52	11	1	98	4	136	38	0	178	14	21	10	1	46	532	
07:45 AM	4	206	23	0	233	24	41	18	1	84	3	151	26	0	180	17	17	7	2	43	540	
Total	29	739	67	4	839	91	151	40	5	287	10	527	90	1	628	45	74	26	5	150	1904	
08:00 AM	2	177	15	0	194	8	22	8	0	38	5	124	10	0	139	10	19	4	1	34	405	
08:15 AM	5	193	12	0	210	15	15	8	0	38	1	102	9	0	112	7	13	3	4	27	387	
08:30 AM	2	198	12	0	212	15	16	9	4	44	6	111	19	0	136	6	21	5	0	32	424	
08:45 AM	3	167	15	0	185	16	9	8	0	33	6	80	8	0	94	4	16	4	2	26	338	
Total	12	735	54	0	801	54	62	33	4	153	18	417	46	0	481	27	69	16	7	119	1554	
Grand Total	41	1474	121	4	1640	145	213	73	9	440	28	944	136	1	1109	72	143	42	12	269	3458	
Apprch %	2.5	89.9	7.4	0.2		33.0	48.4	16.6	2.0		2.5	85.1	12.3	0.1		26.8	53.2	15.6	4.5			
Total %	1.2	42.6	3.5	0.1	47.4	4.2	6.2	2.1	0.3	12.7	0.8	27.3	3.9	0.0	32.1	2.1	4.1	1.2	0.3	7.8		

	Forest Avenue From North					Walton Street From East					Forest Avenue From South					Walton Street From West					Int. Total	
	Start Time	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s		App. Total
Peak Hour	From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:15 AM																					
Volume	26	753	72	4	855	88	155	43	3	289	12	550	92	0	654	50	76	27	5	158	1956	
Percent	3.0	88.1	8.4	0.5		30.4	53.6	14.9	1.0		1.8	84.1	14.1	0.0		31.6	48.1	17.1	3.2			
07:45 Volume	4	206	23	0	233	24	41	18	1	84	3	151	26	0	180	17	17	7	2	43	540	
Peak Factor																					0.906	
High Int. Volume	07:45 AM					07:30 AM					07:45 AM					07:30 AM						
Peak Factor	4	206	23	0	233	34	52	11	1	98	3	151	26	0	180	14	21	10	1	46		
					0.917					0.737					0.908					0.859		

Maine Traffic Resources

25 Vine Street

Title: Walton Street McAuley Drive AM

Town: Portland, Maine

Counter: DWM

Weather: Cloudy

Gardiner, ME 04345

mainetrafficresources.com

File Name : PortlandMcAuleyEntranceAM

Site Code : 00334433

Start Date : 3/10/2016

Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	From North					Walton Street From East					McAuley Entrance Driveway From South					Walton Street From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
	Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:45 AM	0	0	0	0	0	0	16	2	0	18	0	0	0	0	0	3	17	0	0	20	38
Total	0	0	0	0	0	0	16	2	0	18	0	0	0	0	0	3	17	0	0	20	38
07:00 AM	0	0	0	0	0	0	18	10	0	28	0	0	1	1	2	12	25	0	0	37	67
07:15 AM	0	0	0	0	0	0	46	15	0	61	1	0	0	1	2	12	19	0	0	31	94
07:30 AM	0	0	0	0	0	0	73	15	0	88	0	0	0	2	2	15	24	0	2	41	131
07:45 AM	0	0	0	0	0	0	51	8	0	59	0	0	0	0	0	4	39	0	0	43	102
Total	0	0	0	0	0	0	188	48	0	236	1	0	1	4	6	43	107	0	2	152	394
Grand Total	0	0	0	0	0	0	204	50	0	254	1	0	1	4	6	46	124	0	2	172	432
Apprch %	0.0	0.0	0.0	0.0		0.0	80.3	19.7	0.0		16.7	0.0	16.7	66.7		26.7	72.1	0.0	1.2		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	47.2	11.6	0.0	58.8	0.2	0.0	0.2	0.9	1.4	10.6	28.7	0.0	0.5	39.8	

Start Time	From North					Walton Street From East					McAuley Entrance Driveway From South					Walton Street From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
	Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Peak Hour From 06:45 AM to 07:45 AM - Peak 1 of 1																					
Intersecti on	07:00 AM																				
Volume	0	0	0	0	0	0	188	48	0	236	1	0	1	4	6	43	107	0	2	152	394
Percent	0.0	0.0	0.0	0.0		0.0	79.7	20.3	0.0		16.7	0.0	16.7	66.7		28.3	70.4	0.0	1.3		
07:30 Volume	0	0	0	0	0	0	73	15	0	88	0	0	0	2	2	15	24	0	2	41	131
Peak Factor																					0.752
High Int. Volume	6:30:00 AM	0	0	0	0	07:30 AM	0	73	15	0	07:00 AM	0	0	1	1	07:45 AM	4	39	0	0	43
Peak Factor																					0.884

$$Gr. I = \frac{.92}{.89} = 1.034$$

Maine Traffic Resources

25 Vine Street

Gardiner, ME 04345

mainetrafficresources.com

Title : Walton Street/McAuley Drives PM

Town: Portland, Maine

Counter: NLS

Weather: Sunny

File Name : PortlandMcAuley DrivesPM

Site Code : 00000001

Start Date : 3/11/2016

Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	From North					Walton Street From East					McAuley Drive From South					Walton Street From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
01:45 PM	0	0	0	0	0	0	19	1	0	20	3	0	3	0	6	2	27	0	0	29	55
Total	0	0	0	0	0	0	19	1	0	20	3	0	3	0	6	2	27	0	0	29	55
02:00 PM	0	0	0	0	0	0	17	2	0	19	1	0	0	1	2	5	27	0	0	32	53
02:15 PM	0	0	0	0	0	0	36	4	0	40	13	0	8	2	23	10	37	0	0	47	110
02:30 PM	0	0	0	0	0	0	31	5	1	37	11	0	9	0	20	4	51	0	0	55	112
02:45 PM	0	0	0	0	0	0	36	4	0	40	9	0	7	0	16	5	48	0	0	53	109
Total	0	0	0	0	0	0	120	15	1	136	34	0	24	3	61	24	163	0	0	187	384
03:00 PM	0	0	0	0	0	0	24	2	0	26	6	0	4	0	10	5	36	0	0	41	77
Grand Total	0	0	0	0	0	0	163	18	1	182	43	0	31	3	77	31	226	0	0	257	516
Apprch %	0.0	0.0	0.0	0.0		0.0	89.6	9.9	0.5		55.8	0.0	40.3	3.9		12.1	87.9	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	31.6	3.5	0.2	35.3	8.3	0.0	6.0	0.6	14.9	6.0	43.8	0.0	0.0	49.8	

	From North					Walton Street From East					McAuley Drive From South					Walton Street From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour	From 01:45 PM to 03:00 PM - Peak 1 of 1																				
Intersection	02:15 PM																				
Volume	0	0	0	0	0	0	127	15	1	143	39	0	28	2	69	24	172	0	0	196	408
Percent	0.0	0.0	0.0	0.0		0.0	88.8	10.5	0.7		56.5	0.0	40.6	2.9		12.2	87.8	0.0	0.0		
02:30 Volume	0	0	0	0	0	0	31	5	1	37	11	0	9	0	20	4	51	0	0	55	112
Peak Factor	0.911																				
High Int. Volume	1:30:00 PM					02:15 PM					02:15 PM					02:30 PM					
Peak Factor	0	0	0	0	0	0	36	4	0	40	13	0	8	2	23	4	51	0	0	55	
										0.89					0.75					0.89	
										4					0					1	

131 15

39 28

24 176

$$Gr. I = \frac{.92}{.99} = 1.034$$

Maine Traffic Resources

25 Vine Street

Gardiner, ME 04345

mainetrafficresources.com

Title: Walton Street McAuley Drive AM

Town: Portland, Maine

Counter: NLS

Weather: Cloudy

File Name : PortlandMcAuleyExitAM

Site Code : 00000001

Start Date : 3/10/2016

Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	From North					Walton Street From East					McAuley Exit Driveway From South					Walton Street From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:45 AM	0	0	0	0	0	0	16	0	0	16	0	0	2	0	2	0	20	0	1	21	39
Total	0	0	0	0	0	0	16	0	0	16	0	0	2	0	2	0	20	0	1	21	39
07:00 AM	0	0	0	0	0	0	19	0	0	19	5	0	2	0	7	0	32	0	1	33	59
07:15 AM	0	0	0	0	0	0	42	0	0	42	5	0	9	0	14	0	26	0	1	27	83
07:30 AM	0	0	0	0	0	0	78	0	0	78	10	0	7	4	21	0	29	0	0	29	128
07:45 AM	0	0	0	0	0	0	51	0	0	51	5	0	1	0	6	0	38	0	1	39	96
Total	0	0	0	0	0	0	190	0	0	190	25	0	19	4	48	0	125	0	3	128	366
Grand Total	0	0	0	0	0	0	206	0	0	206	25	0	21	4	50	0	145	0	4	149	405
Apprch %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	0.0	42.0	8.0		0.0	97.3	0.0	2.7		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	50.9	0.0	0.0	50.9	6.2	0.0	5.2	1.0	12.3	0.0	35.8	0.0	1.0	36.8	

	From North					Walton Street From East					McAuley Exit Driveway From South					Walton Street From West					Int. Total
	Start Time	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	
Peak Hour	From 06:45 AM to 07:45 AM - Peak 1 of 1																				
Intersection	07:00 AM																				
Volume	0	0	0	0	0	0	190	0	0	190	25	0	19	4	48	0	125	0	3	128	366
Percent	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		52.1	0.0	39.6	8.3		0.0	97.7	0.0	2.3		
07:30 Volume	0	0	0	0	0	0	78	0	0	78	10	0	7	4	21	0	29	0	0	29	128
Peak Factor																					0.715
High Int. Volume	6:30:00 AM					07:30 AM					07:30 AM					07:45 AM					
Peak Factor	0	0	0	0	0	0	78	0	0	78	10	0	7	4	21	0	38	0	1	39	
											0.609					0.571					0.821
						196					25 19					129					

$$Gr. I = \frac{.92}{.89} = 1.034$$

Lanes, Volumes, Timings
3: Walton St & Stevens Ave

3/11/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	106	124	399	94	47	436
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	40		35	90	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.97		0.97	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1599	1642	1599	1770	1626
Flt Permitted	0.950				0.279	
Satd. Flow (perm)	1775	1553	1642	1545	519	1626
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		177		54		
Link Speed (mph)	30		30			30
Link Distance (ft)	1000		1000			1000
Travel Time (s)	22.7		22.7			22.7
Confl. Peds. (#/hr)	3	3		4	2	
Confl. Bikes (#/hr)		1		6		
Peak Hour Factor	0.70	0.70	0.80	0.80	0.89	0.89
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			4			4
Adj. Flow (vph)	151	177	499	118	53	490
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	177	499	118	53	490
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.19	1.00	1.00	1.19
Turning Speed (mph)	15	9		9	15	
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	10.0	22.0
Total Split (s)	22.0	22.0	43.0	43.0	10.0	53.0
Total Split (%)	29.3%	29.3%	57.3%	57.3%	13.3%	70.7%
Maximum Green (s)	16.0	16.0	37.0	37.0	4.0	47.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0

HCM Signalized Intersection Capacity Analysis

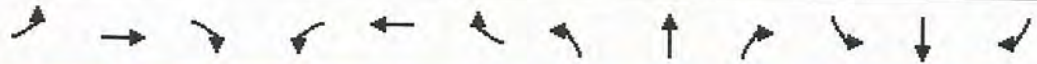
3: Walton St & Stevens Ave

3/11/2016

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	106	124	399	94	47	436
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1556	1642	1548	1769	1626
Flt Permitted	0.95	1.00	1.00	1.00	0.28	1.00
Satd. Flow (perm)	1787	1556	1642	1548	520	1626
Peak-hour factor, PHF	0.70	0.70	0.80	0.80	0.89	0.89
Adj. Flow (vph)	151	177	499	118	53	490
RTOR Reduction (vph)	0	142	0	31	0	0
Lane Group Flow (vph)	151	35	499	87	53	490
Confl. Peds. (#/hr)	3	3		4	2	
Confl. Bikes (#/hr)		1		6		
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			4			4
Turn Type	Perm			Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	10.4	10.4	21.7	21.7	29.6	29.6
Effective Green, g (s)	10.4	10.4	21.7	21.7	29.6	29.6
Actuated g/C Ratio	0.20	0.20	0.42	0.42	0.57	0.57
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	357	311	685	646	342	926
v/s Ratio Prot	c0.08		c0.30		0.01	c0.30
v/s Ratio Perm		0.02		0.06	0.08	
v/c Ratio	0.42	0.11	0.73	0.13	0.15	0.53
Uniform Delay, d1	18.2	17.0	12.7	9.4	6.4	6.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.2	3.9	0.1	0.2	0.5
Delay (s)	19.0	17.2	16.6	9.4	6.6	7.5
Level of Service	B	B	B	A	A	A
Approach Delay (s)	18.0		15.2			7.4
Approach LOS	B		B			A
Intersection Summary						
HCM Average Control Delay			13.0		HCM Level of Service	B
HCM Volume to Capacity ratio			0.68			
Actuated Cycle Length (s)			52.0		Sum of lost time (s)	18.0
Intersection Capacity Utilization			45.9%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	37	28	36	41	39	15	352	15	29	488	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.98			1.00			1.00	
Frt		0.976			0.955			0.995			0.993	
Flt Protected		0.972			0.985			0.998			0.997	
Satd. Flow (prot)	0	1768	0	0	1756	0	0	1797	0	0	1606	0
Flt Permitted		0.739			0.859			0.973			0.967	
Satd. Flow (perm)	0	1331	0	0	1524	0	0	1752	0	0	1557	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			42			6			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1219			1121			280			1491	
Travel Time (s)		27.7			25.5			6.4			33.9	
Confl. Peds. (#/hr)	12		12	12		12	8		8	6		6
Confl. Bikes (#/hr)			8			8			8			8
Peak Hour Factor	0.88	0.88	0.88	0.73	0.73	0.73	0.88	0.88	0.88	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	4%	4%	4%	3%	3%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	0	0
Parking (#/hr)											4	
Adj. Flow (vph)	105	42	32	49	56	53	17	400	17	35	581	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	179	0	0	158	0	0	434	0	0	652	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.18	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	21.0	21.0	0.0	21.0	21.0	0.0	39.0	39.0	0.0	39.0	39.0	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%
Maximum Green (s)	16.5	16.5		16.5	16.5		34.5	34.5		34.5	34.5	
Yellow Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		11.5			11.3			38.6			38.6	
Actuated g/C Ratio		0.21			0.20			0.69			0.69	
v/c Ratio		0.62			0.46			0.36			0.61	
Control Delay		27.5			18.5			6.5			10.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		27.5			18.5			6.5			10.4	
LOS		C			B			A			B	
Approach Delay		27.5			18.5			6.5			10.4	
Approach LOS		C			B			A			B	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 55.9
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 12.3
 Intersection Capacity Utilization 62.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 9: Pleasant Ave & Stevens Ave



HCM Signalized Intersection Capacity Analysis

9: Pleasant Ave & Stevens Ave

3/11/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	37	28	36	41	39	15	352	15	29	488	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.98			0.95			0.99			0.99	
Flt Protected		0.97			0.98			1.00			1.00	
Satd. Flow (prot)		1750			1744			1796			1605	
Flt Permitted		0.74			0.86			0.97			0.97	
Satd. Flow (perm)		1331			1522			1752			1556	
Peak-hour factor, PHF	0.88	0.88	0.88	0.73	0.73	0.73	0.88	0.88	0.88	0.84	0.84	0.84
Adj. Flow (vph)	105	42	32	49	56	53	17	400	17	35	581	36
RTOR Reduction (vph)	0	15	0	0	34	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	164	0	0	124	0	0	432	0	0	649	0
Confl. Peds. (#/hr)	12		12	12		12	8		8	6		6
Confl. Bikes (#/hr)			8			8			8			8
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	4%	4%	4%	3%	3%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	0	0
Parking (#/hr)											4	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.2			10.2			37.7			37.7	
Effective Green, g (s)		10.2			10.2			37.7			37.7	
Actuated g/C Ratio		0.18			0.18			0.66			0.66	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		239			273			1161			1031	
v/s Ratio Prot												
v/s Ratio Perm		c0.12			0.08			0.25			c0.42	
v/c Ratio		0.69			0.45			0.37			0.63	
Uniform Delay, d1		21.9			20.9			4.3			5.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		8.0			1.2			0.9			2.9	
Delay (s)		29.8			22.0			5.2			8.5	
Level of Service		C			C			A			A	
Approach Delay (s)		29.8			22.0			5.2			8.5	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM Average Control Delay			11.7			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			56.9			Sum of lost time (s)			9.0			
Intersection Capacity Utilization			62.0%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	77	51	43	156	89	93	556	12	73	761	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		100	140		0	140		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97		1.00			1.00	
Frt			0.850			0.850		0.997			0.995	
Flt Protected		0.987			0.989		0.950			0.950		
Satd. Flow (prot)	0	1857	1599	0	1842	1583	1736	1821	0	1787	1855	0
Flt Permitted		0.746			0.893		0.100			0.260		
Satd. Flow (perm)	0	1402	1553	0	1662	1538	183	1821	0	489	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			60			117		2			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		850			686			1198			517	
Travel Time (s)		19.3			15.6			27.2			11.8	
Confl. Peds. (#/hr)	2		2	2		2				2		2
Confl. Bikes (#/hr)			2			2			2			2
Peak Hour Factor	0.85	0.85	0.85	0.73	0.73	0.73	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Adj. Flow (vph)	32	91	60	59	214	122	103	618	13	80	836	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	60	0	273	122	103	631	0	80	865	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	10.0	22.0		10.0	22.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	10.0	52.0	0.0	11.0	53.0	0.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	11.1%	57.8%	0.0%	12.2%	58.9%	0.0%
Maximum Green (s)	21.0	21.0	21.0	21.0	21.0	21.0	4.0	46.0		5.0	47.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead	Lag		Lead	Lag	

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	
Act Effct Green (s)		17.5	17.5		17.5	17.5	42.9	40.0		44.3	40.7	
Actuated g/C Ratio		0.22	0.22		0.22	0.22	0.55	0.51		0.57	0.52	
v/c Ratio		0.39	0.15		0.74	0.28	0.56	0.68		0.22	0.90	
Control Delay		33.4	8.9		43.9	8.5	21.4	19.8		7.8	31.8	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		33.4	8.9		43.9	8.5	21.4	19.8		7.8	31.8	
LOS		C	A		D	A	C	B		A	C	
Approach Delay		25.4			33.0			20.1			29.8	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 78.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 26.8
 Intersection Capacity Utilization 83.6%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 11: Walton Street & Forest Ave



HCM Signalized Intersection Capacity Analysis

11: Walton Street & Forest Ave

3/11/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	77	51	43	156	89	93	556	12	73	761	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0		6.0	6.0	6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.97		1.00	0.97	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.99	1.00		0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1856	1554		1841	1539	1736	1820		1787	1855	
Flt Permitted		0.75	1.00		0.89	1.00	0.10	1.00		0.26	1.00	
Satd. Flow (perm)		1402	1554		1662	1539	183	1820		489	1855	
Peak-hour factor, PHF	0.85	0.85	0.85	0.73	0.73	0.73	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	32	91	60	59	214	122	103	618	13	80	836	29
RTOR Reduction (vph)	0	0	47	0	0	91	0	1	0	0	1	0
Lane Group Flow (vph)	0	123	13	0	273	31	103	630	0	80	864	0
Confl. Peds. (#/hr)	2		2	2		2				2		2
Confl. Bikes (#/hr)			2			2			2			2
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		17.5	17.5		17.5	17.5	42.9	40.0		44.3	40.7	
Effective Green, g (s)		17.5	17.5		17.5	17.5	42.9	40.0		44.3	40.7	
Actuated g/C Ratio		0.22	0.22		0.22	0.22	0.54	0.51		0.56	0.51	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		310	344		368	340	156	920		333	954	
v/s Ratio Prot							c0.02	0.35		0.01	c0.47	
v/s Ratio Perm		0.09	0.01		c0.16	0.02	0.33			0.12		
v/c Ratio		0.40	0.04		0.74	0.09	0.66	0.68		0.24	0.91	
Uniform Delay, d1		26.3	24.2		28.7	24.5	15.0	14.8		9.8	17.4	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.0		7.8	0.1	10.0	2.1		0.4	11.8	
Delay (s)		27.1	24.2		36.5	24.6	25.1	16.9		10.1	29.3	
Level of Service		C	C		D	C	C	B		B	C	
Approach Delay (s)		26.2			32.9			18.1			27.7	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM Average Control Delay		25.3										
HCM Volume to Capacity ratio		0.77										
Actuated Cycle Length (s)		79.1										
Intersection Capacity Utilization		83.6%										
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

3: Walton St & Stevens Ave

3/11/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	111	130	421	99	49	461
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	40		35	90	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.97		0.97	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1599	1642	1599	1770	1626
Flt Permitted	0.950				0.264	
Satd. Flow (perm)	1775	1553	1642	1545	491	1626
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		186		54		
Link Speed (mph)	30		30			30
Link Distance (ft)	1000		1000			1000
Travel Time (s)	22.7		22.7			22.7
Confl. Peds. (#/hr)	3	3		4	2	
Confl. Bikes (#/hr)		1		6		
Peak Hour Factor	0.70	0.70	0.80	0.80	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			4			4
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	159	186	526	124	55	518
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	186	526	124	55	518
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.19	1.00	1.00	1.19
Turning Speed (mph)	15	9		9	15	
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	10.0	22.0
Total Split (s)	22.0	22.0	43.0	43.0	10.0	53.0
Total Split (%)	29.3%	29.3%	57.3%	57.3%	13.3%	70.7%
Maximum Green (s)	16.0	16.0	37.0	37.0	4.0	47.0

Lanes, Volumes, Timings
3: Walton St & Stevens Ave

3/11/2016

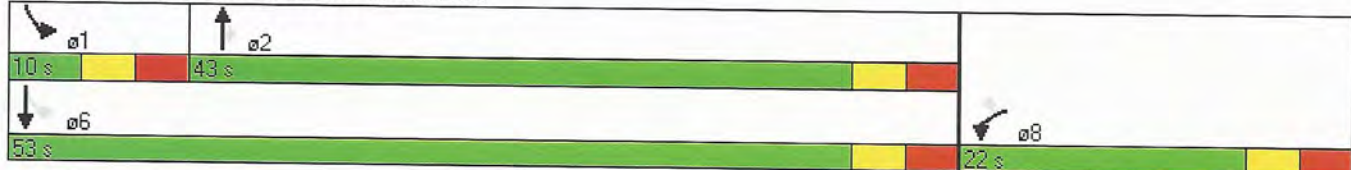
	↖	↗	↑	↘	↙	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	5.0	5.0	5.0	5.0		5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	10.8	10.8	23.0	23.0	27.8	27.8
Actuated g/C Ratio	0.21	0.21	0.44	0.44	0.53	0.53
v/c Ratio	0.43	0.40	0.73	0.17	0.15	0.60
Control Delay	26.4	7.4	19.7	6.9	6.0	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	7.4	19.7	6.9	6.0	10.8
LOS	C	A	B	A	A	B
Approach Delay	16.2		17.2			10.3
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 52.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 14.5
 Intersection Capacity Utilization 47.3%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 3: Walton St & Stevens Ave



HCM Signalized Intersection Capacity Analysis

3: Walton St & Stevens Ave

3/11/2016

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	111	130	421	99	49	461
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1556	1642	1548	1769	1626
Flt Permitted	0.95	1.00	1.00	1.00	0.26	1.00
Satd. Flow (perm)	1787	1556	1642	1548	491	1626
Peak-hour factor, PHF	0.70	0.70	0.80	0.80	0.89	0.89
Adj. Flow (vph)	159	186	526	124	55	518
RTOR Reduction (vph)	0	149	0	31	0	0
Lane Group Flow (vph)	159	37	526	93	55	518
Confl. Peds. (#/hr)	3	3		4	2	
Confl. Bikes (#/hr)		1		6		
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			4			4
Turn Type	Perm		Perm		pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	10.8	10.8	23.0	23.0	30.9	30.9
Effective Green, g (s)	10.8	10.8	23.0	23.0	30.9	30.9
Actuated g/C Ratio	0.20	0.20	0.43	0.43	0.58	0.58
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	359	313	703	663	328	936
v/s Ratio Prot	c0.09		c0.32		0.01	c0.32
v/s Ratio Perm		0.02		0.06	0.09	
v/c Ratio	0.44	0.12	0.75	0.14	0.17	0.55
Uniform Delay, d1	18.8	17.6	12.9	9.3	6.6	7.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.2	4.4	0.1	0.2	0.7
Delay (s)	19.7	17.7	17.3	9.4	6.8	7.8
Level of Service	B	B	B	A	A	A
Approach Delay (s)	18.6		15.8			7.7
Approach LOS	B		B			A
Intersection Summary						
HCM Average Control Delay			13.5		HCM Level of Service	B
HCM Volume to Capacity ratio			0.70			
Actuated Cycle Length (s)			53.7		Sum of lost time (s)	18.0
Intersection Capacity Utilization			47.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	39	30	38	43	41	16	376	16	30	522	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.98			1.00			1.00	
Frt		0.976			0.955			0.995			0.993	
Flt Protected		0.971			0.985			0.998			0.997	
Satd. Flow (prot)	0	1766	0	0	1756	0	0	1797	0	0	1606	0
Flt Permitted		0.728			0.864			0.971			0.966	
Satd. Flow (perm)	0	1311	0	0	1533	0	0	1748	0	0	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			42			6			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1219			1121			280			1491	
Travel Time (s)		27.7			25.5			6.4			33.9	
Confl. Peds. (#/hr)	12		12	12		12	8		8	6		6
Confl. Bikes (#/hr)			8			8			8			8
Peak Hour Factor	0.88	0.88	0.88	0.73	0.73	0.73	0.88	0.88	0.88	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	4%	4%	4%	3%	3%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	0	0
Parking (#/hr)											4	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	111	44	34	52	59	56	18	427	18	36	621	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	167	0	0	463	0	0	695	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.18	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	21.0	21.0	0.0	21.0	21.0	0.0	39.0	39.0	0.0	39.0	39.0	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%
Maximum Green (s)	16.5	16.5		16.5	16.5		34.5	34.5		34.5	34.5	

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		12.2			12.2			37.4			37.4	
Actuated g/C Ratio		0.21			0.21			0.64			0.64	
v/c Ratio		0.66			0.47			0.41			0.70	
Control Delay		29.6			18.5			7.3			13.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		29.6			18.5			7.3			13.3	
LOS		C			B			A			B	
Approach Delay		29.6			18.5			7.3			13.3	
Approach LOS		C			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 14.1

Intersection LOS: B

Intersection Capacity Utilization 64.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Pleasant Ave & Stevens Ave



HCM Signalized Intersection Capacity Analysis

9: Pleasant Ave & Stevens Ave

3/11/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	39	30	38	43	41	16	376	16	30	522	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.98			0.95			0.99			0.99	
Flt Protected		0.97			0.98			1.00			1.00	
Satd. Flow (prot)		1749			1745			1796			1605	
Flt Permitted		0.73			0.86			0.97			0.97	
Satd. Flow (perm)		1312			1532			1747			1554	
Peak-hour factor, PHF	0.88	0.88	0.88	0.73	0.73	0.73	0.88	0.88	0.88	0.84	0.84	0.84
Adj. Flow (vph)	111	44	34	52	59	56	18	427	18	36	621	38
RTOR Reduction (vph)	0	14	0	0	33	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	175	0	0	134	0	0	461	0	0	692	0
Confl. Peds. (#/hr)	12		12	12		12	8		8	6		6
Confl. Bikes (#/hr)			8			8			8			8
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	4%	4%	4%	3%	3%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	0	0
Parking (#/hr)											4	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.2			12.2			37.4			37.4	
Effective Green, g (s)		12.2			12.2			37.4			37.4	
Actuated g/C Ratio		0.21			0.21			0.64			0.64	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		273			319			1115			992	
v/s Ratio Prot												
v/s Ratio Perm		c0.13			0.09			0.26			c0.45	
v/c Ratio		0.64			0.42			0.41			0.70	
Uniform Delay, d1		21.2			20.1			5.2			6.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		5.0			0.9			1.1			4.1	
Delay (s)		26.2			21.0			6.3			11.0	
Level of Service		C			C			A			B	
Approach Delay (s)		26.2			21.0			6.3			11.0	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM Average Control Delay			12.6			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			58.6			Sum of lost time (s)			9.0			
Intersection Capacity Utilization			64.8%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	81	54	45	164	93	98	585	13	77	801	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		40	0		100	140		0	140		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97		1.00		1.00		1.00
Frt			0.850			0.850		0.997			0.995	
Flt Protected		0.987			0.989		0.950			0.950		
Satd. Flow (prot)	0	1857	1599	0	1842	1583	1736	1821	0	1787	1855	0
Flt Permitted		0.706			0.894		0.091			0.245		
Satd. Flow (perm)	0	1327	1553	0	1664	1538	166	1821	0	461	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			116		2			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		850			686			1198			517	
Travel Time (s)		19.3			15.6			27.2			11.8	
Confl. Peds. (#/hr)	2		2	2		2				2		2
Confl. Bikes (#/hr)			2			2			2			2
Peak Hour Factor	0.85	0.85	0.85	0.73	0.73	0.73	0.90	0.90	0.90	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	33	95	64	62	225	127	109	650	14	85	880	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	64	0	287	127	109	664	0	85	910	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	10.0	22.0		10.0	22.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	10.0	52.0	0.0	11.0	53.0	0.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	11.1%	57.8%	0.0%	12.2%	58.9%	0.0%
Maximum Green (s)	21.5	21.5	21.5	21.5	21.5	21.5	4.5	46.5		5.5	47.5	

2021 No-Build AM Peak Hour Volumes
605 Stevens Avenue Project

Synchro 7 - Report
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Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.0	5.5	5.5	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	
Act Effct Green (s)		18.4	18.4		18.4	18.4	47.1	43.8		48.6	44.5	
Actuated g/C Ratio		0.22	0.22		0.22	0.22	0.58	0.54		0.59	0.54	
v/c Ratio		0.43	0.16		0.76	0.29	0.59	0.68		0.23	0.90	
Control Delay		34.2	8.6		45.8	9.0	24.4	19.6		7.7	32.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		34.2	8.6		45.8	9.0	24.4	19.6		7.7	32.0	
LOS		C	A		D	A	C	B		A	C	
Approach Delay		25.6			34.5			20.3			30.0	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 81.8

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 27.3

Intersection LOS: C

Intersection Capacity Utilization 85.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: Walton Street & Forest Ave

 Ø1	 Ø2	 Ø4
11 s	52 s	27 s
 Ø5	 Ø6	 Ø8
10 s	53 s	27 s

HCM Signalized Intersection Capacity Analysis

11: Walton Street & Forest Ave

3/11/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	81	54	45	164	93	98	585	13	77	801	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5		5.5	5.5	5.5	5.5		5.5	5.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.97		1.00	0.97	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.99	1.00		0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1856	1554		1841	1538	1736	1820		1787	1855	
Flt Permitted		0.71	1.00		0.89	1.00	0.09	1.00		0.25	1.00	
Satd. Flow (perm)		1328	1554		1664	1538	167	1820		461	1855	
Peak-hour factor, PHF	0.85	0.85	0.85	0.73	0.73	0.73	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	33	95	64	62	225	127	109	650	14	85	880	30
RTOR Reduction (vph)	0	0	50	0	0	90	0	1	0	0	1	0
Lane Group Flow (vph)	0	128	14	0	287	37	109	663	0	85	909	0
Confl. Peds. (#/hr)	2		2	2		2				2		2
Confl. Bikes (#/hr)			2			2			2			2
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		18.4	18.4		18.4	18.4	47.1	43.8		48.7	44.6	
Effective Green, g (s)		18.4	18.4		18.4	18.4	47.1	43.8		48.7	44.6	
Actuated g/C Ratio		0.22	0.22		0.22	0.22	0.57	0.53		0.59	0.54	
Clearance Time (s)		5.5	5.5		5.5	5.5	5.5	5.5		5.5	5.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		295	345		370	342	158	963		337	999	
v/s Ratio Prot							c0.03	0.36		0.01	c0.49	
v/s Ratio Perm		0.10	0.01		c0.17	0.02	0.37			0.14		
v/c Ratio		0.43	0.04		0.78	0.11	0.69	0.69		0.25	0.91	
Uniform Delay, d1		27.7	25.3		30.3	25.7	16.0	14.4		9.6	17.3	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.0	0.0		9.8	0.1	11.9	2.1		0.4	11.8	
Delay (s)		28.7	25.3		40.0	25.8	27.8	16.5		10.0	29.1	
Level of Service		C	C		D	C	C	B		A	C	
Approach Delay (s)		27.6			35.7			18.1			27.4	
Approach LOS		C			D			B			C	
Intersection Summary												
HCM Average Control Delay			25.9				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			82.8				Sum of lost time (s)			11.0		
Intersection Capacity Utilization			85.1%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
7: Northerly Site Drive & Stevens Ave

3/12/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	3	521	0	0	583
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1627	0	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	1627	0	1863	0	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	235		200			540
Travel Time (s)	5.3		4.5			12.3
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	3	566	0	0	634
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	0	566	0	0	634
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 40.7% ICU Level of Service A
Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis

7: Northerly Site Drive & Stevens Ave

3/12/2016

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	3	521	0	0	583
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	3	566	0	0	634
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						540
pX, platoon unblocked	0.86					
vC, conflicting volume	1200	566			566	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1150	566			566	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	189	525			1006	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	3	566	634			
Volume Left	0	0	0			
Volume Right	3	0	0			
cSH	525	1700	1700			
Volume to Capacity	0.01	0.33	0.37			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	11.9	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	11.9	0.0	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay		0.0				
Intersection Capacity Utilization		40.7%		ICU Level of Service		A
Analysis Period (min)		15				

Lanes, Volumes, Timings
3: Walton St & Stevens Ave

3/11/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	121	132	424	100	51	462
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	40		35	90	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.97		0.97	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1599	1642	1599	1770	1626
Flt Permitted	0.950				0.261	
Satd. Flow (perm)	1775	1553	1642	1545	486	1626
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		173		54		
Link Speed (mph)	30		30			30
Link Distance (ft)	1000		1000			1000
Travel Time (s)	22.7		22.7			22.7
Confl. Peds. (#/hr)	3	3		4	2	
Confl. Bikes (#/hr)		1		6		
Peak Hour Factor	0.70	0.70	0.80	0.80	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			4			4
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	173	189	530	125	57	519
Shared Lane Traffic (%)						
Lane Group Flow (vph)	173	189	530	125	57	519
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.19	1.00	1.00	1.19
Turning Speed (mph)	15	9		9	15	
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	10.0	22.0
Total Split (s)	22.0	22.0	43.0	43.0	10.0	53.0
Total Split (%)	29.3%	29.3%	57.3%	57.3%	13.3%	70.7%
Maximum Green (s)	16.0	16.0	37.0	37.0	4.0	47.0

Lanes, Volumes, Timings
3: Walton St & Stevens Ave

3/11/2016

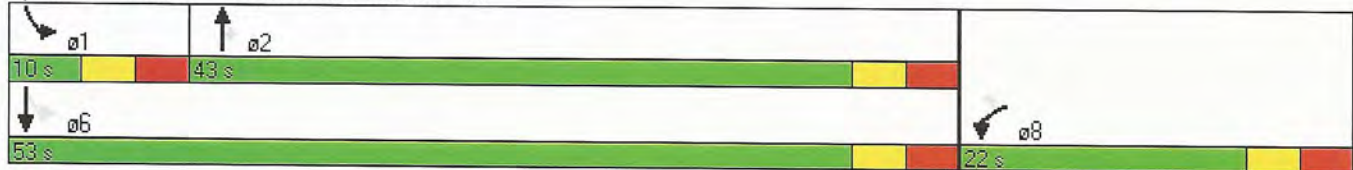
	↖	↗	↑	↘	↙	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	5.0	5.0	5.0	5.0		5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	11.1	11.1	23.3	23.3	28.2	28.2
Actuated g/C Ratio	0.21	0.21	0.44	0.44	0.53	0.53
v/c Ratio	0.46	0.41	0.73	0.18	0.15	0.60
Control Delay	26.9	8.8	19.9	7.0	6.2	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	8.8	19.9	7.0	6.2	11.0
LOS	C	A	B	A	A	B
Approach Delay	17.4		17.5			10.5
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 53
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 14.9
 Intersection Capacity Utilization 48.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 3: Walton St & Stevens Ave



HCM Signalized Intersection Capacity Analysis

3: Walton St & Stevens Ave

3/11/2016

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	121	132	424	100	51	462
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1556	1642	1548	1769	1626
Flt Permitted	0.95	1.00	1.00	1.00	0.26	1.00
Satd. Flow (perm)	1787	1556	1642	1548	486	1626
Peak-hour factor, PHF	0.70	0.70	0.80	0.80	0.89	0.89
Adj. Flow (vph)	173	189	530	125	57	519
RTOR Reduction (vph)	0	138	0	31	0	0
Lane Group Flow (vph)	173	51	530	94	57	519
Confl. Peds. (#/hr)	3	3		4	2	
Confl. Bikes (#/hr)		1		6		
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			4			4
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	11.1	11.1	23.3	23.3	31.2	31.2
Effective Green, g (s)	11.1	11.1	23.3	23.3	31.2	31.2
Actuated g/C Ratio	0.20	0.20	0.43	0.43	0.57	0.57
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	365	318	705	664	324	934
v/s Ratio Prot	c0.10		c0.32		0.01	c0.32
v/s Ratio Perm		0.03		0.06	0.09	
v/c Ratio	0.47	0.16	0.75	0.14	0.18	0.56
Uniform Delay, d1	19.0	17.8	13.1	9.4	6.7	7.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.2	4.5	0.1	0.3	0.7
Delay (s)	20.0	18.0	17.6	9.5	7.0	7.9
Level of Service	C	B	B	A	A	A
Approach Delay (s)	19.0		16.1			7.8
Approach LOS	B		B			A
Intersection Summary						
HCM Average Control Delay			13.7		HCM Level of Service	B
HCM Volume to Capacity ratio			0.71			
Actuated Cycle Length (s)			54.3		Sum of lost time (s)	18.0
Intersection Capacity Utilization			48.0%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Lanes, Volumes, Timings
5: Walton St & McAuley Exit

3/11/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	
Volume (vph)	139	0	0	218	19	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.923	
Flt Protected					0.979	
Satd. Flow (prot)	1881	0	0	1881	1717	0
Flt Permitted					0.979	
Satd. Flow (perm)	1881	0	0	1881	1717	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	300			295	139	
Travel Time (s)	6.8			6.7	3.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.80	0.92	0.70	0.70	0.70	0.70
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	174	0	0	311	27	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	0	0	311	63	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 21.5%

ICU Level of Service A

Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis

5: Walton St & McAuley Exit

3/11/2016

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↓	
Volume (veh/h)	139	0	0	218	19	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.92	0.70	0.70	0.70	0.70
Hourly flow rate (vph)	174	0	0	311	27	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	300			1245		
pX, platoon unblocked						
vC, conflicting volume			174		485	174
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			174		485	174
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		95	96
cM capacity (veh/h)			1409		545	875
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	174	311	63			
Volume Left	0	0	27			
Volume Right	0	0	36			
cSH	1700	1700	693			
Volume to Capacity	0.10	0.18	0.09			
Queue Length 95th (ft)	0	0	7			
Control Delay (s)	0.0	0.0	10.7			
Lane LOS			B			
Approach Delay (s)	0.0	0.0	10.7			
Approach LOS			B			
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			21.5%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	39	30	38	43	41	16	381	16	30	532	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.98			1.00			1.00	
Frt		0.976			0.955			0.995			0.993	
Flt Protected		0.971			0.985			0.998			0.997	
Satd. Flow (prot)	0	1766	0	0	1756	0	0	1797	0	0	1606	0
Flt Permitted		0.728			0.864			0.971			0.966	
Satd. Flow (perm)	0	1311	0	0	1533	0	0	1748	0	0	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			42			6			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1219			1121			280			1491	
Travel Time (s)		27.7			25.5			6.4			33.9	
Confl. Peds. (#/hr)	12		12	12		12	8		8	6		6
Confl. Bikes (#/hr)			8			8			8			8
Peak Hour Factor	0.88	0.88	0.88	0.73	0.73	0.73	0.88	0.88	0.88	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	4%	4%	4%	3%	3%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	0	0
Parking (#/hr)											4	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	111	44	34	52	59	56	18	433	18	36	633	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	167	0	0	469	0	0	707	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.18	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	21.0	21.0	0.0	21.0	21.0	0.0	39.0	39.0	0.0	39.0	39.0	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%
Maximum Green (s)	16.5	16.5		16.5	16.5		34.5	34.5		34.5	34.5	

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		12.2			12.2			37.4			37.4	
Actuated g/C Ratio		0.21			0.21			0.64			0.64	
v/c Ratio		0.66			0.47			0.42			0.71	
Control Delay		29.6			18.5			7.4			13.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		29.6			18.5			7.4			13.8	
LOS		C			B			A			B	
Approach Delay		29.6			18.5			7.4			13.8	
Approach LOS		C			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 14.3

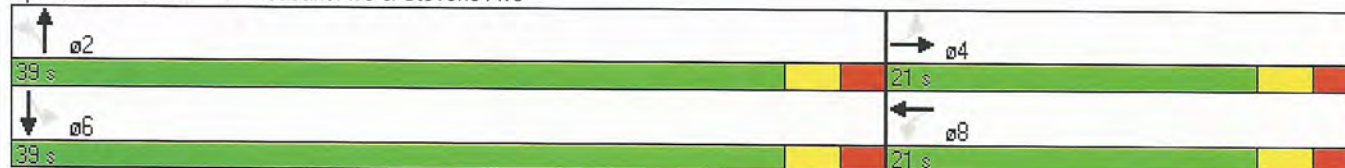
Intersection LOS: B

Intersection Capacity Utilization 65.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Pleasant Ave & Stevens Ave



HCM Signalized Intersection Capacity Analysis

9: Pleasant Ave & Stevens Ave

3/11/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	39	30	38	43	41	16	381	16	30	532	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.98			0.95			0.99			0.99	
Flt Protected		0.97			0.98			1.00			1.00	
Satd. Flow (prot)		1749			1745			1796			1606	
Flt Permitted		0.73			0.86			0.97			0.97	
Satd. Flow (perm)		1312			1532			1747			1555	
Peak-hour factor, PHF	0.88	0.88	0.88	0.73	0.73	0.73	0.88	0.88	0.88	0.84	0.84	0.84
Adj. Flow (vph)	111	44	34	52	59	56	18	433	18	36	633	38
RTOR Reduction (vph)	0	14	0	0	33	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	175	0	0	134	0	0	467	0	0	704	0
Confl. Peds. (#/hr)	12		12	12		12	8		8	6		6
Confl. Bikes (#/hr)			8			8			8			8
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	4%	4%	4%	3%	3%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	0	0
Parking (#/hr)											4	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.2			12.2			37.4			37.4	
Effective Green, g (s)		12.2			12.2			37.4			37.4	
Actuated g/C Ratio		0.21			0.21			0.64			0.64	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		273			319			1115			992	
v/s Ratio Prot												
v/s Ratio Perm		c0.13			0.09			0.27			c0.45	
v/c Ratio		0.64			0.42			0.42			0.71	
Uniform Delay, d1		21.2			20.1			5.2			7.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		5.0			0.9			1.2			4.3	
Delay (s)		26.2			21.0			6.4			11.3	
Level of Service		C			C			A			B	
Approach Delay (s)		26.2			21.0			6.4			11.3	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM Average Control Delay			12.7				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			58.6				Sum of lost time (s)			9.0		
Intersection Capacity Utilization			65.4%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	90	60	45	169	93	101	584	13	77	801	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		40	0		100	140		0	140		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97		1.00			1.00	
Frt			0.850			0.850		0.997			0.995	
Flt Protected		0.987			0.990		0.950			0.950		
Satd. Flow (prot)	0	1857	1599	0	1844	1583	1736	1821	0	1787	1855	0
Flt Permitted		0.681			0.893		0.091			0.244		
Satd. Flow (perm)	0	1280	1553	0	1662	1538	166	1821	0	459	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			114		2			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		850			686			1198			517	
Travel Time (s)		19.3			15.6			27.2			11.8	
Confl. Peds. (#/hr)	2		2	2		2				2		2
Confl. Bikes (#/hr)			2			2			2			2
Peak Hour Factor	0.85	0.85	0.85	0.73	0.73	0.73	0.90	0.90	0.90	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	36	106	71	62	232	127	112	649	14	85	880	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	142	71	0	294	127	112	663	0	85	911	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	10.0	22.0		10.0	22.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	10.0	52.0	0.0	11.0	53.0	0.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	11.1%	57.8%	0.0%	12.2%	58.9%	0.0%
Maximum Green (s)	21.5	21.5	21.5	21.5	21.5	21.5	4.5	46.5		5.5	47.5	

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/11/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.0	5.5	5.5	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	
Act Effct Green (s)		18.8	18.8		18.8	18.8	47.3	44.0		48.8	44.7	
Actuated g/C Ratio		0.23	0.23		0.23	0.23	0.57	0.53		0.59	0.54	
v/c Ratio		0.49	0.17		0.78	0.29	0.61	0.68		0.23	0.90	
Control Delay		35.8	9.1		46.6	9.2	25.9	19.7		7.8	32.5	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		35.8	9.1		46.6	9.2	25.9	19.7		7.8	32.5	
LOS		D	A		D	A	C	B		A	C	
Approach Delay		26.9			35.3			20.6			30.4	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 82.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 27.8

Intersection LOS: C

Intersection Capacity Utilization 86.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: Walton Street & Forest Ave

 ø1	 ø2	 ø4
11 s	52 s	27 s
 ø5	 ø6	 ø8
10 s	53 s	27 s

HCM Signalized Intersection Capacity Analysis

11: Walton Street & Forest Ave

3/11/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	90	60	45	169	93	101	584	13	77	801	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5		5.5	5.5	5.5	5.5		5.5	5.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.97		1.00	0.97	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.99	1.00		0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1856	1554		1842	1538	1736	1820		1787	1855	
Flt Permitted		0.68	1.00		0.89	1.00	0.09	1.00		0.24	1.00	
Satd. Flow (perm)		1280	1554		1662	1538	166	1820		460	1855	
Peak-hour factor, PHF	0.85	0.85	0.85	0.73	0.73	0.73	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	36	106	71	62	232	127	112	649	14	85	880	31
RTOR Reduction (vph)	0	0	53	0	0	88	0	1	0	0	1	0
Lane Group Flow (vph)	0	142	18	0	294	39	112	662	0	85	910	0
Confl. Peds. (#/hr)	2		2	2		2				2		2
Confl. Bikes (#/hr)			2			2			2			2
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		18.8	18.8		18.8	18.8	47.3	44.0		48.9	44.8	
Effective Green, g (s)		18.8	18.8		18.8	18.8	47.3	44.0		48.9	44.8	
Actuated g/C Ratio		0.23	0.23		0.23	0.23	0.57	0.53		0.59	0.54	
Clearance Time (s)		5.5	5.5		5.5	5.5	5.5	5.5		5.5	5.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		289	350		375	347	156	960		335	996	
v/s Ratio Prot							c0.03	0.36		0.01	c0.49	
v/s Ratio Perm		0.11	0.01		c0.18	0.03	0.38			0.14		
v/c Ratio		0.49	0.05		0.78	0.11	0.72	0.69		0.25	0.91	
Uniform Delay, d1		28.1	25.3		30.4	25.7	16.3	14.6		9.7	17.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3	0.1		10.3	0.1	14.6	2.1		0.4	12.4	
Delay (s)		29.5	25.4		40.7	25.8	30.9	16.7		10.1	29.9	
Level of Service		C	C		D	C	C	B		B	C	
Approach Delay (s)		28.1			36.2			18.8			28.2	
Approach LOS		C			D			B			C	
Intersection Summary												
HCM Average Control Delay			26.6				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			83.4				Sum of lost time (s)			11.0		
Intersection Capacity Utilization			86.2%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
17: Walton Street & McAuley Entrance

3/11/2016

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	118	46	57	205	13	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.962				0.921	
Flt Protected				0.989	0.980	
Satd. Flow (prot)	1810	0	0	1860	1715	0
Flt Permitted				0.989	0.980	
Satd. Flow (perm)	1810	0	0	1860	1715	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	100			850	152	
Travel Time (s)	2.3			19.3	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.70	0.70	0.70	0.70
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	131	51	81	293	19	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	0	0	374	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 36.3%

ICU Level of Service A

Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis

17: Walton Street & McAuley Entrance

3/11/2016

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	118	46	57	205	13	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.70	0.70	0.70	0.70
Hourly flow rate (vph)	131	51	81	293	19	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	695			850		
pX, platoon unblocked					0.94	
vC, conflicting volume			182		612	157
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			182		553	157
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		96	97
cM capacity (veh/h)			1399		439	894
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	182	374	46			
Volume Left	0	81	19			
Volume Right	51	0	27			
cSH	1700	1399	629			
Volume to Capacity	0.11	0.06	0.07			
Queue Length 95th (ft)	0	5	6			
Control Delay (s)	0.0	2.1	11.2			
Lane LOS		A	B			
Approach Delay (s)	0.0	2.1	11.2			
Approach LOS			B			
Intersection Summary						
Average Delay		2.2				
Intersection Capacity Utilization		36.3%	ICU Level of Service	A		
Analysis Period (min)		15				

Lanes, Volumes, Timings
3: Walton St & Stevens Ave

3/12/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	113	65	446	98	105	493
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	40		35	90	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.95		0.95	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1599	1652	1599	1805	1668
Flt Permitted	0.950				0.308	
Satd. Flow (perm)	1756	1522	1652	1527	582	1668
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		74		53		
Link Speed (mph)	30		30			30
Link Distance (ft)	300		540			690
Travel Time (s)	6.8		12.3			15.7
Confl. Peds. (#/hr)	7	7		7	7	
Confl. Bikes (#/hr)		6		12		
Peak Hour Factor	0.88	0.88	0.89	0.89	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			3			3
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	128	74	501	110	119	560
Shared Lane Traffic (%)						
Lane Group Flow (vph)	128	74	501	110	119	560
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.18	1.00	1.00	1.18
Turning Speed (mph)	15	9		9	15	
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	9.0	21.0
Total Split (s)	21.0	21.0	49.0	49.0	10.0	59.0
Total Split (%)	26.3%	26.3%	61.3%	61.3%	12.5%	73.8%
Maximum Green (s)	16.0	16.0	44.0	44.0	5.0	54.0

Lanes, Volumes, Timings

3: Walton St & Stevens Ave

3/12/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	5.0	5.0	5.0	5.0		5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	11.1	11.1	26.0	26.0	29.3	32.9
Actuated g/C Ratio	0.24	0.24	0.56	0.56	0.63	0.70
v/c Ratio	0.30	0.18	0.55	0.13	0.22	0.48
Control Delay	23.3	7.8	14.0	5.7	5.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	7.8	14.0	5.7	5.1	7.0
LOS	C	A	B	A	A	A
Approach Delay	17.6		12.5			6.7
Approach LOS	B		B			A

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 46.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.6

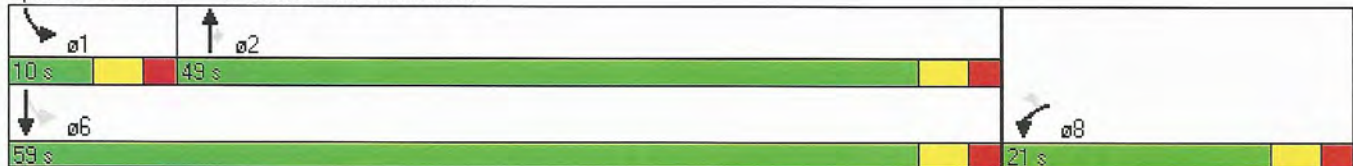
Intersection Capacity Utilization 49.5%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Walton St & Stevens Ave



HCM Signalized Intersection Capacity Analysis

3: Walton St & Stevens Ave

3/12/2016

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	113	65	446	98	105	493
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.95	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1526	1652	1536	1803	1668
Flt Permitted	0.95	1.00	1.00	1.00	0.31	1.00
Satd. Flow (perm)	1787	1526	1652	1536	584	1668
Peak-hour factor, PHF	0.88	0.88	0.89	0.89	0.88	0.88
Adj. Flow (vph)	128	74	501	110	119	560
RTOR Reduction (vph)	0	63	0	28	0	0
Lane Group Flow (vph)	128	11	501	82	119	560
Confl. Peds. (#/hr)	7	7		7	7	
Confl. Bikes (#/hr)		6		12		
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			3			3
Turn Type	Perm			Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	6.9	6.9	22.3	22.3	30.8	30.8
Effective Green, g (s)	6.9	6.9	22.3	22.3	30.8	30.8
Actuated g/C Ratio	0.14	0.14	0.47	0.47	0.65	0.65
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	221	772	718	467	1077
v/s Ratio Prot	c0.07		c0.30		0.02	c0.34
v/s Ratio Perm		0.01		0.05	0.15	
v/c Ratio	0.50	0.05	0.65	0.11	0.25	0.52
Uniform Delay, d1	18.8	17.6	9.7	7.1	4.4	4.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	0.1	1.9	0.1	0.3	0.4
Delay (s)	20.3	17.7	11.6	7.2	4.7	4.9
Level of Service	C	B	B	A	A	A
Approach Delay (s)	19.3		10.8			4.9
Approach LOS	B		B			A
Intersection Summary						
HCM Average Control Delay			9.3		HCM Level of Service	A
HCM Volume to Capacity ratio			0.64			
Actuated Cycle Length (s)			47.7		Sum of lost time (s)	15.0
Intersection Capacity Utilization			49.5%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Avenue

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	30	20	11	37	58	20	530	15	19	441	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.95			1.00			1.00	
Frt		0.972			0.926			0.997			0.991	
Flt Protected		0.976			0.995			0.998			0.998	
Satd. Flow (prot)	0	1764	0	0	1671	0	0	1870	0	0	1632	0
Flt Permitted		0.843			0.953			0.974			0.969	
Satd. Flow (perm)	0	1512	0	0	1595	0	0	1825	0	0	1584	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			75			3			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1219			1121			280			1491	
Travel Time (s)		27.7			25.5			6.4			33.9	
Confl. Peds. (#/hr)	10		10	20		20	4		4	10		10
Confl. Bikes (#/hr)			19			30			5			17
Peak Hour Factor	0.78	0.78	0.78	0.77	0.77	0.77	0.91	0.91	0.91	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											4	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	63	38	26	14	48	75	22	582	16	23	525	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	0	0	137	0	0	620	0	0	586	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.18	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5		21.5	21.5		21.5	21.5		21.5	21.5	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		24.5	24.5		24.5	24.5	

Lanes, Volumes, Timings

9: Pleasant Ave & Stevens Avenue

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		8.5			8.5			29.0			29.0	
Actuated g/C Ratio		0.19			0.19			0.64			0.64	
v/c Ratio		0.41			0.38			0.53			0.58	
Control Delay		17.1			11.4			8.9			10.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.1			11.4			8.9			10.5	
LOS		B			B			A			B	
Approach Delay		17.1			11.4			8.9			10.5	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.2

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 10.5

Intersection LOS: B

Intersection Capacity Utilization 58.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 9: Pleasant Ave & Stevens Avenue

 2	 4
30 s	30 s
 6	 8
30 s	30 s

HCM Signalized Intersection Capacity Analysis

9: Pleasant Ave & Stevens Avenue

3/12/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	30	20	11	37	58	20	530	15	19	441	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.94			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.97			0.93			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1746			1636			1870			1633	
Flt Permitted		0.84			0.95			0.97			0.97	
Satd. Flow (perm)		1509			1567			1824			1585	
Peak-hour factor, PHF	0.78	0.78	0.78	0.77	0.77	0.77	0.91	0.91	0.91	0.84	0.84	0.84
Adj. Flow (vph)	63	38	26	14	48	75	22	582	16	23	525	38
RTOR Reduction (vph)	0	22	0	0	63	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	105	0	0	74	0	0	619	0	0	583	0
Confl. Peds. (#/hr)	10		10	20		20	4		4	10		10
Confl. Bikes (#/hr)			19			30			5			17
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Parking (#/hr)											4	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.4			7.4			27.9			27.9	
Effective Green, g (s)		7.4			7.4			27.9			27.9	
Actuated g/C Ratio		0.16			0.16			0.60			0.60	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		241			250			1099			955	
v/s Ratio Prot												
v/s Ratio Perm		c0.07			0.05			0.34			c0.37	
v/c Ratio		0.44			0.30			0.56			0.61	
Uniform Delay, d1		17.6			17.2			5.5			5.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.3			0.7			2.1			2.9	
Delay (s)		18.8			17.8			7.6			8.7	
Level of Service		B			B			A			A	
Approach Delay (s)		18.8			17.8			7.6			8.7	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay		10.0					HCM Level of Service		A			
HCM Volume to Capacity ratio		0.57										
Actuated Cycle Length (s)		46.3					Sum of lost time (s)		11.0			
Intersection Capacity Utilization		58.3%					ICU Level of Service		B			
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	89	62	45	94	107	38	741	34	76	630	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		40	0		100	140		0	140		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.96		1.00	0.97					1.00	
Frt			0.850			0.850		0.993			0.993	
Flt Protected		0.990			0.984		0.950			0.950		
Satd. Flow (prot)	0	1881	1615	0	1851	1599	1787	1868	0	1752	1814	0
Flt Permitted		0.902			0.840		0.257			0.148		
Satd. Flow (perm)	0	1711	1553	0	1576	1546	483	1868	0	273	1814	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77			134		5			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		850			686			1198			517	
Travel Time (s)		19.3			15.6			27.2			11.8	
Confl. Peds. (#/hr)	4		4	4		4				4		4
Confl. Bikes (#/hr)			5			2						4
Peak Hour Factor	0.81	0.81	0.81	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	27	110	77	56	118	134	40	780	36	80	663	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	137	77	0	174	134	40	816	0	80	697	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5	21.5	21.5	21.5	21.5	8.0	21.5		8.0	21.5	
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	8.0	50.0	0.0	8.0	50.0	0.0
Total Split (%)	27.5%	27.5%	27.5%	27.5%	27.5%	27.5%	10.0%	62.5%	0.0%	10.0%	62.5%	0.0%
Maximum Green (s)	16.5	16.5	16.5	16.5	16.5	16.5	4.0	44.5		4.0	44.5	

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0		0.5	2.0	
Lost Time Adjust (s)	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 Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.0	5.5	4.0	4.0	5.5	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	
Act Effct Green (s)		12.4	12.4		12.4	12.4	37.8	33.3		38.7	35.0	
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.59	0.52		0.61	0.55	
v/c Ratio		0.41	0.21		0.56	0.33	0.11	0.83		0.30	0.70	
Control Delay		30.4	8.7		34.7	8.1	4.9	22.3		7.3	15.7	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		30.4	8.7		34.7	8.1	4.9	22.3		7.3	15.7	
LOS		C	A		C	A	A	C		A	B	
Approach Delay		22.6			23.2			21.5			14.8	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 63.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 19.4

Intersection LOS: B

Intersection Capacity Utilization 71.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Walton Street & Forest Ave



HCM Signalized Intersection Capacity Analysis

11: Walton Street & Forest Ave

3/12/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	89	62	45	94	107	38	741	34	76	630	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5		5.5	5.5	4.0	5.5		4.0	5.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frbp, ped/bikes		1.00	0.96		1.00	0.97	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.99	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1879	1555		1847	1548	1787	1869		1752	1814	
Flt Permitted		0.90	1.00		0.84	1.00	0.26	1.00		0.15	1.00	
Satd. Flow (perm)		1711	1555		1577	1548	484	1869		273	1814	
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	27	110	77	56	118	134	40	780	36	80	663	34
RTOR Reduction (vph)	0	0	62	0	0	108	0	2	0	0	2	0
Lane Group Flow (vph)	0	137	15	0	174	26	40	814	0	80	695	0
Confl. Peds. (#/hr)	4		4	4		4				4		4
Confl. Bikes (#/hr)			5			2						4
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		12.4	12.4		12.4	12.4	36.1	34.1		37.9	35.0	
Effective Green, g (s)		12.4	12.4		12.4	12.4	36.1	34.1		37.9	35.0	
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.56	0.53		0.59	0.54	
Clearance Time (s)		5.5	5.5		5.5	5.5	4.0	5.5		4.0	5.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		329	299		304	298	312	990		227	986	
v/s Ratio Prot							0.00	c0.44		c0.02	0.38	
v/s Ratio Perm		0.08	0.01		c0.11	0.02	0.07			0.19		
v/c Ratio		0.42	0.05		0.57	0.09	0.13	0.82		0.35	0.70	
Uniform Delay, d1		22.8	21.2		23.6	21.3	7.6	12.6		9.4	10.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9	0.1		2.6	0.1	0.2	5.6		0.9	2.3	
Delay (s)		23.7	21.3		26.2	21.5	7.8	18.2		10.4	13.2	
Level of Service		C	C		C	C	A	B		B	B	
Approach Delay (s)		22.8			24.1			17.7			12.9	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM Average Control Delay			17.4				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			64.4				Sum of lost time (s)			15.0		
Intersection Capacity Utilization			71.9%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
3: Walton St & Stevens Ave

3/12/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	119	68	471	103	111	522
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	40		35	90	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.95		0.95	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1599	1652	1599	1805	1668
Flt Permitted	0.950				0.295	
Satd. Flow (perm)	1756	1522	1652	1527	558	1668
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		77		53		
Link Speed (mph)	30		30			30
Link Distance (ft)	300		540			690
Travel Time (s)	6.8		12.3			15.7
Confl. Peds. (#/hr)	7	7		7	7	
Confl. Bikes (#/hr)		6		12		
Peak Hour Factor	0.88	0.88	0.89	0.89	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			3			3
Adj. Flow (vph)	135	77	529	116	126	593
Shared Lane Traffic (%)						
Lane Group Flow (vph)	135	77	529	116	126	593
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.18	1.00	1.00	1.18
Turning Speed (mph)	15	9		9	15	
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	9.0	21.0
Total Split (s)	21.0	21.0	49.0	49.0	10.0	59.0
Total Split (%)	26.3%	26.3%	61.3%	61.3%	12.5%	73.8%
Maximum Green (s)	16.0	16.0	44.0	44.0	5.0	54.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0

Lanes, Volumes, Timings
3: Walton St & Stevens Ave

3/12/2016

	     					
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	5.0	5.0	5.0	5.0		5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	11.6	11.6	27.8	27.8	31.0	34.8
Actuated g/C Ratio	0.24	0.24	0.57	0.57	0.63	0.71
v/c Ratio	0.32	0.18	0.56	0.13	0.23	0.50
Control Delay	24.6	8.0	14.3	5.8	5.3	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.6	8.0	14.3	5.8	5.3	7.3
LOS	C	A	B	A	A	A
Approach Delay	18.6		12.7			7.0
Approach LOS	B		B			A

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 49
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 10.9
 Intersection Capacity Utilization 51.4%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 3: Walton St & Stevens Ave



HCM Signalized Intersection Capacity Analysis

3: Walton St & Stevens Ave

3/12/2016

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	119	68	471	103	111	522
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.95	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1526	1652	1535	1803	1668
Flt Permitted	0.95	1.00	1.00	1.00	0.29	1.00
Satd. Flow (perm)	1787	1526	1652	1535	560	1668
Peak-hour factor, PHF	0.88	0.88	0.89	0.89	0.88	0.88
Adj. Flow (vph)	135	77	529	116	126	593
RTOR Reduction (vph)	0	66	0	27	0	0
Lane Group Flow (vph)	135	11	529	89	126	593
Confl. Peds. (#/hr)	7	7		7	7	
Confl. Bikes (#/hr)		6		12		
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			3			3
Turn Type	Perm		Perm		pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	7.3	7.3	24.1	24.1	32.6	32.6
Effective Green, g (s)	7.3	7.3	24.1	24.1	32.6	32.6
Actuated g/C Ratio	0.15	0.15	0.48	0.48	0.65	0.65
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	261	223	798	741	453	1090
v/s Ratio Prot	c0.08		c0.32		0.02	c0.36
v/s Ratio Perm		0.01		0.06	0.16	
v/c Ratio	0.52	0.05	0.66	0.12	0.28	0.54
Uniform Delay, d1	19.7	18.3	9.8	7.1	4.6	4.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	0.1	2.1	0.1	0.3	0.6
Delay (s)	21.4	18.4	11.9	7.2	4.9	5.2
Level of Service	C	B	B	A	A	A
Approach Delay (s)	20.3		11.0			5.2
Approach LOS	C		B			A
Intersection Summary						
HCM Average Control Delay			9.6		HCM Level of Service	A
HCM Volume to Capacity ratio			0.66			
Actuated Cycle Length (s)			49.9		Sum of lost time (s)	15.0
Intersection Capacity Utilization			51.4%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Avenue

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	32	21	12	39	61	21	560	16	20	467	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.95			1.00			1.00	
Frt		0.973			0.927			0.996			0.991	
Flt Protected		0.976			0.995			0.998			0.998	
Satd. Flow (prot)	0	1766	0	0	1674	0	0	1868	0	0	1632	0
Flt Permitted		0.844			0.951			0.972			0.967	
Satd. Flow (perm)	0	1516	0	0	1594	0	0	1819	0	0	1581	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			79			3			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1219			1121			280			1491	
Travel Time (s)		27.7			25.5			6.4			33.9	
Confl. Peds. (#/hr)	10		10	20		20	4		4	10		10
Confl. Bikes (#/hr)			19			30			5			17
Peak Hour Factor	0.78	0.78	0.78	0.77	0.77	0.77	0.91	0.91	0.91	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Parking (#/hr)											4	
Adj. Flow (vph)	65	41	27	16	51	79	23	615	18	24	556	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	146	0	0	656	0	0	620	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.18	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5		21.5	21.5		21.5	21.5		21.5	21.5	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		24.5	24.5		24.5	24.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Lanes, Volumes, Timings

9: Pleasant Ave & Stevens Avenue

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		8.7			8.7			28.8			28.8	
Actuated g/C Ratio		0.19			0.19			0.64			0.64	
v/c Ratio		0.42			0.39			0.57			0.61	
Control Delay		17.2			11.4			9.8			12.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.2			11.4			9.8			12.0	
LOS		B			B			A			B	
Approach Delay		17.2			11.4			9.8			12.0	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.2

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 11.4

Intersection LOS: B

Intersection Capacity Utilization 60.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 9: Pleasant Ave & Stevens Avenue

 Ø2	 Ø4
30 s	30 s
 Ø6	 Ø8
30 s	30 s

HCM Signalized Intersection Capacity Analysis

9: Pleasant Ave & Stevens Avenue

3/12/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	32	21	12	39	61	21	560	16	20	467	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		0.98			0.94			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.97			0.93			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1748			1639			1869			1633	
Flt Permitted		0.84			0.95			0.97			0.97	
Satd. Flow (perm)		1512			1567			1820			1583	
Peak-hour factor, PHF	0.78	0.78	0.78	0.77	0.77	0.77	0.91	0.91	0.91	0.84	0.84	0.84
Adj. Flow (vph)	65	41	27	16	51	79	23	615	18	24	556	40
RTOR Reduction (vph)	0	22	0	0	66	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	111	0	0	80	0	0	655	0	0	617	0
Confl. Peds. (#/hr)	10		10	20		20	4		4	10		10
Confl. Bikes (#/hr)			19			30			5			17
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Parking (#/hr)											4	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.6			7.6			27.7			27.7	
Effective Green, g (s)		7.6			7.6			27.7			27.7	
Actuated g/C Ratio		0.16			0.16			0.60			0.60	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		248			257			1089			947	
v/s Ratio Prot												
v/s Ratio Perm		c0.07			0.05			0.36			c0.39	
v/c Ratio		0.45			0.31			0.60			0.65	
Uniform Delay, d1		17.5			17.0			5.8			6.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.3			0.7			2.5			3.5	
Delay (s)		18.8			17.7			8.3			9.6	
Level of Service		B			B			A			A	
Approach Delay (s)		18.8			17.7			8.3			9.6	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay			10.6			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			46.3			Sum of lost time (s)			11.0			
Intersection Capacity Utilization			60.6%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/12/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕		↕	↕	
Volume (vph)	23	93	66	47	99	112	40	779	36	80	664	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		100	140		0	140		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.96		1.00	0.97					1.00	
Frt			0.850			0.850		0.993			0.993	
Flt Protected		0.990			0.984		0.950			0.950		
Satd. Flow (prot)	0	1881	1615	0	1851	1599	1787	1868	0	1752	1814	0
Flt Permitted		0.900			0.838		0.234			0.126		
Satd. Flow (perm)	0	1708	1552	0	1572	1546	440	1868	0	232	1814	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81			140		5			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		850			686			1198			517	
Travel Time (s)		19.3			15.6			27.2			11.8	
Confl. Peds. (#/hr)	4		4	4		4				4		4
Confl. Bikes (#/hr)			5			2						4
Peak Hour Factor	0.81	0.81	0.81	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Adj. Flow (vph)	28	115	81	59	124	140	42	820	38	84	699	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	81	0	183	140	42	858	0	84	735	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5	21.5	21.5	21.5	21.5	8.0	21.5		8.0	21.5	
Total Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	8.0	50.2	0.0	8.0	50.2	0.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	27.3%	27.3%	10.0%	62.8%	0.0%	10.0%	62.8%	0.0%
Maximum Green (s)	16.3	16.3	16.3	16.3	16.3	16.3	4.0	44.7		4.0	44.7	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0		0.5	2.0	
Lost Time Adjust (s)	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 Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.0	5.5	4.0	4.0	5.5	4.0
Lead/Lag							Lead	Lag		Lead	Lag	

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	
Act Effct Green (s)		12.8	12.8		12.8	12.8	39.7	35.2		40.6	36.9	
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.60	0.53		0.62	0.56	
v/c Ratio		0.43	0.22		0.60	0.34	0.12	0.86		0.34	0.72	
Control Delay		31.4	8.7		36.6	8.1	5.0	24.0		8.3	16.4	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		31.4	8.7		36.6	8.1	5.0	24.0		8.3	16.4	
LOS		C	A		D	A	A	C		A	B	
Approach Delay		23.2			24.3			23.1			15.6	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 65.8

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 20.6

Intersection LOS: C

Intersection Capacity Utilization 74.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: Walton Street & Forest Ave

 ø1	 ø2	 ø4
8 s	50.2 s	21.8 s
 ø5	 ø6	 ø8
8 s	50.2 s	21.8 s

HCM Signalized Intersection Capacity Analysis

11: Walton Street & Forest Ave

3/12/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	93	66	47	99	112	40	779	36	80	664	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5		5.5	5.5	4.0	5.5		4.0	5.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frbp, ped/bikes		1.00	0.96		1.00	0.97	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.99	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1879	1554		1847	1548	1787	1869		1752	1814	
Flt Permitted		0.90	1.00		0.84	1.00	0.23	1.00		0.13	1.00	
Satd. Flow (perm)		1708	1554		1573	1548	441	1869		233	1814	
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	28	115	81	59	124	140	42	820	38	84	699	36
RTOR Reduction (vph)	0	0	65	0	0	113	0	2	0	0	2	0
Lane Group Flow (vph)	0	143	16	0	183	27	42	856	0	84	733	0
Confl. Peds. (#/hr)	4		4	4		4				4		4
Confl. Bikes (#/hr)			5			2						4
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		12.8	12.8		12.8	12.8	38.0	36.0		39.8	36.9	
Effective Green, g (s)		12.8	12.8		12.8	12.8	38.0	36.0		39.8	36.9	
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.57	0.54		0.60	0.55	
Clearance Time (s)		5.5	5.5		5.5	5.5	4.0	5.5		4.0	5.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		328	298		302	297	292	1009		205	1004	
v/s Ratio Prot							0.00	c0.46		c0.02	0.40	
v/s Ratio Perm		0.08	0.01		c0.12	0.02	0.08			0.23		
v/c Ratio		0.44	0.05		0.61	0.09	0.14	0.85		0.41	0.73	
Uniform Delay, d1		23.8	22.0		24.6	22.2	7.9	13.0		10.4	11.2	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9	0.1		3.4	0.1	0.2	6.7		1.3	2.7	
Delay (s)		24.7	22.1		28.1	22.3	8.1	19.8		11.7	13.9	
Level of Service		C	C		C	C	A	B		B	B	
Approach Delay (s)		23.7			25.6			19.2			13.6	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM Average Control Delay		18.6								B		
HCM Volume to Capacity ratio		0.76										
Actuated Cycle Length (s)		66.7								15.0		
Intersection Capacity Utilization		74.6%								D		
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

2: Northerly Site Drive & Stevens Avenue

3/12/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	3	575	0	0	650
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1627	0	1881	0	0	1881
Flt Permitted						
Satd. Flow (perm)	1627	0	1881	0	0	1881
Link Speed (mph)	30		30			30
Link Distance (ft)	294		230			200
Travel Time (s)	6.7		5.2			4.5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	0	3	653	0	0	739
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	0	653	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	44.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

2: Northerly Site Drive & Stevens Avenue

3/12/2016

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	3	575	0	0	650
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	3	653	0	0	739
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						740
pX, platoon unblocked	0.86					
vC, conflicting volume	1392	653			653	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1374	653			653	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	138	469			938	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	3	653	739			
Volume Left	0	0	0			
Volume Right	3	0	0			
cSH	469	1700	1700			
Volume to Capacity	0.01	0.38	0.43			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	12.7	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	12.7	0.0	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay		0.0				
Intersection Capacity Utilization		44.2%		ICU Level of Service		A
Analysis Period (min)		15				

Lanes, Volumes, Timings

3: Walton St & Stevens Ave

3/12/2016

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	126	71	474	104	116	524
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	40		35	90	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.95		0.95	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1599	1652	1599	1805	1668
Flt Permitted	0.950				0.300	
Satd. Flow (perm)	1756	1522	1652	1527	567	1668
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		81		53		
Link Speed (mph)	30		30			30
Link Distance (ft)	300		480			690
Travel Time (s)	6.8		10.9			15.7
Confl. Peds. (#/hr)	7	7		7	7	
Confl. Bikes (#/hr)		6		12		
Peak Hour Factor	0.88	0.88	0.89	0.89	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			3			3
Adj. Flow (vph)	143	81	533	117	132	595
Shared Lane Traffic (%)						
Lane Group Flow (vph)	143	81	533	117	132	595
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.18	1.00	1.00	1.18
Turning Speed (mph)	15	9		9	15	
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	9.0	21.0
Total Split (s)	21.0	21.0	49.0	49.0	10.0	59.0
Total Split (%)	26.3%	26.3%	61.3%	61.3%	12.5%	73.8%
Maximum Green (s)	16.0	16.0	44.0	44.0	5.0	54.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0

Lanes, Volumes, Timings

3: Walton St & Stevens Ave

3/12/2016



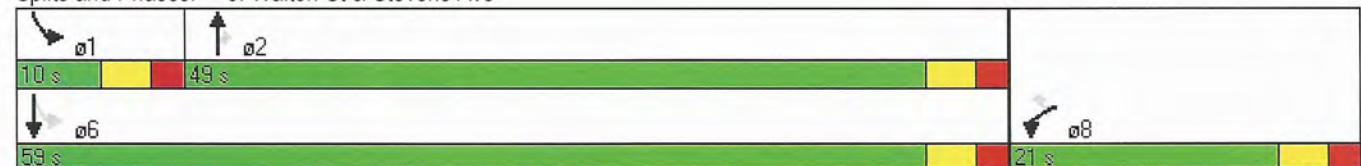
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	5.0	5.0	5.0	5.0		5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0		0
Act Effct Green (s)	11.2	11.2	28.8	28.8	33.1	35.9
Actuated g/C Ratio	0.22	0.22	0.57	0.57	0.65	0.71
v/c Ratio	0.36	0.20	0.57	0.13	0.25	0.50
Control Delay	25.4	8.1	14.4	5.9	5.5	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	8.1	14.4	5.9	5.5	7.5
LOS	C	A	B	A	A	A
Approach Delay	19.2		12.9			7.1
Approach LOS	B		B			A

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 50.6
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 52.2%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 3: Walton St & Stevens Ave



HCM Signalized Intersection Capacity Analysis

3: Walton St & Stevens Ave

3/12/2016

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	126	71	474	104	116	524
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.95	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1525	1652	1535	1803	1668
Flt Permitted	0.95	1.00	1.00	1.00	0.30	1.00
Satd. Flow (perm)	1787	1525	1652	1535	570	1668
Peak-hour factor, PHF	0.88	0.88	0.89	0.89	0.88	0.88
Adj. Flow (vph)	143	81	533	117	132	595
RTOR Reduction (vph)	0	69	0	27	0	0
Lane Group Flow (vph)	143	12	533	90	132	595
Confl. Peds. (#/hr)	7	7		7	7	
Confl. Bikes (#/hr)		6		12		
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	2	0	0	2
Parking (#/hr)			3			3
Turn Type	Perm			Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	7.6	7.6	26.0	26.0	34.6	34.6
Effective Green, g (s)	7.6	7.6	26.0	26.0	34.6	34.6
Actuated g/C Ratio	0.15	0.15	0.50	0.50	0.66	0.66
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	260	222	823	765	463	1106
v/s Ratio Prot	c0.08		c0.32		0.02	c0.36
v/s Ratio Perm		0.01		0.06	0.17	
v/c Ratio	0.55	0.05	0.65	0.12	0.29	0.54
Uniform Delay, d1	20.7	19.2	9.7	7.0	4.6	4.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.1	1.8	0.1	0.3	0.5
Delay (s)	23.2	19.3	11.5	7.1	4.9	5.1
Level of Service	C	B	B	A	A	A
Approach Delay (s)	21.8		10.7			5.1
Approach LOS	C		B			A
Intersection Summary						
HCM Average Control Delay			9.7		HCM Level of Service	A
HCM Volume to Capacity ratio			0.65			
Actuated Cycle Length (s)			52.2		Sum of lost time (s)	15.0
Intersection Capacity Utilization			52.2%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Avenue

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	32	21	12	39	61	21	568	16	20	467	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.95			1.00			1.00	
Frt		0.973			0.927			0.996			0.991	
Flt Protected		0.976			0.995			0.998			0.998	
Satd. Flow (prot)	0	1766	0	0	1674	0	0	1868	0	0	1632	0
Flt Permitted		0.845			0.951			0.973			0.967	
Satd. Flow (perm)	0	1518	0	0	1594	0	0	1821	0	0	1581	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			79			3			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1219			1121			280			1261	
Travel Time (s)		27.7			25.5			6.4			28.7	
Confl. Peds. (#/hr)	10		10	20		20	4		4	10		10
Confl. Bikes (#/hr)			19			30			5			17
Peak Hour Factor	0.78	0.78	0.78	0.77	0.77	0.77	0.91	0.91	0.91	0.84	0.84	0.84
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Parking (#/hr)											4	
Adj. Flow (vph)	65	41	27	16	51	79	23	624	18	24	556	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	146	0	0	665	0	0	620	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.18	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5		21.5	21.5		21.5	21.5		21.5	21.5	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		24.5	24.5		24.5	24.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	

Lanes, Volumes, Timings
9: Pleasant Ave & Stevens Avenue

3/12/2016

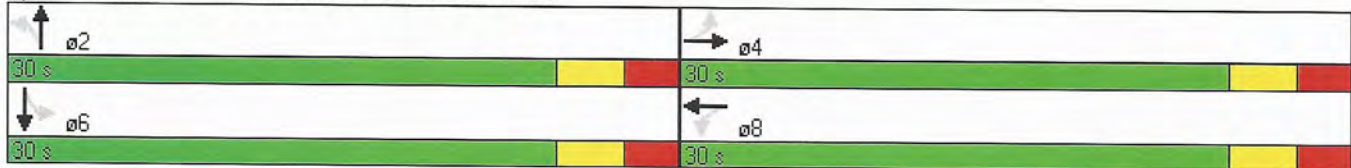
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		8.6			8.6			28.8			28.8	
Actuated g/C Ratio		0.19			0.19			0.64			0.64	
v/c Ratio		0.43			0.40			0.57			0.61	
Control Delay		17.3			11.5			9.9			11.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.3			11.5			9.9			11.9	
LOS		B			B			A			B	
Approach Delay		17.3			11.5			9.9			11.9	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 45.1
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 11.5
 Intersection Capacity Utilization 61.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 9: Pleasant Ave & Stevens Avenue



HCM Signalized Intersection Capacity Analysis

9: Pleasant Ave & Stevens Avenue

3/12/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	32	21	12	39	61	21	568	16	20	467	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		0.98			0.94			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.97			0.93			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1748			1639			1869			1633	
Flt Permitted		0.84			0.95			0.97			0.97	
Satd. Flow (perm)		1513			1567			1821			1582	
Peak-hour factor, PHF	0.78	0.78	0.78	0.77	0.77	0.77	0.91	0.91	0.91	0.84	0.84	0.84
Adj. Flow (vph)	65	41	27	16	51	79	23	624	18	24	556	40
RTOR Reduction (vph)	0	22	0	0	66	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	111	0	0	80	0	0	664	0	0	617	0
Confl. Peds. (#/hr)	10		10	20		20	4		4	10		10
Confl. Bikes (#/hr)			19			30			5			17
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Parking (#/hr)											4	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2		6		
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.5			7.5			27.7		27.7		
Effective Green, g (s)		7.5			7.5			27.7		27.7		
Actuated g/C Ratio		0.16			0.16			0.60		0.60		
Clearance Time (s)		5.5			5.5			5.5		5.5		
Vehicle Extension (s)		3.0			3.0			3.0		3.0		
Lane Grp Cap (vph)		246			254			1092		949		
v/s Ratio Prot												
v/s Ratio Perm		c0.07			0.05			0.36		c0.39		
v/c Ratio		0.45			0.31			0.61		0.65		
Uniform Delay, d1		17.5			17.1			5.8		6.1		
Progression Factor		1.00			1.00			1.00		1.00		
Incremental Delay, d2		1.3			0.7			2.5		3.5		
Delay (s)		18.8			17.8			8.3		9.5		
Level of Service		B			B			A		A		
Approach Delay (s)		18.8			17.8			8.3		9.5		
Approach LOS		B			B			A		A		
Intersection Summary												
HCM Average Control Delay		10.6			HCM Level of Service			B				
HCM Volume to Capacity ratio		0.61										
Actuated Cycle Length (s)		46.2			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		61.0%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	101	72	47	109	112	44	779	36	80	664	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		100	140		0	140		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.96		1.00	0.97					1.00	
Frt			0.850			0.850		0.993			0.992	
Flt Protected		0.990			0.985		0.950			0.950		
Satd. Flow (prot)	0	1881	1615	0	1853	1599	1787	1868	0	1752	1812	0
Flt Permitted		0.894			0.842		0.230			0.126		
Satd. Flow (perm)	0	1696	1552	0	1580	1546	433	1868	0	232	1812	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			84			140		5			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		850			686			1198			517	
Travel Time (s)		19.3			15.6			27.2			11.8	
Confl. Peds. (#/hr)	4		4	4		4				4		4
Confl. Bikes (#/hr)			5			2						4
Peak Hour Factor	0.81	0.81	0.81	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Adj. Flow (vph)	31	125	89	59	136	140	46	820	38	84	699	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	156	89	0	195	140	46	858	0	84	739	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5	21.5	21.5	21.5	21.5	8.0	21.5		8.0	21.5	
Total Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	8.0	50.2	0.0	8.0	50.2	0.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	27.3%	27.3%	10.0%	62.8%	0.0%	10.0%	62.8%	0.0%
Maximum Green (s)	16.3	16.3	16.3	16.3	16.3	16.3	4.0	44.7		4.0	44.7	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0		0.5	2.0	
Lost Time Adjust (s)	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 Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.0	5.5	4.0	4.0	5.5	4.0
Lead/Lag							Lead	Lag		Lead	Lag	

Lanes, Volumes, Timings
11: Walton Street & Forest Ave

3/12/2016

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0			5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	
Act Effct Green (s)		13.1	13.1		13.1	13.1	40.0	35.4		40.8	37.1	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.60	0.53		0.62	0.56	
v/c Ratio		0.47	0.24		0.62	0.34	0.13	0.86		0.35	0.73	
Control Delay		32.2	9.4		37.5	8.1	5.1	24.2		8.4	16.7	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		32.2	9.4		37.5	8.1	5.1	24.2		8.4	16.7	
LOS		C	A		D	A	A	C		A	B	
Approach Delay		23.9			25.2			23.2			15.8	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 66.3

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 21.0

Intersection LOS: C

Intersection Capacity Utilization 75.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: Walton Street & Forest Ave

 ø1	 ø2	 ø4
8 s	50.2 s	21.8 s
 ø5	 ø6	 ø8
8 s	50.2 s	21.8 s

HCM Signalized Intersection Capacity Analysis

11: Walton Street & Forest Ave

3/12/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	101	72	47	109	112	44	779	36	80	664	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5		5.5	5.5	4.0	5.5		4.0	5.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.96		1.00	0.97	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.99	1.00		0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1879	1554		1849	1548	1787	1869		1752	1812	
Flt Permitted		0.89	1.00		0.84	1.00	0.23	1.00		0.13	1.00	
Satd. Flow (perm)		1697	1554		1580	1548	433	1869		232	1812	
Peak-hour factor, PHF	0.81	0.81	0.81	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	31	125	89	59	136	140	46	820	38	84	699	40
RTOR Reduction (vph)	0	0	68	0	0	113	0	2	0	0	3	0
Lane Group Flow (vph)	0	156	21	0	195	27	46	856	0	84	736	0
Confl. Peds. (#/hr)	4		4	4		4				4		4
Confl. Bikes (#/hr)			5			2						4
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		13.1	13.1		13.1	13.1	38.3	36.3		40.1	37.2	
Effective Green, g (s)		13.1	13.1		13.1	13.1	38.3	36.3		40.1	37.2	
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.57	0.54		0.60	0.55	
Clearance Time (s)		5.5	5.5		5.5	5.5	4.0	5.5		4.0	5.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		330	302		308	301	287	1008		204	1002	
v/s Ratio Prot							0.00	c0.46		c0.02	0.41	
v/s Ratio Perm		0.09	0.01		c0.12	0.02	0.09			0.23		
v/c Ratio		0.47	0.07		0.63	0.09	0.16	0.85		0.41	0.73	
Uniform Delay, d1		24.0	22.1		24.9	22.2	8.1	13.2		10.6	11.3	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1	0.1		4.2	0.1	0.3	6.8		1.4	2.8	
Delay (s)		25.1	22.2		29.1	22.3	8.4	20.0		11.9	14.2	
Level of Service		C	C		C	C	A	B		B	B	
Approach Delay (s)		24.1			26.3			19.4			13.9	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM Average Control Delay			18.9									
HCM Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			67.3									
Intersection Capacity Utilization			75.1%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

18: Walton Street & McAuley Entrance Drive

3/12/2016

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	226	30	33	138	11	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984				0.916	
Flt Protected				0.990	0.982	
Satd. Flow (prot)	1833	0	0	1862	1692	0
Flt Permitted				0.990	0.982	
Satd. Flow (perm)	1833	0	0	1862	1692	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	100			850	222	
Travel Time (s)	2.3			19.3	5.0	
Peak Hour Factor	0.92	0.92	0.89	0.89	0.75	0.75
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Adj. Flow (vph)	246	33	37	155	15	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	279	0	0	192	40	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 36.1%

ICU Level of Service A

Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis

18: Walton Street & McAuley Entrance Drive

3/12/2016

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	226	30	33	138	11	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.89	0.89	0.75	0.75
Hourly flow rate (vph)	246	33	37	155	15	25
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	695			850		
pX, platoon unblocked						
vC, conflicting volume			278		491	262
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			278		491	262
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		97	97
cM capacity (veh/h)			1290		523	779
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	278	192	40			
Volume Left	0	37	15			
Volume Right	33	0	25			
cSH	1700	1290	660			
Volume to Capacity	0.16	0.03	0.06			
Queue Length 95th (ft)	0	2	5			
Control Delay (s)	0.0	1.7	10.8			
Lane LOS		A	B			
Approach Delay (s)	0.0	1.7	10.8			
Approach LOS			B			
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			36.1%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings
16: Walton St & McAuley Exit Drive

3/12/2016

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘↗	
Volume (vph)	214	0	0	149	27	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.923	
Flt Protected					0.979	
Satd. Flow (prot)	1881	0	0	1881	1700	0
Flt Permitted					0.979	
Satd. Flow (perm)	1881	0	0	1881	1700	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	300			235	234	
Travel Time (s)	6.8			5.3	5.3	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.75	0.75
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	240	0	0	167	36	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	240	0	0	167	84	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

16: Walton St & McAuley Exit Drive

3/12/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Volume (veh/h)	214	0	0	149	27	36
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.75	0.75
Hourly flow rate (vph)	240	0	0	167	36	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	300			1245		
pX, platoon unblocked						
vC, conflicting volume			240		408	240
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			240		408	240
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	94
cM capacity (veh/h)			1332		601	801
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	240	167	84			
Volume Left	0	0	36			
Volume Right	0	0	48			
cSH	1700	1700	701			
Volume to Capacity	0.14	0.10	0.12			
Queue Length 95th (ft)	0	0	10			
Control Delay (s)	0.0	0.0	10.8			
Lane LOS			B			
Approach Delay (s)	0.0	0.0	10.8			
Approach LOS			B			
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization		21.6%		ICU Level of Service		A
Analysis Period (min)			15			

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

Stevens_Walton

REPORT PARAMETERS

Year 2012, Start Month 1 through Year 2014 End Month: 12

Route: 3200987	Start Node: 12842 End Node: 16860	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0560678	Start Node: 13190 End Node: 16870	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 3209381	Start Node: 16870 End Node: 66108	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Node	Route - MP	Node Description	Nodes										Crash Rate	Critical Rate	CRF
			U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	Percent Injury PD	Annual M Ent-Veh	Crash Rate	Crash Rate			
12842	3200987 - 0.29	Int of PLEASANT AV STEVENS AV	9	4	0	0	0	1	3	25.0	4.589	0.29	1.20	0.00	0.24
											Statewide Crash Rate:	0.67			
13166	3200987 - 0.33	Int of BRENTWOOD ST STEVENS AV	2	5	0	0	0	1	4	20.0	4.406	0.38	0.37	1.03	—
											Statewide Crash Rate:	0.14			
12848	3200987 - 0.36	Int of CLINTON ST, STEVENS AV	2	4	0	0	0	1	3	25.0	4.140	0.32	0.37	0.00	0.86
											Statewide Crash Rate:	0.14			
13185	3200987 - 0.41	Int of HARTLEY ST STEVENS AV	2	0	0	0	0	0	0	0.0	4.229	0.00	0.37	0.00	
											Statewide Crash Rate:	0.14			
13183	3200987 - 0.46	Int of PERCIVAL ST STEVENS AV	2	0	0	0	0	0	0	0.0	4.218	0.00	0.37	0.00	
											Statewide Crash Rate:	0.14			
13182	3200987 - 0.49	Int of CROSBY ST STEVENS AV	2	2	0	0	2	0	0	100.0	4.335	0.15	0.37	0.00	0.41
											Statewide Crash Rate:	0.14			
13181	3200987 - 0.54	Int of NEW ST, STEVENS AV	2	1	0	0	0	0	1	0.0	4.433	0.08	0.37	0.00	0.22
											Statewide Crash Rate:	0.14			
13190	3200987 - 0.75	Int of STEVENS AV, WALTON ST	9	4	0	0	0	0	4	0.0	4.754	0.28	1.19	0.00	0.24
											Statewide Crash Rate:	0.67			
10883	3200987 - 0.87	Int of DINGLEY CT, WALTON ST	2	0	0	0	0	0	0	0.0	1.115	0.00	0.52	0.00	
											Statewide Crash Rate:	0.14			
12106	3200987 - 0.90	Int of MORGAN CT, WALTON ST	2	0	0	0	0	0	0	0.0	1.182	0.00	0.51	0.00	
											Statewide Crash Rate:	0.14			
13189	3200987 - 0.95	Int of PERSHING ST, WALTON ST	2	0	0	0	0	0	0	0.0	1.217	0.00	0.51	0.00	
											Statewide Crash Rate:	0.14			
16860	3200987 - 1.01	Int of FOREST AV WALTON ST	9	34	0	1	2	12	19	44.1	9.401	1.21	1.05	1.15	—
											Statewide Crash Rate:	0.67			
13192	0560678 - 0.05	Int of ST JOSEPH ST, STEVENS AV	2	3	0	0	0	0	3	0.0	4.094	0.24	0.37	0.00	0.65
											Statewide Crash Rate:	0.14			
13194	0560678 - 0.13	Int of ELMWOOD STEVENS AV	2	1	0	0	0	1	0	100.0	4.103	0.08	0.37	0.00	0.22
											Statewide Crash Rate:	0.14			
P13196	0560678 - 0.19	Int of STEVENS AV WAVERLY ST	2	6	0	0	0	1	5	16.7	4.111	0.49	0.37	1.30	—
											Statewide Crash Rate:	0.14			
A13198	0560678 - 0.21	Int of COLLEGE ST STEVENS AV	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00	
											Statewide Crash Rate:	0.14			
13199	0560678 - 0.26	Int of POLAND ST STEVENS AV	2	0	0	0	0	0	0	0.0	3.854	0.00	0.38	0.00	
											Statewide Crash Rate:	0.14			
13200	0560678 - 0.35	Int of ARBOR ST STEVENS AV	2	2	0	0	0	1	1	50.0	3.807	0.18	0.38	0.00	0.47
											Statewide Crash Rate:	0.14			
66108	0560678 - 0.46	Non Int STEVENS AV	2	0	0	0	0	0	0	0.0	3.745	0.00	0.38	0.00	
											Statewide Crash Rate:	0.14			
16870	0560678 - 0.49	Int of BISHOP ST FOREST AV STEVENS AV	9	31	0	0	0	9	22	29.0	13.007	0.79	0.99	0.00	0.80
											Statewide Crash Rate:	0.67			
Study Years: 3.00			NODE TOTALS:		97	0	1	4	27	65	33.0	84.740	0.38	0.43	0.89

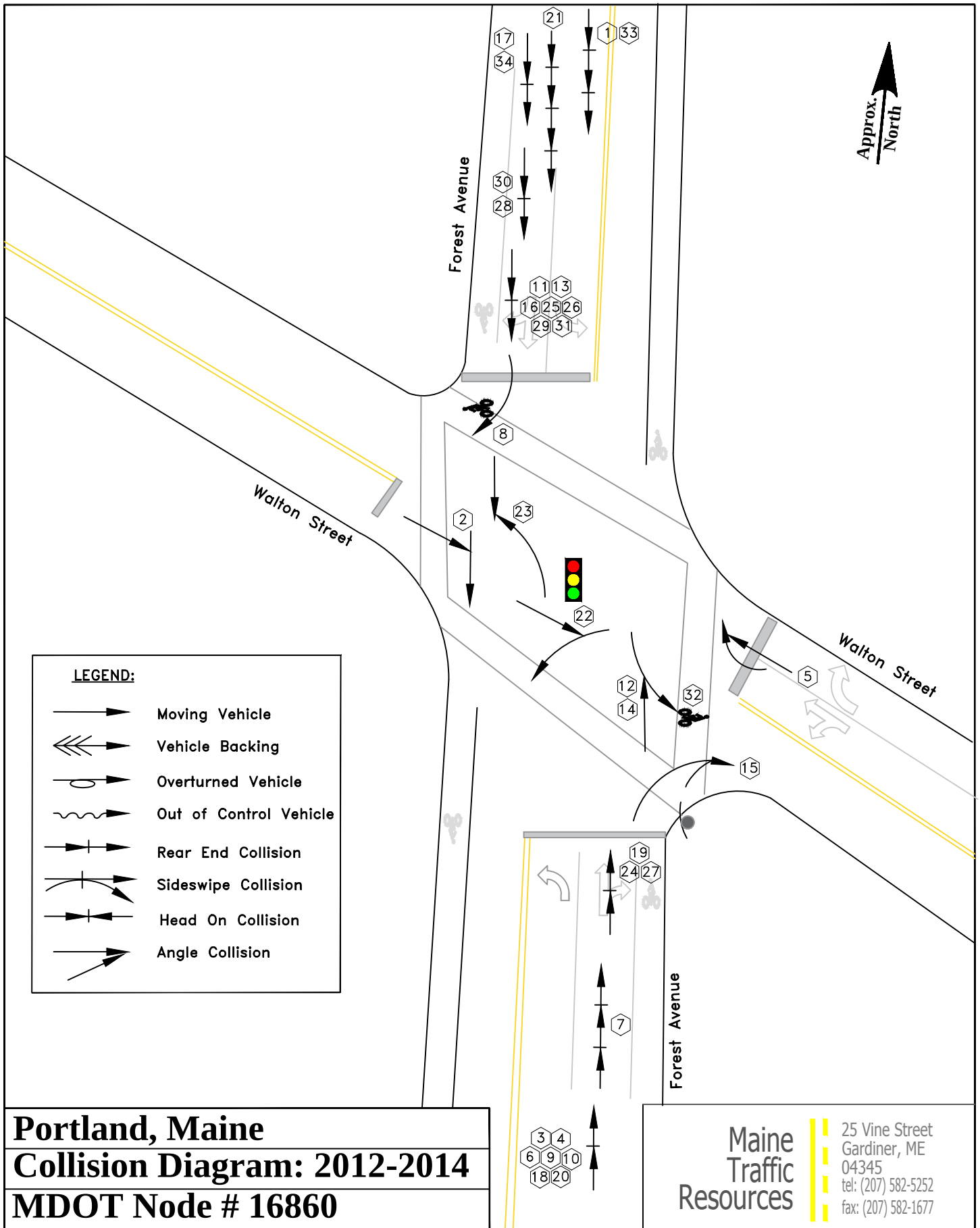
Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Sections																		
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury Crashes				Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF		
12842	13166	3116026	0 - 0.04	3200987 - 0.29	0.04	2	2	0	0	0	0	2	0.0	0.00165	405.09	611.51	0.00	0.66
Int of PLEASANT AV STEVENS AV				RD INV 3200987										Statewide Crash Rate: 197.53				
12848	13166	3123926	0 - 0.03	3200987 - 0.33	0.03	2	1	0	0	0	0	1	0.0	0.00120	277.47	661.87	0.00	0.42
Int of CLINTON ST, STEVENS AV				RD INV 3200987										Statewide Crash Rate: 197.53				
12848	13185	3122189	0 - 0.05	3200987 - 0.36	0.05	2	1	0	0	0	0	1	0.0	0.00204	163.40	578.62	0.00	0.28
Int of CLINTON ST, STEVENS AV				RD INV 3200987										Statewide Crash Rate: 197.53				
13183	13185	3119201	0 - 0.05	3200987 - 0.41	0.05	2	2	0	0	1	0	1	50.0	0.00209	318.65	574.85	0.00	0.55
Int of PERCIVAL ST STEVENS AV				RD INV 3200987										Statewide Crash Rate: 197.53				
13182	13183	3130460	0 - 0.03	3200987 - 0.46	0.03	2	0	0	0	0	0	0	0.0	0.00127	0.00	652.95	0.00	
Int of CROSBY ST STEVENS AV				RD INV 3200987										Statewide Crash Rate: 197.53				
13181	13182	3123618	0 - 0.05	3200987 - 0.49	0.05	2	2	0	0	0	0	2	0.0	0.00214	311.05	571.27	0.00	0.54
Int of NEW ST, STEVENS AV				RD INV 3200987										Statewide Crash Rate: 197.53				
13181	13190	187848	0 - 0.21	3200987 - 0.54	0.21	2	4	0	0	0	3	1	75.0	0.00914	145.87	397.93	0.00	0.37
Int of NEW ST, STEVENS AV				RD INV 3200987										Statewide Crash Rate: 197.53				
10883	13190	184603	0 - 0.12	3200987 - 0.75	0.12	2	0	0	0	0	0	0	0.0	0.00128	0.00	1017.58	0.00	
Int of DINGLEY CT, WALTON ST				RD INV 3200987										Statewide Crash Rate: 359.10				
10883	12106	184602	0 - 0.03	3200987 - 0.87	0.03	2	0	0	0	0	0	0	0.0	0.00034	0.00	1398.78	0.00	
Int of DINGLEY CT, WALTON ST				RD INV 3200987										Statewide Crash Rate: 359.10				
12106	13189	186354	0 - 0.05	3200987 - 0.90	0.05	2	0	0	0	0	0	0	0.0	0.00060	0.00	1232.96	0.00	
Int of MORGAN CT, WALTON ST				RD INV 3200987										Statewide Crash Rate: 359.10				
13189	16860	187858	0 - 0.06	3200987 - 0.95	0.06	2	0	0	0	0	0	0	0.0	0.00070	0.00	1187.19	0.00	
Int of PERSHING ST, WALTON ST				RD INV 3200987										Statewide Crash Rate: 359.10				
13190	13192	187859	0 - 0.05	0560678 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00205	0.00	578.18	0.00	
Int of STEVENS AV, WALTON ST				RD INV 05 60678										Statewide Crash Rate: 197.53				
13192	13194	3118519	0 - 0.08	0560678 - 0.05	0.08	2	7	0	0	0	3	4	42.9	0.00326	716.67	512.67	1.40	—
Int of ST JOSEPH ST, STEVENS AV				RD INV 05 60678										Statewide Crash Rate: 197.53				
13194	13196	3118901	0 - 0.06	0560678 - 0.13	0.06	2	1	0	0	0	1	0	100.0	0.00242	137.76	553.58	0.00	0.25
Int of ELMWOOD STEVENS AV				RD INV 05 60678										Statewide Crash Rate: 197.53				
13196	13198	3118816	0 - 0.02	0560678 - 0.19	0.02	2	0	0	0	0	0	0	0.0	0.00079	0.00	729.60	0.00	
Int of STEVENS AV WAVERLY ST				RD INV 05 60678										Statewide Crash Rate: 197.53				
13198	13199	3130135	0 - 0.05	0560678 - 0.21	0.05	2	0	0	0	0	0	0	0.0	0.00192	0.00	587.80	0.00	
Int of COLLEGE ST STEVENS AV				RD INV 05 60678										Statewide Crash Rate: 197.53				
13199	13200	3123933	0 - 0.09	0560678 - 0.26	0.09	2	3	0	0	0	1	2	33.3	0.00343	291.86	505.99	0.00	0.58
Int of POLAND ST STEVENS AV				RD INV 05 60678										Statewide Crash Rate: 197.53				
13200	66108	3129804	0 - 0.11	0560678 - 0.35	0.11	2	5	0	0	0	0	5	0.0	0.00412	404.55	482.73	0.00	0.84
Int of ARBOR ST STEVENS AV				RD INV 05 60678										Statewide Crash Rate: 197.53				
66108	16870	3129805	0 - 0.03	0560678 - 0.46	0.03	2	0	0	0	0	0	0	0.0	0.00056	0.00	782.74	0.00	
Non Int STEVENS AV				RD INV 05 60678										Statewide Crash Rate: 197.53				
16870	66108	3139995	0 - 0.03	3209381 - 0	0.03	2	0	0	0	0	0	0	0.0	0.00056	0.00	782.74	0.00	
Int of BISHOP ST FOREST AV STEVENS AV				RD INV 3209381										Statewide Crash Rate: 197.53				

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury Crashes				Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF	
								A	B	C	PD						
Study Years:	3.00				Section Totals:	1.24	28	0	0	1	8	19	32.1	0.04155	224.65	310.28	0.72
					Grand Totals:	1.24	125	0	1	5	35	84	32.8	0.04155	1002.92	434.80	2.31



#	DATE	TIME	CONTRIBUTING FACTOR	MDOT REPORT #
1	02/02/12	16:49	REAR END – EMOTIONAL DISTRACTION	12-00309
2	04/29/12	15:45	DISTRACTED BY CELL PHONE	12-000994
3	06/05/12	17:23	REAR END – DISTRACTED DRIVER	12-1352
4	06/18/12	15:22	REAR END – DISTRACTED BY CELL PHONE	12-1460
5	08/03/12	16:12	SIDESWIPE – WIDE TURNING TRUCK	12-001909
6	09/11/12	16:49	REAR END – DRIVER CLAIMED FAULTY BRAKES	12-2260
7	10/09/12	11:40	REAR END – FOLLOWED TOO CLOSELY	12-002537
8	12/07/12	15:18	COLLISION W/ BICYCLE – FAILED TO YIELD R.O.W	12-003118
9	12/22/12	14:40	REAR END – FOLLOWED TOO CLOSELY	12-003267
10	02/25/13	14:28	REAR END – FOLLOWED TOO CLOSELY	13-000700
11	03/19/13	08:28	REAR END – DRIVING TOO FAST FOR SNOWY CONDITIONS	13-000949
12	04/02/13	12:35	FAILED TO YIELD R.O.W	13-001078
13	05/09/13	15:55	REAR END – FOLLOWED TOO CLOSELY	13-1378
14	06/19/13	21:18	ANGLE COLLISION – UNABLE TO DETERMINE CAUSE	13-1748
15	07/19/13	02:06	TRAILER OF LARGE TRUCK UPROOTED TRAFFIC POLE	13-002049
16	07/19/13	05:45	REAR END – SUDDEN STOP – MISPLACED TEMP SIGNS	13-002050
17	07/25/13	11:59	REAR END – FOLLOWING TOO CLOSELY	13-2096
18	08/05/13	16:13	REAR END – DISTRACTED DRIVER	13-2202
19	08/20/13	17:45	REAR END – SUDDEN STOP	13-002355
20	10/03/13	11:21	REAR END – SUDDEN STOP	13-002815
21	11/16/13	12:13	REAR END – DISTRACTED DRIVER	13-3258
22	01/31/14	15:11	FAILED TO YIELD R.O.W	14-000371
23	02/09/14	14:24	FAILED TO YIELD R.O.W	14-000481
24	02/11/14	16:20	REAR END – FOLLOWED TOO CLOSELY	14-000520
25	02/17/14	09:54	REAR END – GLARE OF SUN IN EYES	14-000614
26	05/27/14	09:27	REAR END – COLLISION WITH SCHOOL BUS	14-001567
27	06/27/14	17:27	REAR END – FOLLOWED TOO CLOSELY	14-001861
28	07/26/14	13:14	REAR END – BRAKING MALFUNCTION	14-002178
29	08/15/14	23:05	REAR END	14-002393
30	08/19/14	15:44	REAR END – FOLLOWED TOO CLOSELY	14-002437
31	08/21/14	13:55	REAR END – FOLLOWED TOO CLOSELY	14-002454
32	08/25/14	17:01	COLLISION W/BICYCLE – WAVED ON BY OTHER VEHICLE	14-002508
33	08/29/14	15:28	REAR END – FOLLOWED TOO CLOSELY	14-002555
34	09/17/14	07:48	REAR END – FOLLOWED TOO CLOSELY	14-002753

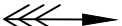
Portland, Maine
Collision Diagram: 2012-2014
MDOT Node # 16860

Maine
Traffic
Resources

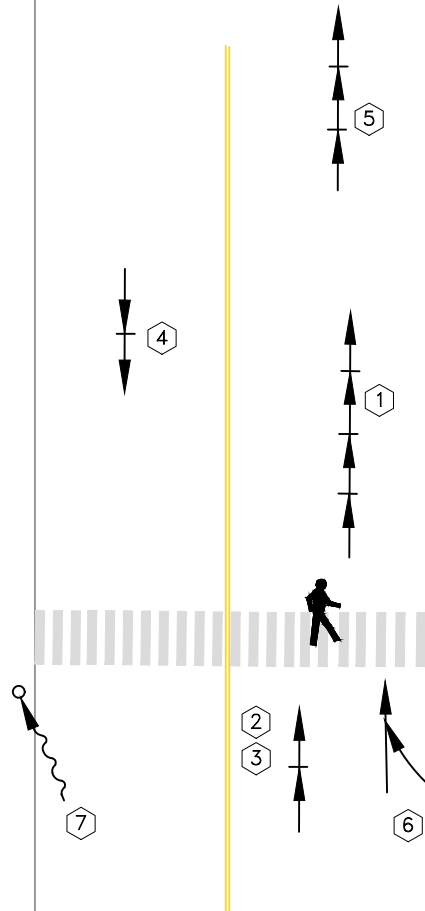
25 Vine Street
Gardiner, ME
04345
tel: (207) 582-5252
fax: (207) 582-1677



LEGEND:

-  Moving Vehicle
-  Vehicle Backing
-  Overturned Vehicle
-  Out of Control Vehicle
-  Rear End Collision
-  Sideswipe Collision
-  Head On Collision
-  Angle Collision

Stevens Avenue



Elmwood Street

St. Joseph's St.

#	DATE	TIME	CONTRIBUTING FACTOR	MDOT REPORT #
1	04/24/12	16:27	REAR END - STOPPED IN TRAFFIC	12-000958
2	08/30/12	11:39	REAR END - STOPPED FOR PEDESTRIAN - DISTRACTED	12-002143
3	09/17/12	12:10	REAR END - STOPPED FOR PEDESTRIAN IN CROSSWALK	12-002324
4	09/20/12	17:13	REAR END - IN TRAFFIC - DRIVER INATTENTION	12-002366
5	04/11/13	12:36	REAR END - STOPPED IN TRAFFIC - DRIVER INATTENTION	13-001152
6	05/21/13	15:00	SIDESWIPE - FAILURE TO YIELD LEAVING PARKING SPACE	13-001472
7	06/29/13	09:18	WENT OFF ROAD ATTEMPTING TO PASS TURNING VEHICLE	13-001850

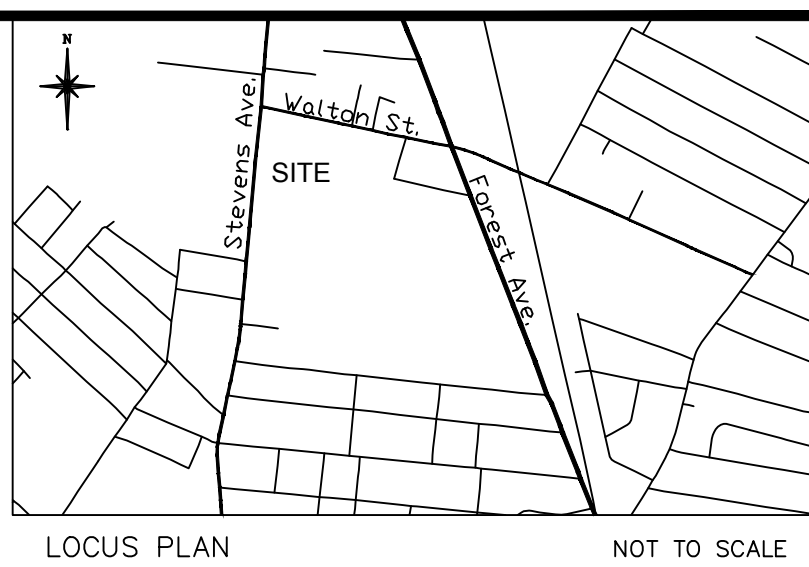
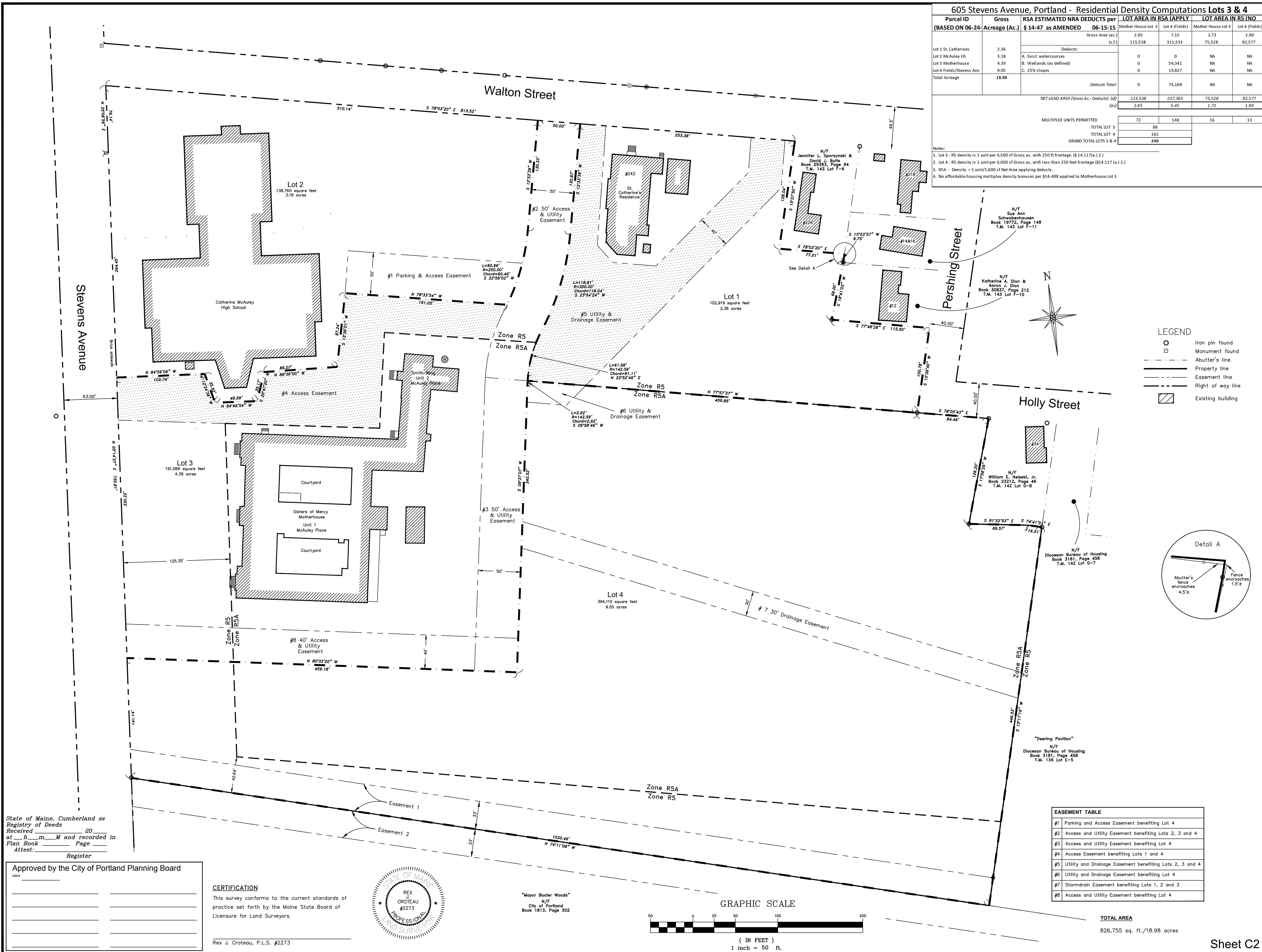
Portland, Maine

Collision Diagram: 2012-2014

MDOT Link # 13192 - 13194

**Maine
Traffic
Resources**

25 Vine Street
Gardiner, ME
04345
tel: (207) 582-5252
fax: (207) 582-1677



SITE DATA TABLE		
STANDARD	REQUIRED	
	R5	RS4
MIN. LOT AREA		
A. MULTIFAMILY	9,000 SF	2 AC
B. CONGREGATE CARE	N/A	N/A
C. ELEM - SECONDARY SCHOOL	30,000 SF	2 AC
MIN. FRONTAGE (FT)	50	50
MIN. LOT DIMENSIONS (FT.)		
A. FRONT YD.	20	25
B. REAR YD.	20	25
C. SIDE YD.	14	16
MAX. LOT COVERAGE	40%	30%
MIN. LOT WIDTH (FT.)	90	60

NOTES

- 1) Book and Page references are to the Cumberland County Registry of Deeds.
- 2) Bearings are referenced to Grid North. See Plan Reference 1.
- 3) This plan has been prepared and approved in accordance with the City of Portland Land Use Code, Article IV Subdivisions as a four (4)-lot subdivision. Development of Lots 1-4 shall be subject to Site Plan Review and approval by the Planning Board pursuant to Article V Site Plan Review. A sectional recording plot for individual or master planned development shall be prepared and approved for individual lot or section development in accordance with Article IV B-4-495(n) requirements prior to construction on any lots.
- 4) No development shall occur within the 33-foot right of way easement for the Boxter Easement (the Boxter Easement). Said easement shall forever remain natural, however allowing for tree and vegetation maintenance by a licensed arborist, creation and maintenance of a riparian habitat, and other uses consistent with permitted uses within the adjacent Mayor Boxter Woods property.

REFERENCES

- 1) Site Plan done by SYDesign Consultants, December 2000 and May 2001, not recorded.
- 2) Standard Boundary Survey of "Mayor Baxter Woods" by Public Works Department of the City of Portland, Maine, dated April 2001, not recorded.
- 3) Plan of Land Attached to the Last Will and Testament of Annie E. Ewing by E.C. Jordan, dated April 25, 1892, recorded in Plan Book 10, Page 131.
- 4) Plan of Topography in Portland, Maine for Mercy Hospital by E.C. Jordan dated March 21, 1968, not recorded.
- 5) Plan of Maple Grove, Portland, not signed, recorded October 20, 1868 in Plan Book 2, Page 52.
- 6) Plan of Property made for St. Joseph's Convent and Hospital Corp. by H.I. & E.C. Jordan, dated June 28, 1977, not recorded.
- 7) Standard Boundary Survey made for Amy Mulken by Titcomb Associates, dated July 14, 1987, not recorded.
- 8) Standard Boundary Survey, Property of St. Joseph's Convent and Hospital, made for SYDesign Consultants by Titcomb Associates, dated November 4, 2002.
- 9) Plan of Property and Existing Conditions, Catherine McAuley High School for St. Joseph's Convent, made for Land Use Consultants by Land Use Consultants dated September 26, 2006.

EASEMENTS and ENCUMBRANCES

- 1) Property is subject to a right of way 33 feet wide as shown, reserved in deed of James P. Baxter to the Roman Catholic Bishop of Portland dated March 10, 1908 and recorded in Book 821, Page 59.
- 2) Property benefits from a right of way 33 feet wide adjoining the southerly sideline as shown, described in deed of James P. Baxter to the Roman Catholic Bishop of Portland dated March 10, 1908 and recorded in Book 821, Page 59.
- 3) No record evidence of an easement for utility poles on the property was found.

OWNERS OF RECORD

Tax Assessment Map 136, Lot E-6
St. Joseph's Convent and Hospital

Book 486, Page 322	Book 698, Page 427
Book 494, Page 178	Book 821, Page 57
Book 496, Page 71	Book 1649, Page 160
Book 479, Page 327	Book 1652, Page 357
Book 563, Page 275	Book 4067, Page 310
Book 698, Page 426	

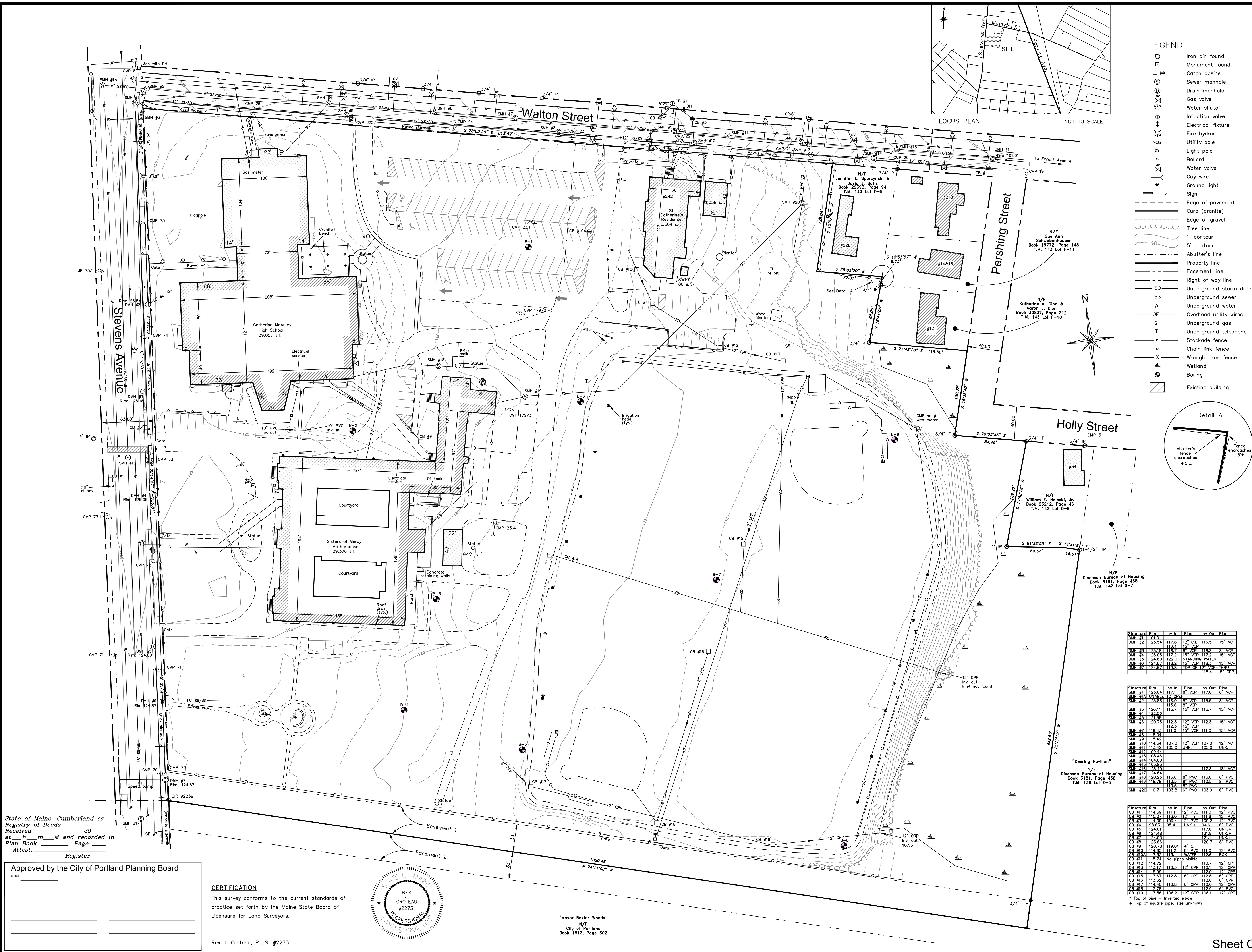
OVERALL SUBDIVISION PLAN

605 Stevens Avenue

Stevens Avenue & Walton Street Portland, Maine

MADE FOR
Sea Coast at Baxter Woods Associates, LLC
966 Riverside Street Portland, Maine

JOB#	202096.1	DATE:	June 24, 2015	SCALE:	1" = 50'
BOOK#	525, 578	 Titcomb Associates 133 Gray Road, Falmouth, Maine 04105 (207)797-9199 www.titcombsurvey.com			
202096-2006.dwg					
FILE#	8538				



NOTES

- 1) Book and Page references are to the Cumberland County Registry of Deeds.
- 2) Bearings are referenced to Grid North. See Plan Reference 1.
- 3) Project Benchmark: Granite monument at southeast corner of intersection of Hartley Street and Stevens Avenue. Elevation: 118.25 City of Portland datum.
- 4) All utility locations shown on this plan are approximate, based on location of visible features and information provided by others. Dig Safe and/or the appropriate utilities should be contacted prior to any construction.
- 5) Sewer inverts were provided by the City of Portland Department of Engineering. Field verification should be made before design work is undertaken.
- 6) Wetlands delineated and located by Mark Hampton Associates, May, 2015.
- 7) Property lies within Zone X based on FIRN Community #230051 Panel #0007 C, dated December 8, 1998. It does not lie within a special flood hazard area.
- 8) Bearings and the accompanying Preliminary Geotechnical Report by Summit Geoenvironment, 12/29-30, 2014.

REFERENCES

- 1) Site Plan done by SYTDesign Consultants, December 2000 and May 2001, not recorded.
- 2) Standard Boundary Survey of "Mayor Baxter Woods" by Public Works Department of the City of Portland, Maine, dated April 2001, not recorded.
- 3) Plan of Land Attached to the Last Will and Testament of Annie E. Ewing by E.C. Jordan, dated April 25, 1892, recorded in Plan Book 10, Page 131.
- 4) Plan of Topography in Portland, Maine for Mercy Hospital by E.C. Jordan, dated March 21, 1968, not recorded.
- 5) Plan of Maple Grove, Portland, not signed, recorded October 20, 1868 in Plan Book 2, Page 52.
- 6) Plan of Property made for St. Joseph's Convent and Hospital Corp. by H.I. & E.C. Jordan, dated June 28, 1977, not recorded.
- 7) Standard Boundary Survey made for Amy Mulken by Titcomb Associates, dated July 14, 1987, not recorded.
- 8) Standard Boundary Survey, Property of St. Joseph's Convent and Hospital, made for SYTDesign Consultants by Titcomb Associates, dated November 4, 2002.
- 9) Plan of Property and Existing Conditions, Catherine McAuley High School & St. Joseph's Convent made for Land Use Consultants by Land Use Consultants dated September 26, 2006.

EASEMENTS and ENCUMBRANCES

- 1) Property is subject to a right of way 33 feet wide as shown, reserved in deed of James P. Baxter to the Roman Catholic Bishop of Portland dated March 10, 1908 and recorded in Book 821, Page 59.
- 2) Property benefits from a right of way 33 feet wide adjoining the southerly sideline as shown, described in deed of James P. Baxter to the Roman Catholic Bishop of Portland dated March 10, 1908 and recorded in Book 821, Page 59.
- 3) No record evidence of an easement for utility poles on the property was found.

OWNERS OF RECORD

- Tax Assessment Map 136, Lot E-6
St. Joseph's Convent and Hospital
Book 698, Page 427
Book 486, Page 322
Book 1849, Page 160
Book 494, Page 178
Book 496, Page 71
Book 479, Page 327
Book 563, Page 275
Book 698, Page 426
- Book 698, Page 427
Book 821, Page 57
Book 1849, Page 160
Book 1652, Page 357
Book 4067, Page 310

AREA

826,755 sq. ft./18.98 acres

605 STEVENS AVENUE

Plan 3

605 Stevens Ave. | Portland, Maine

MAP / BLOCK / LOT
135-X033, 136-E006001
143-F004, 144-B001

Consultants

PROJECT MANAGER

LICHT ENGINEERING & DESIGN, LLC
35 Fran Circle
Gray, ME 04039
(207) 749-4924

LANDSCAPE ARCHITECT

CARRALL ASSOCIATES
217 Commercial St. Suite 200
Portland, ME 04101
(207) 772-1552

CIVIL ENGINEER

STANTEC
77 Main Street, Suite 1
South Portland, ME 04106
(207) 775-1121

ARCHITECT

ARCHETYPE ARCHITECTS
4 Union Wharf
Portland, ME 04101
(207) 772-6022

STRUCTUR

TITCOMB ASSOCIATES
133 Gray Road
Falmouth, ME 04105
(207) 797-9199

Master Development Plan



Owner / Applicant:

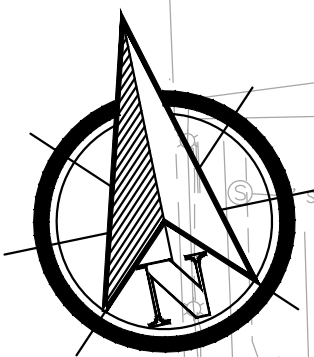
SEA COAST AT BAXTER WOODS
ASSOCIATES, LLC

MOTHERHOUSE ASSOCIATES LP

100 COMMERCIAL STREET, SUITE 414
PORTLAND, ME 04101
207.772.7673
richt@secorespeed.net

Index of Drawings

G-1	TITLE COVER SHEET
C-1	BOUNDARY SURVEY
C-2	SUBDIVISION PLAT
L-1.0	NEIGHBORHOOD CONTEXT MAP
L-2.0	CONCEPTUAL SITE PLAN
L-2.1	PEDESTRIAN SPACE CALCULATIONS
L-3.0	CIRCULATION DIAGRAM
L-3.1	PARALLEL DIAGRAM
L-4.0	PHASING DIAGRAM
L-5.0	TREE REMOVAL & PRESERVATION PLAN
L-5.1	LANDSCAPE MASTER PLAN
C-3.0	CONCEPT STORMWATER PLAN
C-4.0	CONCEPT UTILITIES PLAN
A2.1	EXTERIOR ELEVATIONS
A2.2	EXTERIOR ELEVATIONS
A2.3	EXTERIOR ELEVATIONS



Evergreen Cemetery

Stevens Avenue

Walton Street

Baxter Woods

LANDSCAPE BUFFER ALONG
BAXTER WOODS

POTENTIAL COMMUNITY
GARDEN

LOT 2
138,760 SF
3.18 AC

LOT 1
102,919 SF
2.36 AC

LOT 3
191,066 SF
4.39 AC

LOT 4
394,110 SF
9.05 AC

MOTHERHOUSE RESIDENCE
88 D.U.
73 PARKING SPACES

BUILDING 1
21 D.U.
31 PARKING SPACES

BUILDING 2
28 D.U.
31 PARKING SPACES

BUILDING 3
42 D.U.
45 PARKING SPACES

BUILDING 5
42 D.U.
45 PARKING SPACES

BUILDING 4
21 D.U.
31 PARKING SPACES

McAULEY H.S. FIELDS
SOCCER FIELD, HOCKEY FIELD, 300'
S. FTBALL, 200' FT. FIELD
(TO BE RELOCATED TO FINAL PHASE)

ST. CATHERINE'S
RESIDENCE

McAULEY
HIGH SCHOOL

MASTER PLAN PARKING IS
NOT INCLUDED IN
APPROVED
MOTHERHOUSE SITE
PLAN

605 Stevens Avenue, Portland - Residential Density Computations Lots 3 & 4 V10 06-23-15 LED

Parcel ID (BASED ON 06-24-15 UPDATED SITE PLAN)	Gross Acreage (Ac.)	RSA ESTIMATED NRA DEDUCTS per § 14-47 as AMENDED 15-15	LOT AREA IN RSA (APPLY DEDUCTS)		LOT AREA IN R5 (NO DEDUCTS)	
			Mother House Lot 3	Lot 4 (Fields)	Mother House Lot 3	Lot 4 (Fields)
Lot 1 St. Catherine's Lot 2 McAuley HS Lot 3 Motherhouse Lot 4 Fields/Stevens Ave. Total Acreage	2.36	Gross Area (ac.) (s.f.)	2.65 115,538	7.15 311,533	1.73 75,528	1.90 82,577
	3.18	Deducts:				
	4.39	A. Exist. watercourses	0	0	NA	NA
	9.05	B. Wetlands (as defined)	0	54,341	NA	NA
		C. 25% slopes	0	19,827	NA	NA
	18.98	Deducts Total:	0	74,168	NA	NA
NET LAND AREA (Gross Ac. - Deducts) (sf) (ac)			115,538 2.65	237,365 5.45	75,528 1.73	82,577 1.90
MULTIPLEX UNITS PERMITTED			72	148	16	13
TOTAL LOT 3			88			
TOTAL LOT 4			161			
GRAND TOTAL LOTS 3 & 4			249			

Notes:
1. Lot 3 - R5 density is 1 unit per 4,500 sf Gross ac. with 250 ft frontage. (§ 14.117(a.) 2.)
2. Lot 4 - R5 density is 1 unit per 6,000 sf Gross ac. with less than 250 feet frontage (§14.117 (a.) 2.)
3. RSA - Density = 1 unit/1,600 sf Net Area applying deducts.
4. No affordable housing multiplex density bonuses per §14-488 applied to Motherhouse Lot 3

PARCELS DATA TABLE

	PROPOSED D.U.	PROPOSED PARKING			PARKING D.U.
		SURFACE	COVERED	TOTAL	
LOT 4	161	139	103	322	2.0
LOT 3	88	73	0	73	0.3

SITE DATA TABLE

SPATIAL STANDARDS	REQUIRED R-5	REQUIRED R-5A	PROPOSED LOT 4	PROPOSED LOT 3
MINIMUM LOT SIZE	9,000 SF	2 ACRES	9.03 AC	4.35 AC
MINIMUM FRONTAGE	50 FT.	50 FT.	140.5 FT.	30 FT.
FRONT YARD SETBACK	20 FT.	25 FT.	11.5 FT.	130.4 FT.
SIDE YARD SETBACK (5 STORIES)	14 FT.	16 FT.	16 FT.	36.4 FT.
REAR YARD SETBACK	20 FT.	25 FT.	76 FT.	10 FT.
MAXIMUM STRUCTURE HEIGHT	35 FT.	55 FT.	55 FT.	5 FT. (EXISTING)
MAXIMUM LOT COVERAGE	40%	30%	19%	30,677 SF (69%)
MINIMUM LOT WIDTH	90 FT.	60 FT.	140 FT.	304 FT.
MINIMUM OPEN SPACE (SF/LOT)	300 SF/LOT	49,000 SF	R5 94,611 SF R5A 92,463 SF TOTAL 1,7324 SF	R5 39,221 SF R5A 3,207 SF TOTAL 77,42 SF

LEGEND

- PROPERTY LINE
- CODE BOUNDARY
- LOT LINE
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING TREES
- PROPOSED TREES
- PROPOSED BIT CHOC (ROADWAY)
- PROPOSED BIT CHOC (SIDEWALK)
- SPECIAL PAVING
- PERMEABLE PAVING
- STONE/ROOT TRAIL
- EDGE OF PAVING
- CURB
- CROSSWALK STRIPING
- POLE LIGHT
- EXISTING WETLAND
- STEEP SLOPES (>25%)
- PROPOSED RAIL GARDEN
- BUILDING ACCESS POINT
- EXISTING FENCE

Plan 5

APPLICANT

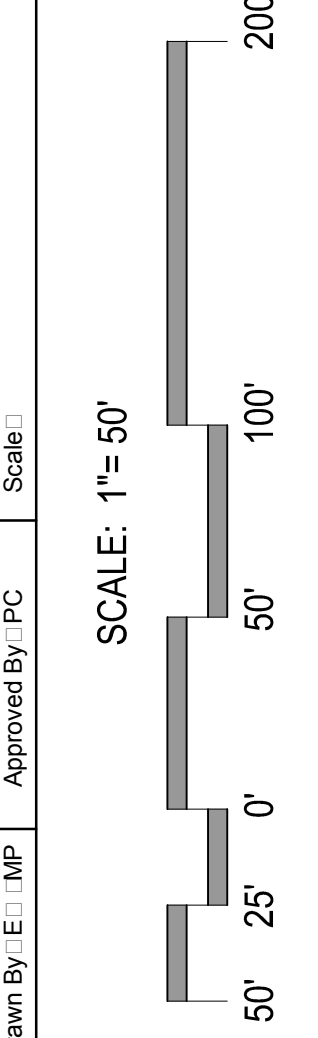
SEA COAST AT
BAXTER WOODS
ASSOCIATES, LLC

MOTHERHOUSE
ASSOCIATES LP
100 COMMERCIAL
STREET, SUITE 414
PORTLAND, ME 04101
207.772.7673

605 Stevens Ave.
MASTER DEVELOPMENT PLAN
CONCEPT SITE PLAN

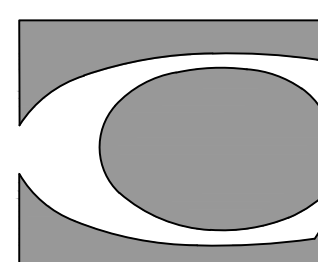
Project:

Revisions	Date	Description
1	3/1/2016	PLANNING BOARD REVIEW
2	3/16/2016	PLANNING BOARD REVIEW
3	4/11/2016	REVIEW SITE PLAN



Phase:

PERMITTING

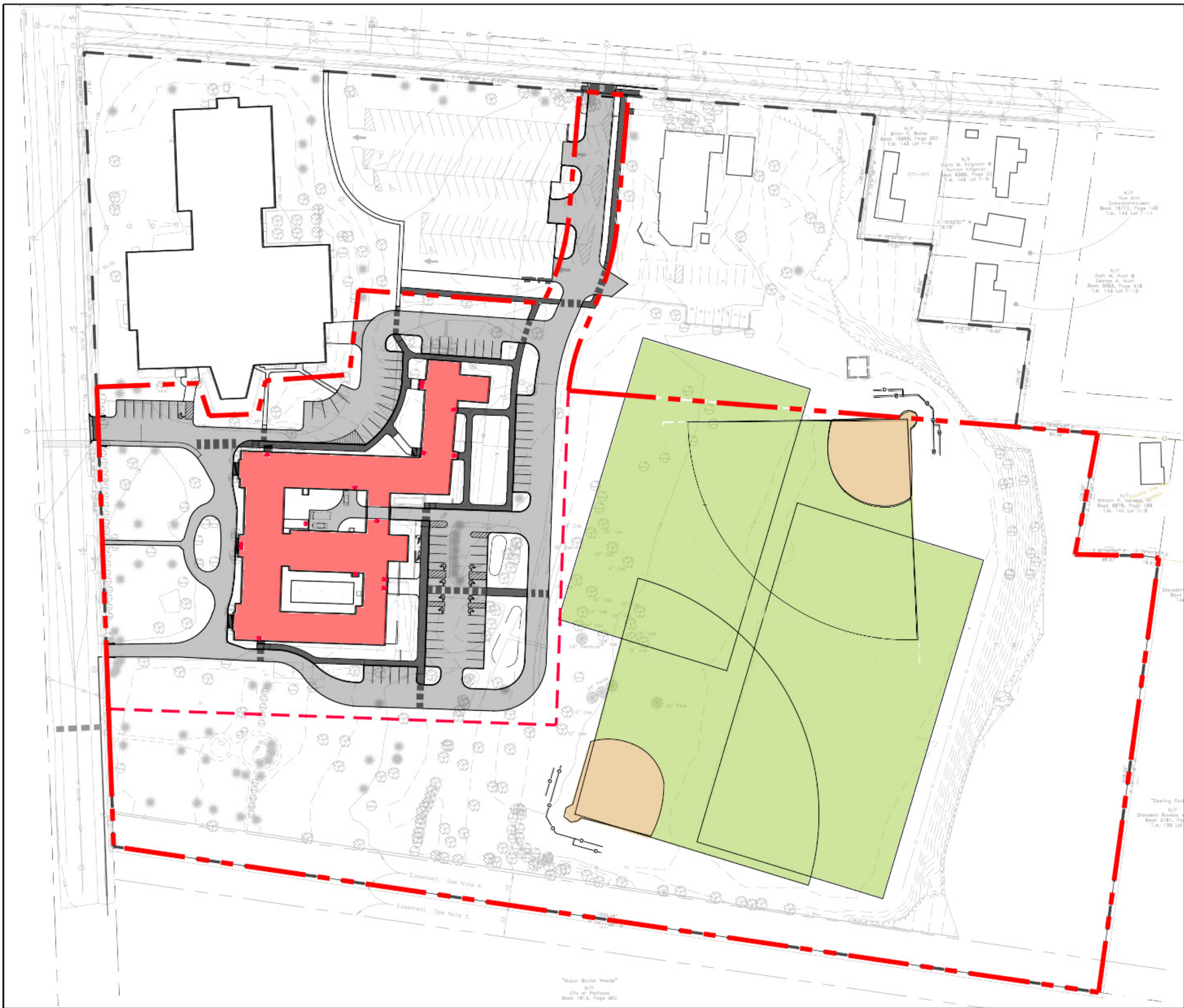


CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
FEBRUARY 16, 2016

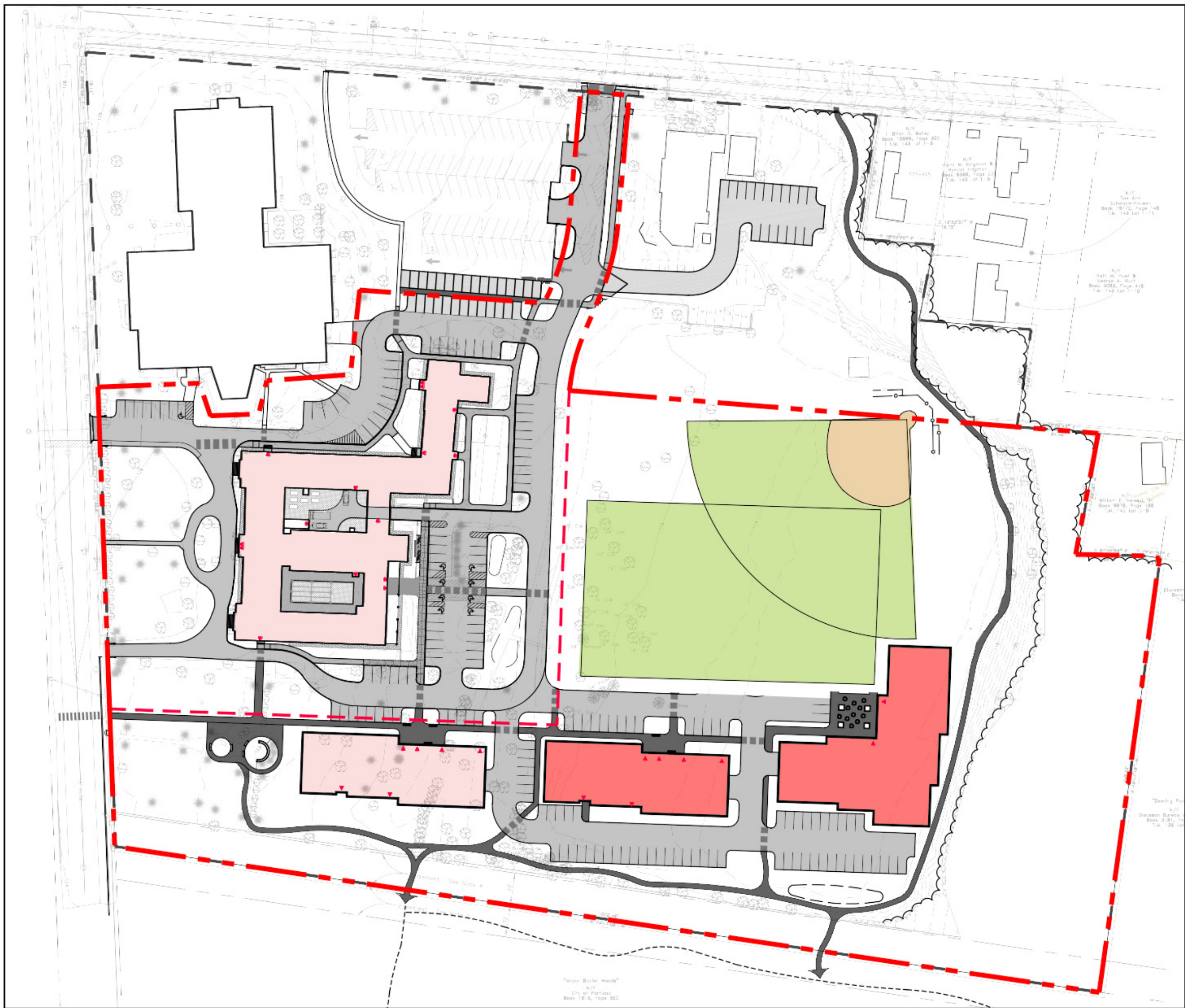
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L-2.0



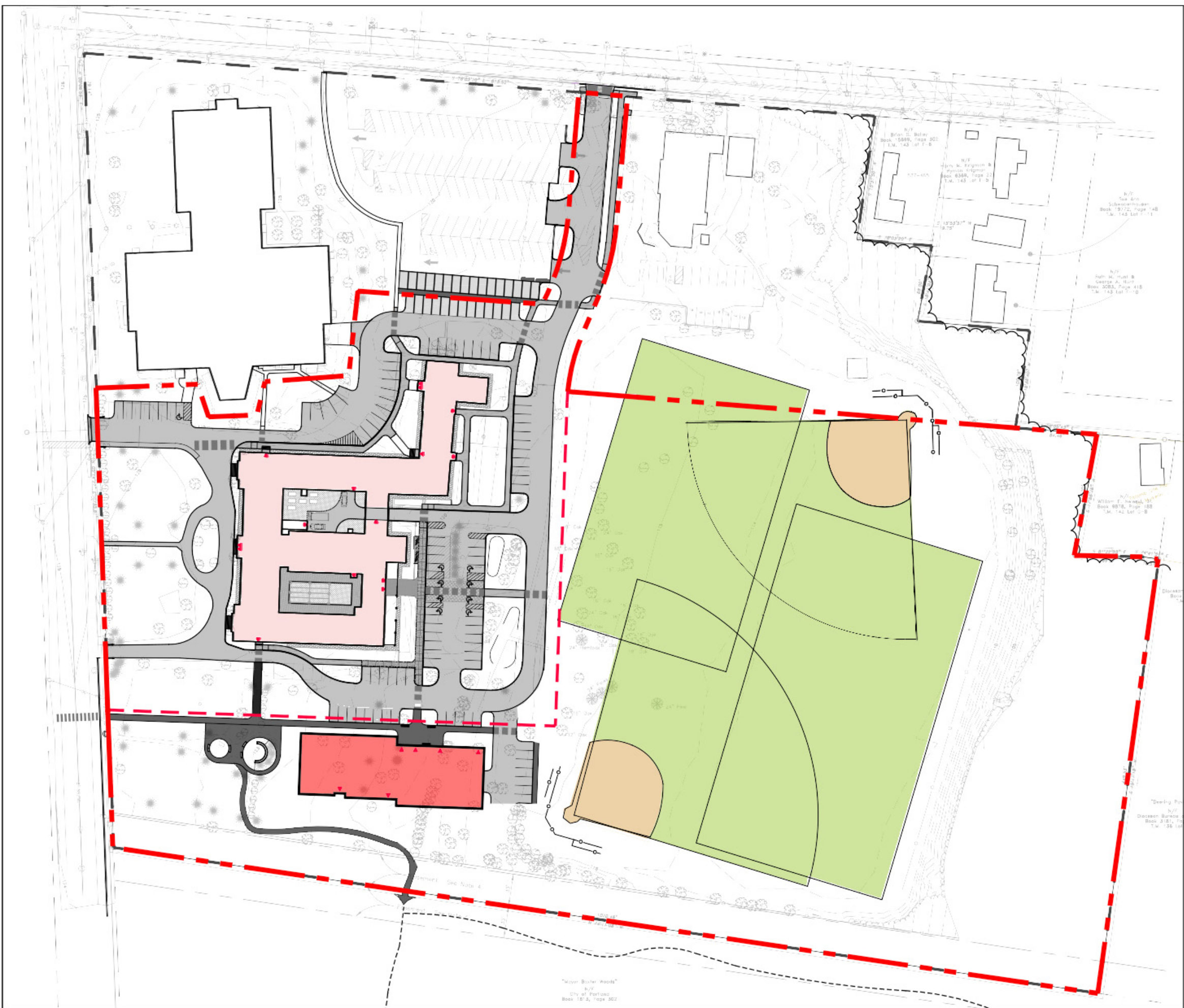
PHASE I

MOTHERHOUSE RENOVATION
ALL FIELDS REMAIN INTACT



PHASE III

BUILDINGS #2 & 3 CONSTRUCTED (70 DU)
LOWER FIELDS LOST, UPPER FIELDS REMAIN,
(SOCCER RECONFIGURED)



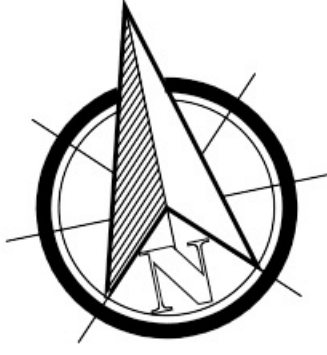
PHASE II

FIRST NEW BUILDING CONSTRUCTED (21 DU)
ALL FIELDS REMAIN INTACT



PHASE IV

BUILDINGS #4 & 5 CONSTRUCTED (70 DU)
NEW FIELDS CONSTRUCTED



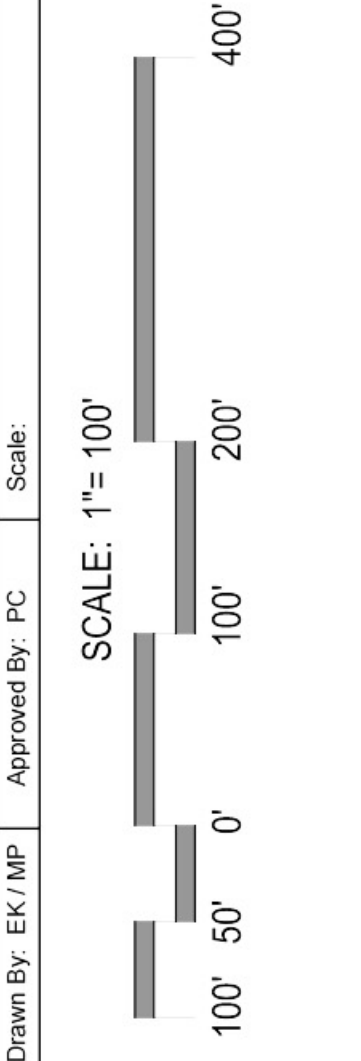
Plan 6

APPLICANT:
SEA COAST AT
BAXTER WOODS
ASSOCIATES, LLC

MOTHERHOUSE
ASSOCIATES LP
100 COMMERCIAL STREET
SUITE 414
PORTLAND, ME 04101
207.772.7673

Project:
605 Stevens Ave.
CONCEPTUAL PHASING PLAN

Revisions	Date	Description
3	4.10.2016	Revised Site Plan & Zone Boundary



Phase:
PERMITTING

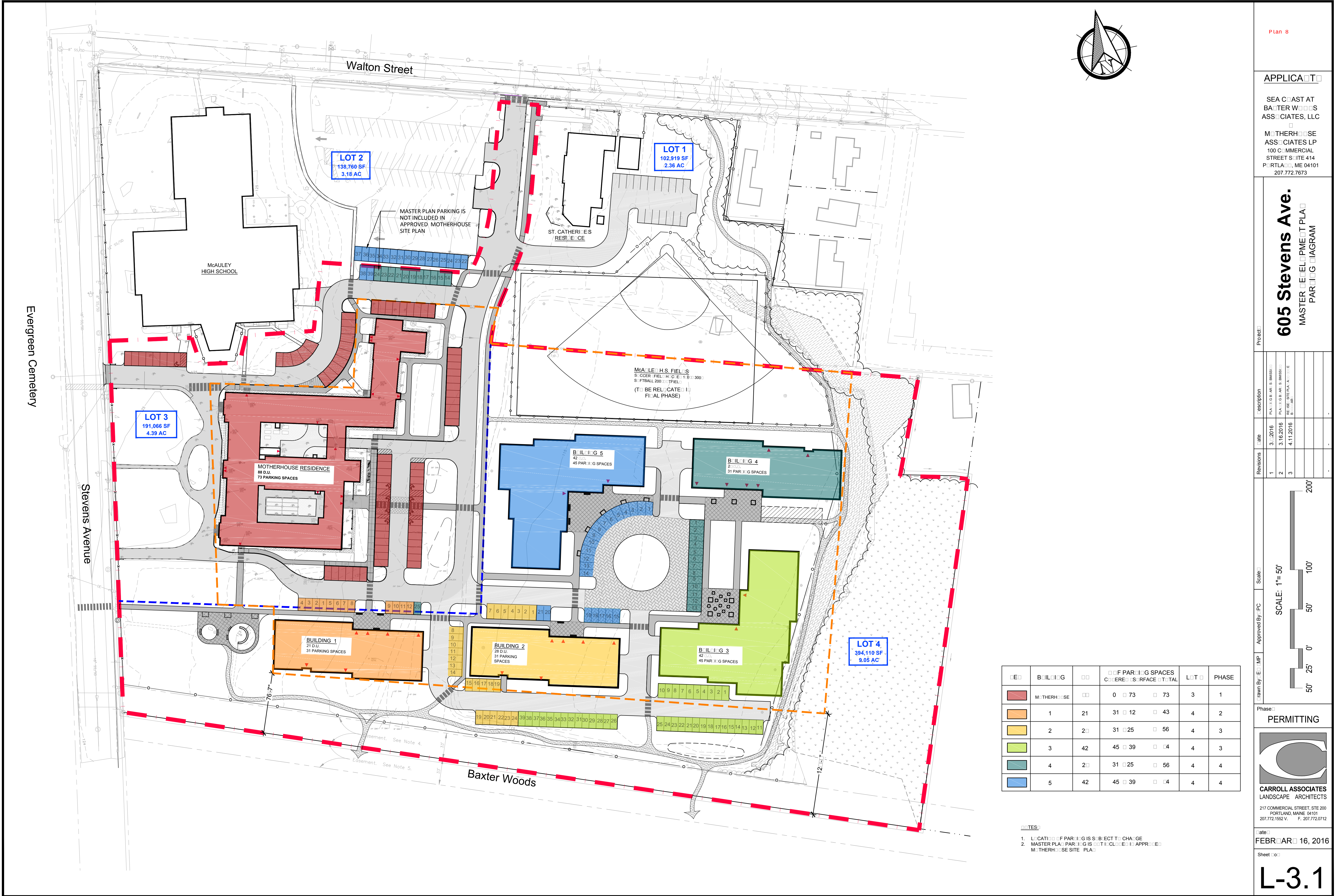


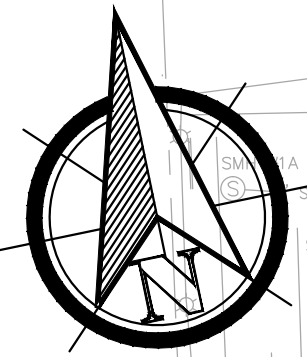
CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE, 04101
207.772.1552 V. F. 207.772.0712

Date:
FEBRUARY 16, 2016

Sheet No:

L-4





605 Stevens Avenue, Portland - Residential Density Computations **Lots 3 & 4** **V10** 06-23-15 LED

Parcel ID (BASED ON 06-24-15 UPDATED SITE PLAN)	Gross Acreage (Ac.)	RSA ESTIMATED NRA DEDUCTS per § 14-47 as AMENDED 15-15	LOT AREA IN R5A (APPLY DEDUCTS)		LOT AREA IN R5 (NO DEDUCTS)	
			Mother House Lot 3	Lot 4 (Fields)	Mother House Lot 3	Lot 4 (Fields)
Lot 1 St. Catherines Lot 2 McAuley HS Lot 3 Motherhouse Lot 4 Fields/Stevens Ave. Total Acreage	2.36 3.18 4.39 9.05 18.98	Gross Area (ac.) (s.f.)	2.65 115,538	7.15 311,533	1.73 75,528	1.90 82,577
		Deducts:				
		A. Exist. watercourses	0	0	NA	NA
		B. Wetlands (as defined)	0	54,341	NA	NA
		C. 25% slopes	0	19,827	NA	NA
		Deducts Total:	0	74,168	NA	NA
NET LAND AREA (Gross Ac. - Deducts) (sf)			115,538	237,365	75,528	82,577
(ac)			2.65	5.45	1.73	1.90
MULTIPLEX UNITS PERMITTED			72	148	16	13
TOTAL LOT 3			88			
TOTAL LOT 4			161			
GRAND TOTAL LOTS 3 & 4			249			

- Notes:
- Lot 3 - R5 density is 1 unit per 4,500 sf Gross ac. with 250 ft frontage. (§ 14.117(a.) 2.)
 - Lot 4 - R5 density is 1 unit per 6,000 sf Gross ac. with less than 250 feet frontage (§14.117 (a.) 2.)
 - R5A - Density = 1 unit/1,600 sf Net Area applying deducts.
 - No affordable housing multiplex density bonuses per §14-488 applied to Motherhouse Lot 3

PARCEL DATA TABLE

	PROPOSED D.D.	PROPOSED PARCEL		PARCEL D.D.
		SURFACE	CORE	
LOT 4	161	139	13	322
LOT 3		73	0	73

SITE DATA TABLE

SPATIAL STANDARDS	REQUIRE R-5	REQUIRE R-5A	PROPOSE LOT 4	PROPOSE LOT 3
MINIMUM LOT SIZE	9,000 SF	2 ACRES	9.03 AC	4.35 AC
MINIMUM FRONTAGE	50 FT.	50 FT.	140.5 FT.	310 FT.
FRONT YARD SETBACK	20 FT.	25 FT.	15 FT.	130.4 FT.
SIDE YARD SETBACK (5 STORIES)	14 FT.	16 FT.	16 FT.	36.4 FT.
REAR YARD SETBACK	20 FT.	25 FT.	76 FT.	10 FT.
MAXIMUM STRUCTURE HEIGHT	35 FT.	55 FT.	55 FT.	5 FT. (EASTING)
MAXIMUM LOT COVERAGE	40%	30%	19%	30,677 SF (16%)
MINIMUM LOT WIDTH	90 FT.	60 FT.	140 FT.	304 FT.
MINIMUM OPEN SPACE (SF)	300 SF	49,000 SF	R5 RSA 94,611 SF 92,463 SF TOTAL 17,324 SF	R5 RSA 30,221 SF 3,207 SF TOTAL 77,428 SF

LEGEND

- PROPERTY LINE
- CODE BOUNDARY
- LOT LINE
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING TREES
- PROPOSED TREES
- PROPOSED BIT COLOC (ROADWAY)
- PROPOSED BIT COLOC (SIDEWALK)
- SPECIAL PAVING
- PERMEABLE PAVING
- STONE POST TRAIL
- EDGE OF PAVING
- CURB
- CROSSWALK STRIPING
- POLL LIGHT
- EXISTING WETLAND
- STEEP SLOPES (25%)
- PROPOSED RAIL GARDEN

LOT 3 DEED E 5

TOTAL SF 75,466
IMPERVIOUS 36,247

OPEN SPACE 39,221 SF

LOT 4 DEED E 5

TOTAL SF 173,916 SF
IMPERVIOUS 23,652 SF
WETLAND 55,473 SF

OPEN SPACE 94,611 SF

LOT 4 DEED E 5A

TOTAL SF 220,124 SF
IMPERVIOUS 123,919 SF
WETLAND 2,763 SF

OPEN SPACE 92,463 SF

Plan 9

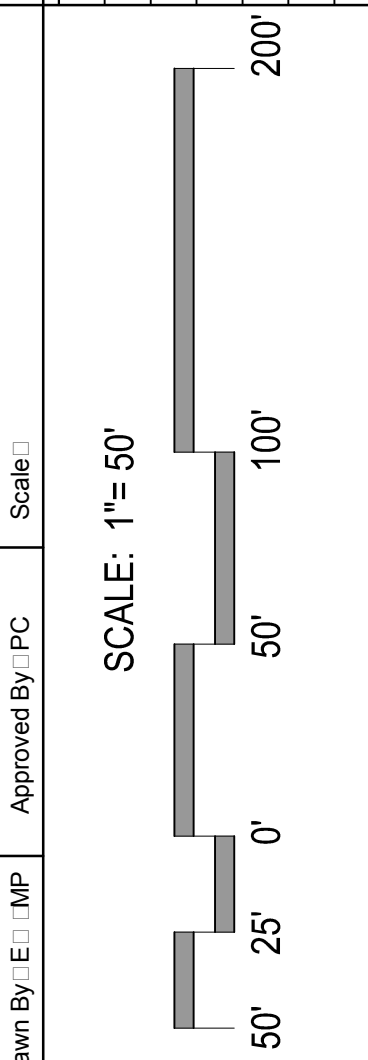
APPLICANT

SEA COAST AT
BAUTER WOODS
ASSOCIATES, LLC

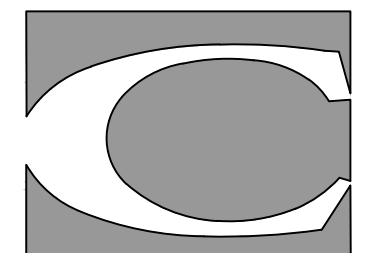
MOTHERHOUSE
ASSOCIATES LP
100 COMMERCIAL
STREET SUITE 414
PORTLAND, ME 04101
207.772.7673

605 Stevens Ave.
MASTER DEVELOPMENT PLAN
OPEN SPACE CALCULATIONS

Revisions	Date	Description
1	3/1/2016	PLAN TO BE APPROVED BY BARRIS
2	3/16/2016	PLAN TO BE APPROVED BY BARRIS
3	4/11/2016	REVISIONS TO PLAN TO BE APPROVED BY BARRIS



PERMITTING



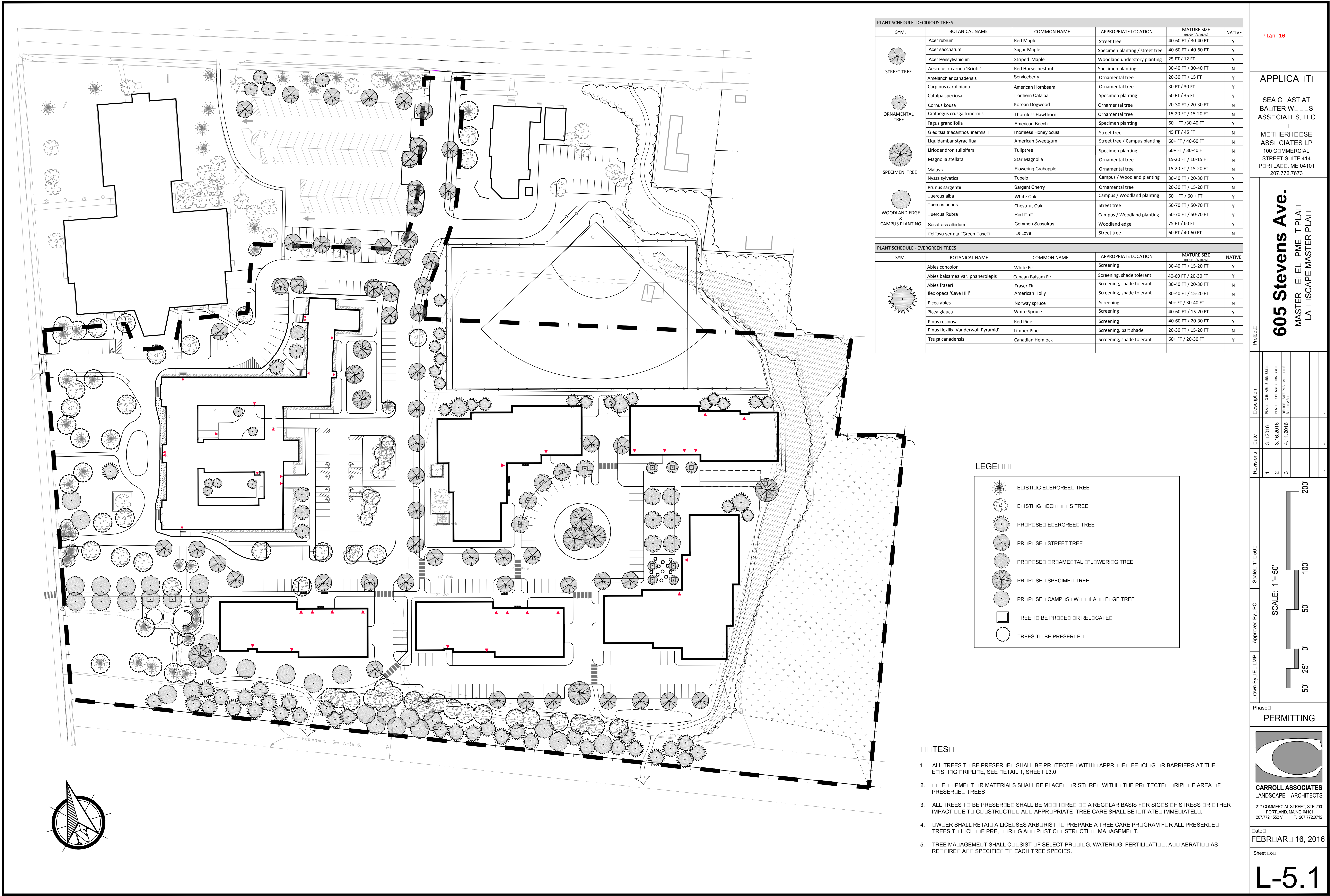
CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date: FEBRUARY 16, 2016

Sheet 100

L-2.1



PLANT SCHEDULE - DECIDUOUS TREES					
SYM.	BOTANICAL NAME	COMMON NAME	APPROPRIATE LOCATION	MATURE SIZE (HEIGHT / SPREAD)	NATIVE
	Acer rubrum	Red Maple	Street tree	40-60 FT / 30-40 FT	Y
	Acer saccharum	Sugar Maple	Specimen planting / street tree	40-60 FT / 40-60 FT	Y
	Acer Pensylvanicum	Striped Maple	Woodland understory planting	25 FT / 12 FT	Y
	Aesculus x carnea 'Briotii'	Red Horsechestnut	Specimen planting	30-40 FT / 30-40 FT	N
	Amelanchier canadensis	Serviceberry	Ornamental tree	20-30 FT / 15 FT	Y
	Carpinus caroliniana	American Hornbeam	Ornamental tree	30 FT / 30 FT	Y
	Catalpa speciosa	Northern Catalpa	Specimen planting	50 FT / 35 FT	Y
	Cornus kousa	Korean Dogwood	Ornamental tree	20-30 FT / 20-30 FT	N
	Crataegus crusgalli inermis	Thornless Hawthorn	Ornamental tree	15-20 FT / 15-20 FT	N
	Fagus grandifolia	American Beech	Specimen planting	60 + FT / 30-40 FT	Y
	Gleditsia triacanthos inermis	Thornless Honeylocust	Street tree	45 FT / 45 FT	N
	Liquidambar styraciflua	American Sweetgum	Street tree / Campus planting	60+ FT / 40-60 FT	N
	Liriodendron tulipifera	Tuliptree	Specimen planting	60+ FT / 30-40 FT	N
	Magnolia stellata	Star Magnolia	Ornamental tree	15-20 FT / 10-15 FT	N
	Malus x	Flowering Crabapple	Ornamental tree	15-20 FT / 15-20 FT	N
	Nyssa sylvatica	Tupelo	Campus / Woodland planting	30-40 FT / 20-30 FT	Y
	Prunus sargentii	Sargent Cherry	Ornamental tree	20-30 FT / 15-20 FT	N
	Quercus alba	White Oak	Campus / Woodland planting	60 + FT / 60 + FT	Y
	Quercus prinus	Chestnut Oak	Street tree	50-70 FT / 50-70 FT	Y
	Quercus Rubra	Red Oak	Campus / Woodland planting	50-70 FT / 50-70 FT	Y
	Sassafras albidum	Common Sassafras	Woodland edge	75 FT / 60 FT	Y
	Ulmus americana	American Elm	Street tree	60 FT / 40-60 FT	N

PLANT SCHEDULE - EVERGREEN TREES					
SYM.	BOTANICAL NAME	COMMON NAME	APPROPRIATE LOCATION	MATURE SIZE (HEIGHT / SPREAD)	NATIVE
	Abies concolor	White Fir	Screening	30-40 FT / 15-20 FT	Y
	Abies balsamea var. phanerolepis	Canaan Balsam Fir	Screening, shade tolerant	40-60 FT / 20-30 FT	Y
	Abies fraseri	Fraser Fir	Screening, shade tolerant	30-40 FT / 20-30 FT	N
	Ilex opaca 'Cave Hill'	American Holly	Screening, shade tolerant	30-40 FT / 15-20 FT	N
	Picea abies	Norway spruce	Screening	60+ FT / 30-40 FT	N
	Picea glauca	White Spruce	Screening	40-60 FT / 15-20 FT	Y
	Pinus resinosa	Red Pine	Screening	40-60 FT / 20-30 FT	Y
	Pinus flexilis 'Vanderwolf Pyramid'	Limber Pine	Screening, part shade	20-30 FT / 15-20 FT	N
	Tsuga canadensis	Canadian Hemlock	Screening, shade tolerant	60+ FT / 20-30 FT	Y

LEGEND

- EXISTING EVERGREEN TREE
- EXISTING DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- PROPOSED STREET TREE
- PROPOSED ORNAMENTAL FLOWERING TREE
- PROPOSED SPECIMEN TREE
- PROPOSED CAMPUS WOODLAND EDGE TREE
- TREE TO BE PRESERVED OR RELOCATED
- TREES TO BE PRESERVED

NOTES

- ALL TREES TO BE PRESERVED SHALL BE PROTECTED WITH APPROPRIATE FENCING OR BARRIERS AT THE EXISTING OR PLANNED LOCATION, SEE DETAIL 1, SHEET L3.0
- ALL EQUIPMENT OR MATERIALS SHALL BE PLACED OR STORED WITHIN THE PROTECTED OR PLANNED AREA OF PRESERVED TREES
- ALL TREES TO BE PRESERVED SHALL BE MONITORED ON A REGULAR BASIS FOR SIGNS OF STRESS OR OTHER IMPACT DUE TO CONSTRUCTION AND APPROPRIATE TREE CARE SHALL BE INITIATED IMMEDIATELY
- OWNER SHALL RETAIN A LICENSED ARBORIST TO PREPARE A TREE CARE PROGRAM FOR ALL PRESERVED TREES TO INCLUDE PRE, DURING AND POST CONSTRUCTION MAINTENANCE
- TREE MANAGEMENT SHALL CONSIST OF SELECT PRUNING, WATERING, FERTILIZATION, AND AERATION AS REQUIRED AND SPECIFIED TO EACH TREE SPECIES

Plan 10

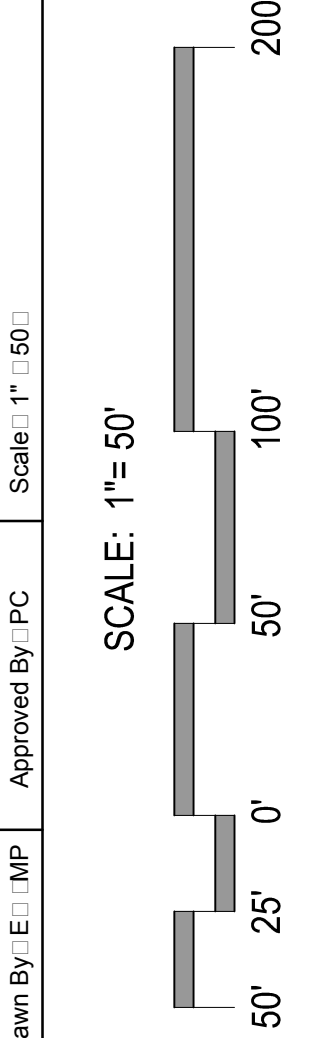
APPLICANT

SEA COAST AT
BAUTER WORKS
ASSOCIATES, LLC
MOTHERHOUSE
ASSOCIATES LP
100 COMMERCIAL
STREET SUITE 414
PORTLAND, ME 04101
207.772.7673

605 Stevens Ave.
MASTER ELEMENT PLAN
LANDSCAPE MASTER PLAN

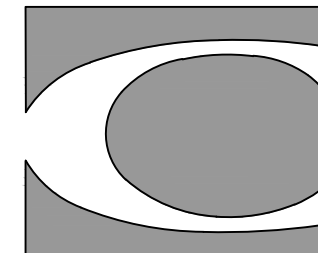
Project:

Revisions	Date	Description
1	3/1/2016	PLA - 100% AR - S. BASS
2	3/16/2016	PLA - 100% AR - S. BASS
3	4/11/2016	REVISE PLAN ATT 10



Phase

PERMITTING

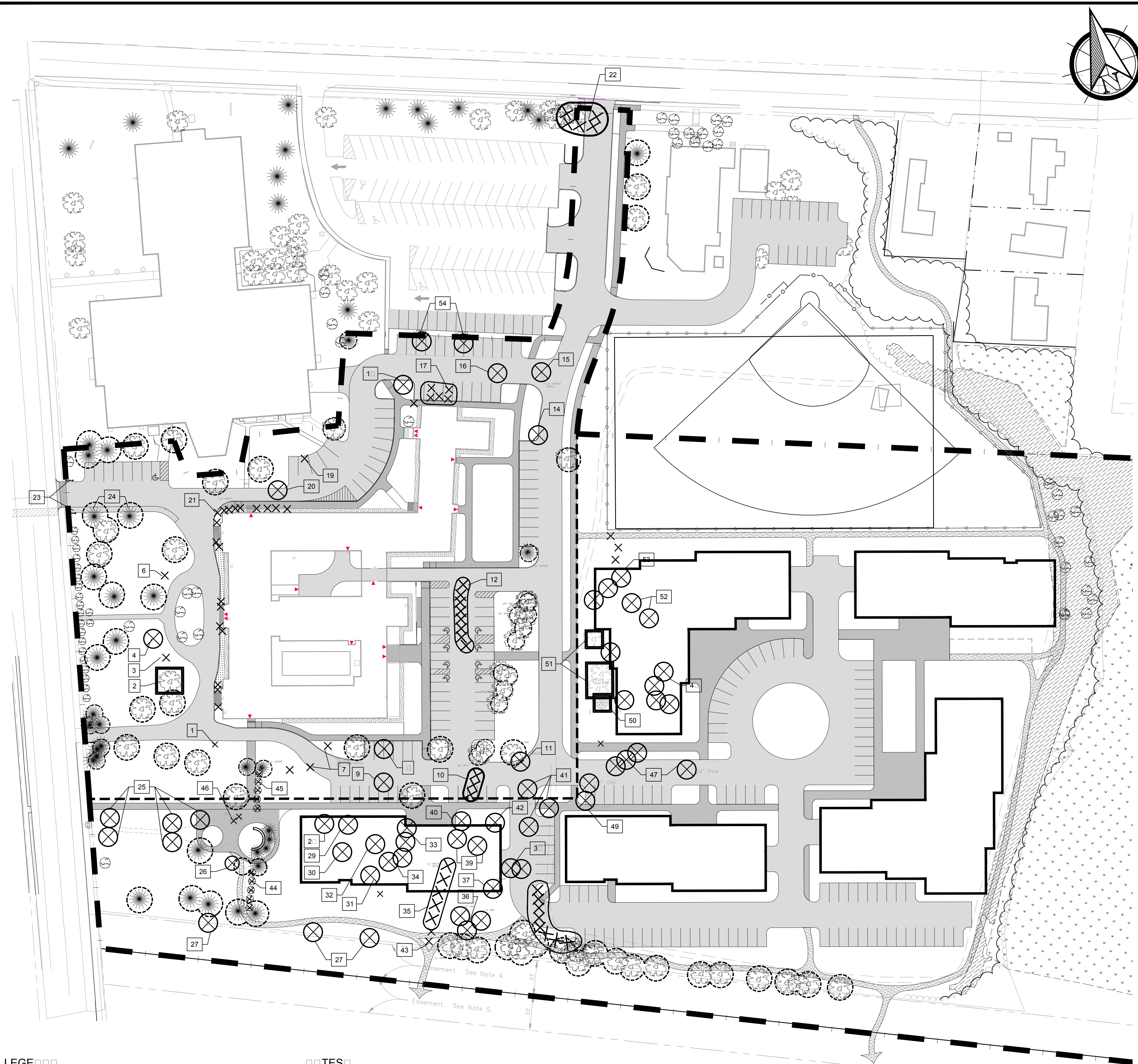


CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1952 V. F. 207.772.0712

Date:
FEBRUARY 16, 2016

Sheet

L-5.1



LEGEND

(TREE REMOVAL)

- TREE TO BE REMOVED
- GROUP OF TREES TO BE REMOVED
- SHRUB TO BE REMOVED
- TREE TO BE PROTECTED OR RELOCATED
- TREES TO BE PRESERVED

- NOTES
- ALL TREES TO BE PRESERVED SHALL BE PROTECTED WITHIN APPROVED FENCING OR BARRIERS AT THE EXISTING OR PLANNED, SEE DETAIL 1, SHEET L3.0
 - CONSTRUCTION OR MATERIALS SHALL BE PLACED OR STORED WITHIN THE PROTECTED OR PLANNED AREA OF PRESERVED TREES
 - ALL TREES TO BE PRESERVED SHALL BE MONITORED ON A REGULAR BASIS FOR SIGNS OF STRESS OR OTHER IMPACT DUE TO CONSTRUCTION AND APPROPRIATE TREE CARE SHALL BE INITIATED IMMEDIATELY
 - OWNER SHALL RETAIN A LICENSED ARBORIST TO PREPARE A TREE CARE PROGRAM FOR ALL PRESERVED TREES TO INCLUDE PRE, DURING AND POST CONSTRUCTION MANAGEMENT
 - TREE MANAGEMENT SHALL CONSIST OF SELECT PRUNING, WATERING, FERTILIZATION, AND AERATION AS REQUIRED AND SPECIFIED TO EACH TREE SPECIES

TREE REMOVAL ANALYSIS - PHASE 1

S.N.	NOTES	SPECIES	REMOVAL
1	SCRAPPY HOODS SCALE - MAINTENANCE TO REMOVE	DEC	
2	PRUNE	4" DEC	N
3	DEAD SHRUBS W/ DISEASES GROWING OUT	5" DEC	
4	SPRUCE IN BAD SHAPE	10" EVERGREEN	
6	SHRUB IN POOR CONDITION W/ DISEASES GROWING OUT	5" DEC	
7	SHRUBS TO BE REMOVED	DEC	
8	OLD TREE TO BE REMOVED FOR DEVELOPMENT	2" DEC	
9	SPRUCE TO BE REMOVED AND RELOCATED	3" EVERGREEN	
10	(3) OAKS TO BE REMOVED FOR DEVELOPMENT	1", 1", 12" DEC	
11	HEMLOCK TO BE REMOVED FOR DEVELOPMENT	10"	
12	(1) EVERGREEN TREES TO BE REMOVED (1 PINE, 7 CEDAR)	(1) 20", (7) 7"	
14	MAPLES IN POOR SHAPE TO BE REMOVED FOR DEVELOPMENT	24" DEC	
15	ORWAMP MAPLE W/ SHIMMY TRUNK TO BE REMOVED FOR DEVELOPMENT	15" DEC	
16	ORWAMP MAPLE TO BE REMOVED	24" DEC	
17	SHRUBS TO BE REMOVED (5 LEWIS, 1 LILAC)	5 HT DEC	
18	CRABAPPLE TO BE REMOVED	5" DEC	
19	LILAC SHRUB TO BE REMOVED	5 HT DEC	
20	CRIMSON KING ORWAMP MAPLE	28" DEC	
21	(19 SHRUBS) REMOVE ALL FOUNDATION PLANTING SHRUBS, MOSTLY LEWIS	3-4 HT	
22	(5-6) OAK TREES TO BE REMOVED	MULTI SPECIES DEC	
23	HEMLOCK TO BE REMOVED FOR SITE VISIBILITY	6 EVERGREEN	
24	(2) SPRUCE TO BE LIMBED UP TO HEIGHT FOR PEDESTRIAN PASSAGE	1" EVERGREEN	N

TREE REMOVAL ANALYSIS - PHASE 2

25	(5) ORWAMP CEDAR TREES TREE TO BE REMOVED FOR DEVELOPMENT	6" EVERGREEN	
26	STAGHORN LEAF WOOD TO BE REMOVED	12" EVERGREEN	
27	(3) OAKS ORWAMP MAPLES TO BE REMOVED	1", 12", 12" DEC	
28	TREE TO BE REMOVED FOR DEVELOPMENT	4" DEC	
29	TREE TO BE REMOVED FOR DEVELOPMENT	1" DEC	
30	TREE TO BE REMOVED FOR DEVELOPMENT	4" DEC	
31	TREE TO BE REMOVED FOR DEVELOPMENT	6" EVERGREEN	
32	TREE TO BE REMOVED FOR DEVELOPMENT	1" EVERGREEN	
33	TREE TO BE REMOVED FOR DEVELOPMENT	(3) 3" CED	
34	TREE TO BE REMOVED FOR DEVELOPMENT	1", 5" DEC	
35	(10) OAKS TO BE REMOVED FOR DEVELOPMENT	12-21" DEC	
36	(3) OAKS TO BE REMOVED FOR DEVELOPMENT	9", 12", 14" DEC	
37	OAK TO BE REMOVED FOR DEVELOPMENT	15" DEC	
38	(2) OAKS TO BE REMOVED FOR DEVELOPMENT	1", 12" DEC	
39	(2) DECIDUOUS TREES TO BE REMOVED FOR DEVELOPMENT	(2) 12" DEC	
40	(2) OAK TREES TO BE REMOVED FOR DEVELOPMENT	(2) 12" DEC	
41	(3) OAKS TO BE REMOVED FOR DEVELOPMENT	(3) 12" DEC	
42	OAK TO BE REMOVED FOR DEVELOPMENT	1" DEC	
43	(2) LEWIS SHRUBS TO BE REMOVED FOR DEVELOPMENT	(2) 3" WIDTH DEC	
44	(5) PINE SHRUBS TO BE REMOVED FOR DEVELOPMENT	4 HT DEC	
45	(5) PINE SHRUBS TO BE REMOVED FOR DEVELOPMENT	4 HT DEC	
46	(2) LEWIS SHRUBS TO BE REMOVED FOR DEVELOPMENT	(2) 3" WIDTH DEC	

TREE REMOVAL ANALYSIS - PHASE 3

47	(4) PINE TREES TO BE REMOVED	24" EVERGREEN	
48	(4) OAKS TO BE REMOVED	(3) 1", 16"	
49	(2) OAKS TO BE REMOVED FOR DEVELOPMENT	12", 16" DEC	
50	HEMLOCK TO BE PRUNED TO ACCOMMODATE DEVELOPMENT	24" EVERGREEN	
51	(3) OAKS TO BE PRUNED AS NECESSARY	(2) 16" DEC	

TREE REMOVAL ANALYSIS - PHASE 4

52	(2) OAKS TO BE REMOVED	(2) 16" DEC	
53	(3) OAKS TO BE REMOVED	(2) 1", 24" DEC	
54	(2) CATALPA TREES TO BE REMOVED	(2) 20" DEC	

Plan 11

APPLICANT

SEA COAST AT
BAUTER WOODS
ASSOCIATES, LLC

MOTHERHOUSE
ASSOCIATES LP
100 COMMERCIAL
STREET SUITE 414
PORTLAND, ME 04101
207.772.7673

Project

605 Stevens Ave.
MASTER DEVELOPMENT PLAN
LANDSCAPE PRESERVATION PLAN

Revisions

Rev	Date	Description
1	3/1/2016	PLAN 11: 605 STEVENS AVENUE, S. BARRIS
2	3/16/2016	PLAN 11: 605 STEVENS AVENUE, S. BARRIS
3	4/11/2016	REVISIONS FOR ALTERNATIVE

Drawn By: EJP
Approved By: PC
Scale: 1" = 50'

Phase

PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

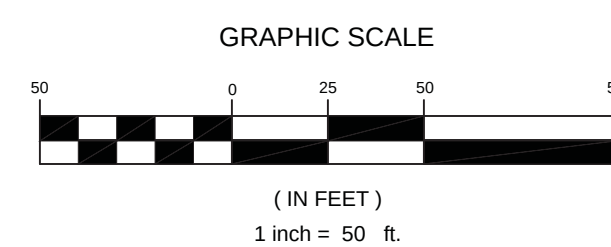
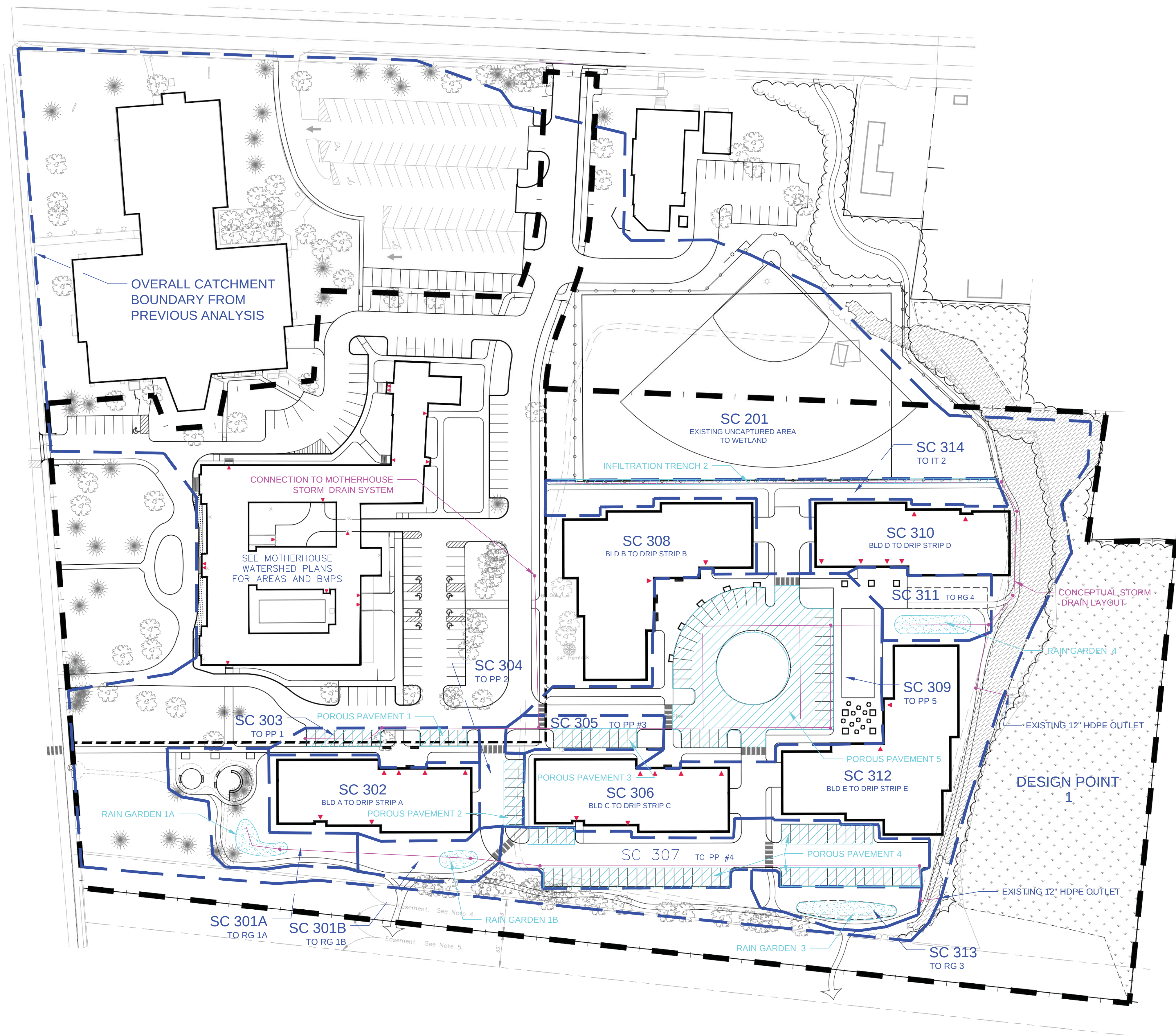
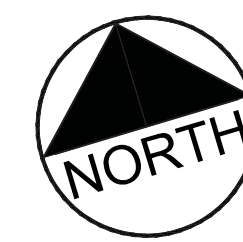
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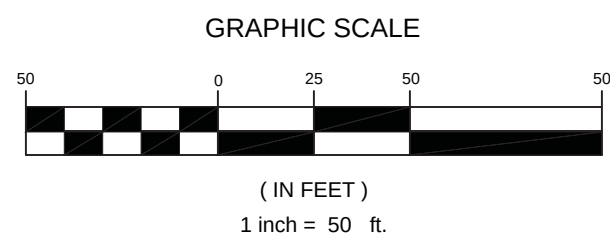
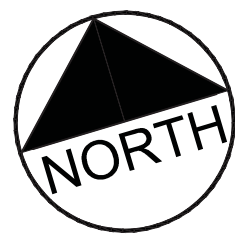
FEBRUARY 16, 2016

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L-5.0



					PROJECT 605 STEVENS AVE MASTER DEVELOPMENT PLAN	 FAY, SPOFFORD & THORNDIKE ENGINEERS • PLANNERS • SCIENTISTS 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106
					SHEET TITLE CONCEPT STORMWATER LAYOUT AND POST DEVELOPMENT WATERSHED PLAN	
					CLIENT SEACOAST AT BAXTER WOODS ASSOCIATES, LLC & MOTHERHOUSE ASSOCIATES, LP	
1	04.11.16	ISSUED FOR CITY REVIEW				DRAWN: DATE: APRIL 2016
REV	DATE	DESCRIPTION				DESIGNED: ADJ SCALE:
			P.E. ANDREW D. JOHNSTON			CHECKED: ADJ JOB NO. SP-M162
		REVISIONS	LIC. #9994			FILE NAME: SHEET C-3.0



PROJECT 605 STEVENS AVE MASTER DEVELOPMENT PLAN			SHEET TITLE CONCEPT UTILITY LAYOUT PLAN	
CLIENT SEACOAST AT BAXTER WOODS ASSOCIATES, LLC & MOTHERHOUSE ASSOCIATES, LP			DRAWN: _____ DATE: APRIL 2016	
DESIGNED: ADJ			SCALE: _____	
CHECKED: ADJ			JOB NO. SP-M162	
FILE NAME: _____			SHEET C-4.0	
REVISIONS			P.E. ANDREW D. JOHNSTON LIC. #9994	
1	04.11.16	ISSUED FOR CITY REVIEW		
REV	DATE	DESCRIPTION		



1 | SOUTH ELEVATION

1/8" = 1'-0"

0 2'-0" 4'-0" 6'-0" 10'-0"



2 | NORTH ELEVATION

1/8" = 1'-0"

0 2'-6" 5'-0" 10'-0" 20'-0"

605 STEVENS AVENUE

PORTLAND, MAINE

11 APR. 2016

A2.1



1 | LEFT ELEVATION - 4 STORY BUILDING
1/8" = 1'-0"



2 | RIGHT ELEVATION - 4 STORY BUILDING
1/8" = 1'-0"

605 STEVENS AVENUE

PORTLAND, MAINE

11 APR. 2016

A2.2



605 STEVENS AVENUE

PORTLAND, MAINE

11 APR. 2016

A2.3

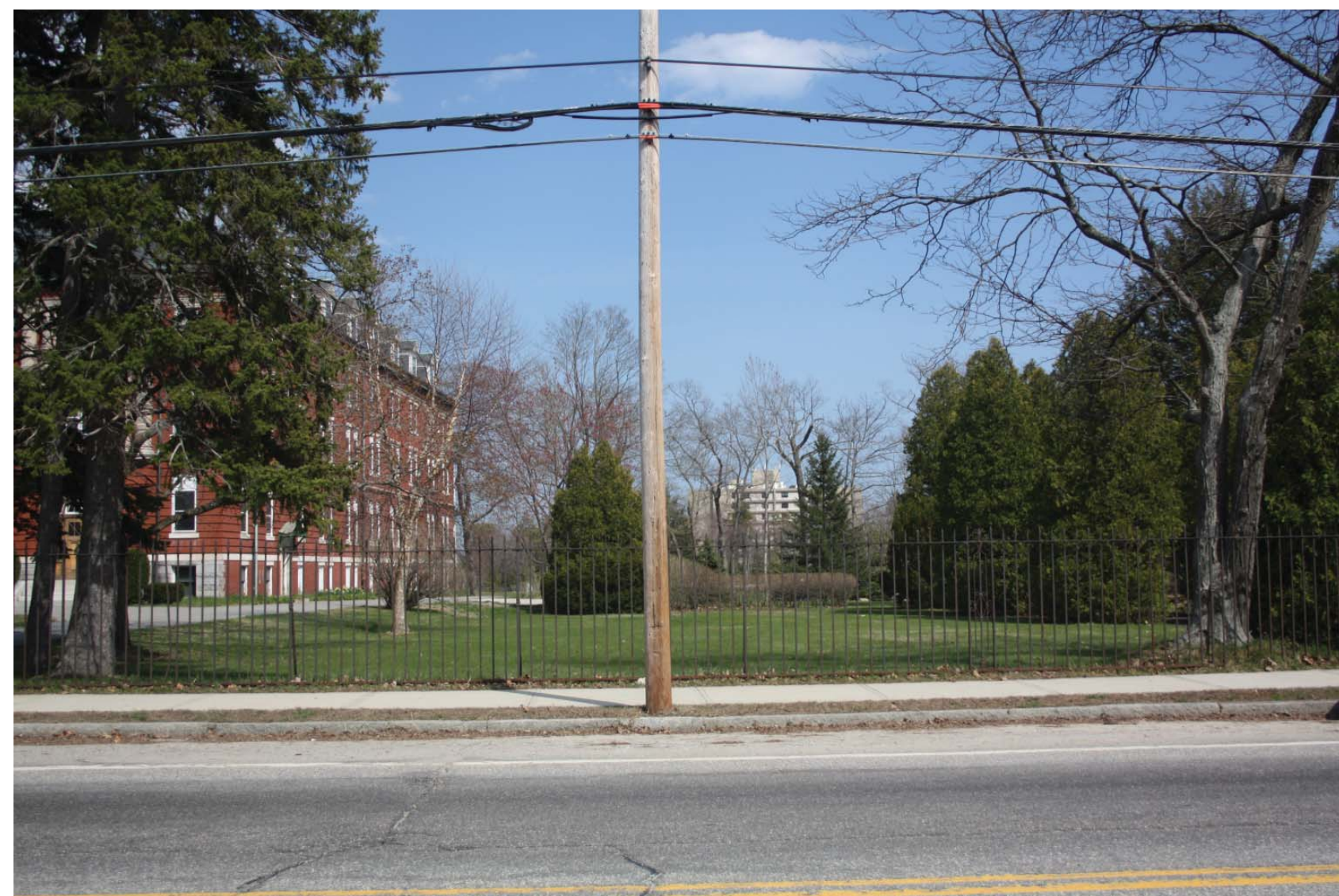




EXISTING VIEWS



VIEW FROM WALTON STREET ENTRANCE



VIEW FROM STEVENS AVENUE



INTERIOR CAMPUS VIEW

PROPOSED VIEWS - Summer



PROPOSED VIEWS - Winter





EXISTING VIEW - VIEW FROM EVERGREEN CEMETERY



PROPOSED VIEW - VIEW FROM EVERGREEN CEMETERY

605 STEVENS AVENUE

PERSPECTIVE VIEWS



EXISTING VIEW - VIEW FROM BAXTER WOODS MEADOW



PROPOSED VIEW - VIEW FROM BAXTER WOODS MEADOW

605 STEVENS AVENUE

PERSPECTIVE VIEWS



Google earth

Image Landsat
Data SIO, NOAA, U.S. Navy, NGA, GEBCO



Google earth

Data S/D, NOAA, U.S. Navy, NSA, GEBCO
Data LCE3-Columbia, N&F, NOAA



Jean Fraser <jf@portlandmaine.gov>

Mother House

1 message

Carol Pickering <cpicky@gmail.com>

Tue, Mar 22, 2016 at 9:22 AM

Reply-To: cpicky@gmail.com

To: jf@portlandmaine.gov

Dear Jean,

I would like to write in support of the proposed redevelopment of the Mother House for senior housing. I think it's a smart redevelopment option for the property and in keeping with a low-impact project for the neighborhood. I'd ask that the Planning Board support it.

Thank you,

Carol Pickering
66 Alba St.
Portland, ME 04103

Jean Fraser <jf@portlandmaine.gov>

605 Stevens Avenue

1 message

Brewster Buttfeld <brewster@prospectdesign.me> Mon, Mar 21, 2016 at 8:18 PM
To: jf@portlandmaine.gov

To the Planning Board, City of Portland

I have been a resident of Deering Highlands and Deering Center since 1995. I am familiar with the Sisters of Mercy campus and am writing in support of the project. I believe the proposed redevelopment plan is excellent for the preservation of the architectural integrity of the structure and the gentle development of the community.

The traffic and parking impacts will be minimal. Any additional people in the neighborhood will most likely add to the vibrancy and economic stability of local businesses.

I am an active user of the recreational opportunities around the Sisters of Mercy Campus; dog walking in Baxter woods and bike riding with my children in Evergreen Cemetery, etc. I do not think the development will have a negative impact on either of these Portland treasures.

It is hard to imagine a better reuse of this property.

Sincerely,
Brewster Buttfeld
Mabel Street

--

Brewster Buttfeld | Prospect Design | [207.749.7400](tel:207.749.7400)
www.prospectdesign.me

Fwd: Planning Board Meeting Next Week

1 message

Jean Fraser <jf@portlandmaine.gov>
To: "Fraser, Jean" <jf@portlandmaine.gov>

Thu, Apr 21, 2016 at 3:57 PM

From: **Connie Gemmer** <Connie.Gemmer@powereng.com>
Date: Thu, Apr 21, 2016 at 12:36 PM
Subject: Planning Board Meeting Next Week
To: "BAB@portlandmaine.gov" <BAB@portlandmaine.gov>
Cc: Preserve Deering Neighborhood 1 <preservedeering@gmail.com>

Dear Barbara:

I am not able to attend the Planning Board meeting next week as I'll be out of state.
I am concerned about the proposal to redevelop the convent on Stevens Avenue as I live in the neighborhood and enjoy Baxter Woods almost every day.

I hope that the Planning Board will do everything possible to maintain the integrity of this public treasure, and not allow the development of an overbearing wall of buildings that back up to the woods. May I suggest that the Planning Board members to come over, walk in the woods and experience for themselves the character of this space before anything is finalized?

The woods have been a wonderful space for so many Portland residents and the Motherhouse has been an excellent neighbor.
My hope is that the plan that is approved is in keeping with what was discussed last year, rather than anything that includes more building length, height and density.

Thank you for the chance to share my opinion.

Connie Gemmer
180 Glenwood Ave
Portland, Maine
(207) 671-6678 cell

--

*Jean Fraser, Planner
City of Portland*

Baxter woods ,Historical context,past management of stands of heritage trees and environmental impact of dense build against wild sanctuary.

1 message

mary vankevich <maryksv@gmail.com>

Mon, Apr 25, 2016 at 4:50 PM

To: jf@portlandmaine.gov

Dear Jean ,

Thank you for for being so receptive .Not exactly sure what you require of me here .

I submitted an Outline pertaining to the Environmental impact of a dense build against a wild nature sanctuary. I hope the planing board will consider the information. The more research I did the more I learned of actual and potential harm to the natural functioning of park ecosystems.

When planing for the far future it is advantageous to review the past. Many people use the Baxter Boulevard today as the result of planning 100 years ago. I believe the current and remaining stand that was greatly altered in 2006 should have restoration and protection for the next 100 years. I had a long walk in the woods 2 weeks ago and noted the number of trees dying or fallen at the convent edge and Jeff explained that due to the cut 10 years ago the trees naturally form a new edge that takes the brunt of the wind and protects the inner trees. The paths are well worn and despite a rain shower runners and dog walkers persisted .I wonder if they realize the quiet may soon be lost.

thank you ,
Mary K Skerritt-Vankevich

Portland: a liveable city

Features such as the Deering Oaks enhance neighborhoods and provide opportunities for outside pursuits. The Baxter Blvd. walking path is enjoyed by hundreds each day as are the Eastern and Western promenades.

**We owe these features to
Mayor Baxter**

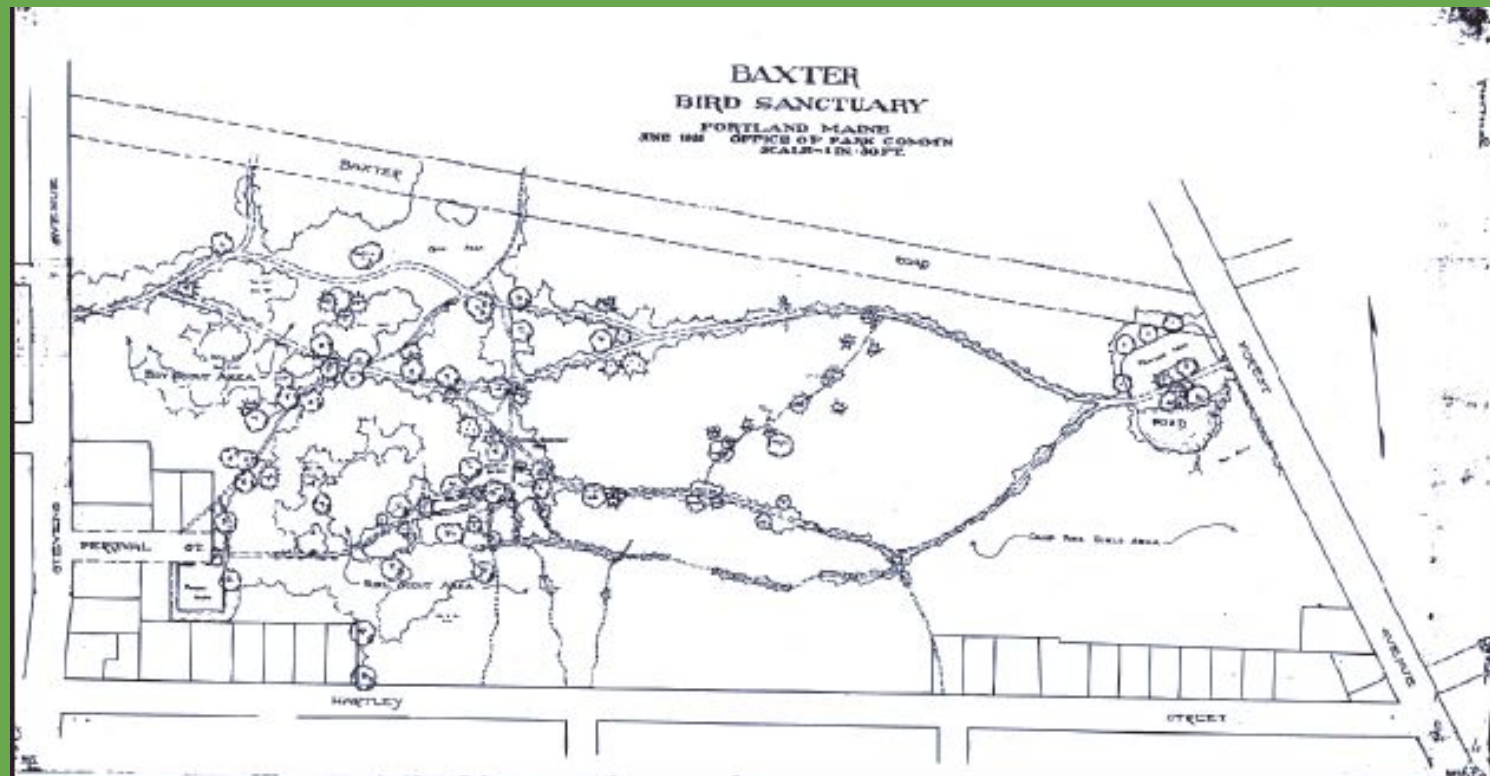


Well over 100 years ago, Mayor Baxter had great vision and his initiatives benefit and enhance the lives of Portland citizens today. Mayor Baxter would be pleased.

The city of Portland has the responsibility to protect, preserve and restore The Mayor Baxter Woods.

These woods and natural space were intended for the Portland residents to enjoy. What Seacoast Developer is proposing would seriously--possibly irretrievably--damage this natural space for which Portland is renowned.

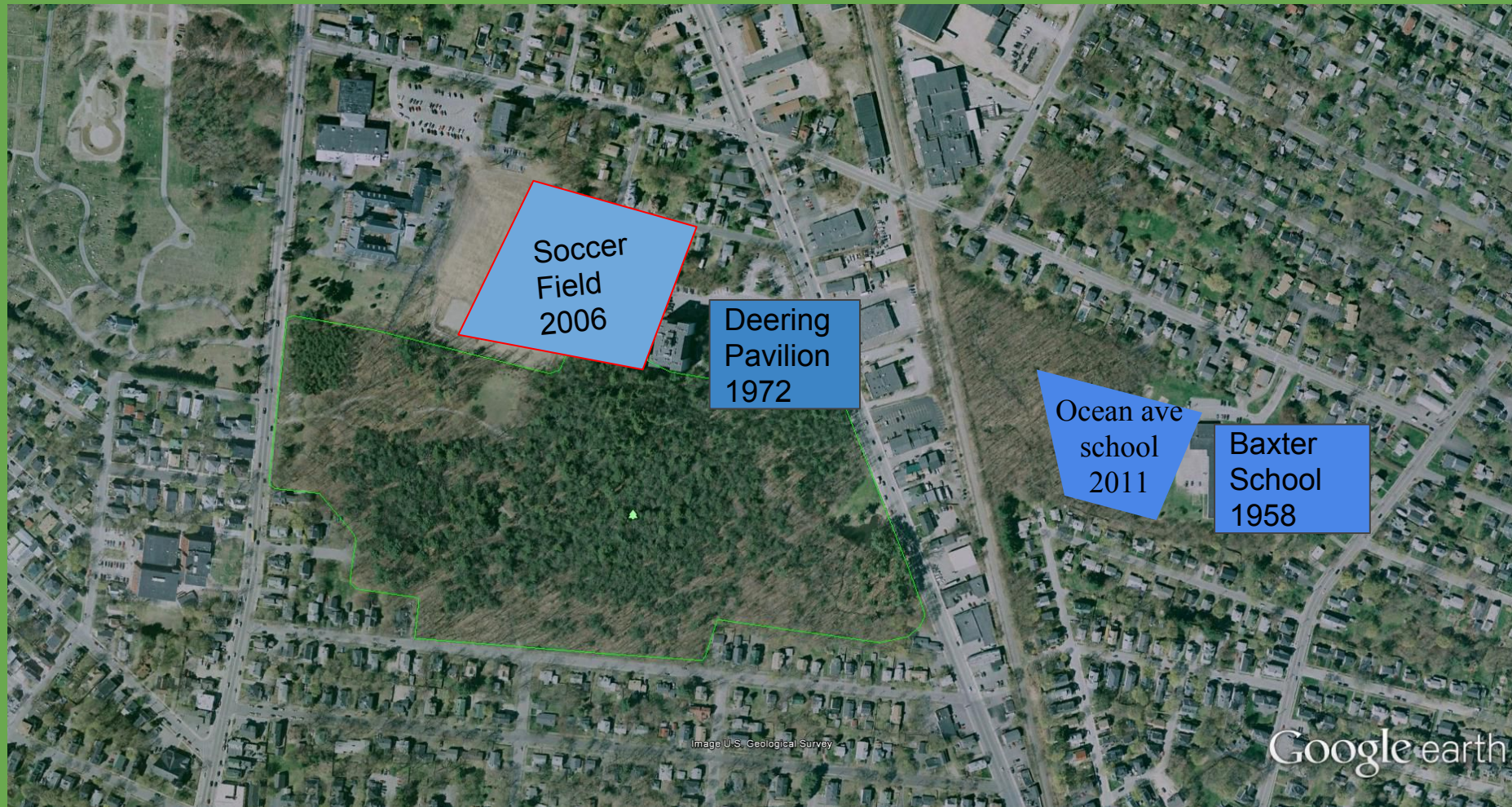
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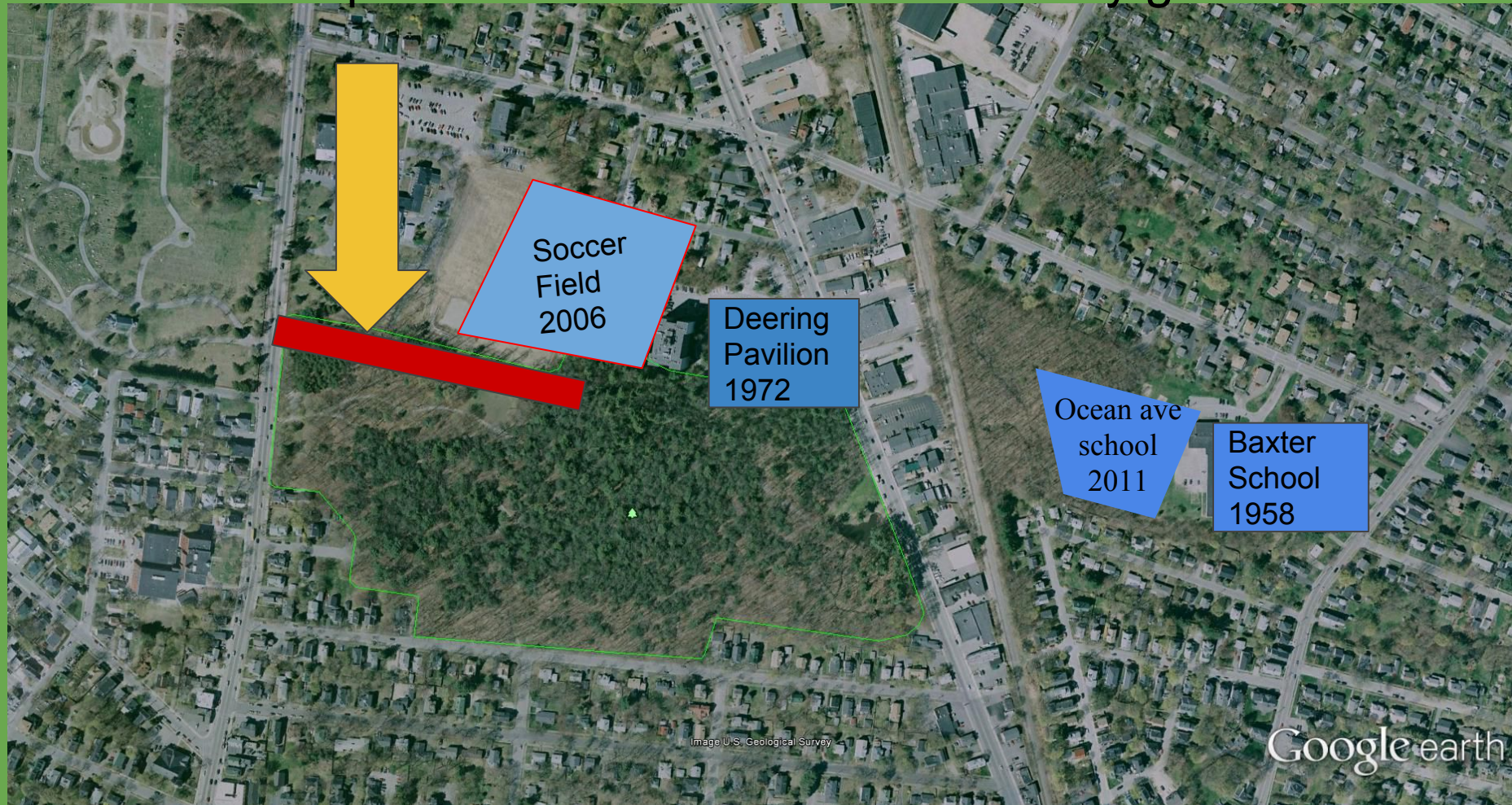
Mayor Baxter Woods...“shall forever be retained and used by [the] City in trust for the benefit of the people of Portland as a Municipal Forest and Park and for public recreation and educational purposes...”

- Excerpt from the Mayor Baxter Woods deed restriction

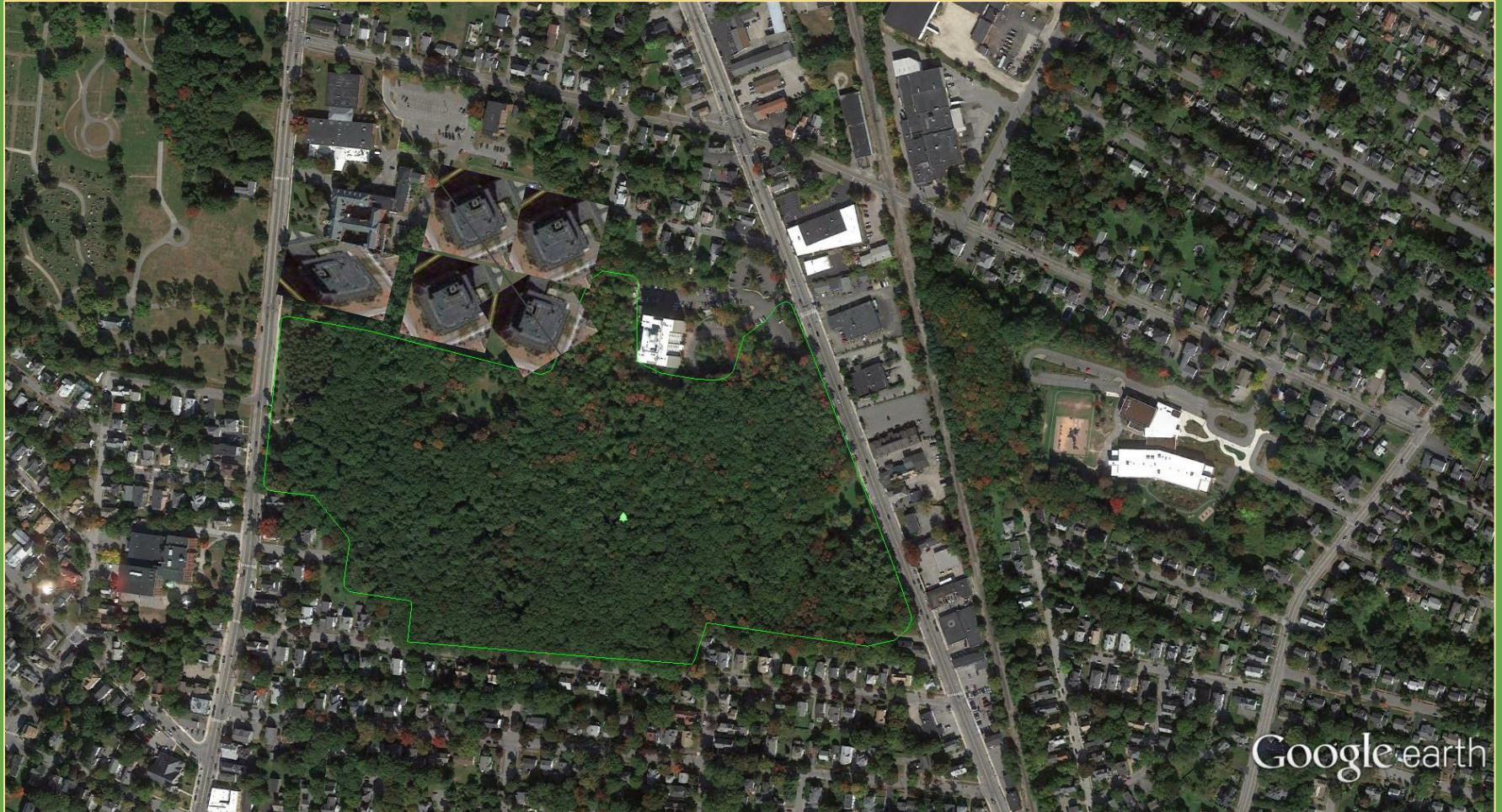
Forest loss: 1946 -2011



Anticipated Loss of Park space. Seacoast claims **33-foot swath** of old deeded right of way path .The swath is currently enclosed and part of the Baxter Woods in heavy growth.



Five large buildings abutting the boundary will threaten the remaining historic woods.



The quietest boundary would shift to a high density noise level.



The **Green Spaces Blue Edges** report states: An important section of this “old growth” forest is on land owned by Sisters of Mercy and Deering Pavilion. The developer paid in part to cut the forest.



Note: The Developer paid in part to cut the forest in order to construct the 2006 sport fields. The Sisters kept the land wooded for 100 years

Assessment and Planning

is required to protect and restore the *soundscape* of the woods.

The city failed to do this when the adjacent acres of historic forest were cut.

The acoustic environment was degraded forever.

The Baxters desired to preserve these woods in a natural state to benefit citizens with natural peace and the sounds of nature.

Image courtesy of City of Portland GIS Viewer <http://click.portlandmaine.gov/portlandzoning/>

Five public gates exist. Five is enough



Eliminate one of the existing gates for any added access.

Scientific evidence proves that the myriad of human-made sound adversely affects wildlife.

Noise pollution is considered a potential threat to animal health and long term survival.

Natural sounds are vital to the natural functioning of ecosystems. The National Park service has policy to restore and manage acoustical environments and soundscapes. The NP.S. reports that acoustical environment is important in ways including: Intraspecies communication, territory establishment, courtship and mating, nurturing and protecting young, predation and predator avoidance and effective use of habitat.

Note If National Parks deserve this consideration why not our sanctuary?

Historic Trees

The developer sought and was granted a waiver pertaining to the number of trees that were required per unit by city ordinance. That same developer participated in the razing of acres of the historic White Oaks, Ash and Hemlock trees.

In order to protect the remaining trees and displaced wildlife, the city must require a large restored buffer region between the woods and multiple-storied complexes

The Baxter Family has given greatly to the state of Maine and the City of Portland

The conditions of the gift of Lands by Percival P. Baxter are;

“The conditions imposed on this gift are simple and understandable. I want it to remain in its wild state for the use of pedestrians only, without what may be called “landscaping.” It is to have no cement walkways only paths and trails and there are to be no cultivated flower beds.--It already is a wild flower garden--- And is to be a sanctuary for wild birds. There shall be no automobile roads, no fancy work of any kind. Baxter goes on to say he wants people to enjoy its undisturbed **quiet beauty.**

The following aspects of this Seacoast Development impinge on the Park's overall health and possibly its sustainability.

- Traffic/parking on adjacent property
- Developer's plan to alter border
- Light pollution significant to alter animal behavior
- Noise pollution significant to alter animal behavior
- Loss of hunting grounds for birds and small animals
- Altered water drainage
- Runoff into Park
- Visitors increased by hundreds due to domicile proximal to woodland
- Broad expanse of supporting green space eliminated

What would Baxter do ?

WE ASK city officials to consider the effects of high-density development adjacent to a valued city green space.

WE ASK you to protect city assets for future generations.

WE ASK elected officials to listen and respect citizens' concerns, and consider what may or may not be compatible with developer desires.

Please protect the Baxter Woods.

Diminish the Impact

- The distance between park border and buildings must be increased and historic trees replenished.
- Any HVAC systems must be assessed as to how much sound and vibration they will emit. Sound absorbing enclosures must be installed to cancel noise emission prior to construction.
- Lighting type and timing must not degrade the night environment. Trees must be installed to absorb unnatural light and sounds.
- Environmental engineers must approve construction drainage plans to mitigate excessive runoff.
- the number of buildings be decreased

Fwd: Street connectivity for 605 Stevens Avenue

1 message

Christian MilNeil <c.neal.milneil@gmail.com>

Mon, Apr 25, 2016 at 3:04 PM

To: Jean Fraser <JF@portlandmaine.gov>

Hi Jean,

Forwarding this to you as well, in case you're the one in charge of public comment on this...

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

From: **Christian MilNeil** <c.neal.milneil@gmail.com>

Date: Mon, Apr 25, 2016 at 3:01 PM

Subject: Re: Street connectivity for 605 Stevens Avenue

To: Jeff Levine <jlevine@portlandmaine.gov>, Kevin Bunker <bunker.kevin@gmail.com>, Barbara Barhydt <bab@portlandmaine.gov>

Dear Barbara, Jeff and Kevin,

I'd like to express my strong support for the master plan proposal for 605 Stevens Avenue. This site, within walking distance of two bus lines, Baxter Woods and the small businesses of Deering Center, is an ideal location for new housing.

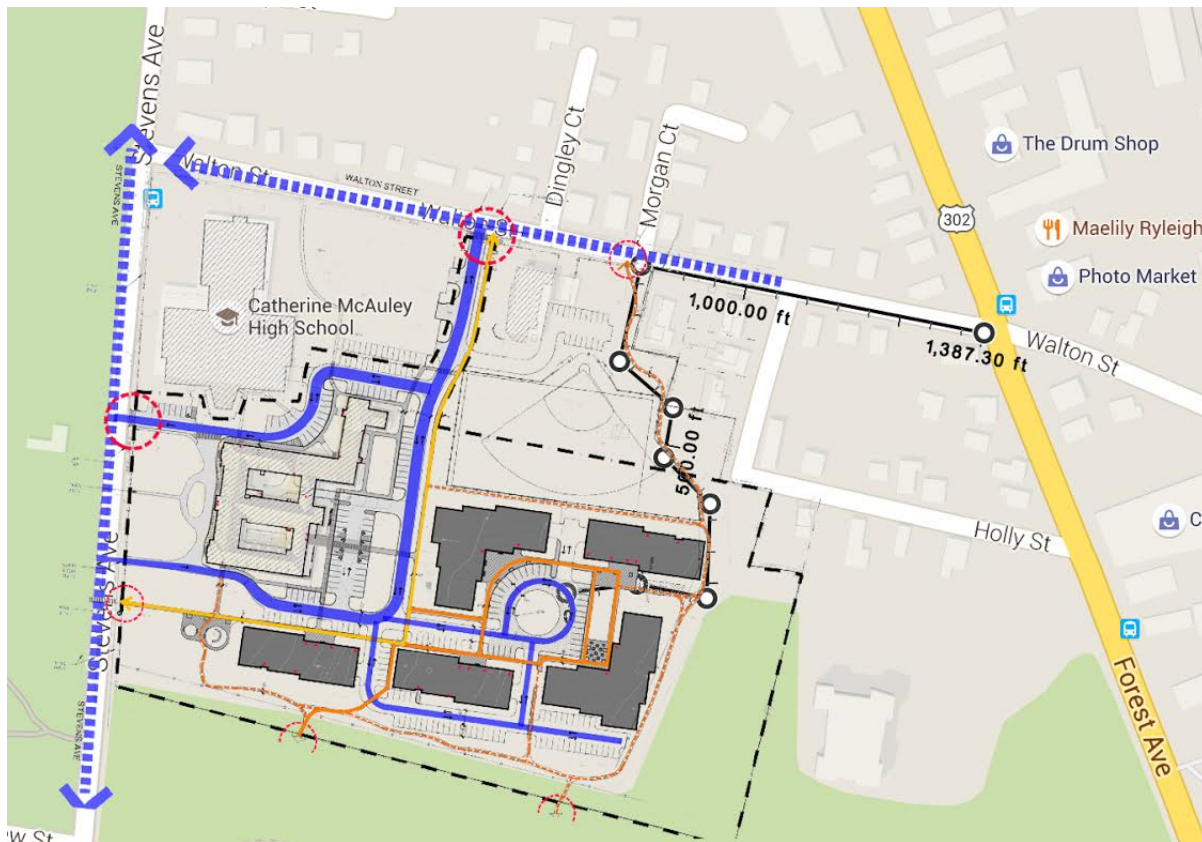
I do, however, want to request that the Planning Board, city and developer work together to make some improvements to the site plan that would improve access to and from Forest Avenue and minimize traffic impacts to Walton Street.

First, the Planning Board's approval of this Master Plan should take into consideration the likely future redevelopment of the aging Deering Pavilion property which borders this site to the east. The City Council recently rezoned that property to R-6A in hopes that it would support additional transit-oriented housing development in the future.

Second, in order to improve the proposed development's walkability and transit access, and support future redevelopment efforts at Deering Pavilion, the Planning Board should require the reservation of a public right of way to the eastern edge of the 605 Stevens site, in order to allow a future east-west local street connection between this development and the Deering Pavilion property.

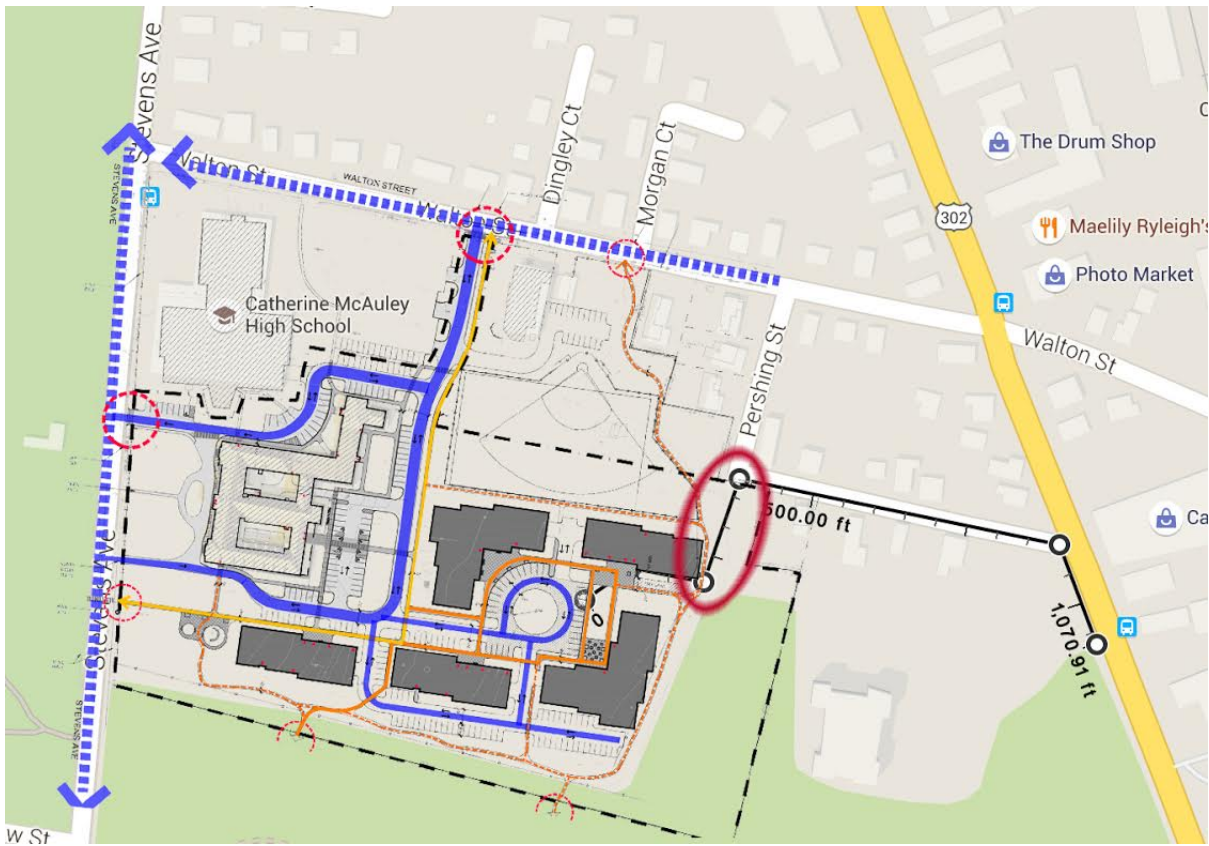
Section 14-498 of the city's zoning code requires new developments to continue the predominant pattern of blocks in surrounding neighborhoods.

The current site plan, which locates the apartment buildings around a dead-end cul-de-sac, does not meet this standard. In the current design, the walking distance from the proposed new apartment buildings to the nearest Route 2 bus stop on Forest Avenue is approximately 1400 feet along a needlessly circuitous route via Walton Street:

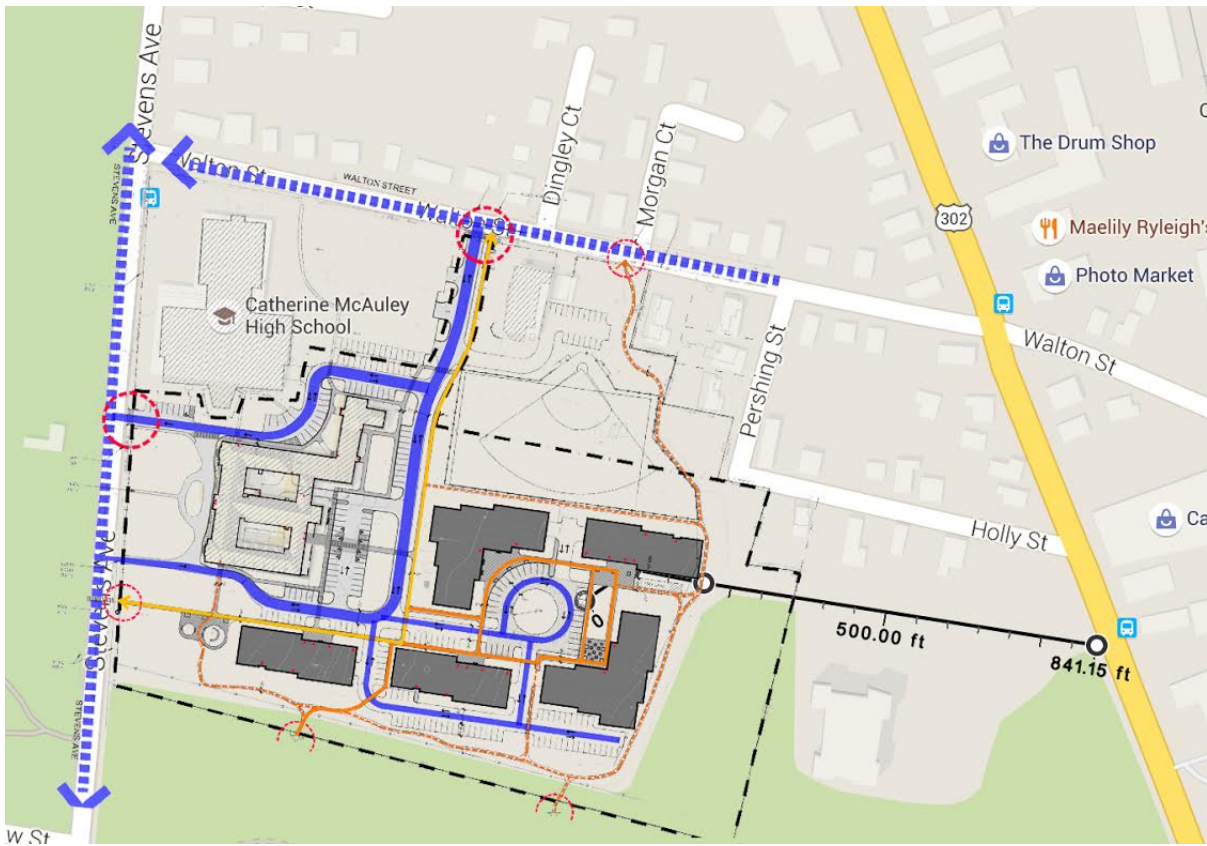


This site layout discourages foot traffic between the site and the businesses and bus stops Forest Avenue, and makes METRO a less convenient option to future residents. This means that future residents of the neighborhood will be more likely to crowd their cars onto Walton and other neighborhood streets, and less likely to walk to local businesses.

A better option that's more considerate of pedestrians and transit riders would be to connect the development's proposed footpaths to the existing public right-of-way on Pershing Street. This option reduces the walking distance to the nearest bus stop (at Deering Pavilion) by 20%, and also gives existing households on Pershing and Walton Streets an improved route into Baxter Woods:



And the best option of all would be to reserve a new east-to-west right of way to connect Stevens and Forest Avenues directly, cutting future residents' walking distance to the bus stop to only 840 feet. This option would also benefit current and future residents of Deering Pavilion with better access to METRO's Route 9 bus stops on Stevens Avenue.



For the developer, reserving a new public street with on-street parking should count towards zoning-mandated parking and open space requirements. But instead of paying property taxes, stormwater fees and pavement maintenance costs for a traditional, privately-owned parking lot, a public street could serve the same access and parking functions, but without the costs to the property manager.

More than anything, though, having a public street – as opposed to the networks of dead-end driveways we've seen in other recent senior housing projects – will make a big difference in whether this emerging district feels like a neighborly extension of Deering Center, or a gated community on the outskirts and with little interaction with the outside world. Obviously, I'd prefer the former, and I think many of this development's future residents would as well (note how marketing materials for the recent "Munjoy Heights" project played up the development's Portland Trails connections to Cove Street and the Jack Path as resident amenities).

I'm hoping that the Planning Board, city staff and developers can work together to make this happen. Thanks for considering it.

-Christian MilNeil
45 Smith Street

605 Stevens Ave.

1 message

Elizabeth Tarasevich <emtarasev@gmail.com>

Tue, Apr 26, 2016 at 8:58 AM

To: Jean Fraser <jf@portlandmaine.gov>

To the Planning Board,

I am a resident of the Deering Center neighborhood in Portland, ME. I am active in many neighborhood endeavors that are sponsored by the neighborhood association and through the Brentwood Farms Community Garden. We moved here from Boston when our children were young for the neighborhood parks and schools public and Catholic. It has been an enormous pleasure to raise our children here and to meet the people who make up the neighborhood.

Perhaps the best thing about Deering Center is the mix of people - all ages, walks-of-life, and income levels. I love that there are still inter-generational families living together, although this arrangement is increasingly rare. I think the development of the Motherhouse and its surroundings at 605 Stevens Ave. is an extremely good fit for our neighborhood, and will continue to safeguard the affordability for seniors to remain in or move to our neighborhood, in a setting that is as home like as possible, accessible, and beautiful in its surroundings.

I think the developers have been inclusive and sensitive to neighbors' concerns to an admirable degree. There is some concern on the impact to Baxter Woods, once the setting for for Francis O.J. "Fog" Smith's Forest Home, later the wood lot for the Baxter Family, and now a cherished park for our neighborhood. I think the project is designed with minimal impact for the woods, and, personally, I like the idea of sharing this spot with the seniors, especially with those whose only access may be by looking out their window. It is something of a comfort to think that FOG Smith's Home for Aged Indigent Mothers (est.1863, filed 1864 in Cumberland County Registry of Deeds, Book 322 p. 479) will once again welcome seniors.

After visiting the site, and being given a tour by the developers, it is clear to me that this space is in imminent need of attention, and that any delay will only incur cost and threaten the viability of the project. I do hope that the project is approved without further delay and I hope to welcome our newest neighbors soon.

Thank you for your time and consideration,

Elizabeth Tarasevich
14 Hillis Street



Jean Fraser <jf@portlandmaine.gov>

605 Stevens Ave.

1 message

Jean Rank <jcnrank@icloud.com>

Tue, Apr 26, 2016 at 9:08 AM

To: jf@portlandmaine.gov

Hello Ms. Frazier,

I'm a resident of Deering Center and have lived here for the past 12 years. I support the proposed redevelopment of 605 Stevens Ave. I feel that the redevelopment is a good fit for the neighborhood and will not pose a treat to Baxter Woods. Please extend my support to the Planning Board. I hope to see this project approved.

Thank you,
Jean Rank
98 Hamblet Ave.



Jean Fraser <jf@portlandmaine.gov>

605 Stevens Avenue

1 message

Julie Larry <jlarry@portlandlandmarks.org>

Tue, Apr 26, 2016 at 10:22 AM

To: "jf@portlandmaine.gov" <jf@portlandmaine.gov>

Please distribute to the Planning Board, thank you!

Julie Ann Larry

Director of Advocacy

Greater Portland Landmarks

93 High Street

Portland, ME 04101

[207.774.5561](tel:207.774.5561) x102



605 Stevens Avenue_PB_Statement for Workshop_03222016.pdf

131K



18 March 2016

Jean Fraser
Planner
City of Portland
389 Congress Street
Portland, ME 04101

Greater Portland Landmarks encourages the Planning Board to support the master development plan for the redevelopment of 605 Stevens Avenue. We supported the 2015 rezoning of this property and we support the proposed master development plan as they facilitate the rehabilitation of the St. Joseph's Convent Motherhouse, one of the most impressive religious structures in Portland and a challenging historic building to redevelop. The use of state and federal historic preservation tax credit programs by the developer's mean this project will conform to the high preservation standards overseen by the National Park Service. Ultimately this previously unprotected local landmark building will be required to be listed in the National Register of Historic Places and locally protected under Portland's Historic Preservation Ordinance.

The siting of the new construction proposed in the master development plan preserves the character of the Motherhouse and the existing landscaping features between the building and Stevens Avenue. The site plan preserves existing mature trees, provides usable open space, and retains the character of the Motherhouse's site in a manner that is compatible with the character of Evergreen Cemetery across the street, while providing much needed housing units.

The project team has a record of successful development in Portland and southern Maine. Kevin Bunker has done similar rehabilitation projects using historic preservation tax credits, including the conversion of the Nathan Clifford School in Portland into housing; and the preservation and adaptive reuse of the St. Hyacinth's Convent and School in Westbrook, also for housing. The latter project was recently recognized by Landmarks with a 2014 historic preservation honor award.

Thank You,

Julie Ann Larry
Director of Advocacy
Greater Portland Landmarks
93 High Street
Portland, ME 04101

605 Stevens Ave Project

1 message

Maureen OMeara <maureenomearag@yahoo.com> Tue, Apr 26, 2016 at 12:42 PM
To: "jf@portlandmaine.gov" <jf@portlandmaine.gov>

To: Portland Planning Board

I would like to express my support for the Stevens Ave project.

I have lived in the neighborhood for 25 years and especially enjoy walking around the area. I've walked by the property on Walton St. and Stevens Ave many times. This project will be an asset to the neighborhood. My comments focus on the following two points.

1. Portland needs housing. This project will add housing that the region needs. A recently completed housing market analysis completed by HUD for the Portland/South Portland area predicts a need for 4,000 new housing units in the next 3 years. About 850 of those units are in process. Portland, and my neighborhood, needs housing to remain a vital community.

Most of us now recognize that that the population is getting older. As the child of parents in their 80's who still live in a single family home, I have looked and found very few housing units available that offer the single level living they need. If a unit with a first floor master comes on the market, it is quickly sold.

If a senior homeowner is able to transition out of a single family home, the new home owners are often young families. My neighborhood needs new children in the school system to keep local schools open and maintain support to fund a quality school system.

Trying to keep the neighborhood just the way it is now is not preserving it, it is putting us on a path of slow decline. Appropriate investment in the neighborhood will benefit all the residents.

2. Public amenities in the project. I am looking forward to the construction of this project so that I will no longer peer past the gate on Stevens Ave and instead will be able to walk onto the property. This project offers access amenities. I encourage the Planning Board to make sure the project includes public walkway connections in the project.

I support the efforts to preserve the general look of the frontage of the property on Stevens Ave. The one-way driveway loop connecting to Stevens Ave does not overwhelm the frontage with pavement. The access to Walton St makes sense. I walk this street often and there is very, very little traffic. Both ends of the street already have intersections with a controlled traffic light access to Stevens Ave and Forest Ave. The busiest times are pick up and drop off of students and these times do not overlap with the times that residents would typically be entering and exiting the property.

Finally, I urge the Planning Board to resist decreasing the density of the project in order to appease abutters. Even with fewer units, the property will still be developed and that is the fundamental issue for most people who oppose the project. Keeping the density in the project may reduce pressure to develop another property in the neighborhood. We already have identified unmet housing needs. I would prefer developing at a density that provides the developers with the revenue needed to build a quality project and then require better quality finishes.

Thank you for your service to the City of Portland.

Maureen O'Meara
29 Lawn Ave
Portland, Maine

Sent from my iPad

605 Stevens Avenue

1 message

Ethan Boxer-Macomber <ethan@anew-development.com>

Tue, Apr 26, 2016 at 2:36 PM

To: Jean Fraser <jf@portlandmaine.gov>

Cc: Jeff Levine <jlevine@portlandmaine.gov>, Tuck O'Brien <sgo@portlandmaine.gov>

Dear Jean,

I received a notice from the City that the matter of **605 Stevens Avenue** is slated for a workshop with the planning board this evening. I am a Deering resident, my children both attend Portland Schools on Stevens Avenue, and our family makes very frequent and regular use of the beautiful wooded trail network through Baxter Woods into Evergreen Cemetery and beyond.

For what it's worth, I wanted to share with you that I am **very supportive** of the proposed development at 605 Stevens and view the project as an all around 'win-win'.

Here are just a few of the reasons that I say this:

- From an **architecture & urban design** standpoint- The proposed density is very moderate for an urban site and context (possibly *too low*, in my opinion) and seems to provide for a very appropriate transition between the the far higher density of the adjacent Deering Pavilion property on one hand and the mix of close knit single and multi-family structures across the street and down adjacent streets. The design is obviously well planned to avoid undue impacts on adjacent land owners and Baxter Woods. The developers have a long, strong, an consistent history of developing projects of high architectural quality that contribute positively to neighborhoods and we have every reason to trust that they will do the same here.
- From an **environmental** standpoint - I am eager to see acres of chemically managed, monocultural field grass of little to no value to wildlife or the woods replaced with a well landscaped, tree lined (habitat) development with

appropriate stormwater management systems (water quality) in place. Moreover, future senior residents of the development will benefit from significantly **reduced auto dependency and carbon footprint** given the presence of public transit and goods and services within walking distance.

- Our City will benefit economically from a significant **boost to the tax base** without needing to install any significant new road, utility, or public service infrastructure. **Local business will directly benefit**, especially those in Deering Center, from more neighborhood shoppers living within walking distance. In the coming years, the project will also generate millions of dollars of local economic development activity in the form of high value **local service and construction contracts** supporting so may **local jobs**.
- Would-be traffic impacts have been professionally studied and it has been demonstrated that our existing street network has more than adequate capacity to support the proposed residential development. There's no problem with our streets now and there won't be any after the development is built. I'd take that a step further and suggest (anecdotally) that adding more residences and residents to Walton Street will contribute new vitality and human activity to the corridor which could only serve to slow down existing pass-through traffic and make the street safer from us all.
- Lastly, and most importantly, I look forward to welcoming **wonderful new neighbors** to Deering Center; to greeting them on the sidewalk in Deering Center and during walks along the trails and to welcoming them to volunteer in our children's classrooms. I suspect most will have connections to the community and family in the area. New senior residents will greatly contribute to the **diversity** and **social connectivity** of our community and provide a greatly needed opportunity for our parents and grandparents (and some day ourselves :-)) to age in place and stay engaged in the neighborhood we love.

Apparently this project has stirred up a lot of fear and mis-information in our neighborhood which is sad and unfortunate. I hope and expect that the Planning Board will see the project for what it is- a code complaint, high value, progressive project that offers a giant leap forward for our community.

I am sorry that I will be unable to attend the workshop this evening due to a prior

commitment (son's game at Deering High / Go Rams!). I hope you will please enter this email into the record and bring it to the the Planning Board's attention as they consider the project.

Sincerely,

Ethan

Ethan Boxer-Macomber, LEED AP

34 Glenwood Avenue
Portland, Maine 04103

[207.272.8550](tel:207.272.8550)

ethan.macomber@gmail.com



PLANNING BOARD REPORT PORTLAND, MAINE

Subdivision and Site Plan Amendments
117 Preble Street
Level III Amendment to Subdivision and Site Plan
Project ID #2016-078
The Schlotterbeck Building, Applicant

Submitted to: Portland Planning Board Public Hearing Date: April 26, 2016	Prepared by: Shukria Wiar, Planner Date: April 21, 2016
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I. INTRODUCTION

The Schlotterbeck Building has submitted a Level III Amendment application for site plan and subdivision review for their property at 117 Preble Street (refer to Applicant's submission). The property is bounded by Elm, Kennebec, and Preble Street. The purpose of this amendment is to create an additional residential unit, as well as modify the site plan to meet the conditions of approval for the original application.

The Planning Board held a public hearing on December 15, 2015 and approved the project with conditions of approval, please see approval letter ([Attachment 1](#)). The original proposal converted the existing Schlotterbeck and Foss building into a fifty-five (55) unit market-rate apartment building with approximately 1,750 square feet of office space. The building is five and a half stories above ground with six floors of living area. As part of the original application, the project proposed forty-five (45) parking spaces as part of this development. The applicant is seeking to amend the application by increasing the units from fifty-five (55) to fifty-six (56) residential units.

The original subdivision approval with all the associated waivers and conditions still apply. The Planning Board will review the proposed amended plan against the Subdivision and Site Plan Ordinance of Land Use Code.

Applicant Name	John Anton of Schlotterbeck Block, LLC
Consultants	
Agent Representative	Michael King of Mitchell & Associates
Engineer	Steve Bradstreet of Random Consulting, Inc.
Surveyor	Owen Haskell, Inc.
Architect	Rick Goduti of Goduti Thomas Architects

Project Review

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	14-526
Subdivision	14-491

II. PROJECT DATA

Existing Zoning	B-7
Tax Map	CBL: 33 E001001 and 33 E005001
Existing Use	Industrial
Proposed Use	Residential (Rental Units)
Parcel Size	40,720 SF
Number of Units to be Demolished	None
Bedroom Mix	16 efficiencies 40 one-bedroom

Number of Affordable Units	The proposed units will be market rate.
Residential Data	56 units
Building Footprint	6,800 SF
Building Floor Area	37,345 SF
Impervious Surface Area	27,300 SF
Parking Spaces	45 spaces of which 17 are compact spaces
Bicycle Parking Spaces	24 spaces
Estimated Cost of Project	\$ 5,000,000

III. EXISTING CONDITIONS

The Schlotterbeck & Foss building was designed by John Calvin Stevens and built in 1925. It was the home of the Schlotterbeck & Foss Company until 2015 for the manufacturing of Schlotterbeck and Foss condiment products. The site includes two lots (Tax Map 33, Block E, Lots 1 and 5) totaling 40,702 square feet. The site contains the 6,800 sq. ft. existing building, a gravel parking lot of about twenty (20) parking spaces and a paved parking lot that accommodates about thirty (30) spaces. The site is surrounded by Preble, Elm and Kennebec Streets. Currently the main entrance to the building is from Preble Street.

IV. PROPOSED DEVELOPMENT

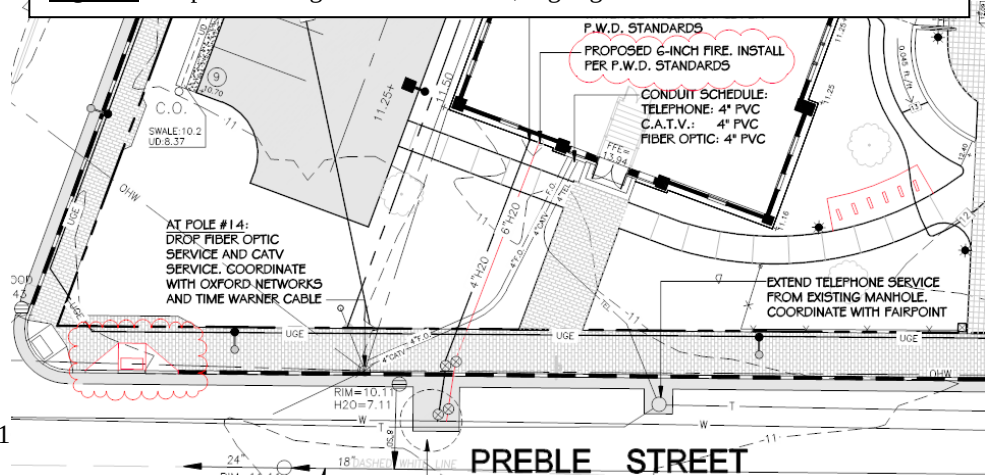
As part of the amendment, the applicant now wants to create an additional studio apartment unit and will increase the units from fifty-five (55) units to fifty-six (56).

The applicant is also proposing to make changes to the site plan as well. The changes consist of the following:

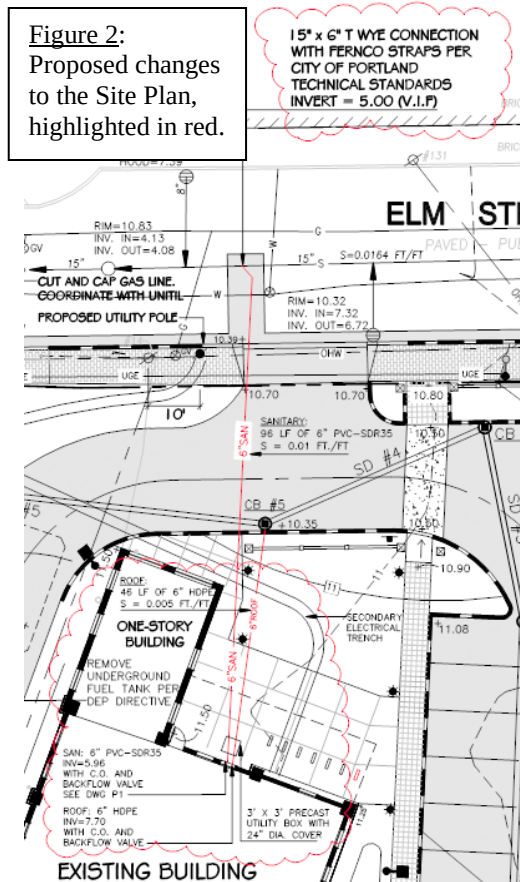
1. **Additional Bicycle Racks:** The additional unit eliminates the bicycle storage room in the basement. As a result, fourteen (14) bicycle parking spaces need to be located on the site. The attached revised L2.0 show an additional bicycle hitch under the canopy and six (6) exterior bicycle racks on a concrete pad located near the building entrance. With these revisions, thirteen (13) bicycle loops are provided and 26 bicycle parking spaces will be provided.
2. **6-inch Fire Water Line:** Attached revised L3.0 adds a new six-inch fire suppression water line from Preble Street to the building's fire suppression system. The applicant had planned to continue using the existing 6-inch fire suppression line, but the existing 6-inch line is in poor condition.
3. **Roof Drain Connection:** Attached revised L3.0 shows a new 6" HDPE roof drain connecting to catch basin #5. The existing roof drain pipe is in poor condition and needs to be replaced.
4. **Sanitary Sewer Line:** Excavation exploration revealed the existing 6-inch cast iron sanitary sewer line is in poor condition. The applicant proposes to replace the existing sewer line with a new PVC sewer in approximately the same location and wye connect the 15-inch combined sewer on Elm Street.

5. **Additional Sidewalk Ramp and Pedestrian Easement:** The City's staff has requested an additional sidewalk ramp at the intersection of Preble and Kennebec Streets, as part of the December 2015 conditions of approval. The new ramp will require pedestrian easement on the

Figure 1: Proposed changes to the Site Plan, highlighted in red.



applicant's lot. The attached Amended Subdivision Plan and sheet L2.0 show the new sidewalk ramp and the pedestrian easement.



V. PUBLIC COMMENT

Upon receipt of the subject site plan application, staff noticed property owners within 500 feet of the site and placed a legal ad in the *Portland Press Herald* newspaper in accordance with requirements. Seventy-seven (77) notices were sent to area residents. A notice also appeared in the April 18th, 2015 and April 19th, 2016 editions of the *Portland Press Herald*.

The applicant is not required to hold a neighborhood meeting since the amendment is for an amendment to an approved subdivision. As of the date of writing this report, staff has not received any written public communication pertaining to this application.

VI. RIGHT, TITLE AND INTEREST AND FINANCIAL/TECHNICAL CAPACITY

The owner of the property is JB Brown. The applicant has provided a copy of a quitclaim deed, recorded at the Cumberland County Registry of Deeds (Book 26354 Page 314), and purchase and sale agreement, which demonstrates their right, title and interest in the property.

The estimated cost of the development is \$5,000,000.

VII. ZONING ASSESSMENT

The original plans had reviewed for the minimum requirements in the Urban Commercial Business (B7) zone and the project met the

zoning requirements. The purposed amendments also meet the zoning requirements. The additional unit is housed on the lower ground level of the building.

VIII. DEVELOPMENT REVIEW

A. SUBDIVISION PLAN AND RECORDING PLAT REQUIREMENTS (Section 14-496)

The applicant has submitted a recording plat. The final plat has been revised to reflect the new unit, the revised sidewalk easement, and any waivers and conditions of approval that relate to the subdivision plan.

B. SUBDIVISION (Section 14-497)

As an amendment to an approved subdivision, the subject application is subject to conformance with the applicable standards of the subdivision ordinance.

Section 14-496 (c) states:

Alterations to an approved plot. The planning authority may approve alterations to an approved recording plat when all of the following conditions are met; otherwise, a new subdivision plat must be submitted to the Planning Board:

- 1. The rearrangement of lot lines does not increase the number of lots within a block or other subdivision unit or area;*
- 2. The alteration will not affect any street, alley, utility easement or drainage easement;*
- 3. The alteration meets all of the minimum requirements of this article, article III of this chapter on zoning and other applicable state and local codes;*
- 4. The alteration is approved by the public works authority and the fire department.*

Such approved alterations shall be properly recorded in the registry within thirty (30) days thereof or they shall be null and void. Recording of approved alterations also shall be in accordance with the requirements of 30-A M.R.S.A. Section 4406.

Based on the application submitted, the project does not meet all of the above standards and therefore this application is before the Planning Board for review. The thirty (30) day recording applies to both Planning Authority and Planning Board review of amended subdivision plans.

As state before, the December 15, 2016 Planning Board approval of this project with all relevant waivers and conditions of approval remain in effect. The proposed amended plan has been reviewed by staff for conformance with the relevant review standards of Portland's Subdivision Ordinance and applicable regulations. Staff comments are listed below.

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) I), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)

As part of the amendment application, there is no proposed increase in site improvements or disturbance, so the Staff finds the proposed project in conformance with this standard.

2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

The applicant has demonstrated in the original proposal that the project had sufficient water available, which can handle the additional unit. The project is currently served by the Portland Water District.

3. Will Not Cause Unreasonable Traffic Congestion (Section 14-497 (a) 5)

Tom Errico, P.E. Ty Lin has reviewed the original proposal. The proposed project is not anticipated to cause unreasonable traffic congestion. The staff finds the proposed project is in conformance with this standard.

4. Will Provide for Adequate Sanitary Sewer and Stormwater Disposal (Section 14-497 (a) 6), and Will Not Cause an Unreasonable Burden on Municipal Solid Waste and Sewage (Section 14-497 (a) 7)

As part of the amendment application, a new roof drain connection and replacement of an existing sewer line with a new PVC sewer is being proposed. Michael Farmer, Assistant Engineer, has reviewed the upgrades for the Department of Public Services and has the following recommendation:

The proposed new 6" sanitary sewer connection to the sewer main in Elm Street is OK. However, the connection should be made with an INSERTA TEE, (not a saddle Y attached with stainless steel bands), provided that the 15-inch sewer main is structurally sound. If the City inspector finds that the existing sewer main is not structurally sound, he or she may request that a new, replacement section of the existing main be installed with a factory manufactured T or Y fitting.

In the original application, the City of Portland has confirmed that the sewer system has sufficient capacity.

5. Scenic Beauty, Natural, Historic, Habitat and other Resources (Section 14-497 (a) 8)

The site is not within an historic district but the building is a historic building constructed in 1927, designed by John Calvin Stevens. The applicant is in the process of obtaining state and federal historic rehabilitation tax credits. According to the Applicant, Schlotterbeck Block LLC has received the first part of the approval for the building from the National Park Service (NPS). This approval means that the NPS has determined that the property appears to meet the National Register Criteria for Evaluation and will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer. The second step is approval of the proposed renovations and the eligibility for state and federal historic rehabilitation tax credits. Ultimately, this building could be a designated historic local landmark.

6. Comprehensive Plan (Section 14-497 (a) 9)

The staff has identified the following goals and policies which are relevant to the proposed housing development and finds the proposal in conformance with the Comprehensive Plan:

Portland Housing Goal: Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

Policies

- Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied, including but not limited to the following:
 - ii. Housing units for decreasing household size, such as young professionals, empty nesters, single-parent households, and senior citizens.
 - viii. Housing with a range of services and medical support for the elderly and special needs population, including assisted living, congregate care, group homes and nursing homes;
- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation.
- Increase Portland's rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.
- Identify vacant land and redevelopment opportunities throughout the City to facilitate the construction of new housing.

C. SITE PLAN STANDARDS (Section 14-526)

The proposed amended plan has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations. Staff review and comments are listed below.

1. Transportation Standards

Impact on surrounding street systems, access and circulation, public transit access, and parking were reviewed under the original application by Tom Errico, P.E. TY Lin. The amendments to the site plan for the additional unit do not affect the transportation standards. Tom Errico, Consultant Traffic Engineer, reviewed the parking demand study and states:

The applicant has provided an updated parking analysis with the one additional residential unit. I find the conclusions to be reasonable given the likelihood that the tenant may not have a vehicle based on the small size of the unit.

I find the changes to bicycle parking to be acceptable.

Sidewalks and Ramps

As part of the original approval, there was a condition in regard to the design of the handicapped ramp at the Kennebec Street intersection with Preble Street are needed. The ramp needs to be fully ADA complaint and upgrades of the ramp. The condition of approval is stated below:

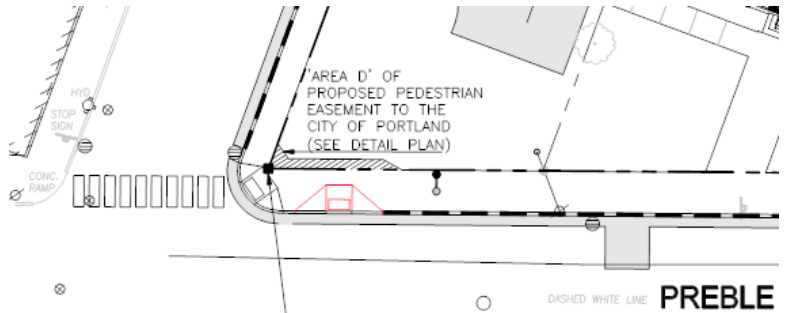
The details for the design engineering of the ramps shall be further reviewed by City staff and any possible adjustment shall be coordinated with Department of Public Works and the Planning Division. The applicant shall also provide a detail for Sidewalk Ramp Detectable Warning Panels in accordance with Figure I-7 of the City of Portland Technical Manual.

The applicant and staff has worked together to obtain a design that meets standards. As part of this amendment application, a revised design has been submitted for this ramp. Mr. Errico has reviewed proposal and states:

The applicant has provided a detail for the sidewalk ramps at the corner of Preble Street and Kennebec Street. The general configuration is acceptable. Some adjustments are suggested for consideration including 7-foot tip-down curbs at the Preble Street ramps. The City generally prefers a minimum 4-foot separation between ramps. I need to coordinate with DPW on this detail. The plan seems to indicate a low curb reveal between ramps that doesn't meet City standards. I would suggest that a condition of approval be required that notes final ramp details to be provided for review and approval prior to construction.

Therefore the original ramp design condition of approval will be retained as part of this amendment application.

Currently there is no sidewalk on the Kennebec Street side of the site. There are sidewalks on Elm and Preble Streets but the sidewalks are not in good condition and range in materials (from concrete to brick). Portions of the public sidewalk cross onto private property. The City Council has accepted public access easements where the sidewalks cross onto private property. The easement at the corner of Preble and Kennebec Streets will need to be revised to include a wider pedestrian way.



The amendments to the site plan for the additional unit do not affect the transportation standards.

2. Environmental Quality Standards

- a. *Preservation of Significant Natural Features and Landscaping and Landscape Preservation*
Jeff Tarling, City Arborist, had reviewed the landscaping plan as part of the original application. The amendments to the site plan do not affect the approved landscaping plan.
- b. *Water Quality, Storm Water Management and Erosion Control*
David Senus of Woodard and Curran, Consulting Engineer, had reviewed the stormwater management plan as part of the original application. The amendments to the site plan do not affect the stormwater standards.

3. Public Infrastructure and Community Safety Standards

- a. *Public Safety and Fire Prevention*
Assistant Chief Keith Gautreau has reviewed the amendment to the plans and does not have any comments. The upgraded six-inch water line for the fire suppression is acceptable.
- b. *Availability and Adequate Capacity of Public Utilities*
Please see Paragraph VIII (B) Subdivision, above.

4. Site Design Standards

- a. *Zoning Related Design Standards*
The amendment application is not proposing any changes to the building façade; therefore the design was not reviewed.

IX. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed amendments to the approved Subdivision and Site Plan.

X. PROPOSED MOTIONS

Subdivision Plat

On the basis of the subdivision plat approved on December 15, 2016 with conditions, the application for an amendment, plans, reports, and other information submitted by the applicant, findings and recommendations contained in Planning Board Report for application 2015-078 relevant to the Subdivision Ordinance and other regulations, as well as the Planning Board deliberations and the testimony presented at the Planning Board hearings, the Planning Board finds that the amended plan, when taken together with the original plan and the conditions contained therein (**is** or **is not**) in conformance with the subdivision standards and all other applicable provisions of the land use code, with the following condition:

1. The existing pedestrian easement for the ramp at the intersection of Kennebec and Preble Streets shall be reviewed by Corporation Counsel and approved by the City Council, prior to the certificate of occupancy.

Level III Site Plan

On the basis of the site plan approved December 15, 2016 with conditions, the application for an amendment, plans, reports, and other information submitted by the applicant, findings and recommendations contained in Planning Board Report for application 2016-078 relevant to the Site Plan Ordinance and other regulations, as well as the Planning Board deliberations and the testimony presented at the Planning Board hearings, the Planning Board finds that the amended plan, when taken together with the original plan and the conditions contained therein (**is** or **is not**) in conformance with the site plan standards and all other applicable provisions of the land use code, with the following condition:

1. The final details for the design of the ramps at Kennebec and Preble Streets shall be reviewed by City staff and any possible adjustment shall be coordinated with Department of Public Works and the Planning Division, prior to the construction of the ramps.
2. The proposed new six-inch sanitary sewer connection to the sewer main in Elm Street shall be made with an INSERTA TEE connection, (not a saddle Y attached with stainless steel bands). This detail shall be shown on the final plan.

ATTACHMENTS:

Staff Review Comments and Background Information

1. February 10, 2015 Approval Letter
2. Traffic Review (Tom Errico) comments dated 04.21.2016
3. DPW Engineer (Michael Farmer) comments dated 04.14.2016

Public comments (none at the time PB Report completed)

Applicant's Submittal

- A. Cover Letter
- B. Application
- C. Exhibit A Parking Memo 3-23-16
- D. Exhibit B 4-5-2016

Plans

- Plan1 1 OF 1 Subdivision REV.4-5-2016
- Plan2 L2.0 Layout REV. 4-5-2016
- Plan3 L3.0 Grading REV. 4-5-2016
- Plan4 A1.1 Floor Plan-Revised

CITY OF PORTLAND, MAINE

PLANNING BOARD

Elizabeth Boepple, Chair
 Sean Dundon, Vice Chair
 Bill Hall
 Carol Morrisette
 Jack Soley
 Dave Eaton

January 4, 2016

John Anton
 Schlotterbeck Block, LLC
 77 Spruce Street
 Portland, ME 04101

Michael King
 Mitchell and Associates
 70 Center Street
 Portland, ME 04101

Project Name: The Schlotterbeck Block
 Address: 117 Preble Street
 Applicant: Schlotterbeck Block, LLC
 Planner: Shukria Wiar

Project ID: 2015-174
 CBL: 033 E001 001 and 033 E005 005

Dear Mr. Anton:

On December 15, 2015, the Planning Board considered the proposed redevelopment of the Schlotterbeck and Foss Building at 117 Preble Street. The structure will be converted into a fifty-five (55) unit market-rate apartment building with approximately 1,750 square feet of office space. The Planning Board reviewed the proposal for conformance with the standards of the Subdivision. The Planning Board voted unanimously (6-0) to approve the application with the following waivers and conditions as presented below.

WAIVERS

The Planning Board voted unanimously (6-0) to grant the following waivers:

1. The Planning Board found, based upon the consulting transportation engineer's review (*Attachment 1*), that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (*Section 1.14*) which requires that aisle width for right-angle parking be 24 feet per *Figure I-27* that the variation is consistent with the intent of the ordinance. The planning board waives the *Technical Manual* standard (*Section 1.14*) to allow a 20 foot wide aisle in the parking area;
2. The Planning Board found, based upon the consulting transportation engineer's review (*Attachment 1*), that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (*Section 1.14 and Figures I-27 to I-29*) limiting compact spaces to 20% of total parking supply that the variation is consistent with the intent of the ordinance. The Planning Board waives the *Technical Manual* standard (*Section 1.14 and Figures I-27 to I-29*) to allow 38% compact spaces; and
3. The Planning Board found that the applicant has demonstrated that site constraints prevent the planting of all required street trees in the right-of-way. The Planning Board waives the site plan standard (*Section*

14-526 (b) (iii) requiring one street tree per unit for multi-family development and concludes that the applicant shall contribute \$7,000 for 35 street trees to Portland's tree fund.

4. The Planning Board found that the applicant has demonstrated that due to site constraints, the dumpster location needs to be within 20 feet of a public street and the dumpster is screened from public view with landscaping and fencing. The Planning Board waives the Design Manual, B-7 Mixed Use Urban District Zone, Principle C, Standard C-8, requiring the areas for outdoor storage and trash collection or compaction shall not be visible from public rights of way, or located within 20 feet of any public street, sidewalk, or open space.

SUBDIVISION REVIEW

The Planning Board voted unanimously (6-0) that the plan is in conformance with the subdivision standards of the Land Use Code, subject to the following conditions of approval, which must be met prior to the signing of the plat:

1. The applicant shall finalize the subdivision plat for review and approval by Corporation Counsel, the Department of Public Services, and the Planning Authority; and
2. The applicant shall provide a pedestrian access easement for the portions of sidewalk that do not lie within the right-of-way for adoption by the City Council.

SITE PLAN REVIEW

The Planning Board voted unanimously (6-0) that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following conditions of approval that must be met prior to the issuance of a building permit, unless otherwise stated:

1. The applicant shall locate the bicycle racks so that they are visible from the street or provide directional signage to the location of the racks.
2. A barrier or visual indicator (i.e. – curb stop or post) at the edge of pavement or reinforcing layer on the filter shall be included to avoid vehicle tires from sinking into the swale/filter if cars are driven beyond the edge of pavement.
3. The details for the design engineering of the ramps shall be further reviewed by City staff and any possible adjustment shall be coordinated with Department of Public Works and the Planning Division. The applicant shall also provide a detail for Sidewalk Ramp Detectable Warning Panels in accordance with Figure I-7 of the City of Portland Technical Manual.
4. The applicant shall provide supporting information and/or plans for inclusion in the City Council packet for the changes to the on-street parking regulations, prior to the issuance of a certificate of occupancy.
5. The developer/contractor/subcontractor must comply with conditions of the construction stormwater management plan and sediment and erosion control plan based on City standards and state guidelines. The owner/operator of the approved stormwater management system and all assigns shall comply with the conditions of Chapter 32 Stormwater including Article III, 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 with any changes to be approved by Corporation Counsel, shall be submitted, signed, and recorded prior to the

issuance of a building permit with a copy to the Department of Public Services.

6. That all HVAC systems and external mechanical equipment shall meet the maximum allowable noise requirements of the zone; each unit shall submit documentation of dBA output to confirm compliance of both the unit and the building in respect of rated noise levels and cumulative noise levels, to the satisfaction of the Zoning Administrator prior to the issuance of a Building Permit for that unit.

The approval is based on the submitted plans and the findings related to site plan and subdivision review standards as contained in Planning Report for application 2015-174 which is attached.

STANDARD CONDITIONS OF APPROVAL

Please note the following standard conditions of approval and requirements for all approved site plans:

1. **Subdivision Recording Plat** A revised recording plat listing all conditions of subdivision approval must be submitted for review and signature prior to the issuance of a performance guarantee. The performance guarantee must be issued prior to the release of the recording plat for recording at the Cumberland County Registry of Deeds.
2. **Subdivision Waivers** Pursuant to 30-A MRSA section 4406(B)(1), any waiver must be specified on the subdivision plan or outlined in a notice and the plan or notice must be recorded in the Cumberland County Registry of Deeds within 90 days of the final subdivision approval).
3. **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. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or the Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
4. **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 Inspection Division.
5. **Site Plan Expiration** The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
6. **Subdivision Plan Expiration** The subdivision approval is valid for up to three years from the date of Planning Board approval.
7. **Performance Guarantee and Inspection Fees** A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and seven (7) final sets of plans must be submitted to and approved by the Planning Division and Public Services Department prior to the release of a subdivision plat for recording at the Cumberland County of Deeds, and prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.
8. **Defect Guarantee** A defect guarantee, consisting of 10% of the performance guarantee, must be posted

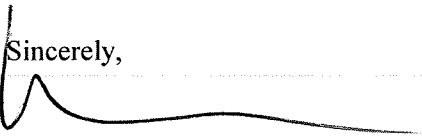
before the performance guarantee will be released.

9. **Preconstruction Meeting** Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Service's 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. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
10. **Department of Public Services Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
11. **As-Built Final Plans** Final sets of as-built plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*.dwg), release AutoCAD 2005 or greater.
12. **Mylar Copies** Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to the Public Services Dept. prior to the issuance of a certificate of occupancy.

The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. 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 Shukria Wiar at 756-8083 or via shukriaw@portlandmaine.gov

Sincerely,



Elizabeth Boepple, Chair
Portland Planning Board

Attachments:

1. Planning Board Report
2. City Code, Chapter 32
3. Sample Stormwater Maintenance Agreement
4. Performance Guarantee Packet

Electronic Distribution:

Jeff Levine, AICP, Director of Planning and Urban Development
Stuart G. O'Brien, City Planning Director
Barbara Barhydt, Development Review Services Manager
Shukria Wiar, Planner
Philip DiPierro, Development Review Coordinator, Planning
Ann Machado, Zoning Administrator, Inspections Division
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Jonathan Rioux, Inspections Division Deputy Director
Jeanie Bourke, Plan Reviewer/CEO, Inspections Division
Brad Saucier, Administration, Inspections Division
Katherine Earley, Engineering Services Manager, Public Services
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David Margolis-Pineo, Deputy City Engineer, Public Services
Doug Roncarati, Stormwater Coordinator, Public Services

Greg Vining, Associate Engineer, Public Services
Michelle Sweeney, Associate Engineer
John Low, Associate Engineer, Public Services
Rhonda Zazzara, Field Inspection Coordinator, Public Services
Mike Farmer, Project Engineer, Public Services
Jane Ward, Administration, Public Services
Jeff Tarling, City Arborist, Public Services

Jeremiah Bartlett, Public Services
Keith Gautreau, Fire Department
Jennifer Thompson, Corporation Counsel
Thomas Errico, P.E., TY Lin Associates
David Senus, P.E., Woodard and Curran
Rick Blackburn, Assessor's Department
Approval Letter File



PLANNING BOARD REPORT PORTLAND, MAINE

Schlotterbeck and Foss Building
117 Preble Street
Level III Subdivision and Site Plan Review
2015-174
Schlotterbeck Building, LLC, Applicant

Submitted to: Portland Planning Board:
Public Hearing Date: December 15, 2015

Prepared by: Shukria Wiar
Date: December 10, 2015

I. INTRODUCTION

John Anton of Schlotterbeck Block, LLC has submitted a Level III Site Plan and Subdivision application for the proposed redevelopment of the Schlotterbeck and Foss Building at 117 Preble Street. The structure will be converted into a fifty-five (55) unit market-rate apartment building with approximately 1,750 square feet of office space. The building is five and a half stories above ground with six floors of living area. The project is proposing forty-five (45) parking spaces as part of this development. The site is located in the B-7 zone and subject to the B-7 design standards.

The Planning Board held a workshop on this project on November 24, 2015. Overall the Board supported the project. The Board did have a few concerns with the layout of the site. They thought the project was too “suburban” in an urban location. They encouraged changes to make the site pedestrian friendly with more tenants’ amenities, specifically at the corner of Kennebec and Preble Streets. The Board also felt the amount of pavement on site could be decreased. The last issue was the landscaping and the Board felt that the planting could be improved.



The applicant has revised their site plan to meet these concerns. They have submitted a cover letter, dated December 10, 2015 that address the proposed changes. A summary of the changes are:

1. Pedestrian Accessibility:

- Connecting Preble Street and Elm Street with a 5’-wide walkway through the site. A section of the existing fence along Preble Street will be removed to accommodate the walkway.
- Concrete pavers will be used as the connecting walkway’s pavement material.
- Introduction of Granite pillars will function as pedestrian gateways to the walkway from Elm Street and Preble Street.
- Additional landscaping has been added along the walkway.
- Vertical granite curbing has been added at the Elm Street gateway.
- Curbing will provide separation between vehicular and pedestrian circulation.
- A concrete crosswalk has been added where the walkway crosses the drive aisle.

2. Scale of Parking:

- The revised site plan includes the addition of planting islands at both the center parking area and the parking lot along Kennebec Street.
 - Parking has been deleted from the front yard along Preble Street.
 - The revised site plan has 45 parking spaces of which 17 compact spaces.
3. Uplighting: This has been eliminated from the project.



Figure 2 – Rendering from Preble Street with the gate opening in the fence.

This proposal is being reviewed as a final plan and subject to the Site Plan and Subdivision Ordinance of Land Use Code. The project will also be reviewed against the *B-7 Bayside Use Urban District zone* and the *Two-Family, Special Needs Independent Living Units, Multiple-Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards* (Sections (d) and (I), and Appendix 2 of the Design Manual).

Seventy-four (74) notices were sent to area residents within 500 feet of the site and the interested party list. A notice also appeared in the December 7th and 8th editions of the *Portland Press Herald*.

Applicant Name	John Anton of Schlotterbeck Block, LLC
Consultants	
Agent Representative	Michael King of Mitchell & Associates
Engineer	Steve Bradstreet of Random Consulting, Inc.
Surveyor	Owen Haskell, Inc.
Architect	Rick Goduti of Goduti Thomas Architects

Project Review

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	14-526
Subdivision	14-491

Design Manual	B-7 Bayside Use Urban District zone, and (i) Two-Family, Special Needs Independent Living Units, Multiple-Family, Lodging Houses, Bed And Breakfasts, And Emergency Shelters
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Requests for Waivers

Waiver Request	Applicable Standards
<i>Street Tree Requirement – Sec. 14-526 2.b.iii. a</i> The street tree requirement is one tree per unit for a total of 55 trees. There are existing streets trees that the applicant will get credit for (5 trees on Preble Street). The applicant is proposing to plant 15 street trees. The remaining street trees that applicant is requesting a waiver for 35 trees of financial contribution of \$7,000 to the City's Tree Fund. Jeff Tarling, City Arborist supports the waiver.	<i>Sec. 14-526 2.b.iii (b) <u>Waiver</u>.</i> Where the applicant can demonstrate that site constraints prevent the planting of required street trees in the City right of way, the Reviewing Authority may permit the planting of street trees in the front yard, within ten feet of the property line. Existing preserved healthy trees that are six (6) inches or more in caliper and are on the site within ten (10) feet of the property line may be counted towards this requirement.
<i>Parking Lot and Parking Space Design (Technical Design Manual 1.14) -</i> The applicant is requesting a waiver in order to increase the amount of compact parking spaces. The applicant proposes 17 compact (8' x 15') parking spaces, which would comprise 38% of the total parking spaces. Tom Errico, Consulting Engineer, supports the waiver.	<i>Technical Design Standard Section 1.14. Parking Lot and Parking Space Design -</i> Any parking lot with 10 or fewer spaces shall contain standard sized parking spaces. Parking lots with greater than 10 spaces may be comprised of up to 20% compact parking spaces.
<i>Travel Aisle Width- The applicant is requesting to reduce the width of the parking lot travel aisles from 24 feet to 20 feet.</i> Mr. Errico supports the waiver.	<i>Technical Design Standard Section 1.14. Parking Lot and Parking Space Design- Vehicular access shall be provided by one or more aisles. Minimum widths of aisles are illustrated in Figures I-29 (for 90° parking, 24' of aisle width is required).</i>

II. PROJECT DATA

Existing Zoning	B-7
Tax Map	CBL: 33 E001001 and 33 E005001
Existing Use	Industrial
Proposed Use	Residential (Rental Units)
Parcel Size	40,720 SF
Number of Units to be Demolished	None
Bedroom Mix	15 efficiencies 40 one-bedroom
Number of Affordable Units	The proposed units will be market rate.
Residential Data	55 units
Building Footprint	6,800 SF
Building Floor Area	37,345 SF
Impervious Surface Area	27,300 SF
Parking Spaces	45 spaces of which 17 are compact spaces
Bicycle Parking Spaces	24 spaces
Estimated Cost of Project	\$ 5,000,000

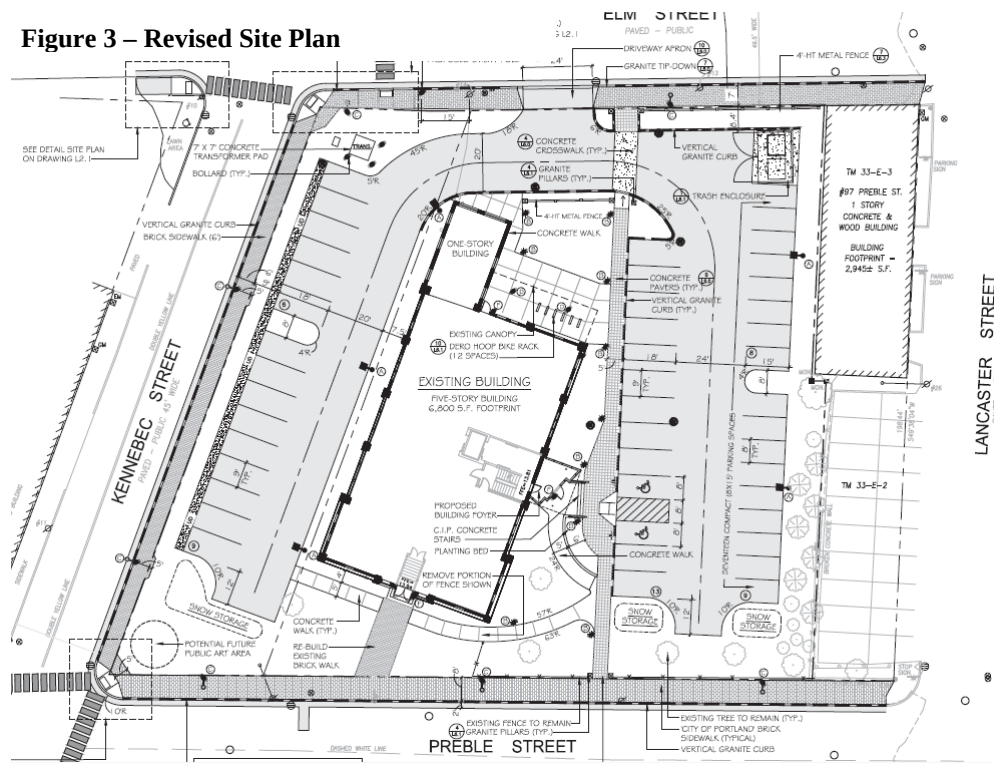
III. EXISTING CONDITIONS

The Schlotterbeck & Foss building was designed by John Calvin Stevens and built in 1925. It was the home of the Schlotterbeck & Foss Company until 2015 for the manufacturing of Schlotterbeck and Foss condiment products. The site includes two lots (Tax Map 33, Block E, Lots 1 and 5) totaling 40,702 square feet. The site contains the 6,800 sq. ft. existing building, a gravel parking lot of about twenty (20) parking spaces and a paved parking lot that accommodates about thirty (30) spaces. The site is surrounded by Preble, Elm and Kennebec Streets. Currently the main entrance to the building is from Preble Street.

IV. PROPOSED DEVELOPMENT

The proposal, including floor plans and elevations, are included in the plan set, Attachment Plans. The development project is proposed as the renovation of an industrial building with office space at the first level. The building is five and a half stories above ground with six floors of living area. The building will be fully renovated including masonry restoration, full window replacement and the installation of new systems.

Figure 3 – Revised Site Plan



The main vehicle access is proposed from Elm Street via a new 24 foot wide drive. Surface parking lots surround the existing building and are proposed along Kennebec Street and Elm Street. Originally the applicant was proposing fifty-five (55) parking spaces. Based upon a revised parking demand analysis, the number is of parking spaces is forty-five (45). Twenty-four bicycle parking spaces proposed on the site. The parking areas are visible from the public

streets. The revised parking plan has eliminated the proposed care share for tenants. Please note the U-haul car share vehicles are available on Elm Street at the Public Library. Designated areas for snow storage are located adjacent to parking spaces.

Figure 4 – Rendering of Corner of Kennebec and Preble Streets



The corner of Kennebec and Preble Streets was discussed at the Planning Board workshop. The applicant has identified the corner of this corner as potential location for public art (see Street View rendering on the left). The applicant states

that the public art at the proposed location has the potential to function serve as a gateway to Bayside.

V. PUBLIC COMMENT

The applicant held two neighborhood meetings; on October 29th and November 2nd. The first meeting was not well attended because the Bayside Transportation Master Plan meeting was held at the same time; the applicant held a second meeting and invited the Bayside Neighborhood Association on November 2nd. The certification of the meeting and minutes has submitted, see Attachment Y.

No public comments have been submitted as of writing this memo.

VI. RIGHT, TITLE AND INTEREST AND FINANCIAL/TECHNICAL CAPACITY

a. The owner of the property is JB Brown. The applicant has provided a copy of a quitclaim deed, recorded at the Cumberland County Registry of Deeds (Book 26354 Page 314), and purchase and sale agreement, which demonstrates their right, title and interest in the property.

b. The estimated cost of the development is \$5,000,000. The applicant has submitted a letter from NBT Bank, dated September 22, 2015, as demonstration of their financial and technical capacity to complete the proposed development.

VII. ZONING ASSESSMENT

A. Surface Parking Lot

The applicant is proposing parking along the Kennebec and Elm Streets that is within the 35 foot parking setback requirement in the B7 zone. The City Council on November 16, 2015 approved a text amendment to the B-7 zone which stipulates that a gravel surface parking lot that does not meet the 35-foot parking setback may be permitted subject to meeting the items in the Section 14-295.a.26. The applicant and staff are working together to have the surface parking lots comply with this standard. Below is the summary of how the application is meeting the standards:

(26) Notwithstanding Sec. 14-295(a)(24) and (25) above, surface parking

that does not meet the 35- foot parking setback, provided that:

a. All or a portion of the 35 foot setback area had a gravel surface on September 29, 2015.

Staff Comments: According to the application, the gravel parking lot has existed as of March 9, 2005 and has been in continuous existence since then.

b. The total gravel surface area on the lot and any contiguous lots did not exceed 15,000 square feet on September 29, 2015.

Staff Comments: The surface parking lot proposed for this project does not exceed 15,000 sq. ft.

c. The parking spaces provide parking to a principle building on the same lot and or a principle building on a contiguous lot.

Staff Comments: The parking lot is to provide parking to a principle building existing on the same site.

d. One of the buildings described in paragraph c above meets the minimum height requirements of the Bayside Height Overlay Map and/or a building on the site has a floor area of 25,000 SF or greater.

Staff Comments: The building is an existing building that will be renovated with proposed floor area of 37,345 sq. ft.

e. The total number of spaces within 35 foot setback in combination with other spaces on the lot does not exceed the minimum parking spaces required in sec. 14-526 (a)(4)(a)(1).

Staff Comments: The applicant is proposing to have forty-five (45) parking spaces onsite. Sec. 14-526 (a)(4)(a)(1) gives the Planning Board the right to establish the parking requirement for the project.

f. The proposed parking spaces meets the landscape and buffer requirements of 14-299(F).

Staff Comments: The planting/landscaping plan shows that the parking lots are well landscaped with a landscaped island and is buffered from the street right-of-way.

g. Parking spaces within the 35 foot setback shall provide stormwater quality treatment if required by the City of Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Standards. If not required, an alternative low impact development treatment system approved by the Planning Board shall be provided.

Staff Comments: David Senus, Consultant Engineer, has reviewed the stormwater and plans against this standards and states the following:

The spaces proposed within the 35' setback are located in an area that is currently gravel. Because the overall project will result in a net reduction of impervious area, treatment under the Maine DEP Chapter 500 Stormwater Management Standards is not required. We would consider the "Stone Infiltration Trench" as depicted in the detail on L6.2 to suffice as an acceptable low impact development treatment system, as this detail includes a loam and sand filter layer. As such we find the project to be in compliance with the General Standards and the City's B-7 zone requirements for water quality treatment.

B. Performance Standards

The B7 zone includes a specific requirement (14-332.2.c) for the submission of a parking analysis and for the Planning Board to establish the parking requirement for the project. The applicant has submitted a parking demand study (Attachment M) which states that the proposed project parking demand is at a ratio of .80 parking spaces per unit. The applicant is proposing forty-five (45) parking spaces for the residential units and the office spaces.

Under external effects, Section 14-299 Performance Standards (b), (f), (n) and (o) apply to this project. Below is how the project is meeting the standards:

Sec. 14-299. Performance standards: All uses in the B-7 mixed development district zone shall comply with the following standards. Standards 14-299(a), (f), (j), (m), (n) and (o) below shall be reviewed by the Planning Authority.

(b) **Noise:** (A List of standards is itemized)

Staff Comments: The maximum noise requirement of 60 decibels at lot boundaries shall be maintained during the "day time" hours. This information will have to be submitted for review and approval for all mechanical equipment being proposed.

(f) **Off-street parking and loading:** Off-street parking is required as provided in division 20 (off-street parking) of this article. Division 21 (off-street loading) of this article shall not apply. Surface parking shall meet the following standards:

1. None of the spaces shall occupy all or a portion of a sidewalk within a street right-of-way.

Staff Comments: The surface parking lots do not occupy any portions of the sidewalks. The lots are setback from the property lines.

2. Driveway entrances shall meet the City of Portland Technical Manual standards.

Staff Comments: The proposed entrance to the site meets City standards.

3. The parking area shall meet the landscape and buffer standards of the City of Portland Technical and Design Manuals.

Staff Comments: The planting/landscaping plan shows that the parking lots are well landscaped with a landscaped island and is buffered from the street right-of-way.

(n) *Lighting:* All lighting shall be designed and installed with cut-off fixtures to direct illumination onto the site and to prevent illumination from such fixtures on neighboring properties and as otherwise governed by the site lighting standards of the City of Portland Technical Manual.

Staff Comments: The photometric plans show no light pollution onto neighboring properties. The majority of the proposed lighting fixtures meet the cut-off standards except for the bollards. The applicant stated in the cover letter that these will be full cutoffs and has submitted a catalogue cut of the fixture. The revised detail to the bollard shows a cover that limits the light to a 90° angle. The staff is recommending approval of the fixtures as proposed.

(o) *Building entrances:* All buildings shall have a minimum of one (1) public pedestrian entrance facing the street frontage of the lot. Such building entrances shall also be reviewed under the B-7 bayside design standards.

Staff Comments: The building has two main entrances for the public. One of the entrances is on Preble Street and one is to the side of the building off of Preble Street. The entrances are highly visible from the street right-of-way.

VIII. DEVELOPMENT REVIEW

A. SITE PLAN SUBMISSION REQUIREMENTS (Section 14-527) and SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (Section 14-496)

The applicant has submitted a recording plat. The plat will need to note the number of proposed units and associated parking on site. The final plat will need to be revised to reflect any waivers and conditions of approval that relate to the subdivision plan. Any waivers granted must be recorded at the Registry of Deeds within 90 days of a Planning Board decision. Accordingly, review and approval of the final plat has been included as a condition of approval.

It should be noted that the plat depicts sidewalk areas on private property that will be contiguous with the right-of-way. It is assumed that these will be subject to public pedestrian easements and this agreement has been included as a condition of approval.

B. SUBDIVISION (Section 14-497)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's Subdivision Ordinance and applicable regulations. Staff comments are listed below.

1. *Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)*

David Senus, P.E. with Woodard and Curran Engineering, has reviewed the erosion and sediment control plan and finds it acceptable; please see Attachment 3 for the complete analysis.

2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

The project will be served by the existing utility services located in Preble Street. The applicant will be upgrading the 2-inch domestic water service to a 4-inch domestic water service as part of this project. The Applicant has received an ability to serve letter from the Portland Water District.

3. Will Not Cause Unreasonable Traffic Congestion (Section 14-497 (a) 5)

The site is surrounded by Preble, Elm and Kennebec Streets. The vehicle entrance to the site will be off of the existing curb cut on Elm Street. The applicant has submitted a Traffic Assessment for the project with the following three conclusions:

1. The proposed development is forecast to generate 4 trip ends and 9 trip ends during the weekday AM and PM peak hours respectively. This level of trip generation does not require a MaineDOT traffic movement permit. Since the proposed net trip generation is forecast to be low, and the Somerset Street Expansion project will change traffic patterns on the adjacent roadway network, capacity and queuing analysis were not necessary.
2. The sight distance exiting the site exceeds both MaineDOT and City requirements.
3. The MaineDOT crash data indicates that there are two high crash locations in the vicinity of the site; the intersection of Elm Street with Lancaster Street and the intersection of Kennebec Street with Preble Street. The Somerset Street Extension project will modify the intersection of Kennebec Street and Preble Street.

Tom Errico, Consultant Traffic Engineer, has reviewed the report and states that he concurs with the contents of the report.

4. Will Provide for Adequate Sanitary Sewer and Stormwater Disposal (Section 14-497 (a) 6), and Will Not Cause an Unreasonable Burden on Municipal Solid Waste and Sewage (Section 14-497 (a) 7)

An existing 6-inch sanitary sewer line connects the existing building to the 15-inch combined sewer in Elm Street. The applicant has received a wastewater capacity letter from David Margolis-Pineo, Deputy Engineer.

5. Scenic Beauty, Natural, Historic, Habitat and other Resources (Section 14-497 (a) 8)

The site is not within an historic district but the building is a historic building constructed in 1927, designed by John Calvin Stevens. The applicant is in the process of obtaining state and federal historic rehabilitation tax credits. According to the Applicant, Schlotterbeck Block LLC has received the first part of the approval for the building from the National Park Service (NPS). This approval means that the NPS has determined that the property appears to meet the National Register Criteria for Evaluation and will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer. The second step is approval of the proposed renovations and the eligibility for state and federal historic rehabilitation tax credits. Ultimately, this building could be a designated historic local landmark.

It is in an urban neighborhood surrounded by a variety of residential building types and business. The proposed building does not impact the natural beauty of the area or adversely affect any significant wildlife habitat, rare or irreplaceable natural areas, or any public access to the shoreline. The staff finds the proposal in conformance with this standard.

6. Comprehensive Plan (Section 14-497 (a) 9)

The applicant has submitted their analysis of the projects conformance with the Comprehensive Plan (refer to Attachment K). The staff has identified the following goals and policies which are relevant to the proposed housing development and finds the proposal in conformance with the Comprehensive Plan:

Portland Housing Goal: Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

Policies

- Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied, including but not limited to the following:
 - ii. Housing units for decreasing household size, such as young professionals, empty nesters, single-parent households, and senior citizens.
- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation.
- Increase Portland's rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.
- Identify vacant land and redevelopment opportunities throughout the City to facilitate the construction of new housing.

Portland Housing Goal: Maintain and enhance the livability of Portland's neighborhoods as the City grows and evolves through careful land use regulations, design and public participation that respect neighborhood integrity.

Policies

- Encourage innovative new housing development, which is designed to be compatible with the scale, character, and traditional development patterns of each individual residential neighborhood.
- Encourage new housing development in proximity to neighborhood assets such as open space, schools, community services and public transportation.
- Ensure the integrity and economic value of Portland's neighborhoods.

7. Financial Capability (Section 14-497 (a) 10)

The estimated cost of the development is \$5,000,000. The applicant has submitted a letter from NBT Bank, dated September 22, 2015, as demonstration of their financial and technical capacity to complete the proposed development.

C. SITE PLAN STANDARDS (Section 14-526)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations. Staff comments are listed below.

1. Transportation Standards

- a. Impact on Surrounding Street Systems and Access and Circulation- see Subdivision, Paragraph VIII (B) (3), above.

b. Construction Management Plan

A construction management plan has been submitted by the applicant for review. Department of Public Works has reviewed it and finds it acceptable.

c. Sidewalks and Ramps

Currently there is no sidewalk on the Kennebec Street side of the site. There are sidewalks on Elm and Preble Streets but the sidewalks are not in good condition and range in materials (from concrete to brick). The applicant is proposing to install new brick sidewalk along the frontages on all three streets. This site is in the brick district. Portions of the public sidewalk cross onto private property. The City will need to work with the applicant to obtain public access easement where the sidewalks cross onto private property, which will need to be accepted by the City Council.

The handicapped ramps need to be fully ADA complaint and upgrades of the ramps at the Kennebec Street intersections with Elm Street and Preble Street are needed. Mr. Errico has reviewed proposal and states:

I have coordinated with Bruce Hyman on the ramp design and we generally find the layout of the ramps to be acceptable. I would note that the details for design of the ramps needs further review and possible adjustment and the applicant shall coordinate with DPW and Planning on revising the engineering design of the ramps. The ramp at the Preble Street/Alder Street corner is a unique geometric condition and additional review of the ramp location is required (a separate ramp on Preble Street may be required).

d. Public Transit Access

The site is situated on the METRO Route 8, the Peninsula Loop, as well as being a short distance from Oxford Street where Routes 2, 4, and 5 operate.

e. Parking

Off-Street/ Onsite Parking

The project will have forty-five (45) parking spaces of which seventeen will be compact spaces. The parking is laid out surrounding the building along Kennebec and Elm Street. The main entrance to the site is from Elm Street. The B-7 zone includes a particular requirement (14-332.1.i) that all projects regardless of size shall abide to Section 14-332.2.c for the submission of a parking analysis and for the Planning Board to establish the parking requirement for each project.

Sec. 14-332.1. Zone specific off-street parking exceptions and modifications. The off-street parking requirements established for uses, established above in section 14-332 of this

division, are hereby modified for the following zones according to the provisions described below.

(i) B-7, Mixed Development District Zone: Off-street parking for all projects regardless of size, shall be governed by 14-332.2(c) of this article.

Sec. 14-332.2. Categorical exceptions and modifications to offstreet parking requirements. Regardless of which zone a project of use is located, the following exceptions to the off-street parking requirements listed above in section 14-332 are additionally hereby established.

(c) Site plans over 50,000 square feet and projects in the B-6, B-7, and USM Overlay Zones: Where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer.

Section 14-332.1 (k) – For residential development on the peninsula the parking requirement is one space per dwelling unit. This same section also states that:

The planning board may establish a parking requirement that is less than the normally required number of spaces upon a finding of unique conditions that result in a lesser parking demand, such as housing for persons who cannot drive, housing that participates in a travel demand management program, availability of transit, or housing which includes permanent restrictions on automobile usage, and which is permanently restricted from utilizing resident on-street parking stickers.

The applicant has submitted a parking demand study and states the project will require approximately 45 parking spaces, 40 for the residential units and 5 for the offices, or a ratio of 0.73. The applicant is requesting that the Board make a finding that the reduced number of spaces for the site is acceptable. With the proposed reduction of the parking requirement, the site plan has been revised to have parking stalls that meet dimensional standards and the number of the compact spaces has been reduced. The site plan now also shows two landscaped islands in the parking areas.

Following is the breakdown of the parking that is required by zoning versus the reduced ratio that the applicant is requesting:

	1:1 Ratio	.73 :1 Ratio (As requested by Applicant)
Parking spaces as required per zoning	Office Space - 5	Office Space - 5
	Residential Units - 55	Residential Units - 40
Total of Spaces Required	60	45

Mr. Errico has reviewed the parking demand analysis and concludes the following:

The applicant has provided a parking demand analysis that concludes that the project will be providing 5 parking spaces for the office use and 40 parking spaces for 55 apartment units or a 0.73 parking ratio per unit. Given project characteristics, site location, and use of the office parking spaces during non-business hours (shared parking), I find the parking supply to be acceptable.

On-Street Parking

As part of the development, the on-street parking schedule will change. On-street parking regulations will need to be reviewed and changes will require City Council approval. The applicant will need to provide supporting information and/or plans for inclusion in the City Council packet for the changes to the on-street parking regulations.

Compact Parking Spaces

Originally the application was calling for thirty-eight (38) compact spaces on the site, or at 76% of the total number of spaces. Mr. Errico expressed concerns about this high ratio of compact spaces. With the revised parking demand analysis, the applicant proposes seventeen (17) of the parking spaces to be compact spaces (8' x 15'), which is 38% of the total. The site plan has been revised so the row of parking along Kennebec Street has been converted to standard parking spaces (9' x 18') with an aisle width of 20 feet (standard requirement is 24 feet). The Technical Manual Section 1.14 state "Any parking lot with 10 or fewer spaces shall contain standard sized parking spaces. Parking lots with greater than 10 spaces may be comprised of up to 20% compact parking spaces". The applicant states in their cover letter, "All the proposed residential rental units are either efficiency units or one-bedroom units. Renters of such units generally utilize smaller cars. We believe the proposed high percentage of compact parking spaces will be compatible with the user's of the building".

The applicant has requested waivers for aisle width and compact spaces. Mr. Errico has reviewed the revised site plan and he supports the waivers, Attachment 1.

f. Bicycle Parking

The proposals include 24 bicycle parking spaces on the site, which meets the ordinance standard of 2 bicycle spaces per 5 vehicle spaces. The TDM coordinator will monitor the bicycle rack use to identify if additional bike racks are warranted.

2. *Environmental Quality Standards*

a. Preservation of Significant Natural Features

There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation

There are existing street trees that the applicant will be saving along Preble and Kennebec Streets (six on Preble Street and six on Kennebec Street). As part of the landscaping plan, the applicant is proposing to add more street trees on the site. Landscaping is being proposed along the edges of the parking lots. The zoning standards and B-7 zone design standards specifically states that surface parking lots will need to be screened from public streets, which the project is meeting.

Street Trees Requirement

As part of the project, there will be 55 units being proposed. Based on this number, the applicant is required to have 55 street trees. Since there are five existing streets on site that will be kept as part of the landscaping plan, the applicant can get a credit for the amount. The applicant will be installing fifteen (15) street trees along all three streets. Therefore the applicant is seeking the waiver and will contribute to the City's Tree Fund for the thirty-five (35) trees.

c. Water Quality, Storm Water Management and Erosion Control

The site is about 75% impervious. Currently the existing gravel parking lot sheet flows to both Kennebec Street and Elm Street. The stormwater is captured using existing catch basins and channeled into the existing 15-inch combined sewer on Elm Street. The stormwater from the existing roof is channeled to the Elm Street combined sewer as well. The proposed site improvements will remove 2,770 sq. ft. of impervious area.

The eastern parking lot will utilize catch basins and storm pipes to collect stormwater, whereas the western parking lot is intended to sheet flow toward a filter strip that has an underdrain connected to a proposed catchbasin. This catchbasin will tie into an existing catch basin on Kennebec Street. The roof runoff from the existing building will collect internally and be directed toward the east parking lot system.

Under Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. David Senus, P.E. with Woodard and Curran Engineering, has reviewed the drainage plan and stormwater report. Since there will be reduction in impervious area on site, the project is not required to include any specific stormwater management features for stormwater quality control. However, per the recently passed amendment to *Chapter 14. Land Use, Article III. Zoning, Sections 14-182, 14-295 and 14-296 Re: Commercial Kitchens and Small Gravel Lots*, "Parking spaces within the 35 foot setback shall provide stormwater quality treatment if required by the City of Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Standards. If not required, an alternative low impact development treatment system approved by the Planning Board shall be provided", the applicant is proposing "Stone Infiltration Trench" and the City accepts this as a low impact development treatment system. Mr. Senus recommends that "a barrier or visual indicator (i.e. – curb stop or post) at the edge of pavement or reinforcing layer on the filter should be included to avoid vehicle tires from sinking into the swale/filter if cars are driven beyond the edge of pavement".

3. Public Infrastructure and Community Safety Standards***a. Consistency with Master Plans***

See Subdivision, Paragraph VIII (B)6 above.

b. Public Safety and Fire Prevention

The Crime Prevention through Environmental Design (CPTED) standards in the site plan ordinance address the principles of natural surveillance, access control and territorial

reinforcement so that the design of developments enhance the security of public and private spaces and reduce the potential for crime.

The applicant has introduced bollard lights along the walkways of each unit. Overhead lighting is being provided for the area by the entrance and parking spaces. The applicant is also proposing street lighting on all three streets. The revised detail to the bollard shows a cover that limits the light to a 90° angle. The staff is recommending approval of the fixtures as proposed.

c. Availability and Adequate Capacity of Public Utilities

The project will be served by the existing utility services located in Preble Street. The Applicant has received capacity letters from both the Portland Water District and the City Department of Public Services.

4. *Site Design Standards*

a. Snow and Ice Loading

The applicant is proposing on-site snow storage. There are three areas for storage on either side of the parking areas, see Site Plan (Attachment Plan 6).

b. View Corridors

This site is not within a Protected View Corridor as per the “View Corridor Protection Plan” approved by the Portland City Council in 2001.

c. Historic Resources

The site is not in any historic district; therefore the project does not have to be reviewed by Historic Preservation. Please refer to Paragraph VIII (B) (5), above.

d. Exterior Lighting

A lighting and photometric plan has been submitted. The proposal has noted bollard lighting at the walkways to the building (Plan 14 and 15). Refer to Paragraph VIII (C)3(b), above.

e. Noise and Vibration

All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment will have to be shown on the plans and meet state and federal emissions requirements. These mechanical equipment should be located to the interior of the site, away from abutting properties and be screened from view from any public street and from adjacent sites by structure walls, evergreen landscaping, fencing, masonry wall or a combination thereof. The B-7 Design Standards have very specific requirements in regard to the mechanical equipment. This information will have to be submitted for review.

f. Signage and Wayfinding

This standard does not apply to the proposal.

g. Zoning Related Design Standards

A design review according to the *City of Portland Design Manual* Standards was performed for the revised proposal for redevelopment at 117 Preble Street. The plans were reviewed by Caitlin

Cameron, Urban Designer, Shukria Wiar, Planner, and Deb Andrews, Historic Preservation Program Manager of the Department of Planning & Urban Development. The project was reviewed against the B-7 *Mixed Use Urban District Zone Design Principles & Standards* (Appendix 4 of the Design Manual). Many of the standards do not apply because the project is adaptive reuse of an existing building. In seeking historic tax credits, the project must also meet the Secretary of Interior Standards for Rehabilitation which will be the guiding standards for alterations to the existing building. Overall, the project is meeting design standards but some of the outstanding issues are:

- If the bike racks are not visible from the street the standard regarding directional signage must be met. Bike racks are not located within proximity of the office entry.
- Landscape screening should be of sufficient type and height to effectively screen surface parking year round. Trees are kept on Preble Street to screen parking and new trees are proposed on Kennebec.
- The trash storage location as shown does not meet the standard because of its proximity to the street – the site has three street frontages and so is challenged to find a location that can meet the letter of the standard. Some landscape screening and a fence are provided to mitigate this element.

Ms. Cameron's full comments are included as Attachment 4.

IX. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed Schlotterbeck Building redevelopment project at 117 Preble Street.

X. 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 December 15, 2015 for application 2015-174 relevant to Portland's technical and design standards and other regulations; and the testimony presented at the planning board hearing:

The Planning Board **finds/does not find**, based upon the consulting transportation engineer's review (*Attachment 1*), that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (*Section 1.14*) which requires that aisle width for right-angle parking be 24 feet per *Figure I-27* that the variation is consistent with the intent of the ordinance. The planning board **waives/does not waive** the *Technical Manual* standard (*Section 1.14*) to allow a 20 foot wide aisle in the parking area;

The Planning Board **finds/does not find**, based upon the consulting transportation engineer's review (*Attachment 1*), that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (*Section 1.14 and Figures I-27 to I-29*) limiting compact spaces to 20% of total parking supply that the variation is consistent with the intent of the ordinance. The Planning Board **waives/does not waive** the *Technical Manual* standard (*Section 1.14 and Figures I-27 to I-29*) to allow 38% compact spaces; and

The Planning Board **finds/does not find** that the applicant has demonstrated that site constraints prevent the planting of all required street trees in the right-of-way. The Planning Board **waives/does not waive** the site plan standard (*Section 14-526 (b) (iii)*) requiring one street tree per unit for multi-family development and concludes that the applicant shall contribute \$7,000 for 35 street trees to Portland's tree fund.

B. SUBDIVISION

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 December 15, 2015 for application 2015-174 relevant to the subdivision regulations; and the testimony presented at the Planning Board hearing, the planning board finds that the plan **is/is not** in conformance with the subdivision standards of the land use code, subject to the following conditions of approval, which must be met prior to the signing of the plat:

1. The applicant shall finalize the subdivision plat for review and approval by Corporation Counsel, the Department of Public Services, and the Planning Authority; and
2. The applicant shall provide a pedestrian access easement for the portions of sidewalk that do not lie within the right-of-way for adoption by the City Council.

C. DEVELOPMENT 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 December 10, 2015 for application 2015-174 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not** in conformance with the site plan standards of the land use code, subject to the following conditions of approval that must be met prior to the issuance of a building permit, unless otherwise stated:

1. The applicant shall address the Urban Designer memorandum, dated 12.10.2015, specifically the following recommendations:
 - a. If the bike racks are not visible from the street the standard regarding directional signage must be met. Bike racks are not located within proximity of the office entry.
 - b. Landscape screening should be of sufficient type and height to effectively screen surface parking year round. Trees are kept on Preble Street to screen parking and new trees are proposed on Kennebec.
 - c. The trash storage location as shown does not meet the standard because of its proximity to the street – the site has three street frontages and so is challenged to find a location that can meet the letter of the standard. Some landscape screening and a fence are provided to mitigate this element.
2. A barrier or visual indicator (i.e. – curb stop or post) at the edge of pavement or reinforcing layer on the filter shall be included to avoid vehicle tires from sinking into the swale/filter if cars are driven beyond the edge of pavement.
3. The details for the design engineering of the ramps shall be further reviewed by City staff and any possible adjustment shall be coordinated with Department of Public Works and the

Planning Division. The applicant shall also provide a detail for Sidewalk Ramp Detectable Warning Panels in accordance with Figure I-7 of the City of Portland Technical Manual.

4. The applicant shall provide supporting information and/or plans for inclusion in the City Council packet for the changes to the on-street parking regulations, prior to the issuance of a certificate of occupancy.
5. The developer/contractor/subcontractor must comply with conditions of the construction stormwater management plan and sediment and erosion control plan based on City standards and state guidelines. The owner/operator of the approved stormwater management system and all assigns shall comply with the conditions of Chapter 32 Stormwater including Article III, 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 with any changes to be approved by Corporation Counsel, shall be submitted, signed, and recorded prior to the issuance of a building permit with a copy to the Department of Public Services.
6. That all HVAC systems and external mechanical equipment shall meet the maximum allowable noise requirements of the zone; each unit shall submit documentation of dBA output to confirm compliance of both the unit and the building in respect of rated noise levels and cumulative noise levels, to the satisfaction of the Zoning Administrator prior to the issuance of a Building Permit for that unit.

ATTACHMENTS:

Staff Review Comments and Background Information

1. Traffic Engineering Review (Tom Errico, T Y Lin), dated 12.11.2015
2. Department of Public Works Review, David Margolis-Pineo, dated 12.09.2015
3. Civic Engineer Review, David Senus, dated 12.10.2015
4. Urban Designer Review, Caitlin Cameron, dated 12.10.2015
5. City Arborist Review, Jeff Tarling, dated 11.04.2015

Applicant's Submittal

- A. Cover Letter dated 10.05.2015
- B. Application
- C. Right, Title or Interest
- D. Project Description
- E. Tax Map
- F. Existing Soils Condition
- G. Public Utilities
- H. Technical Capability, Financial Capability and Letter of Authorization
- I. Compliance with Applicable Zoning
- J. Waiver Request
- K. Consistency with City's Master Plan and Conformity with Design Standards
- L. Fire Department Checklist and HVAC Emissions Requirements
- M. Traffic and Parking Study

- N. Stormwater Management Plan
- O. Solid Waste Disposal and Snow Removal
- P. Light Fixtures
- Q. Construction Management Plan
- R. Easements
- S. Cover Letter dated 10.26.2015
- T. PWD Capacity Letter dated 10.15.2015
- U. DPS Capacity Letter dated 10.23.2015
- V. Response Letter dated 11.16.2015

Submittal after Workshop

- W. Applicant Cover Letter 2015-10-12
- X. Cover Letter Response to Comments dated 12.01.2015
- Y. Meeting Certification 11-20-2015
- Z. B7 Review 2015-20-11 Ltrhd
- AA. Transportation Demand Management- Revised
- BB. Parking Memo 12-10-15

Plans

- Plan1 Cover Sheet
- Plan2 1 SBS survey 10-5-2015
- Plan3 1 of 1 Sub.
- Plan4 L1.0 Ex.Cond.
- Plan5 L1.1 Con.Man.
- Plan6 L2.0 Layout.re.12-10-2015
- Plan7 L2.1 Ramps
- Plan8 L3.0 Grading
- Plan9 L4.0 ESC
- Plan10 L5.0 Planting
- Plan11 L6.0 Details
- Plan12 L6.1 Details
- Plan13 L6.2 Details
- Plan14 L6.3 Details
- Plan15 L7.0.Photometrics 10-23-15
- Plan16 L7.1 Photometrics 10-23-15 STREET LTG OFF
- Plan17 A1.1
- Plan18 A1.2
- Plan19 A1.3
- Plan20 A1.4
- Plan21 A2.1
- Plan22 A2.2
- Plan23 A2.3
- Plan24 A2.4
- Plan25 Renderings



Shukria Wiar <shukriaw@portlandmaine.gov>

Schlotterbeck 117 Preble Street - Amended Plan for One additional Residential Unit

1 message

Tom Errico <thomas.errico@tylin.com>

Thu, Apr 21, 2016 at 10:55 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: David Margolis-Pineo <dmp@portlandmaine.gov>, Katherine Earley <KAS@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>

Hi Shukria – I have reviewed the application materials and I find the project to be acceptable from a traffic perspective with the following comments.

- The applicant has provided an updated parking analysis with the one additional residential unit. I find the conclusions to be reasonable given the likelihood that the tenant may not have a vehicle based on the small size of the unit.
- I find the changes to bicycle parking to be acceptable.
- The applicant has provided a detail for the sidewalk ramps at the corner of Preble Street and Kennebec Street. The general configuration is acceptable. Some adjustments are suggested for consideration including 7-foot tip-down curbs at the Preble Street ramps. The City generally prefers a minimum 4-foot separation between ramps. I need to coordinate with DPW on this detail. The plan seems to indicate a low curb reveal between ramps that doesn't meet City standards. I would suggest that a condition of approval be required that notes final ramp details to be provided for review and approval prior to construction.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

TYLIN INTERNATIONAL T.Y. Lin International

12 Northbrook Drive

Falmouth, ME 04105

[207.781.4721](tel:207.781.4721) (main)

[207.347.4354](tel:207.347.4354) (direct)

[207.400.0719](tel:207.400.0719) (mobile)

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"One Vision, One Company"

Please consider the environment before printing.



Shukria Wiar <shukriaw@portlandmaine.gov>

Schlotterbeck Building Amendment (2016-078)

Michael Farmer <mfarmer@portlandmaine.gov>
To: Shukria Wiar <shukriaw@portlandmaine.gov>
Cc: "Zazzara, Rhonda" <rjz@portlandmaine.gov>

Thu, Apr 14, 2016 at 2:33 PM

Shukria:

The proposed new 6" sanitary sewer connection to the sewer main in Elm Street is OK. However, the connection should be made with an *INSERTA TEE*, (not a saddle Y attached with stainless steel bands), provided that the 15-inch sewer main is structurally sound. If the City inspector finds that the existing sewer main is not structurally sound, he or she may request that a new, replacement section of the existing main be installed with a factory manufactured T or Y fitting.

[Quoted text hidden]

—
Michael Farmer, Project Engineer
Dept. of Public Services
55 Portland Street
Portland, ME 04101
phone: 207-874-8845

April 5, 2016

Ms. Shukria Wiar, Planner
and Planning Board Members
Planning and Urban Development
City of Portland
389 Congress Street
Portland, ME 04101

**RE: Amended Subdivision Plan & Level III Site Plan Application
Schlotterbeck Block – 117 Preble Street**

Dear Shukria and Planning Board Members:

On behalf of Schlotterbeck Block LLC, we are pleased to submit the following Amended Site Plan and Subdivision Application for the proposed redevelopment of the Schlotterbeck & Foss building at 117 Preble Street. Schlotterbeck Block LLC is requesting to construct one (1) additional studio apartment unit in the basement of the existing building. Also, since Planning Board approval on December 15, 2015, site excavation and exploration activities have taken place . Several utility connections need to be modified in response to the sub-surface findings. These modifications are further defined below.

Subdivision and Site Plan Modifications

1. Additional Unit: At its December 15, 2015 meeting, the Planning Board approved Schlotterbeck Block LLC's Subdivision Application, which included the development of 55 units at the former Schlotterbeck & Foss building at 117 Preble Street. The applicant now proposes an additional unit in the building's basement, resulting in a total of 56 units and 1,750 s.f. of office space.



The attached Amended Subdivision Plan and Basement Floor Plan A1.1 have been revised accordingly.

2. Vehicular Parking: Attached Exhibit A is a revised Parking Demands memo, prepared by Gorrill Palmer, dated March 24, 2016. The memo states the 45 vehicular parking spaces and 25 bicycle parking spaces are adequate for the proposed 56-unit project. The December 2015 vehicular parking layout has the capacity to serve the additional unit and is not revised or modified as part of this resubmission.
3. Additional Bike Racks: The additional unit eliminates the bike storage room in the basement. As a result, fourteen (14) exterior new bike parking space need to be located on the site. The attached revised L2.0 show an additional bike hitch under the canopy and six (6) additional bike racks on a concrete pad located near the building entrance. With these revisions, thirteen (13) bike loops are provided and 26 bike parking spaces will be provided.
4. Additional Sidewalk Ramp and Pedestrian Easement: The City's staff has requested an additional sidewalk ramp at the intersection of Preble and Kennebec Streets, as part of the December 2015 conditions of approval. The new ramp will require pedestrian easement on the applicant's lot. The attached Amended Subdivision Plan and sheet L2.0 show the new sidewalk ramp and the pedestrian easement. Also, attached Exhibit B also shows the detailed layout and grading the new sidewalk ramp.
5. 6-inch Fire Water Line: Attached revised L3.0 adds a new six-inch fire suppression water line from Preble Street to the building's fire suppression system. The applicant had planned to continue using the existing 6-inch fire suppression line, but existing 6-inch line is in poor condition.
6. Roof Drain Connection: Attached revised L3.0 shows a new 6" HDPE roof drain connecting to catch basin #5. The existing roof drain pipe is in poor condition and needs to be replaced.
7. Sanitary Sewer Line: Excavation exploration revealed the existing 6-inch cast iron sanitary sewer line is in poor condition. The applicant proposes to replace the existing sewer line with a new PVC sewer in approximately the same location and wye connect the 15-inch combined sewer on Elm Street.

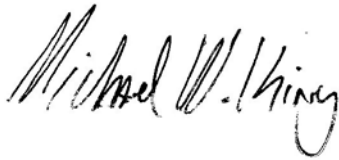
Submission

This submission includes the following information:

1. Cover letter, dated April 5, 2016;
2. Amended Site Plan and Subdivision Application & Checklist;
3. Exhibit A -- Parking Demands Memo, dated March 24, 2016;
4. Exhibit B – Preble Street Sidewalk Ramp;
5. Application Fee: \$525.00;
6. One set of site plans (24" x 36");
7. One set of site plans (11"x 17"); and
8. One set of digital files.

We trust that the Planning Board will consider this a complete application for the board's meeting scheduled for April 26, 2016. If you desire any additional information, please do not hesitate to contact us. We look forward to our meeting with the Board at its earliest convenience.

Sincerely,
Mitchell & Associates

A handwritten signature in black ink, reading "Michael W. King". The signature is written in a cursive, flowing style.

Michael W. King
Maine Licensed Landscape Architect

cc: John Anton, Schlotterbeck Block LLC
Rick Goduti, Goduti-Thomas Architects

PROJECT NAME: The Schlotterbeck Block

PROPOSED DEVELOPMENT ADDRESS:

117 Preble Street

PROJECT DESCRIPTION:

Applicant received Planning Board Subdivision and Level III Site Plan approval in December 2015 for 55 apartment units and 1,750 s.f. office space. Applicant seeks to add a residential unit (revised total of 56 units) and proposes site plan revisions based on requisite conditions of approval and upgrades to site utilities.

CHART/BLOCK/LOT: 033 E001001
033 E005001

PRELIMINARY PLAN _____ (date)
FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: John Anton Business Name, if applicable: Schlotterbeck Block, LLC Address: 77 Spruce St City/State : Portland, ME Zip Code: 04102	Applicant Contact Information Work # _____ Home# _____ Cell # _____ Fax# _____ 207 650-8979 e-mail: antonatlarge@gmail.com
Owner – (if different from Applicant) Name: same Address: _____ City/State : _____ Zip Code: _____	Owner Contact Information Work # same Home# _____ Cell # _____ Fax# _____ e-mail: _____
Agent/ Representative Name: Michael King Mitchell & Associates Address: 70 Center Street City/State : Portland, ME Zip Code: 04101	Agent/Representative Contact information Work # (207) 774-4427 Cell # _____ e-mail: mking@mitchellassociates.biz
Billing Information Name: John Anton Schlotterbeck Block, LLC Address: 77 Spruce St Portland, ME 04102 City/State : _____ Zip Code: _____	Billing Information Work # _____ Cell # _____ Fax# _____ 207 650-8979 e-mail: antonatlarge@gmail.com

Engineer Name: Ransom Consulting Steve Bradstreet, P.E. Address: 400 Commercial Street City/State: Portland, ME Zip Code: 04101	Engineer Contact Information Work # (207) 772-2891 Cell # Fax# e-mail: steven.bradstreet@ransomenv.com
Surveyor Name: Owen Haskell, Inc. Address: 390 US Route 1, Unit 10 City/State: Falmouth, ME Zip Code: 04105	Surveyor Contact Information Work # (207) 774-0424 Cell # Fax# e-mail:
Architect Name: Rick Goduti Goduti Thomas Architects Address: 44 Oak Street City/State: Portland, ME Zip Code: 04101	Architect Contact Information Work # (207) 775-3184 Cell # Fax# e-mail: gtarick@gmail.com
Attorney Name: Cito Selinger Curtis Thaxter Address: One Canal Plaza, #1000 City/State: Portland, ME Zip Code: 04101	Attorney Contact Information Work # (207) 774-9000 Cell # Fax# e-mail: mselinger@curtisthaxter.com

APPLICATION FEES:

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

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

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

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

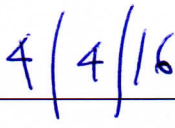
1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c), including evidence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

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

APPLICANT SIGNATURE:

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

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

Signature of Applicant: 	Date: 
--	---

PROJECT DATA

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

Total Area of Site	40,720 sq. ft.
Proposed Total Disturbed Area of the Site	26,500 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.	
Impervious Surface Area	
Impervious Area (Total Existing)	30,070 sq. ft.
Impervious Area (Total Proposed)	27,300 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	6,800 sq. ft.
Building Footprint (Total Proposed)	6,800 sq. ft.
Building Floor Area (Total Existing)	37,345 sq. ft.
Building Floor Area (Total Proposed)	37,345 sq. ft.
Zoning	
Existing	B-7
Proposed, if applicable	
Land Use	
Existing	Industrial
Proposed	Residential
Residential, If applicable	
# of Residential Units (Total Existing)	N/A
# of Residential Units (Total Proposed)	56
# of Lots (Total Proposed)	2
# of Affordable Housing Units (Total Proposed)	N/A
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	16
# of One-Bedroom Units (Total Proposed)	40
# of Two-Bedroom Units (Total Proposed)	0
# of Three-Bedroom Units (Total Proposed)	0
Parking Spaces	
# of Parking Spaces (Total Existing)	50 +/-
# of Parking Spaces (Total Proposed)	45
# of Handicapped Spaces (Total Proposed)	2
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	25
Estimated Cost of Project	\$5,000,000

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

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

- Continued on next page -

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

**Parking Demands
Schlotterbeck & Foss Building
Portland, Maine
March 24, 2016
JN 3027**

Introduction:

Gorrill Palmer (GP) has evaluated the potential parking demand for the proposed redevelopment of the Schlotterbeck & Foss Building located in Portland, Maine. The site is located in the B-7 Mixed Development District Zone. The proposed building will have 1,750 square feet of office space and 56 market rate residential units with unbundled parking.

The proposed facility is located on an existing lot with City streets along each of the borders. The facility itself is the redevelopment of an existing building and not new construction. As such, accommodating the needs for off-street parking and the other requirements of the site is a balancing act.

After discussions with City Staff, the on-site parking has been maximized while balancing the other needs of the project. Once the maximum on-site parking was determined, GP could then make a determination as to if that parking is sufficient, or if other avenues for parking accommodations needed to be pursued. The following is a summary of the parking evaluation.

Vehicular Parking Evaluation:

Based on maximizing the use of the site and balancing green space, drainage needs, snow storage, pedestrian accommodations, and on-site parking, the number of on-site spaces is a total of 45, with 17 of those compact spaces.

Based on the City ordinance, the proposed 1,750 square foot office space would require 1 space per 400 square feet, which results in a required 5 parking spaces. This leaves 40 parking spaces to accommodate the 56 apartments.

Using the 40 parking spaces for 56 apartments yields a parking ratio of 0.71. The general parking requirement for the City for a market rate apartment is 1 space per unit. Based on discussions with the applicant for the West End project (also Market Rate), which has been constructed and is occupied, their actual parking rate is approximately 0.79. Based on our previous experience, other apartment buildings in downtown range from approximately 0.50 to 1.0, with previous usage of 0.70. It should be noted that the proposed apartments are referred to as micro-apartments because they generally do not exceed 500 square feet in size. We anticipate this type of tenant is more likely to use other forms of transportation such as bicycle, walking, taxi, UShare, or METRO.

Based on this analysis, it is our opinion that the parking ratio of 0.71 is appropriate for the proposed apartments in a downtown location.



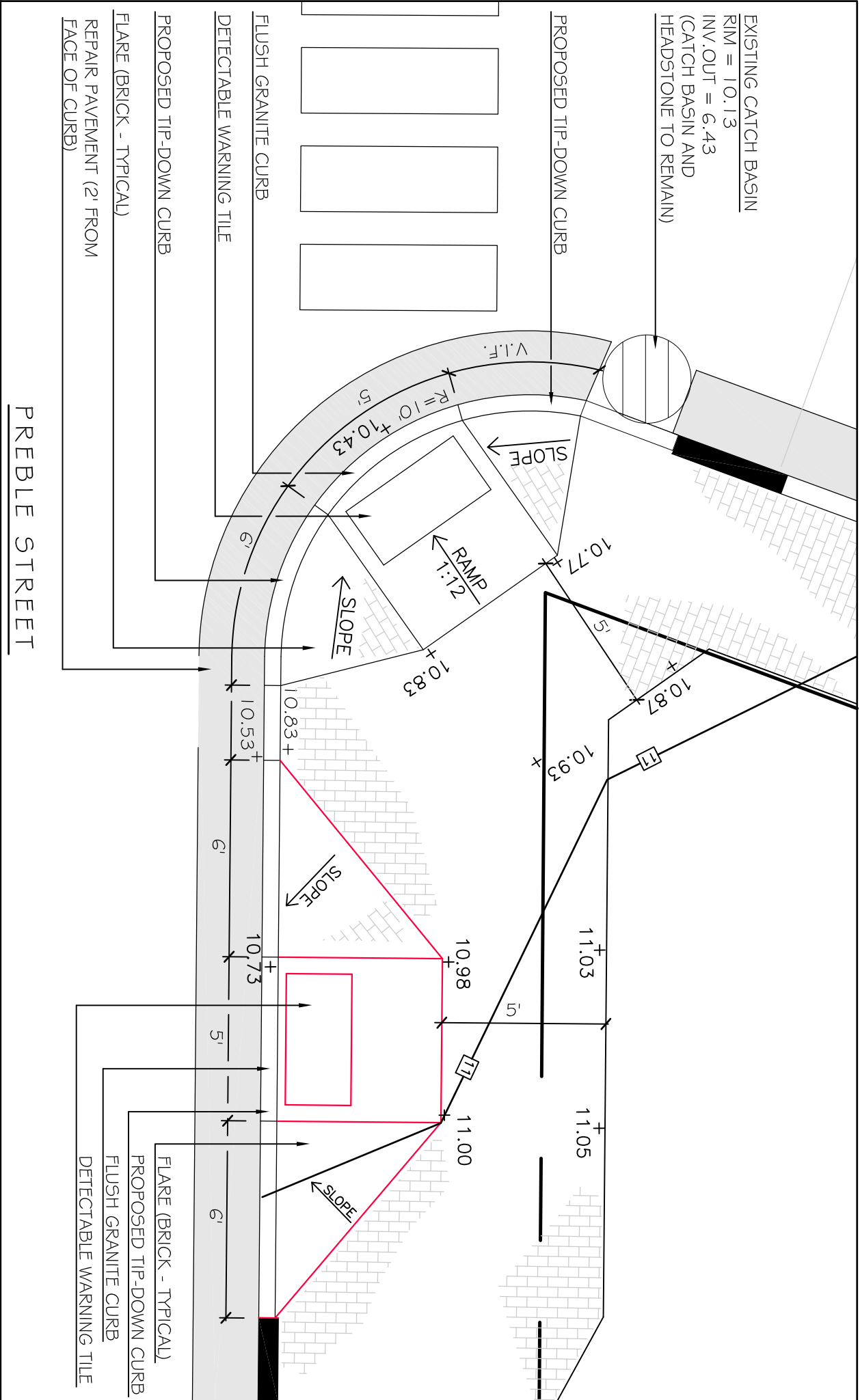
Bicycle Parking:

Per City Ordinance, non-residential structures are required to provide bicycle accommodations in proportion to the vehicular parking. For residential structures 2 bicycle parking spaces are required for every 5 dwelling units and for non-residential structures 2 bicycle parking spaces are required for every 10 vehicle parking spaces. Based on the ordinance this project would require 23 residential and 2 non-residential bicycle parking spaces for a total of 25 bicycle parking spaces.

Conclusions:

In our opinion, 45 vehicular parking spaces and 25 bicycle parking spaces are adequate to accommodate the proposed project. However, this methodology needs to be reviewed and approved by the City.

Prepared by:
Randy Dunton, PE, PTOE
Senior Engineer



EXISTING CATCH BASIN
RIM = 10.13
INV. OUT = 6.43
(CATCH BASIN AND
HEADSTONE TO REMAIN)

PROPOSED TIP-DOWN CURB

FLUSH GRANITE CURB

DETECTABLE WARNING TILE

PROPOSED TIP-DOWN CURB

FLARE (BRICK - TYPICAL)

REPAIR PAVEMENT (2' FROM
FACE OF CURB)

PREBLE STREET

EXHIBIT B:

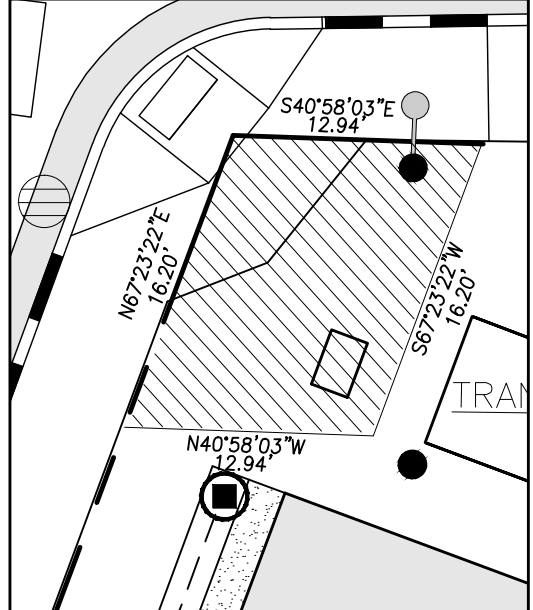
SIDEWALK RAMP: KENNEBEC STREET AND PREBLE STREET (NORTH)

2

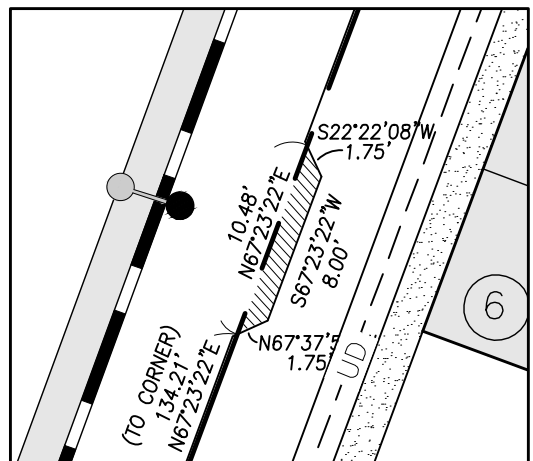
L2.1

SCALE: 1" = 4'

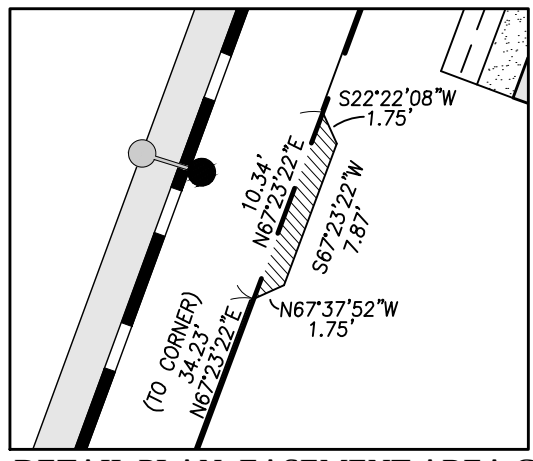
I:\ProjectDrawings\117 Preble Street\16-03-23 Amended Base.dwg, 25/06/2016 2:09 PM



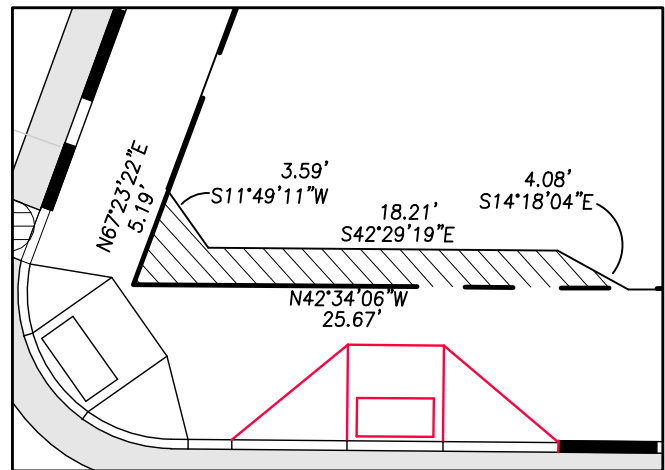
DETAIL PLAN: EASEMENT AREA A
SCALE: 1" = 10'



DETAIL PLAN: EASEMENT AREA B
SCALE: 1" = 10'



DETAIL PLAN: EASEMENT AREA C
SCALE: 1" = 10'



DETAIL PLAN: EASEMENT AREA D
SCALE: 1" = 10'

REGISTRY BLOCK
State of Maine
Cumberland County
Registry of Deeds

Received _____ 20 ____
At ____ H ____ M ____ M and Recorded
In Planbook _____ Page ____
Attest: _____
Registrar

WAIVERS

On the basis of the application plans, reports and other information submitted by the applicant, findings, recommendations, contained in the Planning Board Report for The Schlotterbeck Block site plan and subdivision, including but not limited to Section VIII Technical Waivers, of the report and the staff reviews relevant to Portland's Technical and Design Standards and other regulations, as well as the Planning Board deliberations and the testimony presented at the Planning Board hearing, the Planning Board voted unanimously (6-0) to grant the following waivers:

- The Planning Board found, based upon the consulting transportation engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (Section 1.14 and Figures 1-27 to 1-29) limiting compact spaces to 20% of total parking supply that the variation is consistent with the intent of the ordinance. The Planning Board waives the *Technical Manual* standard (Section 1.14) to allow a 20 foot wide aisle in the parking area;
- The Planning Board found, based upon the consulting transportation engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (Section 1.14 and Figures 1-27 to 1-29) limiting compact spaces to 20% of total parking supply that the variation is consistent with the intent of the ordinance. The Planning Board waives the *Technical Manual* standard (Section 1.14 and Figures 1-27 to 1-29) to allow 38% compact spaces; and
- The Planning Board found that the applicant has demonstrated that site constraints prevent the planting of all required street trees in the right-of-way. The Planning Board waives the site plan standard (Section 14-526 (b) (iii)) requiring one street tree per unit for multi-family development and concludes that the applicant shall contribute \$7,000 for 35 street trees to Portland's tree fund.
- The Planning Board found that the applicant has demonstrated that due to site constraints, the dumpster location needs to be within 20 feet of a public street and the dumpster is screened from public view with landscaping and fencing. The Planning Board waives the Design Manual, B-7 Mixed Use Urban District Zone, Principle C, Standard C-8, requiring the areas for outdoor storage and trash collection or compaction shall not be visible from public rights of way, or located within 20 feet of any public street, sidewalk, or open space.

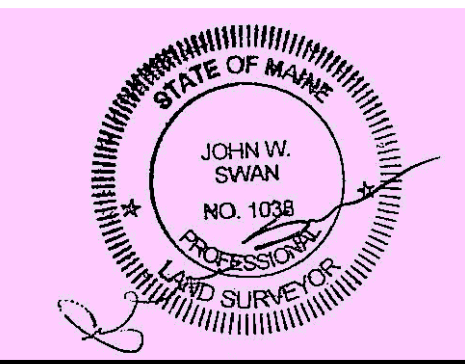
SUBDIVISION PLAT CONDITIONS OF APPROVAL:

The Planning Board voted unanimously (6-0) that the plan is in conformance with the subdivision standards of the Land Use Code, subject to the following conditions of approval, which must be met prior to the signing of the plat:

- The applicant shall finalize the subdivision plat for review and approval by Corporation Counsel, the Department of Public Services, and the Planning Authority; and
- The applicant shall provide a pedestrian access easement for the portions of sidewalk that do not lie within the right-of-way for adoption by the City Council.

CERTIFICATION:

Owen Haskell, Inc. hereby certifies that this Plan is based on, and the result of, an on the ground field survey and that to the best of our knowledge, information and belief, it conforms to the Board of Licensure for Professional Land Surveyors current standards of practice.



Approved: Portland Planning Board

Date: _____
Chair, _____
Board Members, _____

GENERAL NOTES

- SITE AREA: 40,720 S.F. OR 0.93 ACRE
- RECORD OWNER: SCHLOTTERBECK BLOCK, LLC
104 GRANT STREET
PORTLAND, MAINE 04101
Plan 1
- LOT DATA: TAX MAP 33, BLOCK E, LOT 1
C.C.R.D BOOK 26354, PAGE 312
AREA: 30,492 S.F.

TAX MAP 33, BLOCK E, LOT 5
C.C.R.D BOOK 26354, PAGE 314
AREA: 10,314 S.F.
- THE SURVEYED PARCELS ARE SHOWN AS LOTS 1 AND 5, BLOCK E, ON THE CITY OF PORTLAND'S ASSESSORS MAP 33.
- A PORTION OF THE PARCEL IS LOCATED, BY SCALING METHODS, WITHIN ZONE C (AREAS OF MINIMAL FLOODING) AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF PORTLAND, MAINE COMMUNITY PANEL NO. 230051-0013-B WITH AN EFFECTIVE DATE OF JULY 17, 1986. THE FLOOD ELEVATION FOR THE A2 ZONE WHICH ENCOMPASSES BACK COVE HAS AN ELEVATION OF 10 N.G.V.D. 1929. HOWEVER, THE TOPOGRAPHICAL SURVEY OF THE PARCEL SHOWS THE LOT ABOVE THE ELEVATION OF 10 N.G.V.D. (1929).
- UTILITIES SHOWN ARE BASED ON A PLAN ENTITLED 'BOUNDARY AND TOPOGRAPHIC SURVEY OF 117 PREBLE STREET', PERFORMED BY OWEN HASKELL, INC., DATED JULY 7, 2015.
- ZONING DISTRICT: B-7 MIXED DEVELOPMENT DISTRICT ZONE
- PROPOSED DWELLING UNITS: 56 UNITS
PROPOSED COMMERCIAL OFFICE SPACE: 1,750 S.F.
- SPACE AND BULK STANDARDS:

	REQUIRED	PROPOSED
MINIMUM LOT SIZE:	NONE	40,720 S.F.
MINIMUM FRONTAGE:	NONE	242 FEET
FRONT SETBACK:	NONE REQUIRED	18 FEET
SIDE SETBACK:	NONE REQUIRED	5 FEET
REAR SETBACK:	NONE REQUIRED	31 FEET
MAX. STREET SETBACK	10 FEET	18 FEET (EXISTING)
MAX. BUILDING LOT COVERAGE:	100 PERCENT	68 PERCENT
MAX. BUILDING HEIGHT:	105 FEET	N/A
MIN. BUILDING HEIGHT:	45 FEET	N/A
- BICYCLE PARKING:

REQUIRED:	25 SPACES
PROPOSED:	26 SPACES
- ALL WORK WITHIN THE ROAD RIGHT-OF-WAY AND ALL UTILITIES CONNECTING TO INFRASTRUCTURE WITHIN THE ROAD SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
- PARKING SUMMARY:

PARKING REQUIRED PER PARKING ANALYSIS:	55 - 28 SPACES
PROPOSED PARKING:	45 SPACES
PROPOSED COMPACT (8' X 15'):	17 SPACES (38%)
REQUIRED A.D.A. ACCESSIBLE SPACES:	2 SPACES
PROPOSED A.D.A ACCESSIBLE SPACES:	2 SPACES
- BEARINGS ARE BASED ON MAINE STATE PLAN COORDINATE SYSTEM MAINE WEST NAD 83, BASED ON CITY POINT 55 N:301742.42 E: 2927203.68 AND POINT 59 N:301442.06 E:2927035.61 FROM PLAN REFERENCE 1.
- ELEVATIONS BASED ON NGVD 1929, CITY BENCHMARK TBM 307 PLAN REFERENCE 1. MDOT DISK "612-(1)-10 1983" IN CONCRETE BASE OF LIGHT POLE AT NORTHEAST CORNER ELM/SOMERSET ELEV. = 9.02.
- THIS PLAN SUPERCEDES THE PLAN ENTITLED "SUBDIVISION PLAN", PRPEARED BY MITCHELL & ASSOCIATES, REVISION DATE JANUARY 5, 2016 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 216, PAGE 23.

PLAN REFERENCES

- ELM STREET, STREET LINE RETRACEMENT PLAN, SOMERSET STREET TO LANCASTER STREET, CITY OF PORTLAND, MAINE PUBLIC SERVICES DEPARTMENT ENGINEERING DIVISION DATED OCT. 16, 2012.
- BAYSIDE TRAIL SOMERSET STREET EXTENTION, ELM STREET TO KENNEBEC STREET, CITY OF PORTLAND, MAINE PUBLIC SERVICES DEPARTMENT ENGINEERING DIVISION DATED JULY 3, 2012.
- ALTA/ACSM LAND TITLE SURVEY ON PREBLE STREET, LANCASTER STREET EAST, ELM STREET & OXFORD STREET, PORTLAND, MAINE MADE FOR BAYSIDE I, LLC JAN. 26, 2000 BY OWEN HASKELL, INC. RECORDED IN PLAN BOOK 200 PAGE 40.
- BOUNDARY AND TOPOGRAPHIC SURVEY AT 117 PREBLE STREET, PORTLAND, MAINE, MADE FOR MITCHELL & ASSOCIATES, PREPARED BY OWEN HASKELL, INC., FALMOUTH, MAINE, DATED JULY 7, 2015, REVISED SEPTEMBER 28, 2015.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
IRON PIPE OR ROD FOUND		
UTILITY POLE		
MANHOLE		
ELECTRIC/GAS METER		
SIGN		
CATCH BASIN		
HYDRANT		
WATER VALVE		
LIGHT POLE		
FENCE		
GRANITE CURB		
GRANITE MONUMENT		
EASEMENT AREA		
IRON ROD TO BE SET		

Prepared For:
Owner and Applicant:
SCHLOTTERBECK BLOCK L.L.C.
104 Grant Street
Portland, Maine 04101
Tel.: 207-650-8979

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
70 Center Street
Portland, Maine 04101
Tel.: 207-774-4427

RANSOM CONSULTING ENGINEERS
400 Commercial Street # 4
Portland, Maine 04101
Phone: 207-772-2891

GODUTI-THOMAS ARCHITECTS
44 Oak Street # 2
Portland, Maine 04101
Phone: 207-775-3184

The Schlotterbeck Block
Portland, Maine
117 Preble Street

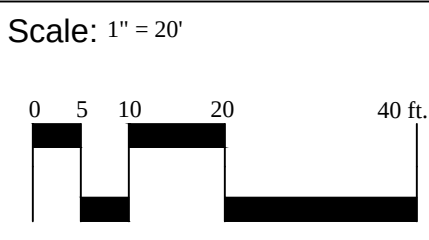
Date: OCTOBER 5, 2015

Issued For:

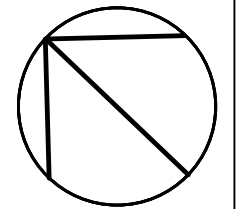
Revisions:
DEC. 1, 2015: REVISED PER STAFF REVIEW COMMENTS
DEC. 10, 2015: REVISED PER STAFF REVIEW COMMENTS
FEB. 25, 2016: REVISED PER CONDITIONS OF APPROVAL
APR. 5, 2016: AMENDED SUBDIVISION AND SITE PLAN SUBMISSION

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Title: AMENDED SUBDIVISION PLAN



North:



Sheet No.:

1 of 1

PERMITTING DRAWINGS -- NOT FOR CONSTRUCTION

Prepared For:
Owner and Applicant:
SCHLOTTERBECK BLOCK L.L.C.
104 Grant Street
Portland, Maine 04101
Tel.: 207-650-8979

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
70 Center Street
Portland, Maine 04101
Tel.: 207-774-4427

RANSOM CONSULTING ENGINEERS
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Phone: 207-772-2891

GODUTI-THOMAS ARCHITECTS
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Portland, Maine 04101
Phone: 207-775-3184

The Schlotterbeck Block

Portland, Maine

117 Preble Street

Date:
OCTOBER 5, 2015

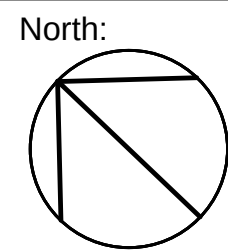
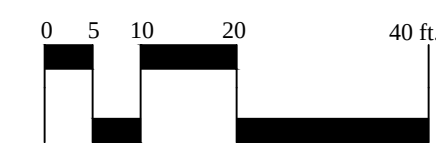
Issued For:

Revisions:
DEC. 1, 2015: REVISED PER STAFF
REVIEW COMMENTS
DEC. 10, 2015: REVISED PER STAFF
REVIEW COMMENTS
FEB. 25, 2016: REVISED PER CONDITIONS
OF APPROVAL
APR. 5, 2016: AMENDED SUBDIVISION
AND SITE PLAN SUBMISSION

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Title:
LAYOUT AND
LIGHTING PLAN

Scale: 1" = 20'



Sheet No.:
L2.0

GENERAL NOTES

- SITE AREA: 40,720 S.F. OR 0.93 ACRE
- APPLICANT: SCHLOTTERBECK BLOCK, LLC
77 SPRUCE STREET
PORTLAND, MAINE 04101
- RECORD OWNER: J.B. BROWN & SONS
482 CONGRESS STREET
P.O. BOX 207
PORTLAND, MAINE 04112
- LOT DATA: TAX MAP 33, BLOCK E, LOT 1
C.C.R.D BOOK 26354, PAGE 312
AREA: 30,492 S.F.

TAX MAP 33, BLOCK E, LOT 5
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- SPACE AND BULK STANDARDS:

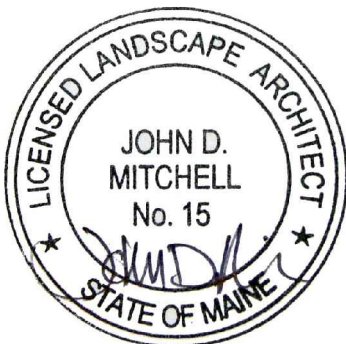
	REQUIRED	PROPOSED
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FRONT SETBACK:	NONE REQUIRED	18 FEET
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MAX. STREET SETBACK:	10 FEET	18 FEET (EXISTING)
MAX. BUILDING LOT COVERAGE:	100 PERCENT	68 PERCENT
MAX. BUILDING HEIGHT:	105 FEET	NA
MIN. BUILDING HEIGHT:	45 FEET	NA
- BICYCLE PARKING:

REQUIRED:	25 SPACES (23 RESIDENTIAL, 2 COMMERCIAL)
PROPOSED:	26 SPACES (EXTERIOR)
- ALL WORK WITHIN THE ROAD RIGHT-OF-WAY AND ALL UTILITIES CONNECTING TO INFRASTRUCTURE WITHIN THE ROAD SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
- PARKING SUMMARY:

PARKING REQUIRED PER PARKING ANALYSIS:	55 - 28 SPACES
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PROPOSED COMPACT (8' X 15'):	17 SPACES (38%)
REQUIRED A.D.A. ACCESSIBLE SPACES:	2 SPACES
PROPOSED A.D.A ACCESSIBLE SPACES:	2 SPACES

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
IRON PIPE OR ROD FOUND		
MONUMENT FOUND		
UTILITY POLE		
MANHOLE		
ELECTRIC/GAS METER		
SIGN		
CATCH BASIN		
HYDRANT		
WATER VALVE		
LIGHT POLE		
FENCE		
GRANITE CURB		
OVERHEAD WIRES		
WATER LINE		
GAS LINE		
TELEPHONE		
STORM DRAIN		
SANITARY SEWER		
1' CONTOUR		
BRICK PAVERS		
CONCRETE PAVERS		
GRANITE PILLAR		



PERMITTING DRAWINGS -- NOT FOR CONSTRUCTION

LIGHTING SCHEDULE

KEY	QTY	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LAMP
A	6	KIM	RA17-3-E35-GOL	KIM 17" ERA LED -- PARKING LOT LIGHT	LED, TYPE III, FULL CUT-OFF
B	9	KIM	VSB1-15L-3K-UV-DB	KIM VANDAL RESISTANT BOLLARD	15L LED, FULL CUTOFF
C	7	HOLOPHANE	ESL 110 4K AS X	BAYSIDE DISTRICT FIXTURE 'MEDIUM' LED TEARDROP	110 W 100 LED ARRAY
D	2	KIM	PGL71-E35-GOL	KIM PGL7 LED -- CANOPY LIGHT	GOL - LED
F	3	KIM	SW3-18L3KUV	KIM SITE WALLFORMS LED -- BUILDING MOUNTED LIGHT (DOOR)	GOL - LED

DRAINAGE STRUCTURE SCHEDULE

ALL CATCH BASIN PRECAST CONCRETE STRUCTURES SHALL BE 4'-0" DIAMETER (INSIDE).

CB#1
RIM: 10.75
INV. OUT (8"): 8.60

CB#2
RIM: 11.10
INV. IN (8"): 8.47
INV. OUT (12"): 8.37

CB#3
RIM: 10.80
INV. IN (12"): 8.07
INV. OUT (12"): 7.97

CB#4
RIM: 10.40
INV. IN (12"): 7.79
INV. OUT (12"): 7.69

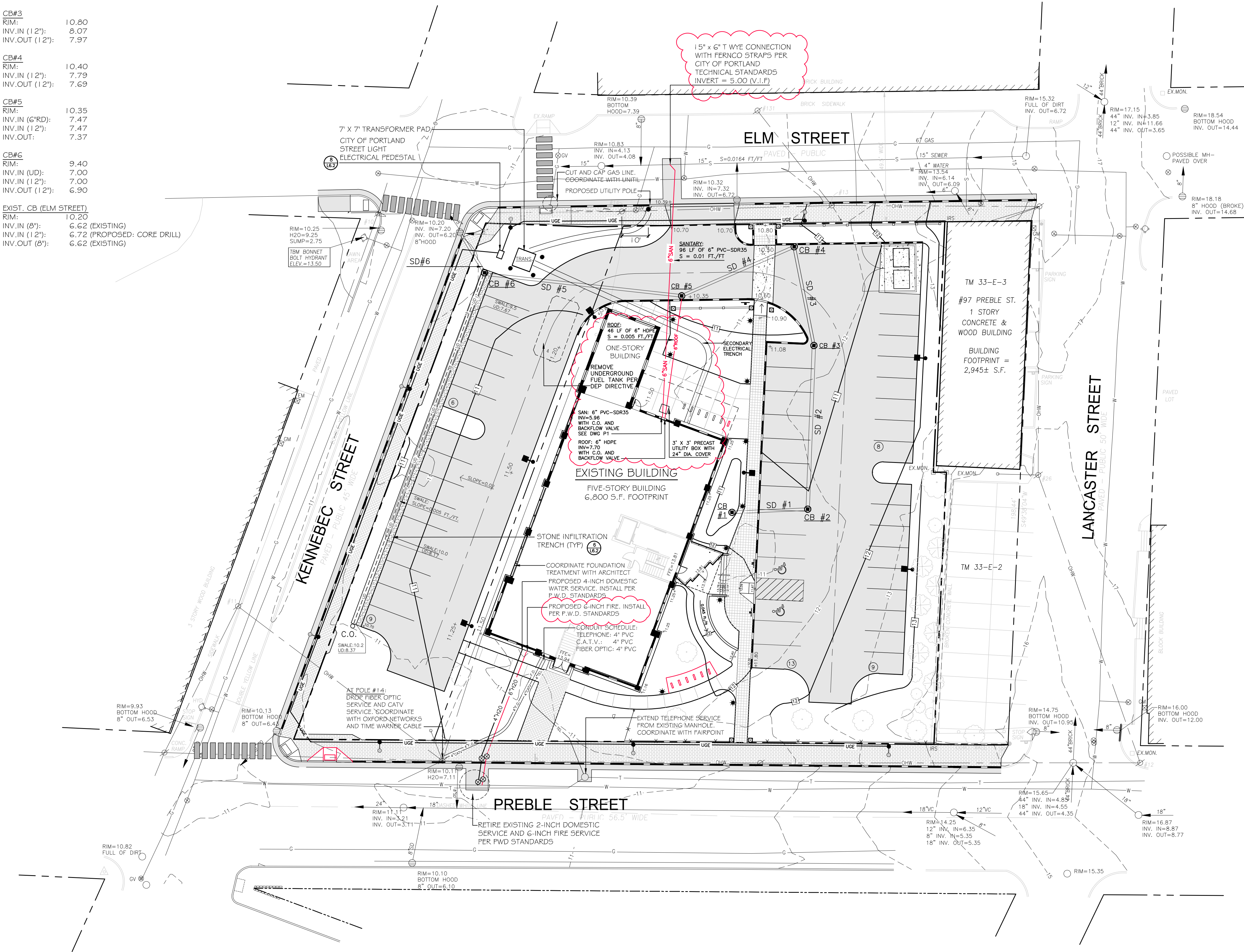
CB#5
RIM: 10.35
INV. IN (6"RD): 7.47
INV. IN (12"): 7.47
INV. OUT: 7.37

CB#6
RIM: 9.40
INV. IN (UD): 7.00
INV. IN (12"): 7.00
INV. OUT (12"): 6.90

EXIST. CB (ELM STREET)
RIM: 10.20
INV. IN (8"): 6.62 (EXISTING)
INV. IN (12"): 6.72 (PROPOSED: CORE DRILL)
INV. OUT (8"): 6.62 (EXISTING)

STORM DRAIN SCHEDULE

SD NO.	PIPE TYPE	LENGTH	SLOPE (FT/FT)
SD#1	8" HDPE	26 L.F.	0.005
SD#2	12" HDPE	60 L.F.	0.005
SD#3	12" HDPE	36 L.F.	0.005
SD#4	12" HDPE	44 L.F.	0.005
SD#5	12" HDPE	73 L.F.	0.005
SD#6	12" SDR-35	16 L.F.	0.005



GRADING AND DRAINAGE NOTES:

- DO NOT SCALE THESE DRAWINGS. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ADDITIONAL WORK PROCEEDS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR DIRECTION AND RESOLUTION PRIOR TO ANY FURTHER WORK.
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO EXCAVATION OF OR INSTALLATION OF ANY PART OF THIS WORK.
- CONTRACTOR SHALL AVOID ALL AREAS NOT REQUIRING GRADING. CONTRACTOR SHALL NOT DISTURB THESE AREAS.
- THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL DIGSAFE (1-888-344-7233) AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION.
- CONTRACTOR SHALL CONDUCT TEST PIT EXCAVATION TO CONFIRM LOCATION OF EXISTING UTILITIES WHERE NEW UNDERGROUND ELECTRICAL, TELEPHONE AND CATV SERVICES ARE PROPOSED.
- WHERE STORM DRAINS OR SEWER MAINS HAVE LESS THAN FOUR (4) FEET OF COVER BETWEEN TOP OF PIPE AND FINISH GRADE, INSULATE PIPE USING TWO (2) INCH THICK STYROFOAM INSULATION BOARD OVER AND ALONG SIDES OF THE PIPE.
- EXISTING DRAINAGE CATCHBASIN SHALL BE CORED TO ACCEPT NEW DRAINAGE PIPE AS NOTED.
- PIPE LENGTH EQUALS THE CENTER TO CENTER DISTANCES BETWEEN CATCH BASINS AND/OR MANHOLES MINUS ONE-HALF OF THE DIAMETER OF EACH CATCH BASIN OR MANHOLE.
- ALL UTILITIES SHALL BE INSTALLED IN CONFORMANCE WITH INDIVIDUAL UTILITY DISTRICT REQUIREMENTS; CONTRACTOR SHALL COORDINATE INSTALLATION WITH APPROPRIATE UTILITY DISTRICT BEFORE INSTALLATION.
- ALL WORK WITHIN THE ROAD RIGHT-OF-WAY AND ALL UTILITIES CONNECTING TO INFRASTRUCTURE WITHIN THE ROAD SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
- DISCONTINUED UTILITY SERVICES INCLUDING WATER, GAS AND SANITARY SEWER SHALL BE PERMANENTLY CAPPED CONFORMING TO UTILITY COMPANY AND CITY OF PORTLAND STANDARDS, CONTRACTOR SHALL COORDINATE WITH PUBLIC SERVICES AND/OR UTILITY COMPANY.
- THE PROJECT BENCH MARK IS BONNET BOLT OF FIRE HYDRANT LOCATED AT INTERSECTION OF ELM STREET AND KENNEBEC STREET. BENCHMARK ELEVATION: 13.50.
- BMP INSPECTIONS: THE OWNER SHALL HIRE A QUALIFIED POST-CONSTRUCTION STORMWATER INSPECTOR TO ANNUALLY, INSPECT THE BMPs, INCLUDING CATCH BASIN, DRYWELL, IN-LINE ROOF FILTERS, PIPES AND RELATED STRUCTURES, IN ACCORDANCE WITH ALL MUNICIPAL AND STATE INSPECTION, CLEANING AND MAINTENANCE REQUIREMENTS OF THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (PER SECTION 32 OF THE CITY OF PORTLAND CODE OF ORDINANCES).
- SITE LIGHTING SHALL MEET THE CITY OF PORTLAND STANDARDS AS OUTLINED IN SECTION 12 OF THE CITY OF PORTLAND TECHNICAL DESIGN STANDARDS. SITE LIGHTING SHALL ADHERE TO SECTION 12.2.5 LIGHT TRESPASS-LIGHTING SHALL NOT BE GREATER THAN 0.1 FOOTCANDLES AT THE PROPERTY LINE.

LEGEND	EXISTING	PROPOSED
PROPERTY LINE		
IRON PIPE OR ROD FOUND		
MONUMENT FOUND		
UTILITY POLE		
MANHOLE		
ELECTRIC/GAS METER		
SIGN		
CATCH BASIN		
HYDRANT		
WATER VALVE		
LIGHT POLE		
FENCE		
GRANITE CURB		
OVERHEAD WIRES		
WATER LINE		
GAS LINE		
TELEPHONE		
STORM DRAIN		
SANITARY SEWER		
1' CONTOUR		
BRICK PAVERS		
CONCRETE PAVERS		
GRANITE PILLAR		
CLEANOUT		
STONE INFILTRATION TRENCH		
SECONDARY ELECTRIC (FOR CITY LIGHTS)		



Stephen J. Bradstreet

PERMITTING DRAWINGS -- NOT FOR CONSTRUCTION

Prepared For:
Owner and Applicant:
SCHLOTTERBECK BLOCK L.L.C.
104 Grant Street
Portland, Maine 04101
Tel.: 207-650-8979

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
70 Center Street
Portland, Maine 04101
Tel.: 207-774-4427

RANSOM CONSULTING ENGINEERS
400 Commercial Street # 4
Portland, Maine 04101
Phone: 207-772-2891

GODUTI-THOMAS ARCHITECTS
44 Oak Street # 2
Portland, Maine 04101
Phone: 207-775-3184

The Schlotterbeck Block

Portland, Maine

117 Preble Street

Date:
OCTOBER 5, 2015

Issued For:

Revisions:
DEC. 1, 2015: REVISED PER STAFF REVIEW COMMENTS
DEC. 10, 2015: REVISED PER STAFF REVIEW COMMENTS
FEB. 25, 2016: REVISED PER CONDITIONS OF APPROVAL
APR. 5, 2016: AMENDED SUBDIVISION AND SITE PLAN SUBMISSION

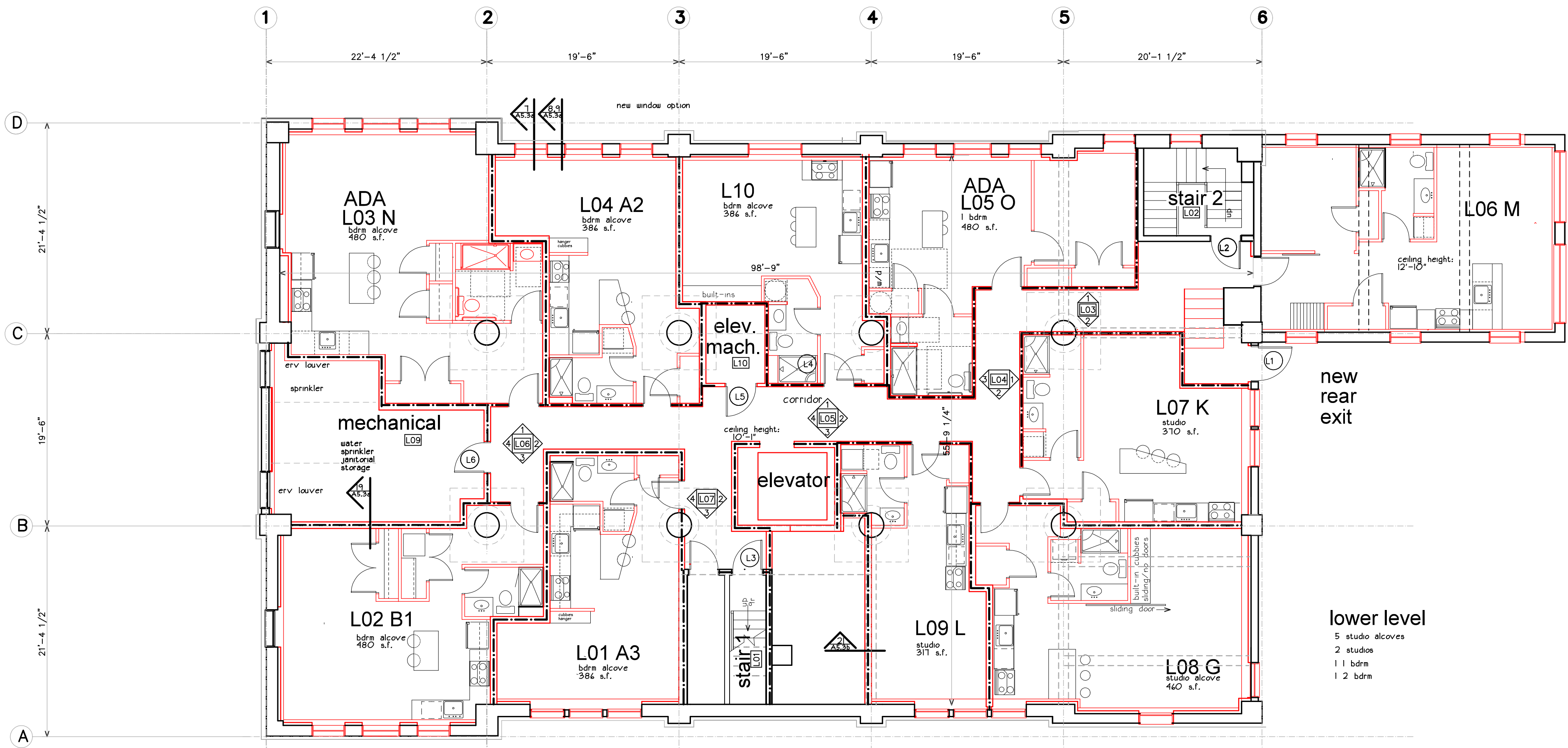
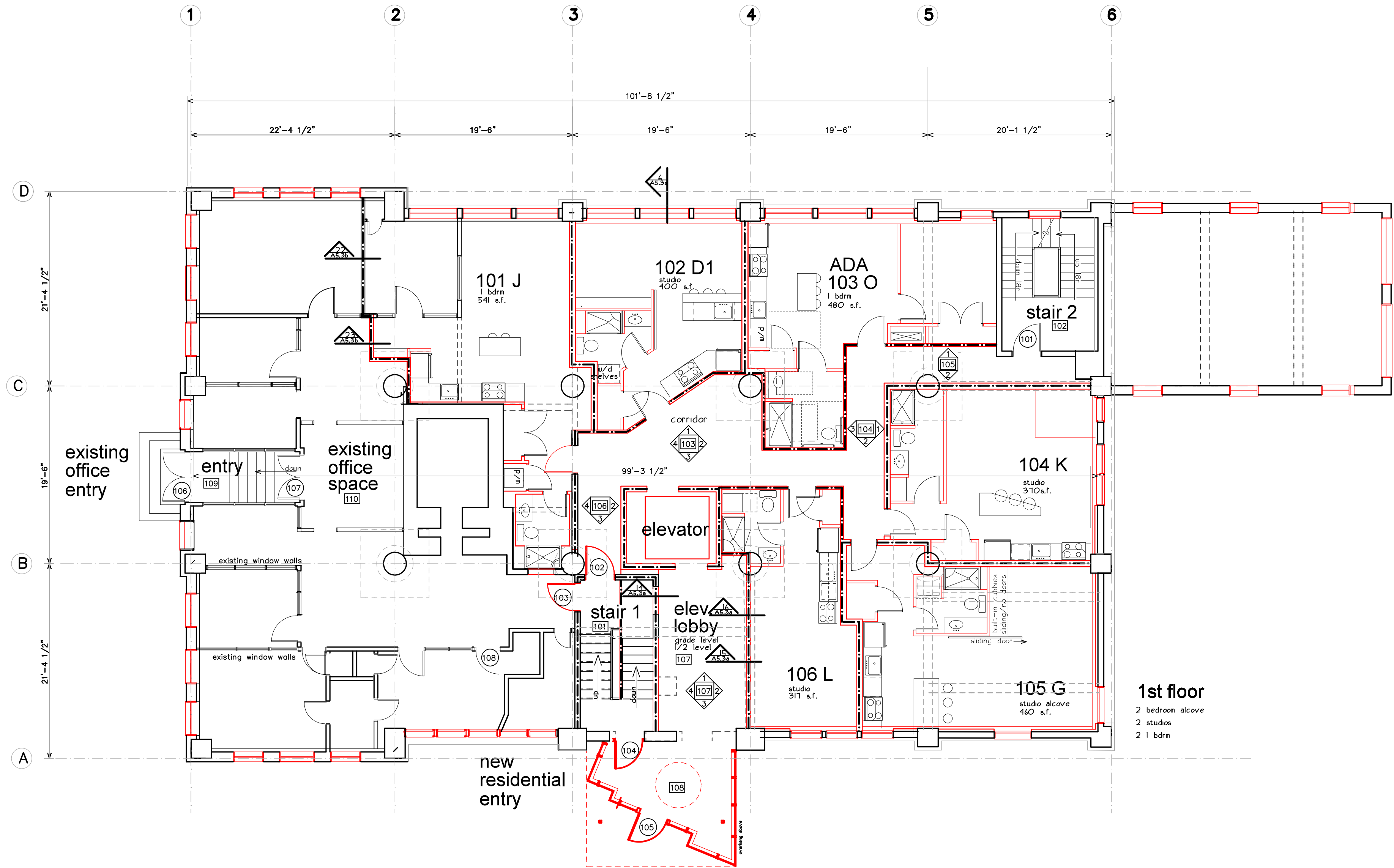
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Title:
GRADING, DRAINAGE AND UTILITIES PLAN

Scale: 1" = 20'

North:

Sheet No.:
L3.0



project name

Schlatterbeck Block

117 Preble Street
Portland, Maine

Plan 4

Schlatterbeck Block LLC

goduti/thomas architects

44 oak st.

portland, maine 04101

ph. 207-775-3184

fax 207-774-0846

revisions

date

march 15th, 2016

sheet title

1st floor plan

lower level plan

scale

1/8"=1'-0"

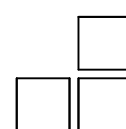
drawn by

MS

project number

foss2016

sheet number



A1.1



Memorandum

Planning and Urban Development Department

Planning Division

To: Elizabeth Boepple, Chair and Members of the Portland Planning Board
From: Shukria Wiar, Planner
Date: April 22, 2016
Re: Residential Unit and Hotel/Restaurant, 749 Congress Street, Denovo, LLC
Project #: 2016-040 CBL: 047 C020 001, 047 C028, A30 and A32
Meeting Date: April 26, 2016

I. INTRODUCTION

On behalf of Denovo, LLC, Tom Greer of Pinkham and Greer, has submitted a Level III site plan and subdivision application for the property at 749 Congress Street. The property is bordered by Congress Street and Mellen Street. The site is within the Business Community (B-2b) and in Residential R-6 zone, within majority of the site in the B-2b zone. The existing building (former funeral home) will be renovated into a hotel with 16 rooms and a full service restaurant. Seven residential townhouses with parking underneath of each unit are proposed behind the existing building (proposed hotel). The existing carriage house at the rear of the site remains with the two existing residential units. The proposed project will provide a total of eighteen parking spaces (18).

The property has approximately 30,928 square feet with frontages on Congress and Mellen Streets. The property is within the Congress Street Historic District (at the front of the property) and the Deering Street Historic District (at the rear of the property).

A notice of this Workshop was sent to two hundred and fifty-seven (257) property owners within 500 feet and interested citizens, and appeared in the April 18th and April 19th, 2016 editions of the *Portland Press-Herald*.

There have been inquiries about this project from three abutters. At the time of preparing this report the Planning Division had received one written comment ([Attachment 6a](#)).

Applicant Name	Denovo, LLC
Consultants	
Agent Representative	Tom Greer of Pinkham and Greer
Engineer	Tom Greer of Pinkham and Greer
Surveyor	Rex Croteau of Titcomb Associates
Architect	David Lloyd of Archetype

Project Review

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	14-526
Subdivision	14-491
Historic Preservation	14-601

II. PROJECT DATA

Existing Zoning	Business Community B-2b; Residential R6
Tax Map	CBL: 047 C020 001, 047 C028, A30 and A32
Existing Use	Former Funeral Home (offices on upper floors); Residential; Surface

	parking
Proposed Use	Market-rate Condominiums with Parking
Parcel Size	30,928 SF: Lot 1 6,947.59 and Lot 2 20,832.41 SF
Number of Units to be Demolished	None
Number of Affordable Units	The proposed units will be market rate.
Proposed Bedroom Mix	Seven 3-bedroom Condos
Building Footprint	Hotel and Restaurant- 4,558 SF; Carriage House- 1,430 SF; New Building- 4,597 SF
Building Floor Area	Hotel and Restaurant- 12,979 SF; Carriage House- 4,290 SF; New Building- 16,856 SF for a total of 34,125 SF
Building Height	Approximately 41 feet
Impervious Surface Area	22,542 SF
Parking Spaces	18 spaces: 7 under the Townhouses and 11 surface parking
Bicycle Parking Spaces	Two bicycle racks being proposed therefor four spaces provided; three are required
Estimated Cost of Project	\$3,800,000

III. EXISTING CONDITIONS AND ZONING

The proposed site currently has frontage along Congress and Mellen Streets. The property has two existing buildings, the former funeral home at Congress Street and a carriage house at the rear of the site which had been converted to two residential units. The rest of the site is a surface parking lot. The main entrance is from Congress Street through an existing curb cut. The existing surface parking area is shared with the abutter at 757 Congress Street.

The property is located within the Congress Street Historic District and abuts the Deering Street Historic District, and is generally characterized by small – to medium scale residential development of a historic nature. The properties in the vicinity of Congress Street are marked by residential multi-family development and commercial businesses. The existing building along Congress Street is considered contributing to the Congress Street Historic District and cannot therefore be demolished.



Figure 1: Aerial of the Proposed Site



Figure 3: Site Frontage on Mellen Street

Historic photographs of the subject parcels generally show residential and business development of the type characteristic of Congress Street today. A funeral parlor occupied the proposed site at the time of the 1924 tax records and listed Hay and Peabody as the owner.



Figures 4: 1924 tax photos showing 749 Congress Street.

PROPOSED DEVELOPMENT

The applicant is proposing to renovate the existing building into a sixteen-room hotel with a full service restaurant on the first floor. The project includes a proposal to construct a four-story building with seven townhouses and parking underneath. The townhouses will be located behind the hotel.

In terms of design and building form, the site is located within the Congress Street Historic District and is subject for review under the Historic Preservation Ordinance and is therefore exempt from review under the B-2b Design Guidelines.

V. PUBLIC COMMENT

As of the writing of this report, the Planning Division has been contacted by two attorneys representing abutters and an abutter.

A Neighborhood Meeting is required for this project and the applicant has confirmed that the neighborhood meeting was held on March 23, 2016, see Attachment Y.

VI. RIGHT, TITLE AND INTEREST AND FINANCIAL/TECHNICAL CAPACITY

a. The owner of the property is Martin and Alyssa Dassa. The applicant has provided a copy of a deed of sale personal representative, recorded at the Cumberland County Registry of Deeds (Book 32458 Page 30720), which demonstrates their right, title and interest in the property.

b. The estimated cost of the development is \$3,800,000. The applicant has submitted a letter from Saco and Biddeford Savings Institution, dated February 18, 2016, as demonstration of their financial and technical capacity to complete the proposed development.

VII. DEVELOPMENT REVIEW

A. SITE PLAN SUBMISSION REQUIREMENTS (Section 14-527) and SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (Section 14-496)

The applicant has submitted a recording plat. The final plat will need to be reviewed and approved by staff. As part of the project, the applicant will subdivide the lot into two different lots. Lot One will have the existing funeral home building on it, whereas Lot Two will encompass the condominiums (rear lot). The staff is working with the applicant to resolve any zoning issues as part of the division. Lot Two will have frontage on Congress Street and will share driveway and utilities easement with Lot One. The plat will need to reflect any easements that relate to the subdivision plan, including the access and utilities easements.

B. SUBDIVISION (Section 14-497)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's Subdivision Ordinance and applicable regulations. Staff comments are listed below.

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)

David Senus, P.E. with Woodard and Curran Engineering, has reviewed the erosion and sediment control plan and is satisfied with the proposed plans.

2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

The project will be served by the utility services located in Congress Street. Separate services are proposed for the commercial property and the residential units. Confirmation of ability to serve letter from PWD and DPW must be submitted prior to the final review. The utilities for the hotel and restaurant building must be shown on the plans also.

3. Will Not Cause Unreasonable Traffic Congestion (Section 14-497 (a) 5)

Tom Errico, P.E. Ty Lin reviewed the proposal's details including the access, parking, and vehicle circulation (Attachment 1). Mr. Errico finds the project to be acceptable. The proposed project is not anticipated to cause unreasonable traffic congestion.

4. Will Provide for Adequate Sanitary Sewer and Stormwater Disposal (Section 14-497 (a) 6), and Will Not Cause an Unreasonable Burden on Municipal Solid Waste and Sewage (Section 14-497 (a) 7)

The development is anticipated to have 4,804 (3,610 for residential and 1,194 for restaurant) gallons per day of wastewater flow. A wastewater capacity application has been submitted to the Department of Public Works.

5. Scenic Beauty, Natural, Historic, Habitat and other Resources (Section 14-497 (a) 8)

The proposal site is in an urban neighborhood surrounded by a variety of residential building types. It is within an historic district and will need to receive a certificate of appropriateness for the proposed building from the Historic Preservation Board. The applicant has submitted their application on April 15, 2016 to the Historic Preservation.

The proposed building and any exterior changes to the existing structure does not impact the natural beauty of the area or adversely affect any significant wildlife habitat, rare or irreplaceable natural areas, or any public access to the shoreline.

6. Comprehensive Plan (Section 14-497 (a) 9)

The staff has identified the following goals and policies which are relevant to the proposed housing development and finds the proposal in conformance with the Comprehensive Plan:

Portland Housing Goal: Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

Policies

- Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied, including but not limited to the following:
 - ii. Housing units for decreasing household size, such as young professionals, empty nesters, single-parent households, and senior citizens.
- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation.
- Increase Portland's rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.
- Identify vacant land and redevelopment opportunities throughout the City to facilitate the construction of new housing.

Portland Housing Goal: Maintain and enhance the livability of Portland's neighborhoods as the City grows and evolves through careful land use regulations, design and public participation that respect neighborhood integrity.

Policies

- Encourage innovative new housing development, which is designed to be compatible with the scale, character, and traditional development patterns of each individual residential neighborhood.
- Encourage new housing development in proximity to neighborhood assets such as open space, schools, community services and public transportation.
- Ensure the integrity and economic value of Portland's neighborhoods.

7. Financial Capability (Section 14-497 (a) 10)

The estimated cost of the development is \$3,800,000. The applicant has submitted a letter from Saco and Biddeford Savings Institution, dated February 18, 2016, as demonstration of their financial and technical capacity to complete the proposed development.

8. Easements

Lot Two will have frontage on Congress Street and will share a driveway and utilities easement with Lot One. The plat will need to reflect any easements that relate to the subdivision plan, including the access, utilities, and any other existing easements. The applicant is proposing to use existing drain lines that go onto an abutting lot. Even though it is an existing situation, the applicant will need to show that it has easement/rights to do this.

C. SITE PLAN STANDARDS (Section 14-526)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations. Staff comments are listed below.

1. Transportation Standards

- a. Impact on Surrounding Street Systems and Access and Circulation- see Subdivision, Paragraph VIII (B) (3), above.

- b. Construction Management Plan

A construction management plan has not been submitted by the applicant and will have to be reviewed by the Department of Public Services.

c. Parking

Off-Site Parking

Currently there are twenty-eight (28) spaces on this site. The site is an open surface parking that is contiguous with the abutter's surface parking lot. It is understood that this site is being used as parking for tenants from other properties. As explained by the consultant, the spaces are not being leased or rented out, but the neighbors have been using as parking since the funeral home has been closed.

A total of 18 parking spaces are proposed: seven spaces are within the townhouse building, two spaces are for the existing two residential units in the carriage house, and eight for the hotel and restaurant. In addition, four exterior bicycle parking spaces along Congress Street are provided. Per zoning ordinance, seventeen parking spaces are required, thus the proposal meets the zoning standards.

A handicapped parking space is proposed on site between the existing building and the new building. The Fire Department has requested that this area be designated as a "Fire Lane", therefore the area must remain open for emergency uses at all time. The handicapped space will need to be proposed at a different location.

The layout of the parking lot is laid out so that some are along the shared property boundary and the parking on that site. Tom Errico, Consultant Traffic Engineer, has recommended that there be a physical barrier between the parking lots.

On-Street Parking

Currently there are three on-street parking spaces on Congress Street in front of the existing building. The applicant has requested that the parking schedule be changed for these spaces from one-hour parking to 15 minutes parking. Any parking changes require City Council approval and the applicant must provide the documentation to be submitted to the Council.

d. Bicycle Parking

The proposals include two bicycle racks being proposed on-site, a total of 4 parking spaces. The standard requires three spaces, so this has been met.

2. *Environmental Quality Standards*

a. Preservation of Significant Natural Features

There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation

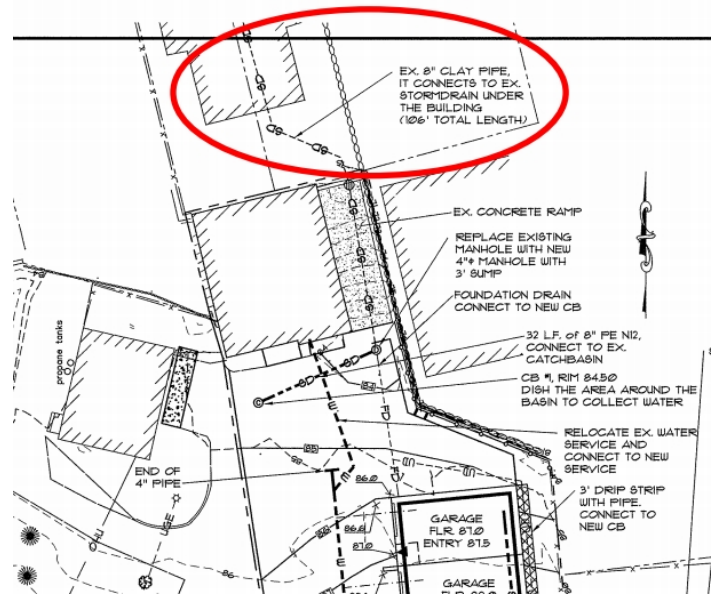
The applicant is proposing no street trees on Congress Street, in front of the building. The City standards requires one street tree per unit, therefore with 7 units, a total of 7 street trees are required. Due to site restrictions, the remaining streets cannot be planted on the site. The applicant has asked for a waiver of this standard, in order to contribute \$200 per tree to the City's Tree Fund for the trees.

The applicant is proposing landscaping along the front of the existing building. Besides this planting, no other landscaping is being proposed on site. The Mellen Street frontage has developed trees and

shrubs. Most of plantings will be removed due to the proposed utilities coming in from Mellen Street, with the exception of seven trees along the southern property line. The proposal is to replace the area with lawn. The neighbors have asked about preserving the existing vegetation in this area.

c. Water Quality, Storm Water Management and Erosion Control

The existing site area is a single paved and gravel parking area with an existing building. The current surface runoff from the site flows into an existing outlet pipe located in the northeast corner of the property. This site currently has 21,542 sq. ft. of impervious surface. The proposed site will have 22,292 sq. ft. of impervious surface. The increase is less than 1,000 sq. ft. The majority of runoff will flow from the existing building, parking lot, to the existing outlet pipe. This will be replaced with newly proposed catchbasin, as well as a new catchbasin will be installed on the northwest corner of the property. The site plan shows this pipe running under a building on Cumberland Ave with a presumed connection to the Cumberland Ave sewer system. Although discharge into this pipe represents an existing condition that will be largely unchanged by the project, the applicant would need to have rights/easement to discharge into a pipe that crosses below a building on an adjoining property or seek alternative design for the runoff.



In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. Since this project will result in a de minimis increase in impervious area of approximately 750 square feet, it is not required to include any specific stormwater management features for stormwater quality control or to control the rate or quantity of stormwater runoff from the site.

3. Public Infrastructure and Community Safety Standards

a. Consistency with Master Plans

See Subdivision, Paragraph VIII (B)6 above.

b. Public Safety and Fire Prevention

The Crime Prevention through Environmental Design (CPTED) standards in the site plan ordinance address the principles of natural surveillance, access control and territorial reinforcement so that the design of developments enhance the security of public and private spaces and reduce the potential for crime. The main entry to the existing building is from Congress Street. The new townhouse building sits back and the entrances are along the surface parking area.

A lighting and photometric plan has been submitted and the review is pending. Since the project is a historic district, the lighting fixtures were reviewed and approved by the Historic Preservation Board.

c. Availability and Adequate Capacity of Public Utilities

Water/ Sanitary Sewer/ Natural Gas/Electricity:

The proposed project is anticipated to add a net water usage from the development of approximately 4,804 gallons per day (GPD). Separate services are proposed for the commercial property and the residential units. For the residential units, the developer has proposed a new 6-inch fire line service for the development that would tie into the existing water main in Congress Street, as well as a four-inch domestic service in Congress Street. The developer is also proposing an individual two-inch service for the commercial property. Since a restaurant is being proposed, a grease trap is required.

The developer plans to serve the proposed building with a gas service; the new service be established from the existing underground line within Mellen Street. Sanitary sewer and electricity will also be from Mellen Street.

The applicant has revised their original applicant to include a restaurant to the hotel. Since the use has been added, a grease trap is required to be installed. The applicant is proposing a grease trap along the Congress Street frontage but not shown it on the plans. The final plans will need to reflect this.

Waste Management:

The solid waste will be collected and stored in a room on the lower floor for the residential buildings and a dumper is provided for the hotel and restaurant. A private waste hauler will be used for removal. The removal schedule will be based on the generation rate.

4. *Site Design Standards*

a. Snow and Ice Loading

The applicant is proposing on-site snow storage; the area for storage is to the north and west of the parking lot (Attachment Plan2).

b. View Corridors

This site is not within a Protected View Corridor as per the "View Corridor Protection Plan" approved by the Portland City Council in 2001.

c. Historic Resources

The site is within the Congress Street and Deering Street Historic Districts. This project will have to be reviewed and approved by Historic Preservation Board.

d. Exterior Lighting

A lighting and photometric plan has been submitted and the review is pending. Since the project is a historic district, the lighting fixtures were reviewed and approved by the Historic Preservation Board.

e. Noise and Vibration

All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment will have to be shown on the plans and meet state and federal emissions requirements. These mechanical equipment should be located to the interior of the site, away from abutting residential properties and be screened from view from any public street and from adjacent sites by structure walls, evergreen landscaping, fencing, masonry wall or a combination thereof. This information will have to be submitted for review as part of the building permit.

f. Signage and Wayfinding

This standard does not apply to the proposal.

g. Zoning Related Design Standards

Since the property is located in the Congress Street and Deering Street Historic Districts, the Historic Preservation Board will review the design of the building.

VIII. NEXT STEPS

1. Applicant to address staff comments and Planning Board comments;
2. Applicant to prepare final plan submission, including subdivision and site plan submittal requirements for review by the Planning Authority and Planning Board; and
3. Hold final Planning Board Hearing.

ATTACHMENTS:

Memo Attachments

1. Traffic Engineering Review (Tom Errico, T Y Lin), comments dated 03.24.2016
2. Department of Public Services Review, David Margolis-Pineo, dated 03.24.2016
3. Civic Engineer Review, David Senus, dated 03.24.2016
 - a. Emailed dated 04.14.2016
4. Fire Department Review, Capt. Keith Gautreau, dated 03.24.2016
5. City Surveyor Review- DPW (Bill Clark), comments dated 03.29.2016
6. Public Comments
 - a. James and Jacqueline Price at 24 Mellen Street.

Applicant's Submittal

- A. (0a) 15156,AppCover,022216
- B. (0b) 15156,TABLE OF CONTENTS
- C. (1) 15156,tsg,ltr,Barhydt,022216
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- F. (3a) Project Information
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- T. (12c) 2016-02-19 749 Congress Inn Plans and Elevations
- U. Application 04-08-2016
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- W. City of Portland Wastewater Capacity Application
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Plan4	C1.4 R1 040816
Plan5	C1.5 R1 040816
Plan6	C1.6 R1 040816
Plan7	Architectural Floor Plans



Shukria Wiar <shukriaw@portlandmaine.gov>

749 Congress Street - Preliminary Traffic Comments

1 message

Tom Errico <thomas.errico@tylin.com>

Thu, Mar 24, 2016 at 1:55 PM

To: Shukria Wiar <SHUKRIAW@portlandmaine.gov>

Cc: David Margolis-Pineo <dmp@portlandmaine.gov>, Katherine Earley <KAS@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <JST@portlandmaine.gov>

Hi Shukria – I have reviewed the application materials and offer the following preliminary traffic comments.

- I find the consolidation of curb cuts on Congress Street and the general design configuration to be acceptable.
- It is my assumption that the 12-foot drop-off lane is restricted to entry movements only. This should be clarified by the applicant and may require reinforcing signage.
- The site plan should provide dimensions for all parking lot design elements and the applicant shall formally request all necessary waivers. The applicant is requesting a waiver from the City's parking stall size for 3 parking spaces (8'x18'). Supporting justification shall be provided.
- The applicant should note how the 6 parallel parking spaces will be restricted to the subject site, without encroachment on the abutting property. Physical separation may be necessary.
- The applicant shall provide information on how the subject site and site to the west will share traffic access and circulation.
- I find the estimate of traffic levels for the project (as proposed in the application) to be reasonable and I would not expect the proposed project to have a significant impact on safety and capacity on the public transportation system.
- It is unclear where the bicycle racks are being provided.
- The applicant should provide details on the allocation of on-site parking spaces and how they will be managed for the site uses.

If you have any questions, please contact me.

Best regards,

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

12 Northbrook Drive

Falmouth, ME 04105

[207.781.4721](tel:207.781.4721) (main)

[207.347.4354](tel:207.347.4354) (direct)

[207.400.0719](tel:207.400.0719) (mobile)

[207.781.4753](tel:207.781.4753) (fax)

thomas.errico@tylin.com

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Please consider the environment before printing.



Shukria Wiar <shukriaw@portlandmaine.gov>

Dev Rev Comments for 749 Congress St.

1 message

David Margolis-Pineo <dmp@portlandmaine.gov>

Thu, Mar 24, 2016 at 1:20 PM

To: Shukria Wiar <shukriaw@portlandmaine.gov>, Barbara Barhydt <bab@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>, David Margolis-Pineo <dmp@portlandmaine.gov>, David Senus <dsenus@woodcurran.com>, Doug Roncarati <dar@portlandmaine.gov>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>, John Emerson <jwe@portlandmaine.gov>, Katherine Earley <kas@portlandmaine.gov>, Michael Farmer <mfarmer@portlandmaine.gov>, Rhonda Zazzara <rjz@portlandmaine.gov>, Rick Knowland <rwk@portlandmaine.gov>, "Tarling, Jeff" <jst@portlandmaine.gov>, William Clark <wbc@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>

March 24, 2016

Memo To: Shukria Wiar

Barbara Barhydt

From: David Margolis-Pineo

Re: 749 Congress Street – Residential/Bed & Breakfast (2016-040)

The Department of Public Works has the following preliminary development review comments on the above proposed.

1. Be aware that Mellon Street is under a paving moratorium until 7-26-17.
2. Sheet C1.4 – Please show where the existing and proposed on-site catchbasins discharge.

Sheets C1.4 and C1.5 shows a catchbasin in the back corner beside the carriage house. Again, please show piping and discharge location.

3. It is understood that the proposed B&B has been replaced with a restaurant and lodging rooms. The Wastewater Capacity Application will need to be revised and re-submitted.

Survey comments will be forwarded under a separate cover by Bill Clark.

This Department has no further comments at this time.

—

David Margolis-Pineo
Deputy City Engineer
Department of Public Services
55 Portland St.
Portland, ME 04101
Office [207-874-8850](tel:207-874-8850)
Cell [207-400-6695](tel:207-400-6695)
dmp@portlandmaine.gov

MEMORANDUM



TO: Shukria Wiar, Planner
FROM: David Senus, PE
DATE: March 24, 2016
RE: 749 Congress Street, Site Plan Application

Woodard & Curran has reviewed the Site Plan Application for the proposed re-development located at 749 Congress Street in Portland, Maine. The project involves the construction of seven residential town houses and the conversion of the Congress Street building to a 16 room Bed and Breakfast.

Documents Reviewed by Woodard & Curran

- Site Plan Application and attachments, dated February 22, 2016, prepared by Pinkham & Greer Civil Engineers, on behalf of Denovo LLC.
- Engineering Plans, dated February 22, 2016, prepared by Pinkham & Greer Civil Engineers, on behalf of Denovo LLC.

Comments

- 1) The Applicant has requested letters from utilities confirming capacity to serve the proposed development upon. Evidence of approval from the utilities should be provided upon receipt.
- 2) The Project Data Sheet notes that the proposed project will disturb more than one acre; as noted on the form, a Notice of Intent to Comply with the Maine Construction General Permit will be required to be submitted to the MaineDEP. A copy of the NOI should be provided to the City upon submittal to MaineDEP.
- 3) In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to comply with the MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:
 - a) Basic Standard: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in general accordance with Appendix A, B, & C of MaineDEP Chapter 500. An additional length of silt fence should be depicted downhill of the utility service trench work (along the north property line between the project site and Mellen Street).
 - b) General Standards: The project will result in a de minimis increase in impervious area of approximately 750 square feet. As such, the project is not required to include any specific stormwater management features for stormwater quality control. We encourage the Applicant to review the City's Stormwater Service Charge Credit Manual (available online) to evaluate whether they may want to incorporate stormwater quality treatment measures that qualify for a future Stormwater Service Charge credit.
 - c) Flooding Standard: The project will result in a de minimis increase in impervious area of approximately 750 square feet. As such, the project is not required to include any specific stormwater management features to control the rate or quantity of stormwater runoff from the site.
- 4) Mellen Street may be under a pavement moratorium, requiring additional pavement work beyond the trench repair limits depicted on the plan; the Applicant should confirm with DPW.
- 5) The survey does not show an outlet pipe from the existing catch basin that receives the majority of the site drainage (at the north end of the parking lot). Where does this catch basin discharge to? The survey plan and site plans should be updated to show an existing outlet (up to where it connects to the City's system).
- 6) Additional grading detail should be added to Sheet C1.4 near the inlets to the catch basins on the north side of the lot. A significant area drains to these catch basins and the plans should clarify grading intent in this area to ensure surface flow doesn't bypass these basins.



Shukria Wiar <shukriaw@portlandmaine.gov>

749 Congress Street meeting

David Senus <dsenus@woodardcurran.com>

Thu, Apr 14, 2016 at 9:56 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>, Keith Gautreau <kng@portlandmaine.gov>

Cc: Ann Machado <amachado@portlandmaine.gov>, Michael Farmer <mfarmer@portlandmaine.gov>, Thomas Errico <thomas.errico@tylin.com>, Barbara Barhydt <bab@portlandmaine.gov>, Lauren Swett <lszett@woodardcurran.com>

Hi Shukria.

I am unavailable tomorrow; however, I don't believe that it will be necessary for W&C to attend the meeting. Most of our comments were addressed, remaining comments will be minor except as noted below:

- Please discuss the need for a grease trap for the proposed restaurant. Kitchen wastewater will need to be plumbed through a grease trap prior to discharge into the sanitary sewer, DPW can provide info on City requirements.
- We previously included this comment: *The survey does not show an outlet pipe from the existing catch basin that receives the majority of the site drainage (at the north end of the parking lot)....The survey plan and site plans should be updated to show an existing outlet (up to where it connects to the City's system).*

The plans now show more of the pipe route (see attached); the response letter noted that the 8" clay pipe was cleaned, is in "excellent shape", and runs under a building on Cumberland Ave with a presumed connection to the Cumberland Ave sewer system. Although discharge into this pipe represents an existing condition that is largely unchanged by the project (the lot currently flows to this pipe), the Owner should have rights to discharge into a pipe that crosses below a building on an adjoining property. The Rite Aid project comes to mind. I believe the City often requests easements in this situation.

Thanks

Dave

David Senus, PE (Maine), Project Manager

Woodard & Curran, Inc.

41 Hutchins Drive

Portland, ME 04102

Phone: (207) 558-3704

Cell: (207) 210-7035

Fax: (207) 774-6635

Woodard & Curran

www.woodardcurran.com

Commitment & Integrity Drive Results

From: Shukria Wiar [mailto:shukriaw@portlandmaine.gov]

Sent: Thursday, April 14, 2016 9:06 AM

To: Keith Gautreau <kng@portlandmaine.gov>

Cc: Ann Machado <amachado@portlandmaine.gov>; Michael Farmer <mfarmer@portlandmaine.gov>; Thomas Errico <thomas.errico@tylin.com>; David Senus <dsenus@woodardcurran.com>; Barbara Barhydt <bab@portlandmaine.gov>

Subject: Re: 749 Congress Street meeting

[Quoted text hidden]

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

2 attachments



15156 C1.4 R1 040816.pdf
304K



April 8, 2016 Response to Staff Comments.pdf
700K

MEMORANDUM

To: FILE
From: Shukria Wiar
Subject: Application ID: 2016-040
Date: 4/21/2016

Comments Submitted by: Keith Gautreau/Fire on 3/24/2016

The 20' of clear width for Emergency Access to the site will have to be maintained at ALL times.

Comments Submitted by: Keith Gautreau/Fire on 3/24/2016

The two 8' - 18' spaces will need to be designated "Fire Lane". This was the agreed upon plan in lieu of creating a Hammerhead Turnaround at the end of the site. So this must remain open for emergency use at all times.

Comments Submitted by: Keith Gautreau/Fire on 3/24/2016

The Fire Hydrant directly across from Neal Street must be tested by the PWD for fire flow. The results of the test shall be forwarded to the Fire Dept.

Comments Submitted by: Keith Gautreau/Fire on 3/24/2016**Premises Identification**

Provide additional address signs at entrances to the property when the building address is not legible from the public street.

Buildings set back in groups that share common entrances can make quickly locating a specific building and the shortest route difficult. On such sites, additional signs with directional arrows and/or diagrams of the buildings and access layout should be posted.



Shukria Wiar <shukriaw@portlandmaine.gov>

Fwd: 749 Congress St Subdivision Plat Survey Review

David Margolis-Pineo <dmp@portlandmaine.gov>

Tue, Mar 29, 2016 at 3:15 PM

To: William Clark <wbc@portlandmaine.gov>, Shukria Wiar <shukriaw@portlandmaine.gov>

fyi

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

From: William Clark <wbc@portlandmaine.gov>

Date: Tue, Mar 29, 2016 at 2:19 PM

Subject: 749 Congress St Subdivision Plat Survey Review

To: David Margolis-Pineo <dmp@portlandmaine.gov>

Hi David,

I have reviewed the 749 Congress Street Subdivision Plat dated 3/22/2016 and my comments are as follows.

1. Needs stamp of Professional Land Surveyor.
2. There are instances of text conflicting with hatch patterns. When the Registry of Deeds scans the plans for public viewing via the the internet often the text is not legible due to the conflict with the hatch patterns.

I have attached my plan review markup.

Thanks,

Bill

--

William Clark, PLS
Senior Project Engineer
DPW Engineering
City of Portland
55 Portland St.
Portland, ME 04101
[207 874 8847](tel:2078748847)

--

David Margolis-Pineo
Deputy City Engineer
Department of Public Services

4/21/2016

City of Portland Mail - Fwd: 749 Congress St Subdivision Plat Survey Review

55 Portland St.
Portland, ME 04101
Office [207-874-8850](tel:207-874-8850)
Cell [207-400-6695](tel:207-400-6695)
dmp@portlandmaine.gov



749 Congress St Subdivision Plat 3 22 2016 Survey Review 3 25 2016.PDF
1397K



Shukria Wiar <shukriaw@portlandmaine.gov>

Re: Comments re the redevelopment of 749 Congress St.

Barbara Barhydt <bab@portlandmaine.gov>
To: jim <jas.price58@gmail.com>
Cc: Shukria Wiar <shukriaw@portlandmaine.gov>

Tue, Mar 22, 2016 at 9:23 AM

Good morning:

Thank you for your comments and we will include your e-mail as public comment for the review of this project. The postcard that you received is sent to property owners within 500 of a site upon receipt of an application. The city has just begun the review of this project, which will require site plan and subdivision review by the Planning Board. There will be scheduled public meeting to review this project and you should receive notification of those meetings as well. . As you noted, it is also within an historic district and will be reviewed by the Historic Preservation Board.

Shukria, Wiar is the planner assigned to coordinate the review and she will respond to your question about the moratorium street later. We share this information with the applicant, so the preliminary plans may be revised.

Thank you.

Barbara

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

On Tue, Mar 22, 2016 at 8:55 AM, jim <jas.price58@gmail.com> wrote:

To: Barbara Barhydt, Development Review Services Director,
Planning Division, City of Portland
From: James and Jacqueline Price, owners of the 7 unit apartment
house at 24 Mellen St.
RE: The proposed redevelopment of the former Hay Peabody
property at 749 Congress St.

Ms. Barhydt:

The site plan for the redevelopment of 749 Congress St. distributed by Pinkham and Greer shows the 30 foot wide strip of land (the Strip) that runs from behind the former funeral home down to Mellen St. as being used to install underground utilities. This utility plan does seem to us to be somewhat in conflict with the City's statement that "all access is proposed from Congress St", a position that we strongly support. Be that as it may, we wonder if it is really necessary or indeed permissible to bring utilities in from Mellen St. rather than Congress St. While the postcard that was sent to residents states that "the site is located in the B-2b and R-6 zones", we would like to point out that the Strip is located in the same Historic District that contains our building. It is our position that the rules governing historic districts create strong arguments in favor of the following:

1. That the small forest currently occupying the Strip be maintained in substantially the same form that has existed for many decades.
2. That the Strip continue to function as a noise, visual, and privacy buffer from Mellen

St. and between our building and the 5 unit condominium project located at 18- 20
Mellen St.

3. That the rock wall with granite capstones fronting on Mellen St. be repaired and restored to conform to the original.

We are also mindful of the City's impending moratorium against digging up Mellen St. How might that impact this project? If despite the above, utilities are brought in from Mellen St., the current plan, as we understand it, is to basically clearcut the lot and replace most, if not all, of the trees with grass thus destroying a unique patch of woods in the heart of the city. Such a change would have other substantial negative consequences for the residents of the two buildings abutting the Strip. The Strip occupies a plateau that looks directly down on our building, threatens our privacy and represents a potentially serious source of noise pollution once the trees are removed. The trees themselves constitute an important privacy and visual barrier.

We have owned 24 Mellen St. since 1997, so we are very conscious of how changes in the Strip's character, particularly in the population of trees, could affect us. A time honored tradition among children going to and from school has been to walk along the top of the stone wall that fronts our property and the Strip. Pedestrians on Mellen Street often enjoy sitting on the stone wall. We have no problem with either activity on our property. We would point out, however, that as regards the Strip, the overgrown nature of the trees and bushes along the wall and the deteriorated condition of the wall itself have acted to discourage any activity in the Strip itself, thus preserving it as a noise and privacy buffer.

If, however, the City does grant permission for the Strip to be cleared and the trees are replaced with grass, it will become in effect a small park and be a very inviting place for children and members of the adult public to play and hang out with the accompanying negative consequences mentioned above. A major concern is that without the trees to absorb sound, the Strip will become a kind of echo chamber that bounces sounds off the two buildings and magnifies them whether they originate there or from the street, and, as we all know, Mellen St. is a very busy and noisy street. In addition, we have gone to considerable effort and expense to plant vinca and other plants on the steep bank between our driveway and the Strip. We fear that the vinca and the hillside itself will suffer if the trees are simply replaced with grass.

Our goal is to protect the privacy of the residents whose homes border the Strip, preserve the quiet enjoyment of their homes, protect the landscaping on the bank, and discourage the public from cutting through our driveway and parking lot. Rather than have all the trees cut down we would like to see the lot cleaned up a bit and additional plantings done to discourage the use of the Strip as a playground or recreational area.

Should trees be removed, nevertheless, we are very concerned that a fence might become necessary to protect our property and that it might end up being located on the property line between the Strip and 24 Mellen St., thus complicating snow removal and forming a looming presence over our driveway and parking lot. We think it is reasonable to ask the developers to build a fence if one becomes necessary and that any fence be located within the Strip at least seven feet south of the property line between the Strip and 24 Mellen St. It is our understanding that the underground utility corridor, IF it is allowed to be built, will begin at this 7 foot point south of our property line.

On the positive side, we do look forward to the restoration of the retaining wall on Mellen St. and to the maintenance of the sidewalk, particularly in wintertime.

749 Congress Street
Portland, Maine

Site Plan / Subdivision Application

Submitted to
City of Portland

February 22, 2016

Prepared by
PINKHAM & GREER
CIVIL ENGINEERS



28 VANNAH AVE. PORTLAND, ME. 04103
Tel: 207.781.5242 Fax: 207.781.4245

749 Congress Street
Site Plan / Subdivision Application

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Section 12	Architectural Drawings

Design Drawing List

	Cover Sheet
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C1.2	Site Plan
C1.3	Existing Conditions and Demolition Plan
C1.4	Grading and Utilities Plan
C1.5	Erosion Control Plan, Notes and Details
C1.6	Landscape Plan, Notes and Details
C2.1	Site Details
C2.2	Site Details

Plan of Existing Conditions Survey

File: 15156

February 22, 2016

Ms. Barbara Barhydt, Planning Department
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

RE: SITE PLAN AND SUBDIVISION PLAN APPLICATION
749 CONGRESS STREET

Dear Barbara,

We are pleased to submit the attached plans for the redevelopment of 749 Congress Street. This project has two new parts to it and the existing carriage house with its two units stays in place. The existing building will be repurposed into a Bed and Breakfast with 16 rooms. We will also be adding 7 residential townhouses to the back of the property.

This property has a prominent place on Congress Street. It will remain in that same vein. The existing landscaping has overgrown the building. We will be removing it and converting the area back to the traditional lawn. This will be consistent with the architecture.

The site will access off Congress Street with a single curb cut shared with the property next to this one. The 20 foot curb cut will allow for additional sidewalk where the existing curb cut is located.

Utilities for the existing building will remain as they are now. Utilities for the 7 residential units will be new. The water service will come from Congress Street. The electrical, communication, gas, and sewer service will be by Mellen Street.

The utilities from Mellen Street also provide us with a lawn area for residents.

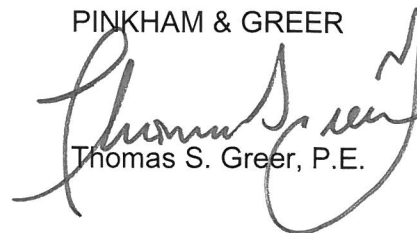
Traffic for this project will generate approximately 200 vehicle trips per day. With peak hourly rates of 20 in the AM and PM peak hours. This is a very small amount given the downtown location.

This project will be a condominium with the residential units for sale.

Please review our application and let me know if you have any questions.

Sincerely,

PINKHAM & GREER



Thomas S. Greer, P.E.

Enclosures

cc: Joe Delois, Tom Federle, David Lloyd, File

TSG/rjs

PROJECT NAME: 749 Congress Street

PROPOSED DEVELOPMENT ADDRESS:

749 Congress Street

PROJECT DESCRIPTION:

This project is the construction of 7 residential town houses and the conversion of the
Congress Street building to a 16 room Bed and Breakfast.

CHART/BLOCK/LOT: 47/A20, A28, A30 & A32

PRELIMINARY PLAN _____ (date)

FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Joe Delois Business Name, if applicable: Denovo LLC Address: 47 Waites Landing Road City/State : Falmouth, ME Zip Code: 04105	Applicant Contact Information Work # 207.899.4068 Home# Cell # 207.232.6274 Fax# e-mail: joedelois@gmail.com
Owner – (if different from Applicant) Name: Martin B. Dassa & Alyssa J. Dassa Trustees Rochelle G. Dassa Residuary Trust Address: 5 Cottonwood Lane City/State : Falmouth, ME Zip Code: 04105	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Agent/ Representative Thomas S. Greer, P.E. Name: Pinkham & Greer, Civil Engineers Address: 28 Vannah Avenue City/State : Portland, ME Zip Code: 04103	Agent/Representative Contact information Work # 207.781.5242 Cell # e-mail: tgreer@pinkhamandgreer.com
Billing Information Name: Denovo LLC (Joe Delois) Address: 47 Waites Landing Road City/State : Falmouth, ME Zip Code: 04105	Billing Information Work # 207.846.9535 Cell # Fax# e-mail: joedelois@gmail.com

Engineer Thomas S. Greer, P.E. Name: Pinkham & Greer, Civil Engineers Address: 28 Vannah Avenue City/State : Portland, ME Zip Code: 04103	Engineer Contact Information Work # 207.781.5242 Cell # Fax# 207.781.4245 e-mail: tgreer@pinkhamandgreer.com
Surveyor Rex Croteau Name: Titcomb Associates Address: 133 Gray Road City/State : Falmouth, ME Zip Code: 04105	Surveyor Contact Information Work # 207.797.9199 Cell # Fax# 207.878.3142 e-mail: rcroteau@titcombsurvey.com
Architect David Lloyd Name: Archetype Architects Address: 48 Union Wharf City/State : Portland, ME Zip Code: 04101	Architect Contact Information Work # 207.772.6022 Cell # Fax# 207.772.4056 e-mail: lloyd@archetypepepa.com
Attorney Thomas Federle Name: FEDERLE LAW Address: 254 Commercial Street City/State :Portland, ME Zip Code: 04101	Attorney Contact Information Work # 207.899.0155 Cell # Fax# e-mail: Tom@federlelawmaine.com

APPLICATION FEES:

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

Level III Development (check applicable reviews) ☒ Less than 50,000 sq. ft. (\$500.00) ☐ 50,000 - 100,000 sq. ft. (\$1,000) ☐ 100,000 – 200,000 sq. ft. (\$2,000) ☐ 200,000 – 300,000 sq. ft. (\$3,000) ☐ over 300,00 sq. ft. (\$5,000) ☐ Parking lots over 11 spaces (\$1,000) ☐ After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) ☐ Planning Staff Review (\$250) ☐ Planning Board Review (\$500) The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) ☐ Traffic Movement (\$1,000) ☐ Stormwater Quality (\$250) ☒ Subdivisions (\$500 + \$25/lot) # of Lots <u>8</u> x \$25/lot = <u>200.00</u> ☐ Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots <u> </u> x \$200/lot = <u> </u> ☐ Other <u> </u> ☐ Change of Use ☐ Flood Plain ☐ Shoreland ☐ Design Review ☐ Housing Replacement ☐ Historic Preservation
--	--

APPLICATION SUBMISSION:

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

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

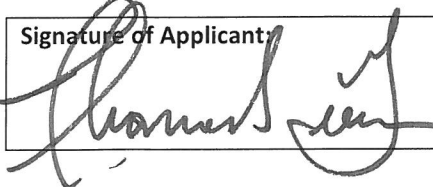
1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c), including evidence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

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

APPLICANT SIGNATURE:

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

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

Signature of Applicant: 	Date: 2/22/16
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PROJECT DATA

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

Total Area of Site	30,928 sq. ft.
Proposed Total Disturbed Area of the Site	140,280 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.	
Impervious Surface Area	
Impervious Area (Total Existing)	21,542 sq. ft.
Impervious Area (Total Proposed)	22,292 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	5,988 sq. ft.
Building Footprint (Total Proposed)	4,786 sq. ft.
Building Floor Area (Total Existing) Former Funeral Home=12,979, Carriage House=4290	sq. ft. 17,269 Total
Building Floor Area (Total Proposed) Bed & Breakfast=12,979, Townhouse=16,856, Carriage House= 4,290	sq. ft. 34,125 Total
Zoning	
Existing	R6 & B-2b
Proposed, if applicable	N/A
Land Use	
Existing	Residential / Funeral Home
Proposed	Residential / Bed & Breakfast
Residential, If applicable	
# of Residential Units (Total Existing)	2
# of Residential Units (Total Proposed)	9
# of Lots (Total Proposed)	1
# of Affordable Housing Units (Total Proposed)	0
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	0
# of One-Bedroom Units (Total Proposed)	0
# of Two-Bedroom Units (Total Proposed)	0
# of Three-Bedroom Units (Total Proposed)	7
Parking Spaces	
# of Parking Spaces (Total Existing)	28
# of Parking Spaces (Total Proposed)	11 exterior / 7 interior
# of Handicapped Spaces (Total Proposed)	0
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	2
Estimated Cost of Project	3.8 Million

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

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

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

- Continued on next page -

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

**Denovo LLC
47 Waites Landing Rd
Falmouth, ME 04105**

February 18, 2016

To Whom It May Concern

This letter is to inform you that Thomas S. Greer and his associates of Pinkham & Greer, Civil Engineers in Portland are hereby authorized to represent me throughout the approval process for the development of 749 Congress Street, Portland, Maine.

This includes representation with the City of Portland and Department of Environmental Protection, as well as any other State, Federal, or local agencies who may become involved in the process.

Should you have any questions or concerns, please feel free to contact me.

Sincerely,



Denovo LLC
Joseph Delois
Manager

749 Congress Street

File: 15156

Summary of Easements

This project benefits from an easement from Congress Street to access the site. See attached deeds.

Financial & Technical Ability

Attached is a letter from Saco & Biddeford Savings Institution concerning financial ability to complete the project. This project has a complete design team of:

FEDERLE LAW
254 Commercial St.
Portland, ME 04101

Archetype Architects
48 Union Wharf
Portland, ME 04101

Titcomb Associates
133 Gray Road
Falmouth, ME 04105

Pinkham & Greer, Civil Engineers
28 Vannah Avenue
Portland, ME 04103

Traffic & Transportation Analysis

This project will have a mix of 7 Residential Units and a Bed and Breakfast. We expect that many of the residents will walk, bike, or take public transportation. Based on that, we anticipate a 7 trip per day rate from the residential portion of the project and 140 from the Bed and Breakfast, or 200 average daily trips. The peak PM and AM trips are anticipated to be 10% of the total, or 20 peak hour trips.

This increase in vehicle traffic is extremely small and will have minimal impact on the neighboring road network.

This site has direct access to sidewalks in the neighborhood. This provides excellent pedestrian access to the area. The project provides for indoor bike storage and exterior bike storage. We anticipate that this will be a major component of transportation for the building occupants based on the anticipated demographics.

Natural Features

This site is fully developed in the existing condition. There are no wetlands, floodplains, or significant wildlife habitats on site.

749 Congress Street

File: 15156

Stormwater

This site currently has 21,542 sq. ft. of impervious surface. The proposed site will have 22,292 sq. ft. of impervious surface. The increase is less than 1,000 sq. ft. No stormwater management is required.

Solid Waste

The construction waste will be recycled and disposed of at the EcoMaine facility on Riverside Street.

The domestic solid waste will be collected and stored in a room on the lower floor. A private waste hauler will be used for removal. The removal schedule will be based on the generation rate. Based on 4.5#/day per person, we estimate 33 tons per year of solid waste will be generated.



Westbrook - PHONE: (207) 602-7404 FAX: (207) 504-8117

2 Hannaford Drive, Westbrook, ME 04072

February 18, 2016

Portland Planning Board
389 Congress Street
Portland, Me 04101

RE: 749 Congress Street Renovations

Please be advised that Joe DeLois (Denovo, LLC) has the financial capability to develop a property located at 749 Congress Street into a 16 room hotel/ restaurant and to build a 7 unit condominium.

SBSI has worked with Joe DeLois on many occasions and finds him to be a very experienced Real Estate Developer with the knowledge and financial strength to complete the project listed above.

Should you have any questions please feel free to contact me directly at (207)602-7404 or jeanm@sbsavings.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Jean', written over a horizontal line.

Michael Jean
VP/Business Loan Officer
2 Hannaford Drive
Westbrook, Me 04098

Zoning

749 Congress Street

File: 15156

This property is in two zones. The Mellen Street portion is in the R-6. Utilities will come through that portion of the site. The remaining portion of the site is in the B-2b Zone.

Multifamily dwellings and bed and breakfast uses are allowed in the B-2b zone as permitted uses. The bed and breakfast use is subject to the following:

5. Bed and. breakfast, subject to the standards of article V (site plan), sections 14-522 and 14-523 notwithstanding. A bed and breakfast may include a meeting facility if the facility meets the following standards:

a. The meeting facility shall be limited to the following types of uses:

- i. Private parties.
- ii. Business meetings.
- iii Weddings.
- iv. Receptions.
- v. Seminars.
- iv. Business and educational conferences.

b. The building in which the bed and breakfast and the meeting facility will be located was in existence on March 3, 1997, and was greater than four thousand (4,000) square feet in floor area on that date.

The dimensional requirements are summarized below:

Minimum Lot Size	None
Minimum Street Frontage	20 feet
Front Yard Setback Minimum	None
Rear Yard Setback Minimum	10 feet, except as provided for below: a. 5 feet for accessory structures
Side Yard Setback Minimum	None required, except as provided for below: a. 5 feet for accessory structures
Side Yard on Side Street Setback Minimum	None
Front Yard Maximum¹	No more than 10 feet, except that the Planning Board or Planning Authority may approve a different amount for irregularly shaped lots or lots with frontage less than 40 feet provided this standard is met to the maximum extent practicable. ²
Structure Stepbacks	Portions of a structure above 35 feet shall be no closer than 5 feet from the side property line and no closer than 15 feet from the rear property line when such property line abuts a residential zone.
Height maximum	45 feet except as provided for below: a. 50 feet if first floor is partially or wholly occupied by a commercial use. b. 65 feet in B-2 and B-2c zones on lots >5 acres provided that all setbacks, except for front yard setbacks and side yard on side street setbacks, increase by 1 foot for each foot of height over 45 feet. c. 65 feet within 65 feet of Franklin St.
Maximum Impervious Surface Ratio	a. For residential uses: None b. For all other permitted uses: 80% in B-2 and B-2c c. For all other permitted uses: 90% in B-2b
Minimum Lot Area per Dwelling Unit	a. Off-peninsula locations, as defined in section 14-47: 1,500 square feet, except as provided for in (b) below. b. On-peninsula locations (as per 14-47) and projects with active street frontages, as defined in section 14-188, below: 435 square feet.

749 Congress Street
File: 15156

Waivers:

We request a waiver from the size of parking spaces. We will provide spaces of 8' x 18'-0".

We also request a waiver of the Street Trees. A payment to the Street Tree Fund will be made.

CONTRACT FOR THE SALE OF COMMERCIAL REAL ESTATE

RECEIVED from Denovo LLC, whose mailing address is 47 Waites Landing Rd., Falmouth, ME 04105 (hereinafter called "Purchaser"), this 5th day of August, 2015, the sum of Ten Thousand Dollars (\$ 10,000.00) as earnest money deposit toward purchase and sale of certain real estate owned by MARTIN B. DASSA & ROCHELLE, G. DASSA RESIDUARY TRUST (hereinafter called the "Seller") and located at 747 Congress St in the city/town of Portland, County of Cumberland, State of Maine, described as follows: Map 47, Lots A028001 and A020001 Legal Descriptions: 47-A-28-32 Congress ST R 747-761 and 47-A-20-30 Congress ST 747-753 and being more fully described at said County Registry of Deeds in Book attached A, Page attached A, upon the terms and conditions indicated below.

1. PERSONAL PROPERTY: The following items of personal property are included in this sale (if applicable):
None
2. PURCHASE PRICE: The total Purchase Price is _____ Dollars
(), with payment made as follows:
Earnest money to be delivered on or before 08/05/2015 :
Other: _____
Other: _____
Balance due at closing, in immediately-available funds: _____
3. EARNEST MONEY/ACCEPTANCE: KW COMMERCIAL ("Escrow Agent") shall hold the earnest money in a non-interest bearing account and act as escrow agent until closing. This offer shall be valid until August 5, 2015 at 5:00 (☐ AM ☒ PM). In the event of Seller's non-acceptance of this offer, the earnest money shall be returned promptly to Purchaser.
4. TITLE: Within 60 days of the Effective Date (the "Title Review Period"), Purchaser shall notify Seller in writing (the "Title Objection Notice") of any matters affecting title to the property that are objectionable to Purchaser in Purchaser's sole discretion ("Title Defects"). Purchaser shall be deemed to have waived the right to object to any matter affecting title as of the Effective Date, except for any mortgage, tax lien, mechanics' lien, judgment lien, or other liens encumbering the property (for which no objection is required), if Purchaser fails to specifically identify such matters in the Title Objection Notice (each matter not objected to being a "Permitted Encumbrance"). Within seven (7) days of Seller's receipt of the Title Objection Notice, Seller shall notify Purchaser in writing whether or not Seller elects to cure any of the matters identified in the Title Objection Notice. If Seller elects to cure certain Title Defects, Seller shall use good faith efforts to cure such Title Defects and shall have a period of not more than thirty (30) days after notice of Seller's election within which to cure any such Title Defects (the "Title Cure Period"), and the Closing Date shall be extended until five (5) days after the expiration of the Title Cure Period. Seller agrees that, after the Effective Date, it shall not permit or suffer encumbrance of the property with any liens, easements, leases or other encumbrances without Purchaser's prior written consent, except that Purchaser shall not unreasonably withhold or delay its consent to new leases. On or before the Closing Date, Seller shall remove at its sole cost any such matters affecting the title to the property suffered or created by or consented to by Seller after the Effective Date that are not approved in writing by Purchaser. If Seller elects not to cure any Title Defects or if Title Defects which Seller elects to cure are not cured within the Title Cure Period, then Purchaser shall elect, by written notice to Seller on or before the Closing Date, as the same may be extended, either (i) to accept title to the property subject to such uncured Title Defects without reduction of the purchase price and without any liability on the part of Seller therefor, in which case such Title Defects shall be Permitted Encumbrances, or (ii) to terminate this Contract, whereupon the earnest money immediately shall be returned to Purchaser and neither party shall have any further obligations under this Contract.
5. DEED: In return for payment in full of the purchase price, Seller shall convey the property on see addendum (the "Closing Date") to Purchaser by Maine Statutory Short-Form quit claim with covenants Deed (the "Deed"), and the parties agree to execute and deliver on the Closing Date such other documents that are customary and/or reasonably necessary to complete the conveyance. It is a condition to Purchaser's obligations hereunder that title to the property shall be free and clear of all liens and encumbrances except for the following matters and otherwise in compliance with the requirements of this Contract: (i) zoning restrictions and land use laws and regulations and permits and approvals issued pursuant thereto; (ii) current taxes and assessments attributable to periods from and after the Closing, which Purchaser shall be liable to pay; (iii) leases and occupancies disclosed to Purchaser pursuant to Section 11 below; and (iv) any Permitted Encumbrance.

6. **LEASES/TENANT SECURITY DEPOSITS:** Seller agrees at closing to transfer to Purchaser, by proper assignment thereof, all Seller's rights under the current leases to the property and any and all security deposits held by Seller pursuant to said leases.
7. **POSSESSION/OCCUPANCY:** Possession/occupancy of property shall be given to Purchaser on the Closing Date subject only to the leases and tenancies disclosed to Purchaser pursuant to Section 11 below, unless otherwise agreed by both parties in writing.
8. **RISK OF LOSS:** Until transfer of title, the risk of loss or damage to the property by fire or otherwise is assumed by Seller unless otherwise agreed in writing. The property shall at closing be in substantially the same condition as of the Effective Date, excepting reasonable use and wear. If the property is materially damaged or destroyed prior to closing, Purchaser may either terminate this Contract and be refunded the earnest money deposit, or close this transaction and accept the property in its as-is condition together with an assignment of the Seller's right to any insurance proceeds relating thereto.
9. **PRORATIONS:** The following items shall be prorated as of the Closing Date:
- Real Estate Taxes based on the municipality's tax year. Seller is responsible for any unpaid taxes for prior years.
 - Fuel.
 - Metered utilities, such as water and sewer, shall be paid by the Seller through the date of closing.
 - Purchaser and Seller shall each pay one-half of the transfer tax as required by the laws of the State of Maine.
 - Rents, estimated monthly common area maintenance charges, estimated monthly property tax payments, and all other additional revenue received by Seller pursuant to leases of the property.
 - none
10. **DUE DILIGENCE:** Purchaser is advised to seek information from professionals regarding any specific issue of concern. Purchaser acknowledges receipt of property disclosure form attached hereto. Neither Seller nor the Real Estate Licensees identified below make any representations or warranties regarding the condition, permitted use or value of Seller's real or personal property. Purchaser's obligation to close under this Contract is conditioned upon Purchaser's satisfaction with its investigations of the property, which may without limitation include survey, environmental assessment, engineering studies, wetlands or soils studies, zoning compliance or feasibility, and code compliance, all within 60 days of the Effective Date.

All investigations will be done by professionals chosen and paid for by Purchaser. If the result of any investigation is unsatisfactory to Purchaser, Purchaser may declare this Contract null and void by notifying Seller in writing within the specified number of days set forth above, and said earnest money shall be returned to Purchaser. If Purchaser does not notify Seller that Purchaser's investigations are unsatisfactory within the time period set forth above, this contingency is waived by Purchaser. In the absence of any investigations(s) mentioned above, Purchaser is relying completely upon Purchaser's own opinion as to the condition of the property. Purchaser agrees to restore any disturbance to the property caused by Purchaser's investigations, and Purchaser agrees to indemnify and hold Seller harmless for any claims, damages, losses or costs, including without limitation reasonable attorneys' fees, incurred or suffered by Seller as a result of Purchaser's investigations of the property, which indemnification obligation shall survive termination or closing under this Contract.

11. **REVIEW OF LEASES AND INCOME AND EXPENSE INFORMATION:** Seller represents: (a) that below is a complete list of all tenants occupying the property under leases or other tenancy arrangements or agreements (the "Leases"), (b) that the Leases are in full force and effect, (c) that to Seller's knowledge, all tenants under the Leases are in full compliance therewith and (d) that Seller is not in violation of its obligations under the Leases. Seller agrees to provide Purchaser within five (5) days of the Effective Date of this Contract complete copies of all Leases, including any amendments, and income and expense information concerning the property. Purchaser shall have 10 days from the date Purchaser has been provided all Leases and income and expense information to review same, and if the result of the review is unsatisfactory to Purchaser, Purchaser may declare the Contract terminated and the earnest money shall be immediately refunded to Purchaser and thereafter neither party shall have any further obligation under this Contract. Seller represents and warrants that income and expense information provided to Purchaser will be true, accurate and complete in all material respects when given. ~~Seller shall use reasonable efforts to obtain a tenant estoppel certificate and a subordination, non disturbance and attornment agreement in form reasonably satisfactory to Purchaser and/or Purchaser's lender for each Lease within N/A days from delivery of forms therefor. Purchaser shall also on a rolling basis have N/A days from the date of actual receipt of fully executed written tenant estoppel certificates in which to terminate this Contract pursuant to this Section 11 due to unsatisfactory information contained therein and upon such termination the earnest money shall be immediately refunded to Purchaser and thereafter neither party shall have any further obligation under this Contract.~~ Between the Effective Date and the closing, Seller shall not modify, voluntarily terminate or enter into new leases or tenancy arrangements or agreements and shall obtain Purchaser's written consent to any modification or termination of Leases and to any new lease that Seller proposes to enter into with respect to the property, Purchaser's consent not to be unreasonably withheld, conditioned or delayed. In the event that Seller modifies or terminates any Leases or enters into a new Lease without Purchaser's consent, Purchaser's sole remedy shall be to terminate this Contract and receive an immediate refund of the earnest

money and thereafter neither party shall have any further obligation under this Contract. Failure of Purchaser to timely notify Seller of its termination of the Contract pursuant to any of its foregoing rights to do so under this Section 11 shall be deemed to be a waiver of the applicable right under this Section 11 to terminate the Contract. At the closing, Seller shall deliver written notice to the tenants and occupants of the property of the transfer of the property, and of the tenants' security deposits, to Purchaser. List tenants: Leases to follow.

12. **FINANCING:** Notwithstanding anything to the contrary contained in this Contract, Purchaser's obligation to close hereunder is conditioned upon Purchaser's obtaining within Ninety (90) days from the Effective Date of this Contract (the "Commitment Date") a written commitment (the "Commitment") from a lender for a mortgage loan of not less than 80.000 % of the purchase price at an initial interest rate not to exceed 5.750 % per annum, amortized over a period of not less than Twenty (20) years and otherwise on terms reasonably acceptable to Purchaser. In the event the Purchaser is unable to obtain the Commitment and Purchaser notifies Seller thereof by the Commitment Date, then Escrow Agent shall immediately return the earnest money to Purchaser, this Contract shall terminate, and neither party shall be under any further obligation under this Contract. It shall be a further condition of Purchaser's obligation to close hereunder that the Commitment shall not lapse, be terminated and/or withdrawn prior to the Closing Date for any reason whatsoever, including but not limited to the property failing to appraise at or above the Purchase Price, or any such other level acceptable to Purchaser and Purchaser's lender sufficient to support the Commitment. In the event the Commitment shall lapse, be terminated and/or withdrawn by Purchaser's lender for any reason (other than at the request of Purchaser) at any time prior to the Closing Date, Purchaser shall within Five (5) days of Purchaser's receipt of notice of lapse, termination and/or withdrawal notify Seller of same, and upon such notification Purchaser may, at Purchaser's option, elect to terminate this Contract and thereafter the earnest money immediately shall be returned to Purchaser and neither party shall have any further obligation under this Contract. If Purchaser does not timely notify Seller that it has failed to obtain the Commitment or that the Commitment has lapsed, terminated and/or been withdrawn, then Purchaser shall be in default of this Contract at the election of Seller. This contingency benefits Purchaser only, and only Purchaser may waive it by providing written notice to Seller specifically waiving this condition and contingency or any part thereof.
13. **AGENCY DISCLOSURE:** Purchaser and Seller acknowledge that they have been informed that n/a ("Transaction Broker") is acting as a transaction broker in this transaction and does not have a client relationship with either Purchaser or Seller. Nate DeLois Above Horizons ("Selling Agent") is acting as a Buyer's agent in this transaction and is representing Denovo LLC and that Ed Herczeg KW Commercial ("Listing Agent") is acting as a Listing agent in this transaction and is representing Martin Dassa & Rochelle G. Dassa Residuary Trust (Transaction Broker, Selling Agent and Listing Agent are referred to elsewhere herein as "Licensees").
14. **DEFAULT:** If the sale of the property as contemplated hereunder is not consummated solely by reason of Purchaser's default hereunder, provided that Seller is then ready, willing and able to consummate the sale of the property as contemplated by this Contract and provided further that all conditions to Purchaser's obligation to consummate such purchase have been satisfied or waived by Purchaser, Seller shall be entitled to either (i) ~~pursue any and all legal and/or equitable remedies~~ or (ii) terminate this Contract and receive the earnest money as full and complete liquidated damages for the breach of this Contract, it being agreed between the parties that the actual damages to Seller in the event of such breach are difficult to ascertain and/or prove and the earnest money is a reasonable estimate and forecast of such actual damages. The parties acknowledge that the payment of the earnest money is not intended as a forfeiture or penalty, but is intended to constitute liquidated damages to Seller. In the event of an undisputed default by either party, the Escrow Agent may deliver the earnest money to the party entitled to it under this Contract, with written notice to both parties pursuant to Maine Real Estate Commission regulations. If a dispute arises between Purchaser and Seller as of the existence of a default hereunder and said dispute is not resolved by the parties within thirty (30) days, the Escrow Agent may elect to file an action in interpleader and deposit the earnest money in the court to resolve said dispute, or otherwise disburse the earnest money pursuant to Maine Real Estate Commission regulations. Purchaser and Seller, jointly and severally, shall indemnify Escrow Agent for all costs, losses, expenses, and damages, including reasonable attorneys' fees, incurred by the Escrow Agent in connection with said action and/or in connection with any dispute relating to this Contract and/or the earnest money. *If seller fails to perform its obligations as set forth in this Agreement then purchaser shall be entitled to the return of the earnest money and shall have all other rights and remedies available in law or equity, including specific performance.*
15. **MEDIATION:** Any dispute or claim arising out of or relating to this Contract or the property addressed in this Contract shall be submitted to mediation in accordance with the Maine Residential Real Estate Mediation Rules of the Maine Association of Dispute Resolution Professionals or its successor organization. This clause shall survive the closing of this transaction.
16. **PRIOR STATEMENTS:** This Contract sets forth the entire agreement between the parties, and there are no other representations, agreements or understandings with respect to the subject matter of this Contract. This Contract shall be construed according to the laws of the State of Maine.

17. **HEIRS/ASSIGNS:** This Contract shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of Seller and assigns of Buyer.
18. **COUNTERPARTS:** This Contract may be signed on any number of identical counterparts, including telefax copies and electronically transmitted copies with the same binding effect as if all of the signatures were on one instrument.
19. **EFFECTIVE DATE:** This Contract is a binding contract when signed by both Seller and Purchaser and when that fact has been communicated to all parties or to their agents. Time is of the essence of this Contract. Seller or Licensees are given permission by the parties to complete the Effective Date blank below with the date of the last signature of the parties, and that date shall be the Effective Date for all purposes under this Contract, and if that blank is not completed, then the Effective Date shall be the date of the last signature of the parties. Except as expressly set forth to the contrary in this Contract, the use of the term "days" in this Contract, including all addenda made a part hereof, shall mean calendar days. Deadlines in this Contract, including all addenda, expressed as "within x days" or the like shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 pm, Eastern Time, on the last day counted.
20. **CONFIDENTIALITY:** Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the closing statement to release a copy of the closing statement to the parties and their licensees prior to, at and after the closing.
21. A copy of this Contract is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, consult an attorney.
22. Seller acknowledges that the laws of the State of Maine provide that every buyer of real property located in Maine must withhold a withholding tax equal to 2 1/2 % of the consideration unless Seller furnishes to Purchaser a certificate by the Seller stating, under penalty of perjury, that Seller is a resident of the State of Maine or the transfer is otherwise exempt from withholding.
23. **ADDENDA:** This Contract has addenda containing additional terms and conditions. Yes ☒ No ☐.
24. **OTHER PROVISIONS:**

The parties agree that none of the above are collateral agreements. It is the intent of the parties that except as expressly set forth in this Contract, all covenants, representations, statements and obligations of both parties herein shall not survive closing.

Denovo LLC
 Legal Name of Purchaser

26-3256054
 Tax ID #

By: _____

Signature

Joseph DeLois
 Name/Title, thereunto duly authorized

Seller accepts and agrees to the terms and conditions set forth in this Contract and agrees to pay the Licensees the commission for services according to the terms of the listing agreement or if there is no listing agreement, the sum of _____. In the event the earnest money is forfeited by Purchaser, it shall be evenly distributed between (1) Licensees and (2) Seller; provided, however, that the Licensees' portion shall not exceed the full amount of the commission specified.

Signed this _____ day of _____, _____.

MARTIN B. DASSA & ROCHELLE, G. DASSA
RESIDUARY TRUST
 Legal Name of Seller

Tax ID # _____

DocuSigned by:

By: Martin Dassa

55F21B6AC91F47C...

Signature

Name/Title, thereunto duly authorized

By: Kelle Williams/KW Commercial

Legal Name of Escrow Agent

Name/Title, thereunto duly authorized

By: Elizabeth Breck Director

Signature

EFFECTIVE DATE OF THIS CONTRACT: AUG 7, 2015

Addendum 1 to Agreement

Addendum to contract dated August 5, 2015

between MARTIN B. DASSA & ROCHELLE, G. DASSA RESIDUARY TRUST (hereinafter "Seller")

and Denovo LLC (hereinafter "Buyer")

property 747 Congress St, Portland,

1. Due Diligence Materials: Within 5 business days following the execution of the Contract, Seller shall deliver to Buyer all documents related to the Property in Seller's possession, including but not be limited to the following:
 - a. Current tax assessment statements and copies of the most recent tax bills.
 - b. All contracts, leases, or agreements affecting the property including but not limited to any reciprocal ingress and egress agreements.
 - c. All plans including but not limited to any existing civil, architectural, landscaping or other plans related to the subject property.
 - d. All environmental hazardous materials reports and studies.
2. Upon the Expiration of the Due Diligence Period all Earnest Money Deposits shall become non-refundable and Buyer shall deposit an additional non-refundable \$25,000 into escrow, subject to Closing Conditions and Governmental Approvals/Zoning.
3. The close of escrow shall occur 30 days after Buyer receives all Governmental Approvals/Zoning subject to the satisfaction of the remaining Closing Conditions, as defined in Addendum 2.
4. There shall be no contracts, options to purchase, or rights of first refusal that will impede Seller from delivering exclusive possession of the Property to Purchaser at Closing.
5. All Due Diligence Periods shall run congruently.

Parties acknowledge Agency's advice to seek legal, tax and other professional advice as necessary in connection with sale/purchase of property.

Buyer
Denovo LLC

Date

8/5/15

Buyer

Date

DocuSigned by:

Martin Dassa

8/4/2015

Seller

35F21B6AC91F47C...

Date

MARTIN B. DASSA & ROCHELLE

DocuSigned by:

Martin Dassa

8/4/2015

Seller

35F21B6AC91F47C...

Date

G. DASSA RESIDUARY TRUST

Addendum 2 to Agreement

Addendum to contract dated August 5, 2015

between MARTIN B. DASSA & ROCHELLE, G. DASSA RESIDUARY TRUST (hereinafter "Seller")

and Denovo LLC (hereinafter "Buyer")

property 747 Congress St, Portland,

1. Closing Conditions: The Closing shall be conditioned upon the satisfaction or waiver of all of the following items (the "Closing Conditions"). In the event the Buyer and/or Seller, as the case may be, are unable to satisfy all of the contingencies as set forth below; Buyer shall have the option to terminate and cancel the Contract whereupon any and all Earnest Money Deposits shall be returned to Buyer immediately.

a. Governmental Approvals/Zoning: Buyer, with the assistance of Seller, shall have 90 days following the Due Diligence period to receive any and all governmental and zoning approvals commensurate with Buyer's and its tenant's intended use and development of the property, including, but not necessarily limited to such approvals and consents from the City of Portland, the Building Department, Planning Commission, City Council, and any other applicable governmental authority. Such consents and approvals may include but shall not be limited to approval of zoning of the Property for the planned use, rezoning of the Property (if required) or any other required governmental land use, zoning, landscaping, architectural, use, building permits, development approvals or other discretionary permits, consents and non-reviewable, non-appealable approvals, (collectively the "Approvals"). Seller shall cooperate fully with Buyer in obtaining the Approvals. To the extent Buyer determines to seek the Approvals, Buyer shall bear all fees and expenses incurred in connection therewith and indemnify Seller from any liability for any costs or liabilities incurred to any consultants or professionals.

b. Buyer shall have three (3) options to extend the Governmental Approvals/Zoning period for 30 days each by depositing \$5,000 into escrow for each period.

Parties acknowledge Agency's advice to seek legal, tax and other professional advice as necessary in connection with sale/purchase of property.

Buyer
Denovo LLC

Date

8/5/15

Buyer

Date

DocuSigned by:

Martin Dassa

8/4/2015

Seller

MARTIN B. DASSA & ROCHELLE

DocuSigned by:

Martin Dassa

8/4/2015

Seller

G. DASSA RESIDUARY TRUST

SCHEDULE "A"

Assessor's Office | 389 Congress Street | Portland, Maine 04101 | Room 115 | (207) 874-8486

[City](#) [Home](#) [Departments](#) [City Council](#) [E-Services](#) [Calendar](#) [Jobs](#)

This page contains a detailed description of the Parcel ID you selected.

[New Search!](#)

Current Owner Information:

Services

[Applications](#)
[Doing Business](#)
[Maps](#)
[Tax Relief](#)
[Tax Roll](#)
[Q & A](#)
[browse city services a-z](#)
[browse facts and links a-z](#)


Best viewed at
800x600, with
Internet Explorer

CBL	047 A028001
Land Use Type	TWO FAMILY
Verify legal use with Inspections Division	
Property Location	747 CONGRESS ST
Owner Information	DASSA MARTIN B & ALYSSA J DASSA TRUSTEE 5 COTTONWOOD LN FALMOUTH ME 04105
Book and Page	28907/208
Legal Description	47-A-28-32 CONGRESS ST R 747-761
	20061 SF
Acres	0.4605

Current Assessed Valuation:

TAX ACCT NO.	7408	OWNER OF RECORD AS OF APRIL 2014
LAND VALUE	\$100,300.00	DASSA MARTIN B &
BUILDING VALUE	\$247,900.00	ALYSSA J DASSA TRUSTEE
NET TAXABLE - REAL ESTATE	\$348,200.00	5 COTTONWOOD LN FALMOUTH ME 04105
TAX AMOUNT	\$6,964.00	

Any information concerning tax payments should be directed to the
Treasury office at 874-8490 or [e-mailed](#).

Building Information:

Building 2

Year Built	1900
Style/Structure Type	OLD STYLE
# Stories	1.5
# Units	2
Bedrooms	4
Full Baths	2
Total Rooms	10
Attic	NONE
Basement	FULL
Square Feet	2503

[View Sketch](#)
[View Map](#)
[View Picture](#)

Outbuildings/Yard Improvements:

Building 1

Year Built	1974
-------------------	------

Structure ASPHALT PARKING
Size 23000
Units 1
Grade C
Condition 3

Building 1
Year Built 1986
Structure FENCE STOCKADE
Size 1X600
Units 1
Grade C
Condition 3

Building 1
Year Built 1986
Structure FENCE STOCKADE
Size 1X556
Units 1
Grade C
Condition 3

Sales Information:

Sale Date	Type	Price	Book/Page
8/23/2011	LAND + BUILDING	\$0.00	28907/208
11/15/2006	LAND + BUILDING	\$799,500.00	24573/113
5/23/2001	LAND + BUILDING	\$0.00	16332/91
9/4/1997	LAND + BUILDING	\$0.00	13301/67
9/30/1994	LAND + BUILDING	\$0.00	11651/182

New Search!

"A"

Assessor's Office | 389 Congress Street | Portland, Maine 04101 | Room 115 | (207) 874-8486

[City](#) [Home](#) [Departments](#) [City Council](#) [E-Services](#) [Calendar](#) [Jobs](#)

This page contains a detailed description of the Parcel ID you selected.

[New Search!](#)**Current Owner Information:****Services**[Applications](#)[Doing Business](#)[Maps](#)[Tax Relief](#)[Tax Roll](#)[Q & A](#)[browse city
services a-z](#)[browse facts and
links a-z](#)Best viewed at
800x600, with
Internet Explorer

CBL	047 A020001
Land Use Type	RETAIL & PERSONAL SERVICE
Verify legal use with Inspections Division	
Property Location	747 CONGRESS ST
Owner Information	DASSA MARTIN B & ALYSSA J DASSA TRUSTEES 5 COTTONWOOD LN FALMOUTH ME 04105
Book and Page	28907/208
Legal Description	47-A-20-30 CONGRESS ST 747-753
	7720 SF
Acres	0.1772

Current Assessed Valuation:

TAX ACCT NO.	7392	OWNER OF RECORD AS OF APRIL 2014
LAND VALUE	\$176,100.00	DASSA MARTIN B &
BUILDING VALUE	\$420,600.00	ALYSSA J DASSA TRUSTEES
NET TAXABLE - REAL ESTATE	\$596,700.00	5 COTTONWOOD LN FALMOUTH ME 04105
TAX AMOUNT	\$11,934.00	

Any information concerning tax payments should be directed to the
Treasury office at 874-8490 or [e-mailed](#).**Building Information:**

	Building 1
Year Built	1900
Style/Structure Type	MIXED RES/COMM
# Units	1
Square Feet	11951

[View Sketch](#)[View Map](#)[View
Picture](#)**Exterior/Interior Information:**

	Building 1
Levels	B1/B1
Size	3859
Use	CONVERTED OFFICE
Height	8
Heating	HW/STEAM
A/C	NONE



Building 1
Levels 01/01
Size 3859
Use CONVERTED OFFICE
Height 9
Walls BRICK/STONE
Heating HW/STEAM
A/C CENTRAL

Building 1
Levels 01/01
Size 750
Use PARKING GARAGE
Height 9
Heating NONE
A/C NONE

Building 1
Levels 02/02
Size 2283
Use CONVERTED OFFICE
Height 9
Walls BRICK/STONE
Heating HW/STEAM
A/C CENTRAL

Building 1
Levels 03/03
Size 1200
Use CONVERTED OFFICE
Height 8
Walls BRICK/STONE
Heating HW/STEAM
A/C UNIT

Other Features:

Building 1
Structure PORCH - COVERED
Size 5X13

Building 1
Structure ELEVATOR - ELEC.
PASSENGER
Size 1500X60

Building 1
Structure CARPORT/CANOPY
Size 322X1

Building 1
Structure PORCH - OPEN UPPER
Size 25X30

Building 1

Structure ENCLOSED ENTRY
Size 4X10

"A"

Building 1
Structure PORCH - COVERED
Size 6X7

Building 1
Structure CANOPY - ONLY
Size 8X20

Building 1
Structure PORCH - OPEN
Size 6X26

Outbuildings/Yard Improvements:

Building 1
Year Built 1978
Structure ASPHALT PARKING
Size 1X1500
Units 1
Grade C
Condition 3

Sales Information:

Sale Date	Type	Price	Book/Page
8/23/2011	LAND + BUILDING	\$0.00	28907/208
11/15/2006	LAND + BUILDING	\$799,500.00	24573/113
9/4/1997	LAND + BUILDING	\$0.00	13301/67

New Search!

PERSONAL REPRESENTATIVE'S DEED
OF DISTRIBUTION

KNOW ALL BY THESE PRESENTS THAT I, MARTIN B. DASSA, of Falmouth, in the County of Cumberland and the State of Maine, the duly appointed and acting Personal Representative of the ESTATE OF ROCHELLE G. DASSA, deceased, late of Falmouth, Maine, whose will was duly admitted to probate as shown by the records of the Probate Court for Cumberland County, Maine, under Docket No. 2011-0289, by the power conferred by the Maine Probate Code and every other power, in distribution of the Estate of said Decedent, do hereby transfer, grant and release to MARTIN B. DASSA and ALYSSA J. DASSA, as Trustees of the ROCHELLE G. DASSA RESIDUARY TRUST u/w/o Rochelle G. Dassa, with a mailing address of 5 Cottonwood Lane, Falmouth, Maine 04105, all of the Decedent's interest in the property located at 747 Congress Street in the Town of Portland, County of Cumberland and State of Maine, and being more particularly bounded and described in Schedule A attached hereto and incorporated herein.

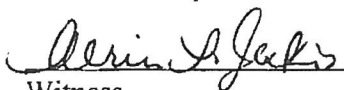
SUBJECT TO the encumbrances listed on Schedule B attached hereto and made a part hereof.

Reference is hereby made to a certain Disclaimer of Martin B. Dassa: Joint Tenancy Interest in Real Estate, dated August 18, 2011, to be recorded in the Cumberland County Registry of Deeds. Further reference is made to a certain Disclaimer of Martin B. Dassa: Portion of Residue of Estate, dated August 18, 2011, to be recorded in said Cumberland County Registry of Deeds.

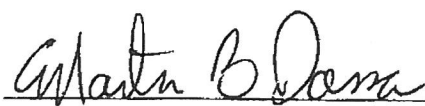
WITNESS my hand and seal this 18th day of August, 2011.

SIGNED, SEALED AND DELIVERED

in the presence of:



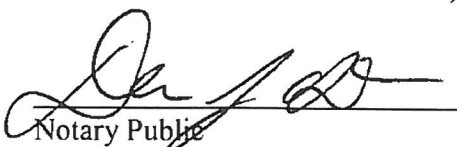
Witness

 (L.S.)

Martin B. Dassa,
Personal Representative
Estate of Rochelle G. Dassa

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.:

On this 18th day of August, 2011, before me personally appeared the above-named Martin B. Dassa and acknowledged the foregoing instrument to be his free act and deed in his said capacity as Personal Representative of the Estate of Rochelle G. Dassa, deceased.



Notary Public

SEAL

Dennis J. O'Donovan, Notary Public
State of Maine
My Commission Expires 3/27/2014

Schedule A

Grantor: Martin B. Dassa, Personal Representative
of the Estate of Rochelle G. Dassa

Grantees: Martin B. Dassa and Alyssa J. Dassa, Trustees
of the Rochelle G. Dassa Residuary Trust u/w/o Rochelle G. Dassa

A certain lot or parcel of land situated on the northeasterly side of Congress Street and the westerly side of Mellen Street in the City of Portland, County of Cumberland, State of Maine and being more particularly bounded and described as follows:

BEGINNING at a #5 rebar with a plastic cap stamped "Des Lauriers PLS 1314" on the northeasterly right-of-way line of Congress Street, said rebar being the southwesterly corner of land now or formerly (N/F) owned by DRE Management as recorded in Book 13698, Page 223 Cumberland County Registry of Deeds (CCRD);

THENCE N 55° 05' 06" W along said northeasterly right-of-way line of Congress Street 65.66' to a #5 rebar with a plastic cap stamped "Des Lauriers PLS 1314";

THENCE N 52° 21' 06" W continuing along said northeasterly right-of-way line of Congress Street 16.59' to a point, said point being the southerly corner of land N/F owned by John A. McIntosh, Jr. as recorded in Book 9618, Page 98 CCRD;

THENCE N 34° 28' 21" E along the southeasterly line of said McIntosh 41.81' to a point;

THENCE N 55° 31' 36" W along the southeasterly line of said McIntosh 1.69' to a point;

THENCE N 34° 16' 06" E along the southeasterly line of said McIntosh 28.14' to a point;

THENCE S 55° 31' 36" E along the southeasterly line of said McIntosh 1.79' to a point;

THENCE N 34° 28' 21" E along the southeasterly line of said McIntosh 27.76' to a railroad spike in a paved parking lot;

THENCE N 34° 34' 58" W continuing along lands of said McIntosh 50.00' to #5 rebar with a plastic cap stamped "Titcomb PLS 1273" said rebar being the southerly corner other lands N/F of John A. McIntosh Jr. as recorded in Book 16332, Page 93, CCRD;

THENCE N 07° 18' 32" E along the easterly line of said McIntosh Jr. 142.39' to a point;

THENCE N 00° 36' 33" W continuing along the easterly line of said McIntosh Jr. 11.94' to a point. Said point being the southeasterly corner of lands N/F of Betty M. Smith as recorded in Book 16732, Page 52, CCRD;

THENCE continuing N 02° 00' 12" E along the easterly line of said Smith 29.39' to a #5 rebar with a plastic cap stamped "Titcomb PLS 1273", said rebar being the southwesterly

corner of lands N/F Otis C. & Mavourenne Thompson as recorded in Book 14839, Page 286, CCRD;

THENCE S 87° 35' 00" E along lands of said Thompson, along lands N/F of Matthew N. Cobb as recorded in Book 18820, Page 323, CCRD and along a line running parallel to and maintaining a distance of 1' from the northerly face of a structure located on the parcel herein described 49.80' to a drill hole in concrete wall, said drill hole being the southwesterly corner of lands N/F of Ralph W. and Donna J. Lamb as recorded in Book 12028, Page 271, CCRD. Said drill hole is also a northwesterly corner of lands N/F of Community Alcoholism Orientation House as recorded in Book 3200, Page 757, CCRD;

THENCE S 02° 28' 54" W along lands of said Community Alcoholism Orientation House 66.28' to a #5 rebar with a plastic cap stamped "Titcomb PLS 1273";

THENCE S 50° 53' 53" E continuing along lands of said Community Alcoholism Orientation House 40.04' to a 1/4" iron rod in twin 10" maple tree;

THENCE S 10° 49' 19" W continuing along lands of said Community Alcoholism Orientation House and along lands N/F of Jacqueline Laird Price as recorded in Book 13527, Page 215, CCRD, 101.74' to a point at the southwesterly corner of said Price;

THENCE S 80° 33' 01" E along lands of said Price 119.19' to a point on the westerly right-of-way line of Mellen Street;

THENCE S 09° 26' 59" W along said westerly right-of-way line of Mellen Street 35.00' to a point, said point being the northeasterly corner of lands N/F of 14 Mellen Street Condominium as recorded in Book 22754, Page 164;

THENCE N 80° 33' 01" W along the northerly line of said Condominium 102.53' to a point;

THENCE S 34° 40' 47" W along the northwesterly line of said Condominium and partially along the northeasterly face of the concrete foundation of a structure located on the parcel herein described a total distance of 43.32' to a #5 rebar with a plastic cap stamped "Titcomb PLS 1273", said rebar being 1' northeasterly from the northeasterly face of the concrete foundation of a structure located on the parcel herein described;

THENCE S 55° 25' 40" E along the southwesterly line of said Condominium and along a line running parallel to and maintaining a distance of 1' from the northeasterly face of the concrete foundation of a structure located on the parcel herein described 26.61' to a #5 rebar with a plastic cap stamped "Des Lauriers PLS 1314";

THENCE S 80° 41' 35" E along the southerly line of said Condominium 3.41' to a #5 rebar with a cap stamped "Titcomb PLS 1273", said rebar being the northwesterly corner of lands of said Dubois Real Estate Management;

THENCE S 35° 05' 35" W along lands of said DRE Management 85.48' along a line which

partially runs parallel to and maintains a distance of 0.5' from a northeasterly face of a structure locate on the parcel herein described to the POINT OF BEGINNING.

The above parcel contains 27,819 SF.

The basis of bearing for the above described parcel is 1985 magnetic north meridian. Meaning and intending to describe a portion of the property conveyed in the deed from SCI Funeral Services, Inc. to JPH Properties, Inc. dated September 30, 1996 in Book 13301, Page 67, CCRD and all of the property conveyed in the deed from John A. McIntosh, Jr. to JPH Properties, Inc. dated April 16, 2001 in Book 16332, Page 91, CCRD.

The property is conveyed together with a perpetual non-exclusive easement and right-of-way for vehicular and pedestrian access as more particularly described in a deed from SCI Maine Funeral Services, Inc. (formerly known as SCI Maine) to JPH Properties, Inc. dated September 30, 1996 and recorded in the Cumberland County Registry of Deeds in Book 13301, Page 67. Also together with the rights and easements relating to water, sewer and utility pipes as described in said deed.

Schedule B

The above-described property is conveyed subject to the following encumbrances:

1. Title to and rights of the public and others entitled thereto in and to those portions of the insured premises lying within the bounds of adjacent streets, roads and ways.
2. Such state of facts as shown on ALTA/ACSM Land Title Survey for SCI Project, 749 Congress Street, Portland, Maine for Martin B. Dassa dated September 13, 2006, revised through October 31, 2006 by Northeast Civil Solutions.
3. Terms and conditions, rights and easements set fourth in deed from John A. McIntosh, Jr. to SCI Maine Funeral Services, Inc, dated September 30, 1994 and recorded in the Cumberland County Registry of Deeds in Book 11651, Page 182.
4. Rights and easements granted to Central Maine Power company and New England Telephone and Telegraph Company by John A. McIntosh, Jr. as set forth in an Easement Deed dated July 16, 1996 and recorded in the Cumberland County Registry of Deeds in Book 12644, Page 70.
5. Rights and easements set forth in a deed from JPH Properties, Inc. To John a. McIntosh, Jr. dated April 27, 2001 and recorded in the Cumberland County Registry of Deeds In Book 16332, Page 93.
6. By acceptance of this deed, the Grantees agree for themselves and their heirs and assigns that the above-described property shall not be used as a funeral home, crematory or cemetery, or be used for casket or monument sales, pre-need funeral or cemetery sales and/or services. This use restriction shall run with the land but shall terminate upon the twentieth (20th) anniversary of the recording of a Quitclaim Deed with Covenant from JPH Properties, Inc. to Martin B. Dassa and Rochelle G. Dassa, dated November 7, 2006, and recorded in the Cumberland County Registry of Deeds in Book 24573, Page 113, on November 15, 2006.

Received
Recorded Register of Deeds
Aug 23, 2011 09:16:05A
Cumberland County
Pamela E. Lovley

PINKHAM & GREER
CIVIL ENGINEERS28 VANNAH AVE. PORTLAND, ME. 04103
Tel: 207.781.5242 Fax: 207.781.4245

File: 15156

February 22, 2016

Ms. Glissen Havu
Portland Water District
PO Box 3553
Portland, ME 04104-3553

RE: CAPACITY TO SERVE LETTER, 749 CONGRESS STREET, PORTLAND

Dear Glissen,

Attached is plan for 749 Congress Street. We are proposing to construct a 7 unit residential building and repurpose the existing building to a Bed and Breakfast. This project will be going through the Planning Board Approval process over the next month.

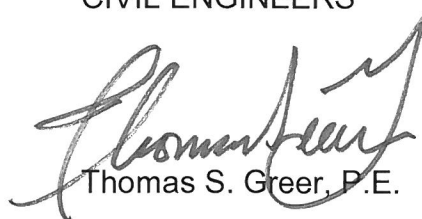
Would you please review our plan and provide an Ability to Serve Letter? Thank you for your assistance. Below are the anticipated flows:

7 – 3 bedroom units at 270 gpds	= 1,890
Bed and Breakfast 16 rooms at 90 + 75 gpd	= <u>1,515</u>
Total	3,405 gpd

Both structures will be sprinkled

Thank you for your assistance.

Sincerely,

PINKHAM & GREER,
CIVIL ENGINEERS
Thomas S. Greer, P.E.

cc: (1) File

enclosure

TSG/rjs

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Date: February 22, 2016

David Margolis-Pineo
Deputy City Engineer
207-874-8850
207-400-6696
dmp@portlandmaine.gov

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 749 Congress Street

Chart Block Lot Number: 47/A20, A28, A30 & A32

Proposed Use: Residential / Funeral Home

Previous Use: Residential / Bed & Breakfast

Existing Sanitary Flows: 550 +/- GPD

Existing Process Flows: 0 GPD

Description and location of City sewer that is to
receive the proposed building sewer lateral.

Mellen Street

Site Category | Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

x

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____

Owner/Developer Name: Denovo LLC (Joe Delois)

Owner/Developer Address: 47 Waites Landing Road, Falmouth, ME 04105

Phone: 207.899.4068 Fax: _____ E-mail: joedelois@gmail.com

Engineering Consultant Name: Pinkham & Greer, Civil Engineers (Thomas S. Greer P.E.)

Engineering Consultant Address: 28 Vannah Avenue, Portland, ME 04103

Phone: 207.781.5242 Fax: 207.781.4245 E-mail: tgreer@pinkhamandgreer.com

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 3,405 GPD

Peaking Factor/ Peak Times: 7am & 6pm

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)

ME Subsurface Wastewater Code

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

n/a

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

n/a

GPD

Do you currently hold Federal or State discharge permits?

Yes

No

Is the process wastewater termed categorical under CFR 40?

Yes

No

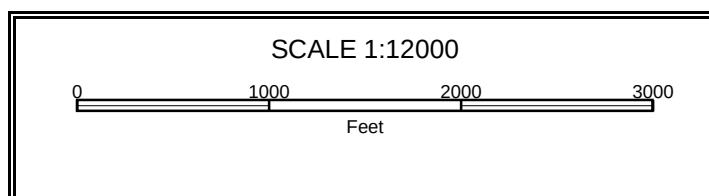
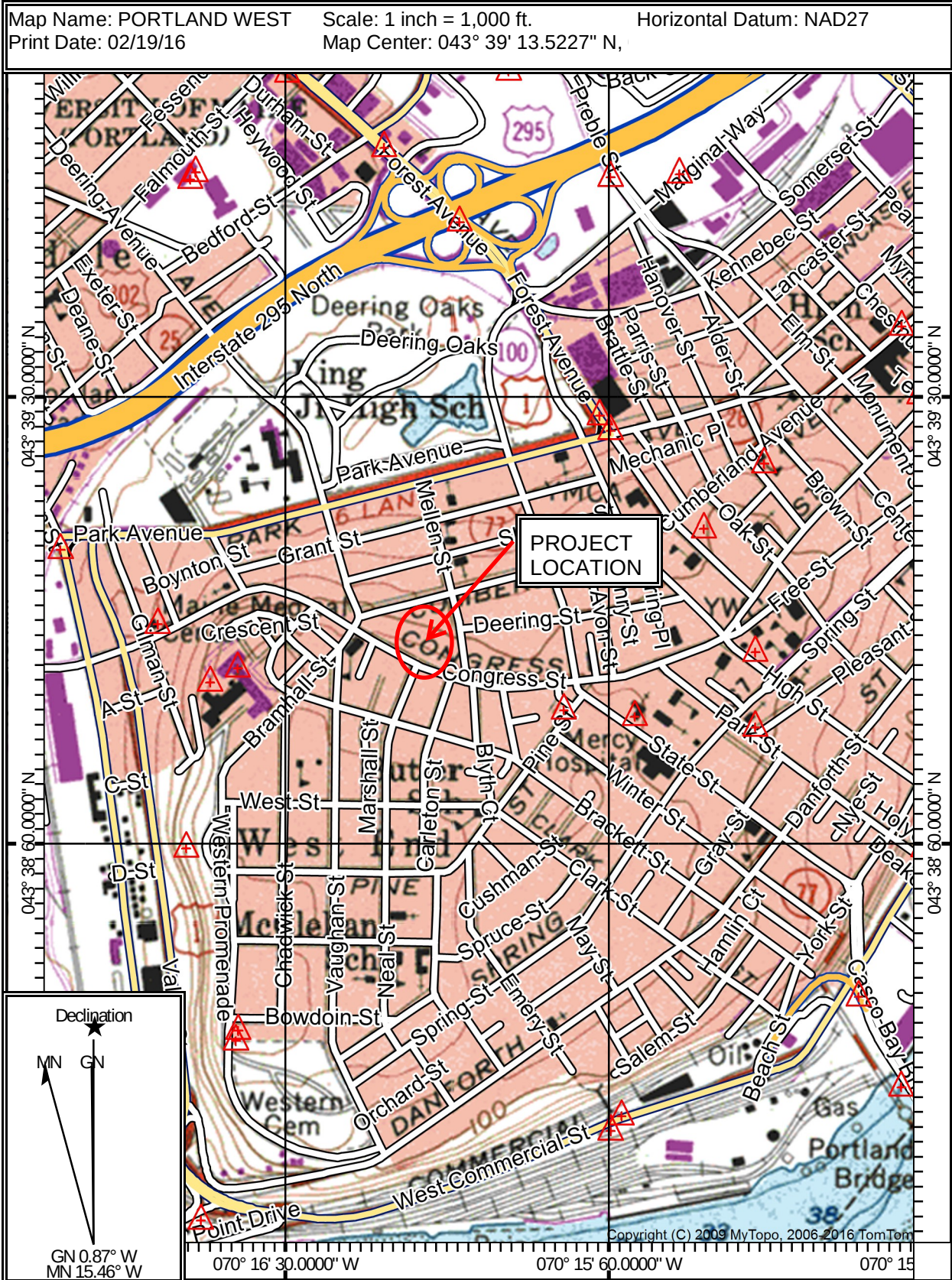
OSHA Standard Industrial Code (SIC):

(<http://www.osha.gov/oshstats/sicser.html>)

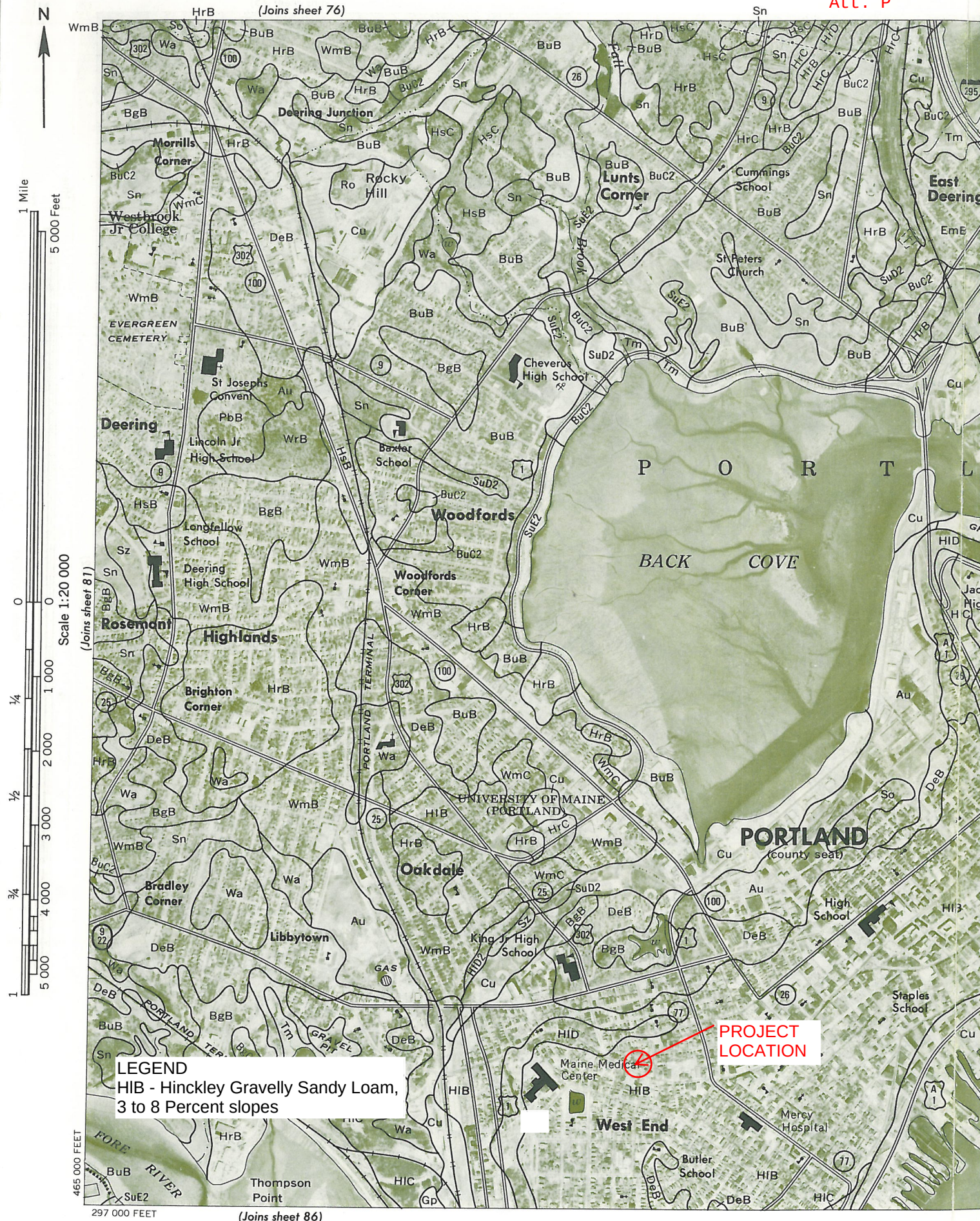
Peaking Factor/Peak Process Times:

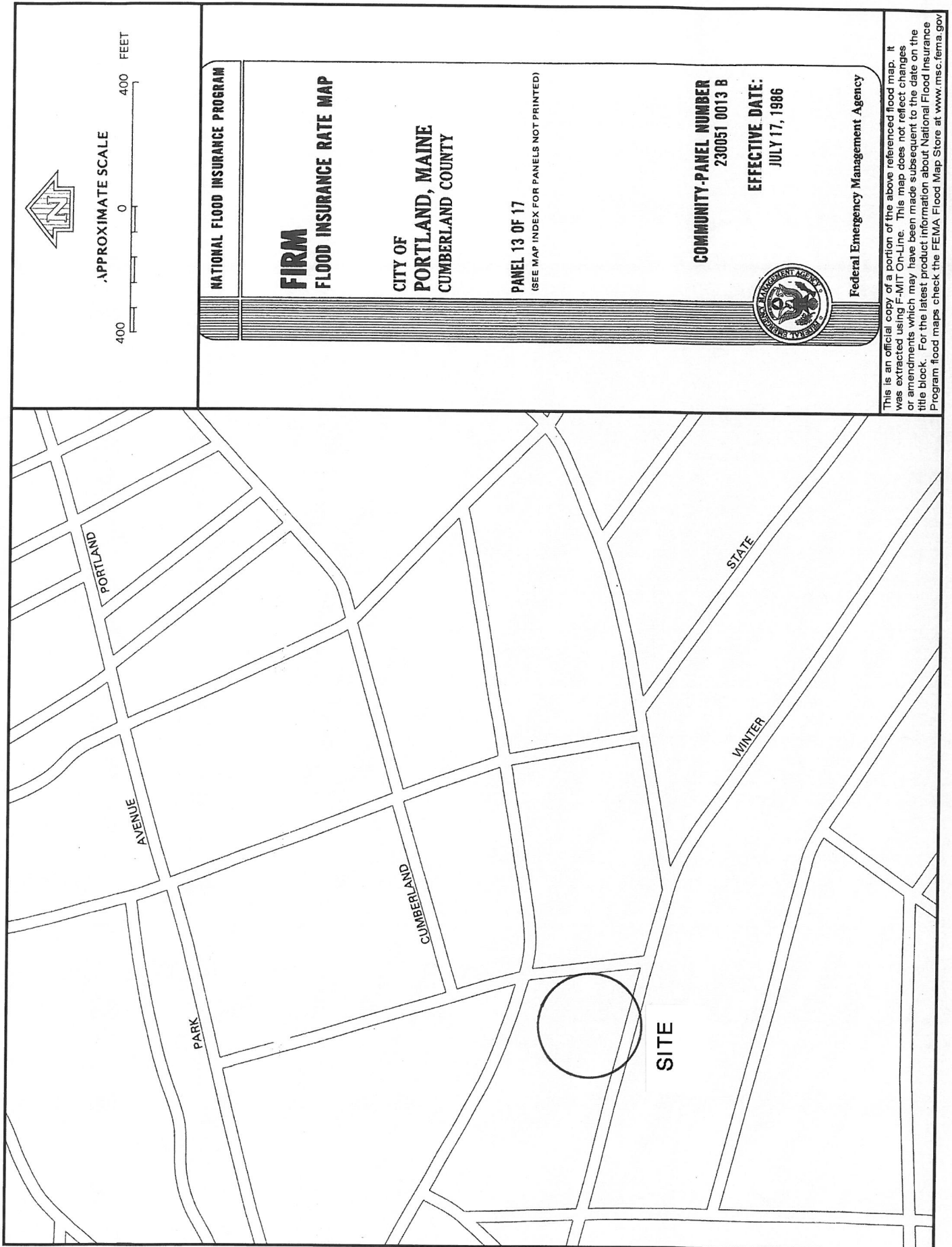
Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps.

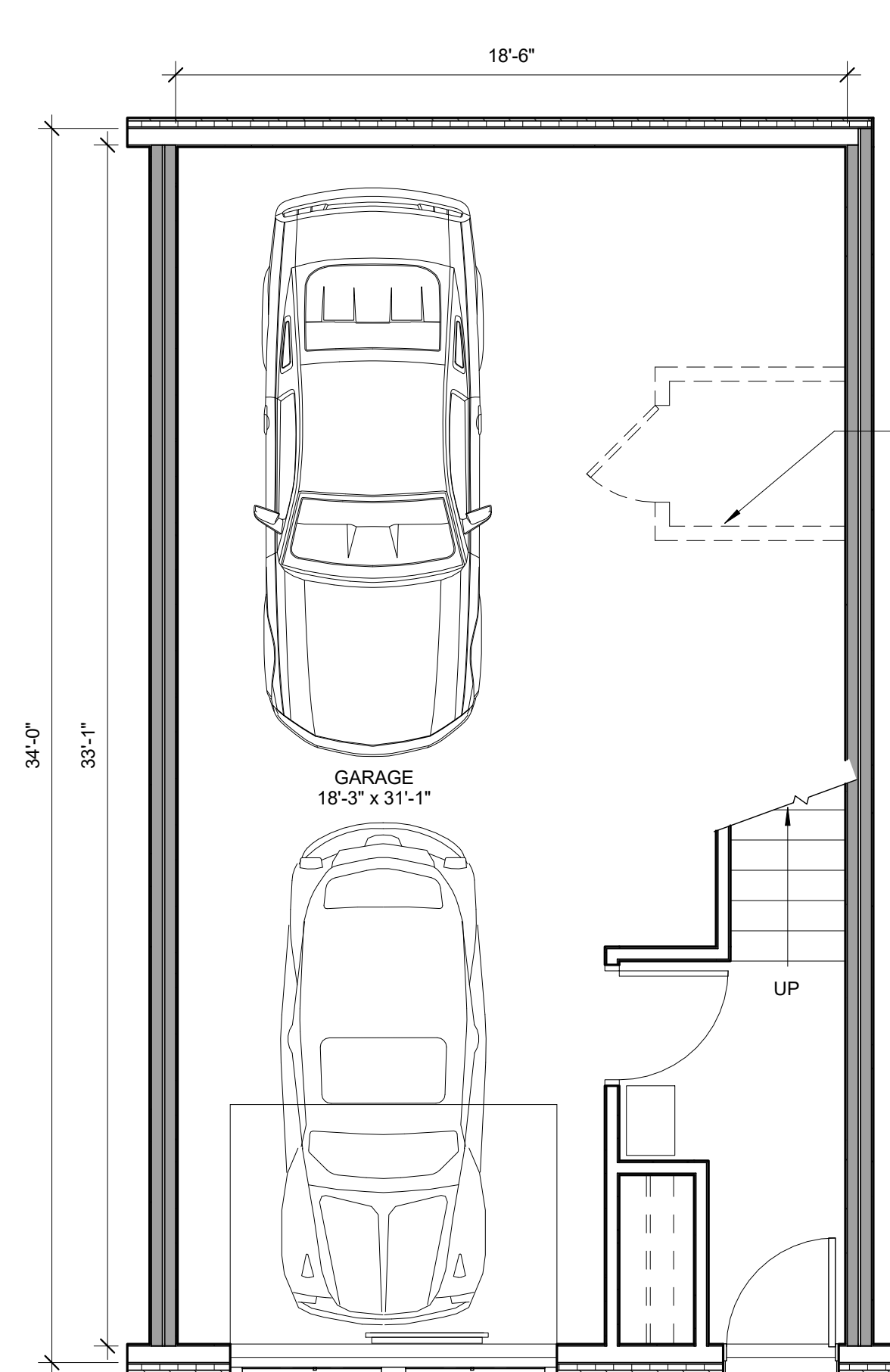
Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided, or attached, as a separate sheet.





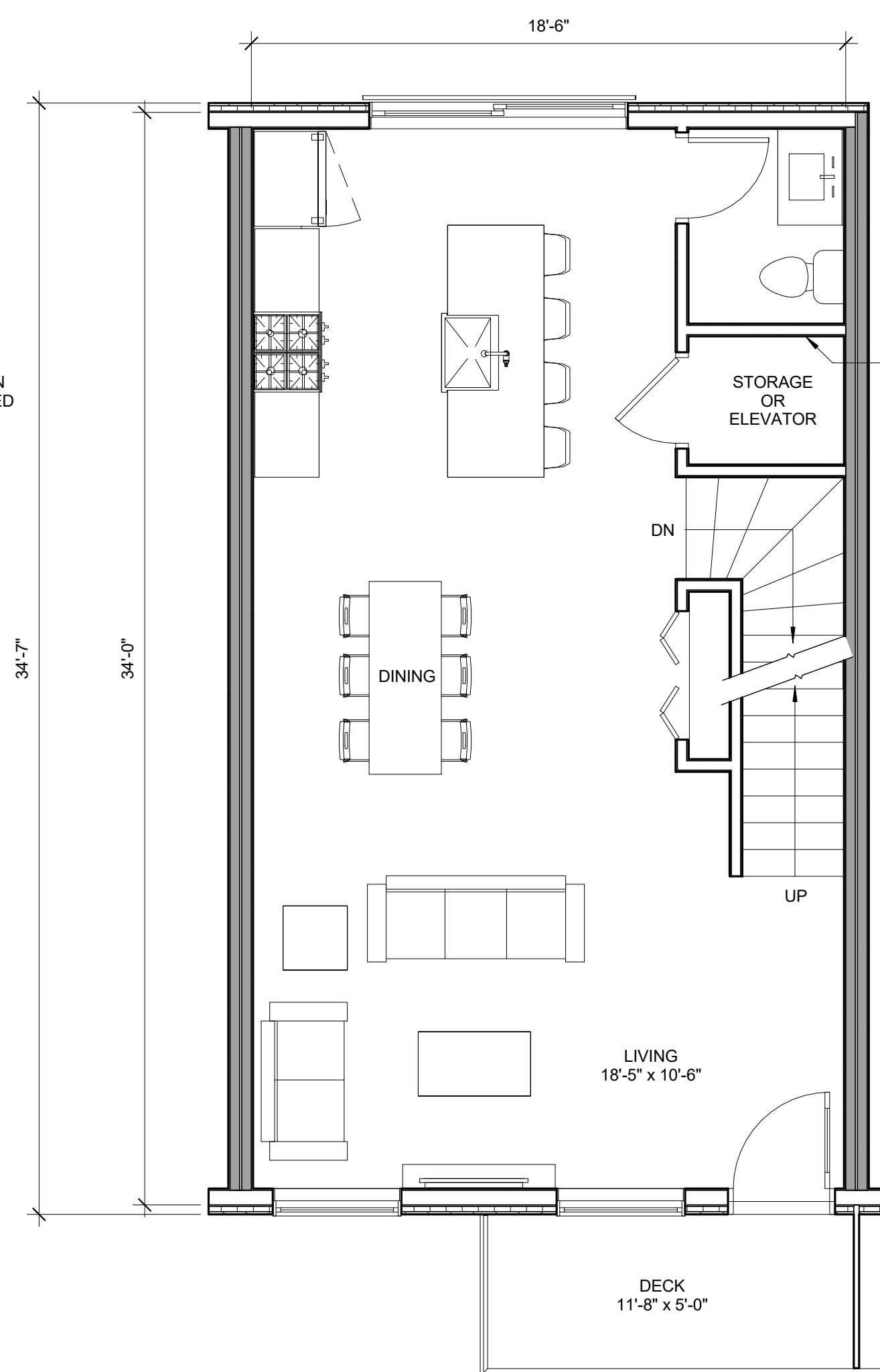






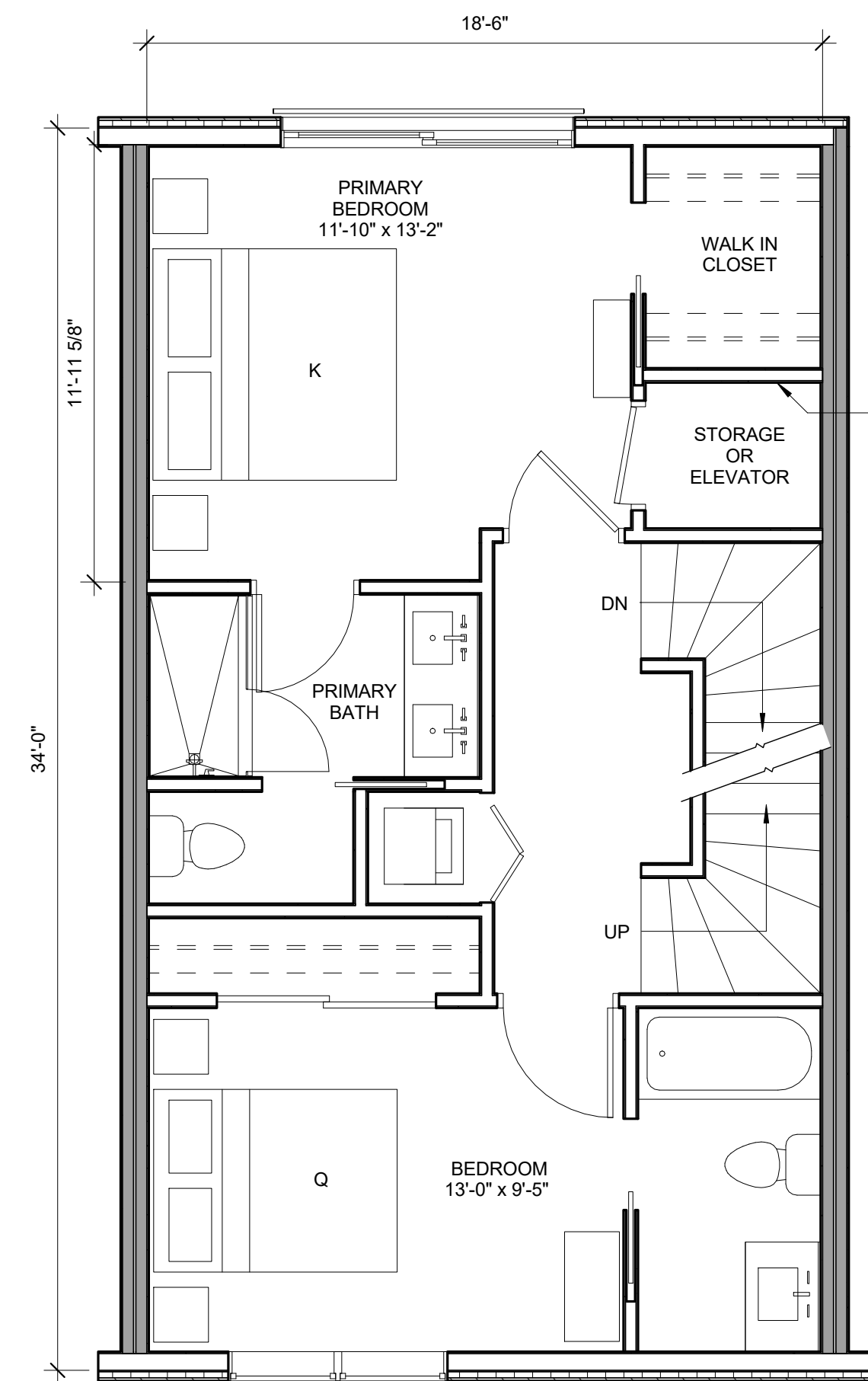
1 | 1ST FLOOR

1/4" = 1'-0"



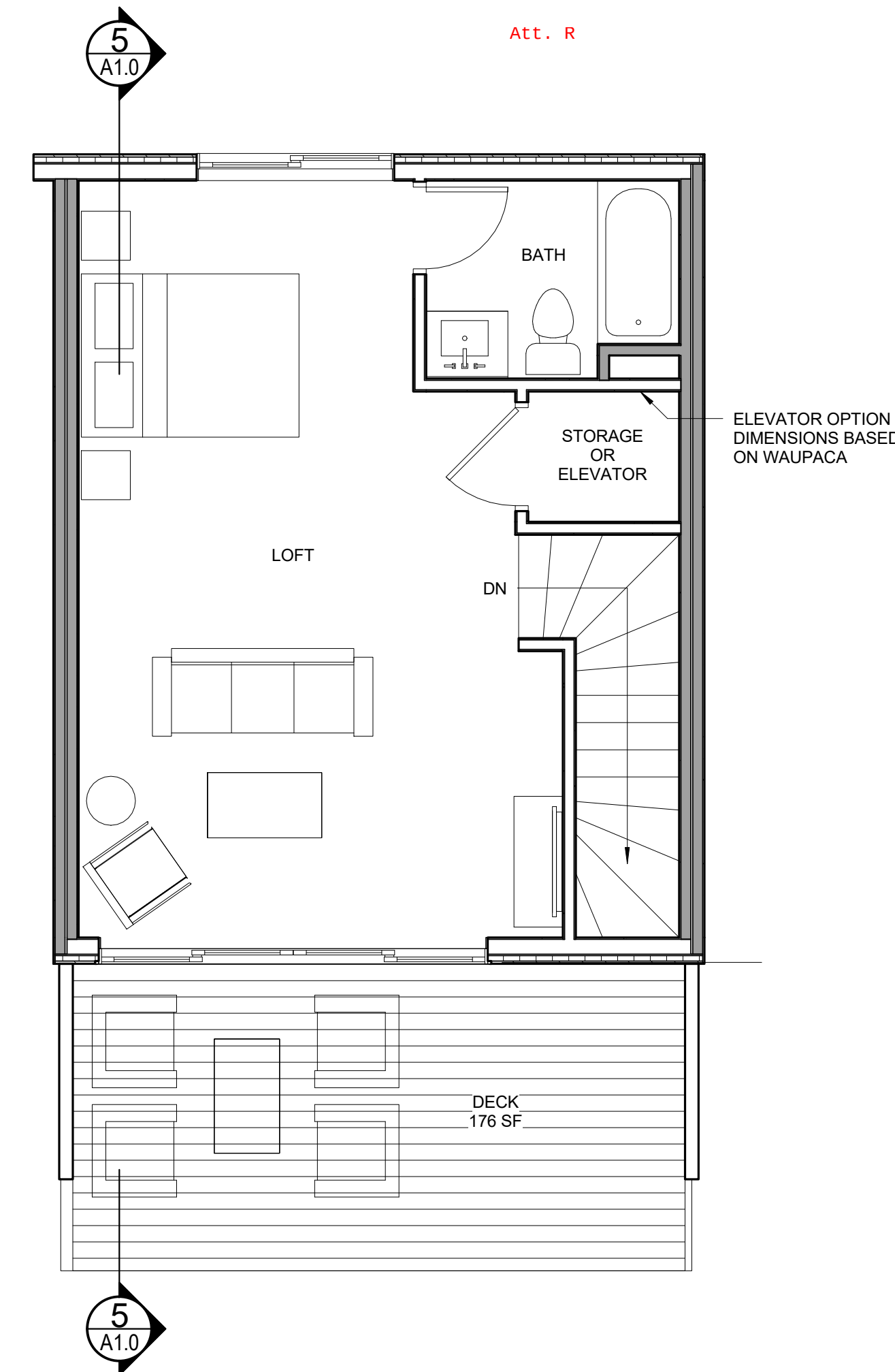
2 | 2ND FLOOR

1/4" = 1'-0"



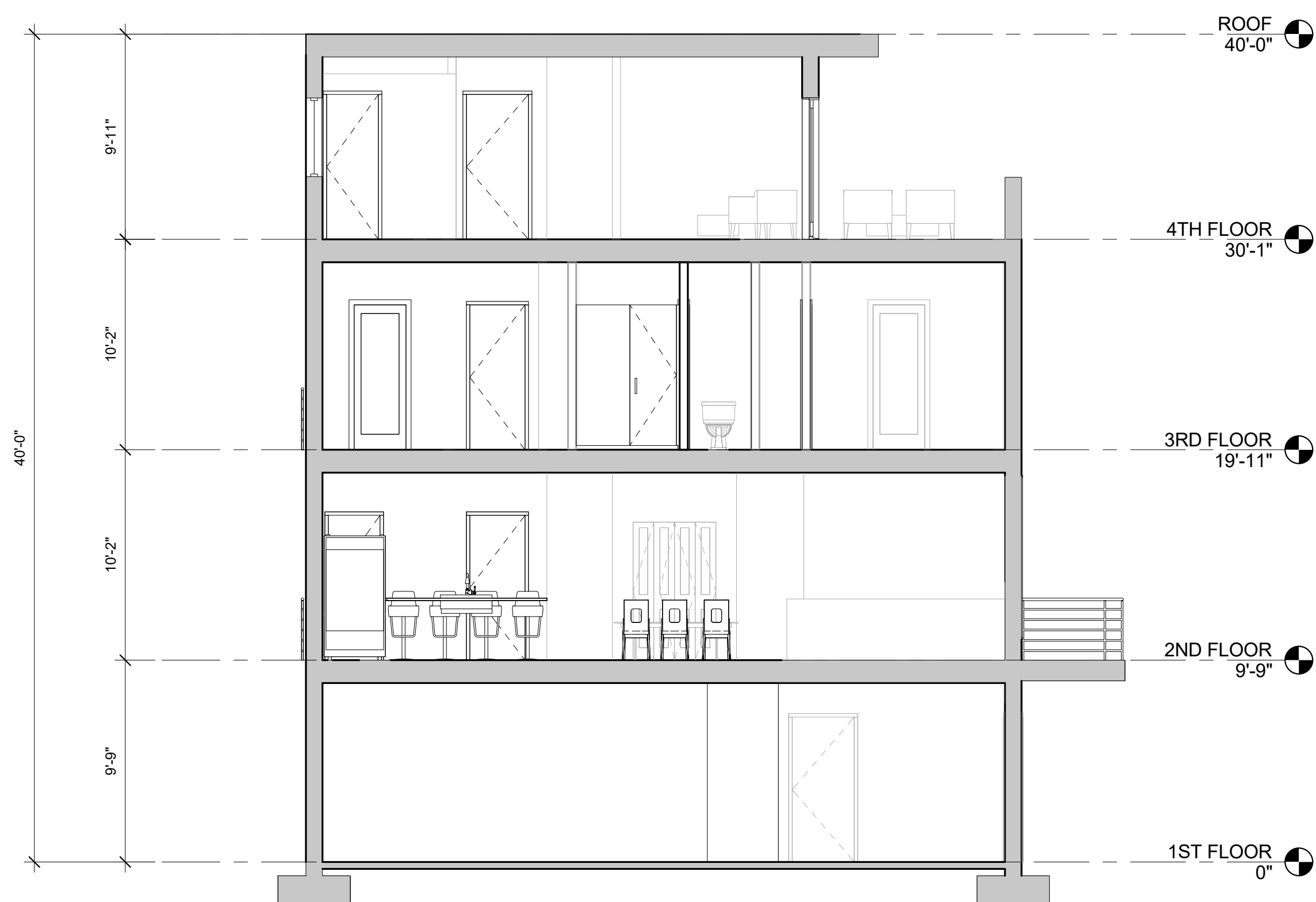
3 | 3RD FLOOR

1/4" = 1'-0"



4 | 4TH FLOOR

1/4" = 1'-0"



5 | BUILDING SECTION

3/16" = 1'-0"

GROSS SQUARE FOOTAGES

FIRST FLOOR -	663 SQ. FT.
LIVING	83 SQ. FT.
GARAGE	524 SQ. FT.
SECOND FLOOR -	663 SQ. FT.
THIRD FLOOR -	663 SQ. FT.
FOURTH FLOOR -	475 SQ. FT.
TOTAL LIVING -	1,884 SQ. FT.
GARAGE -	524 SQ. FT.
DECKS -	235 SQ. FT.

749 CONGRESS ST

PORTLAND, MAINE

FEB 22, 2016

A1.0

Att. S



1 | WEST ELEVATION

3/16" = 1'-0" 0 2'-0" 4'-0" 8'-0" 16'-0"



2 | EAST ELEVATION

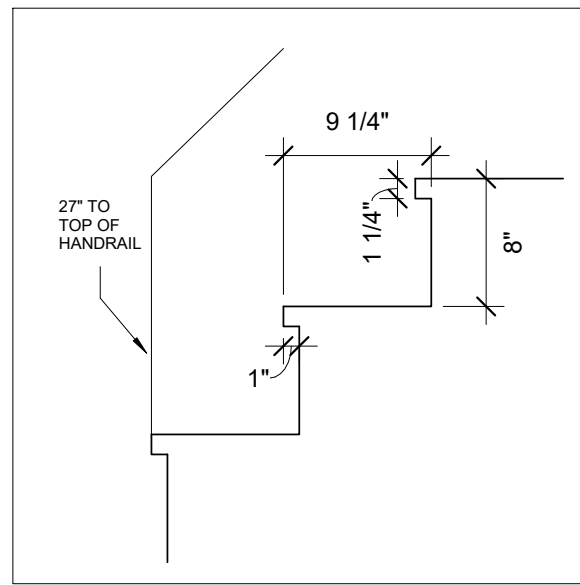
3/16" = 1'-0" 0 2'-0" 4'-0" 8'-0" 16'-0"

749 CONGRESS ST

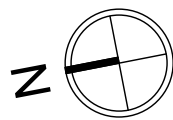
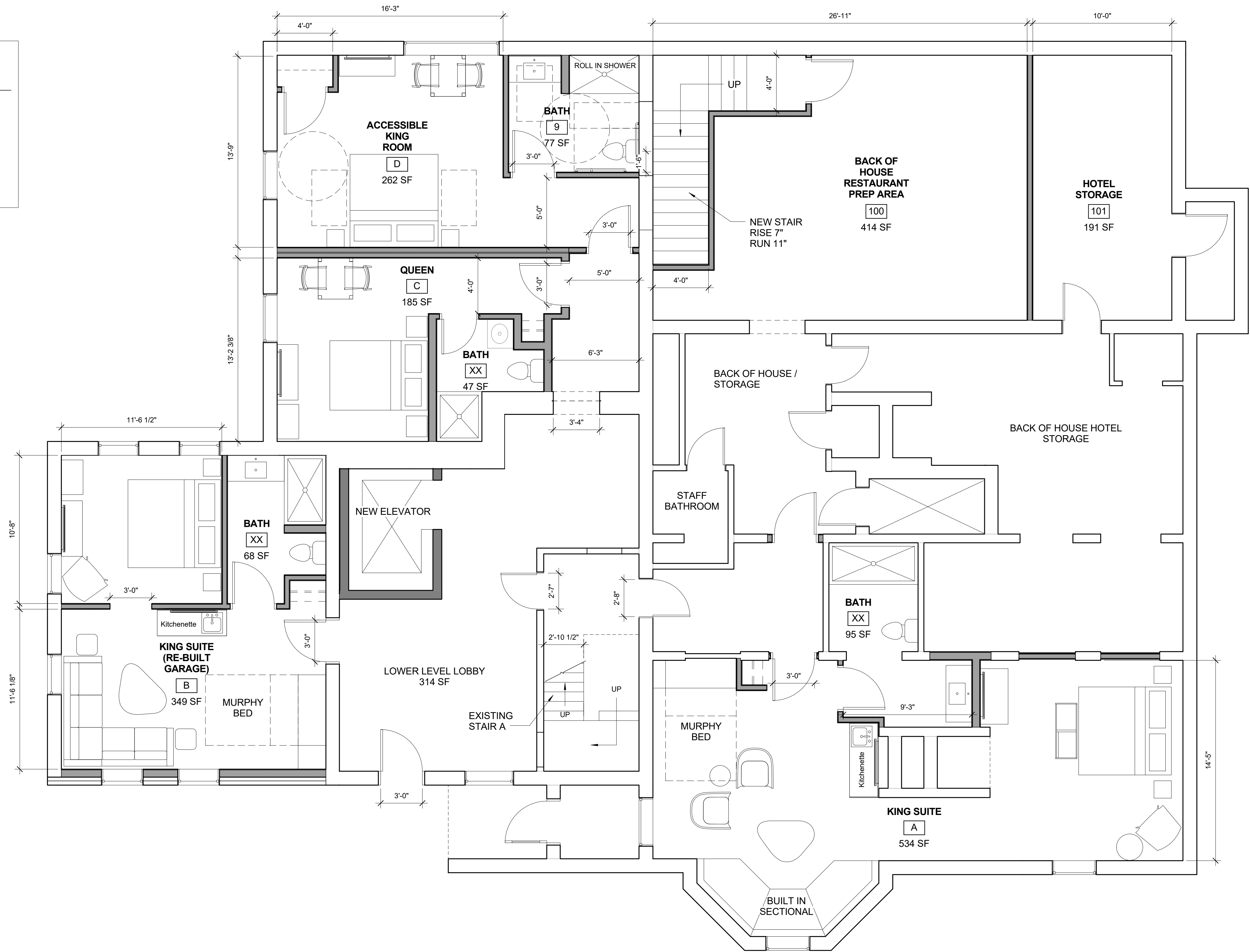
PORTLAND, MAINE

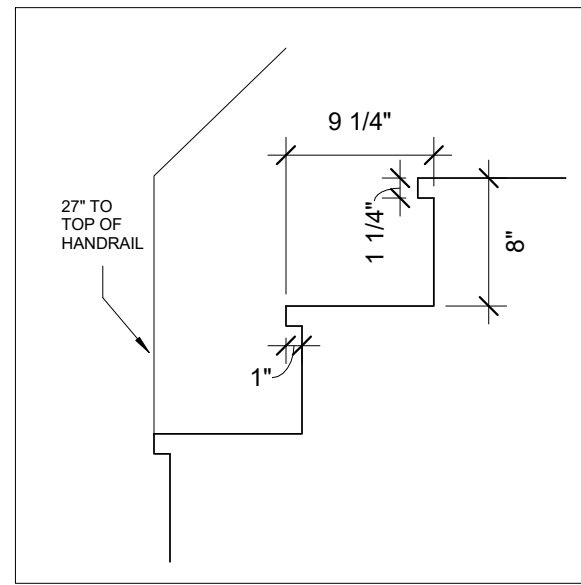
FEB 22, 2016

A2.0

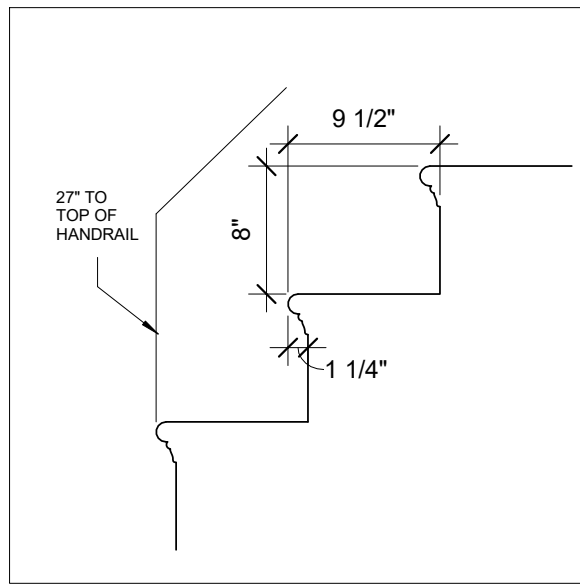


EXISTING STAIR A
1" = 1'-0"

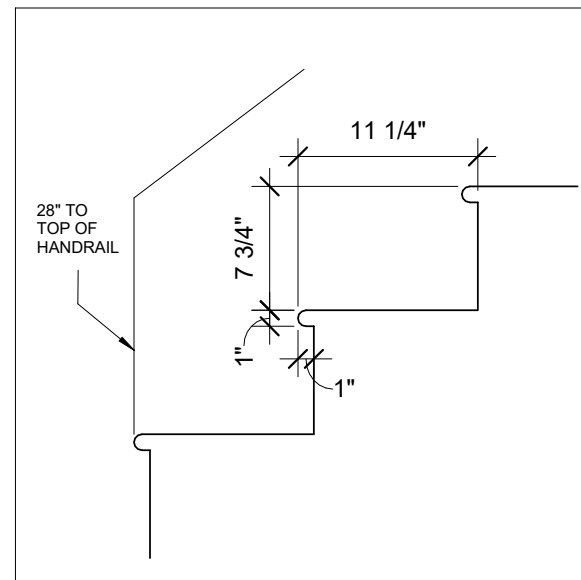




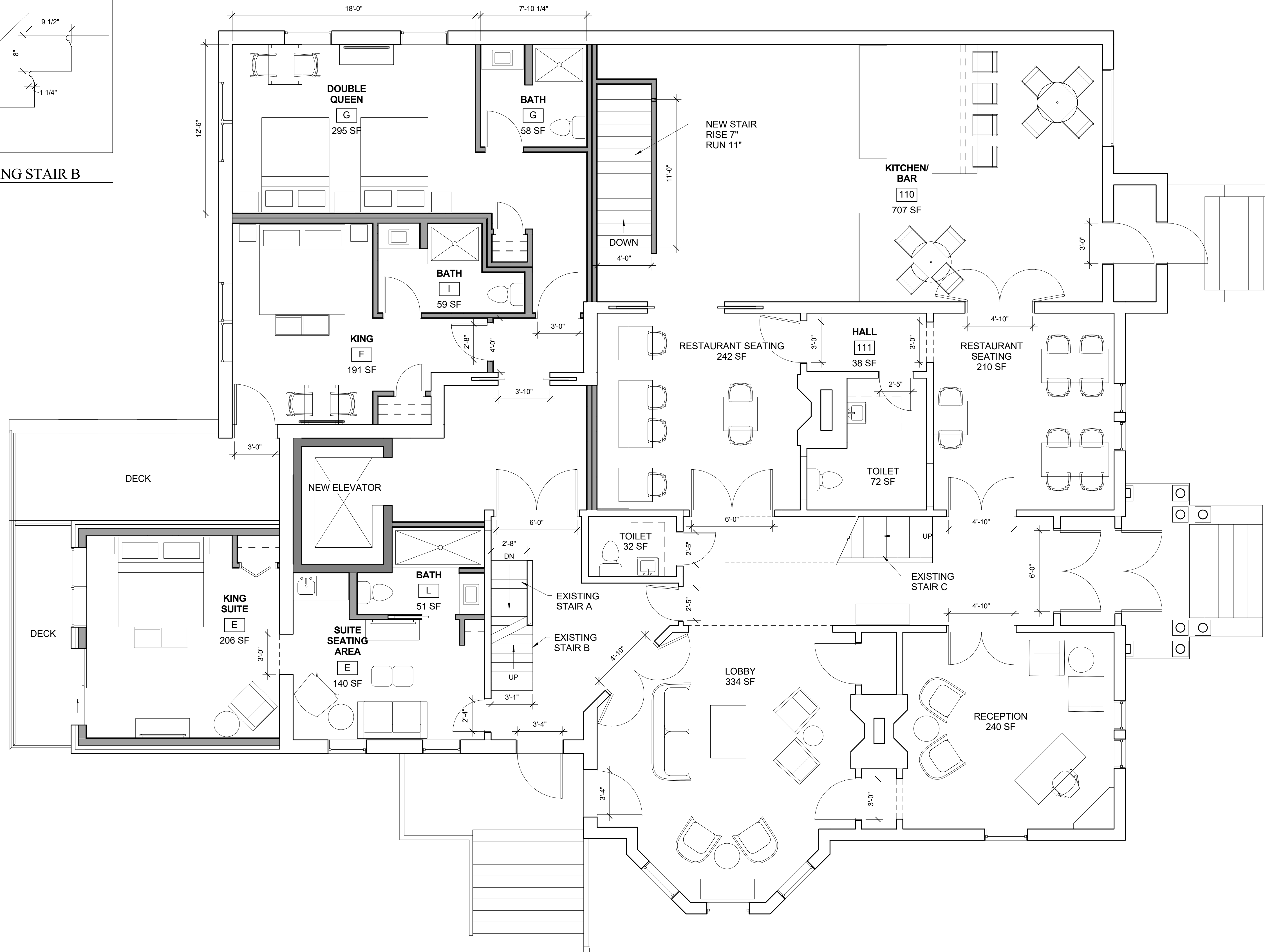
EXISTING STAIR A
1" = 1'-0"



EXISTING STAIR B
1" = 1'-0"

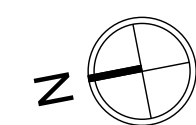


EXISTING STAIR C
1" = 1'-0"



1 | 1ST FLOOR - NEW
1/4" = 1'-0"

GROSS SQ FOOTAGE : 4097 SQ FT



OWNER

Consultant:

ARCHETYPE
architects
48 Union Wharf Portland, Maine 04101
(207) 772-0022 ARCHETYPE@ARCHETYPEA.COM

Project: 749 CONGRESS ST

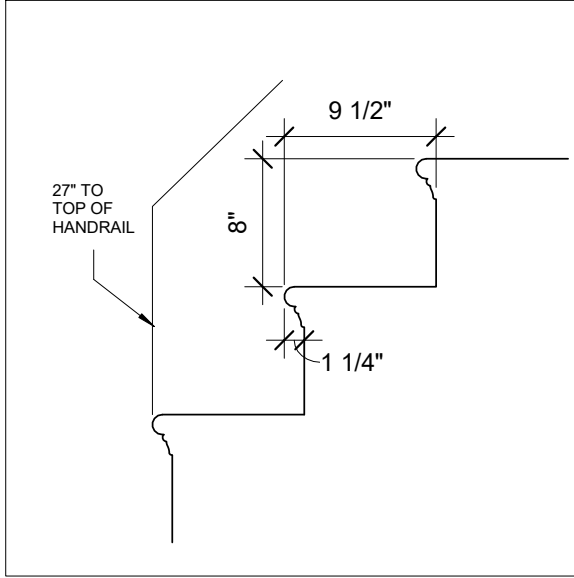
749 CONGRESS ST
PORTLAND, ME 04102

Revisions:

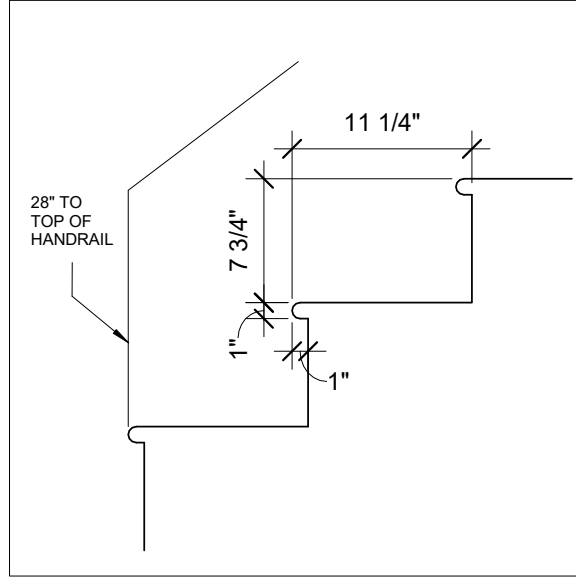
Date: 19 FEB 2016
Scale: As indicated

FIRST FLOOR

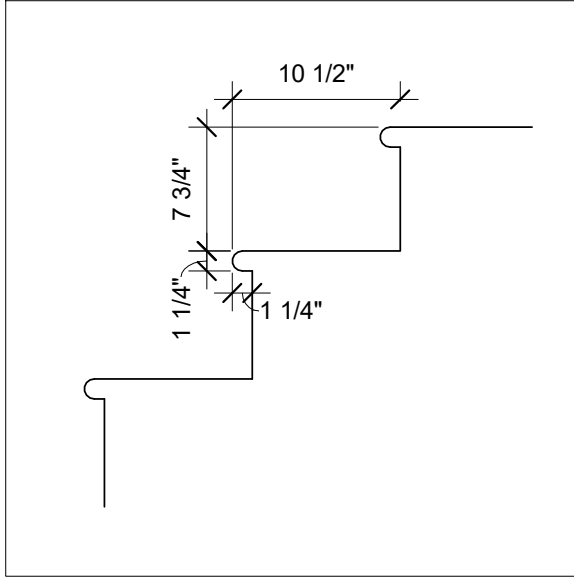
A1.01



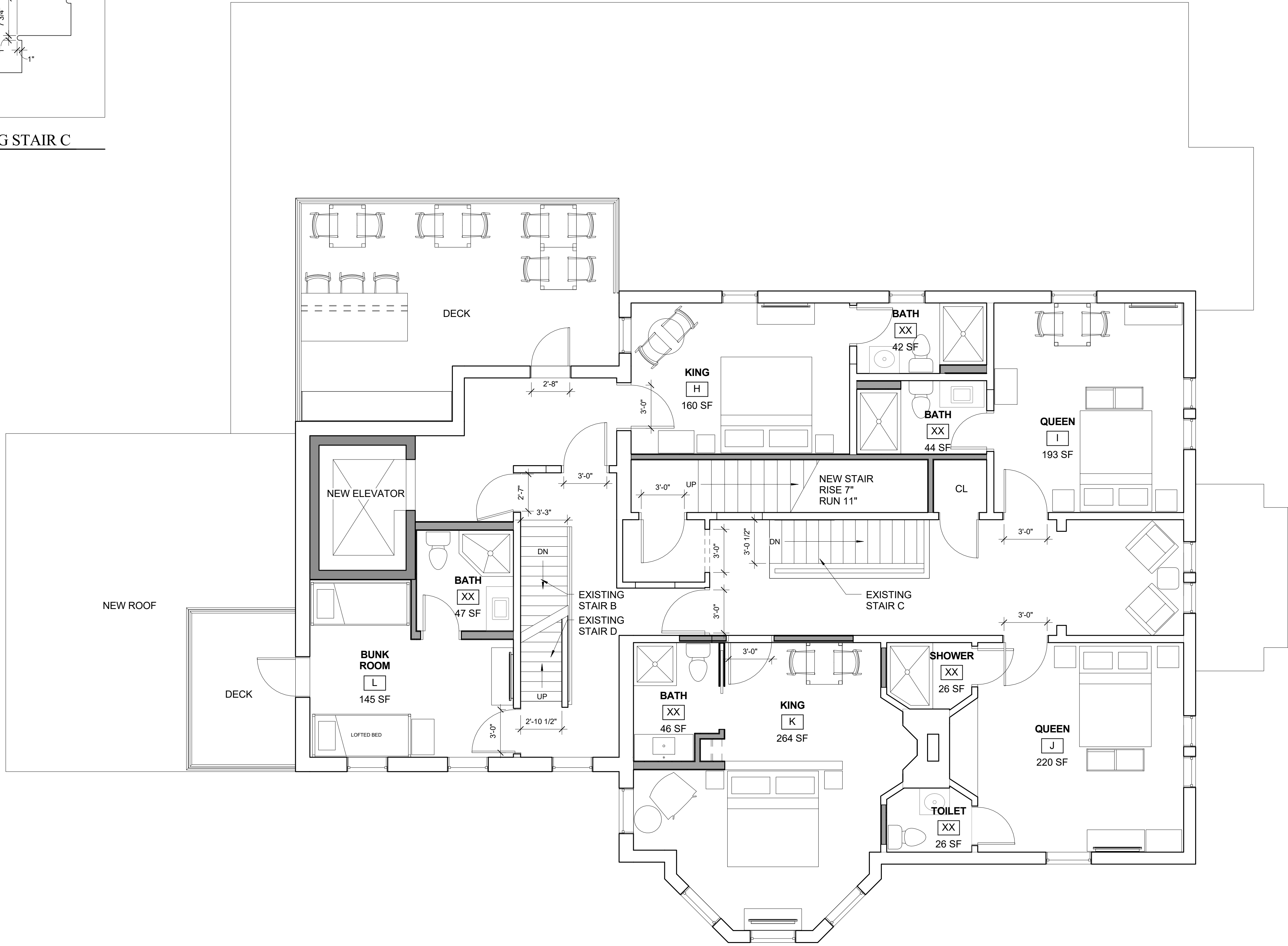
EXISTING STAIR B
1" = 1'-0"



EXISTING STAIR C
1" = 1'-0"

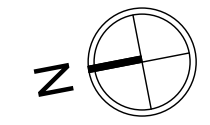


EXISTING STAIR D
1" = 1'-0"

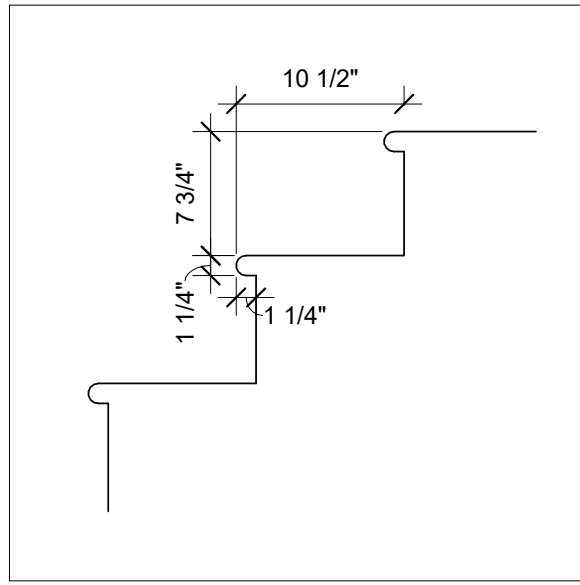


1 | 2ND FLOOR - NEW
1/4" = 1'-0"

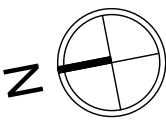
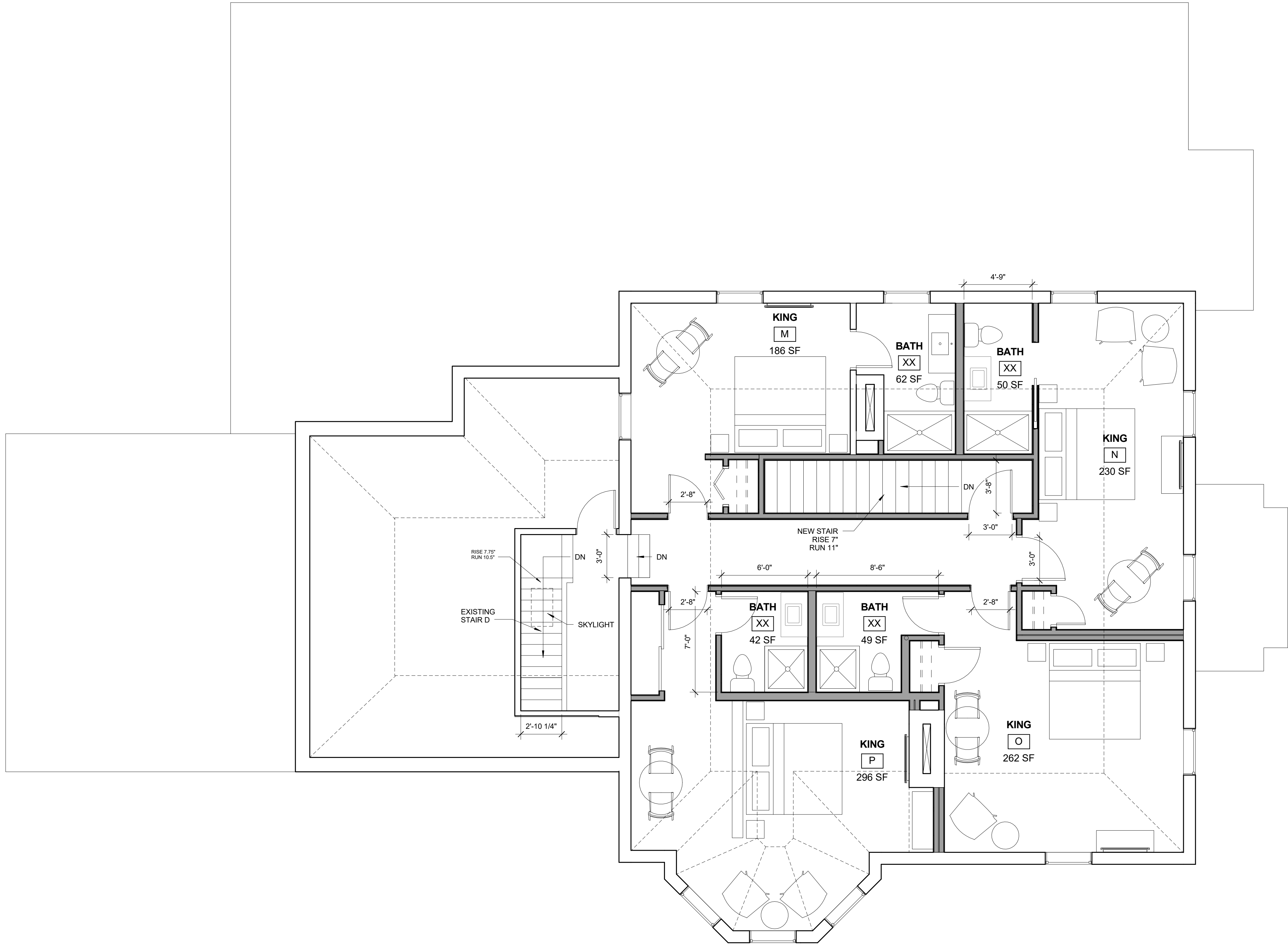
GROSS SQ FOOTAGE : 2256 SQ FT



Prepared For:		OWNER	
Consultant:		Archetype architects 48 Union Wharf Portland, Maine 04101 (207)772.4022 ARCHETYPE@ARCHETYPEA.COM	
Project:		749 CONGRESS ST PORTLAND, ME 04102	
Date:	19 FEB 2016	Scale:	As indicated
Revisions:		SECOND FLOOR	
A1.02			



EXISTING STAIR D
1" = 1'-0"



OWNER

Consultant:

Architect: **ARCHETYPE** architects
48 Union Wharf Portland, Maine 04101
(207) 772-0022 ARCHETYPE@ARCHETYPEA.COM

Project: 749 CONGRESS ST
749 CONGRESS ST
PORTLAND, ME 04102

Date: 19 FEB 2016
Scale: As indicated
THIRD FLOOR

A1.03



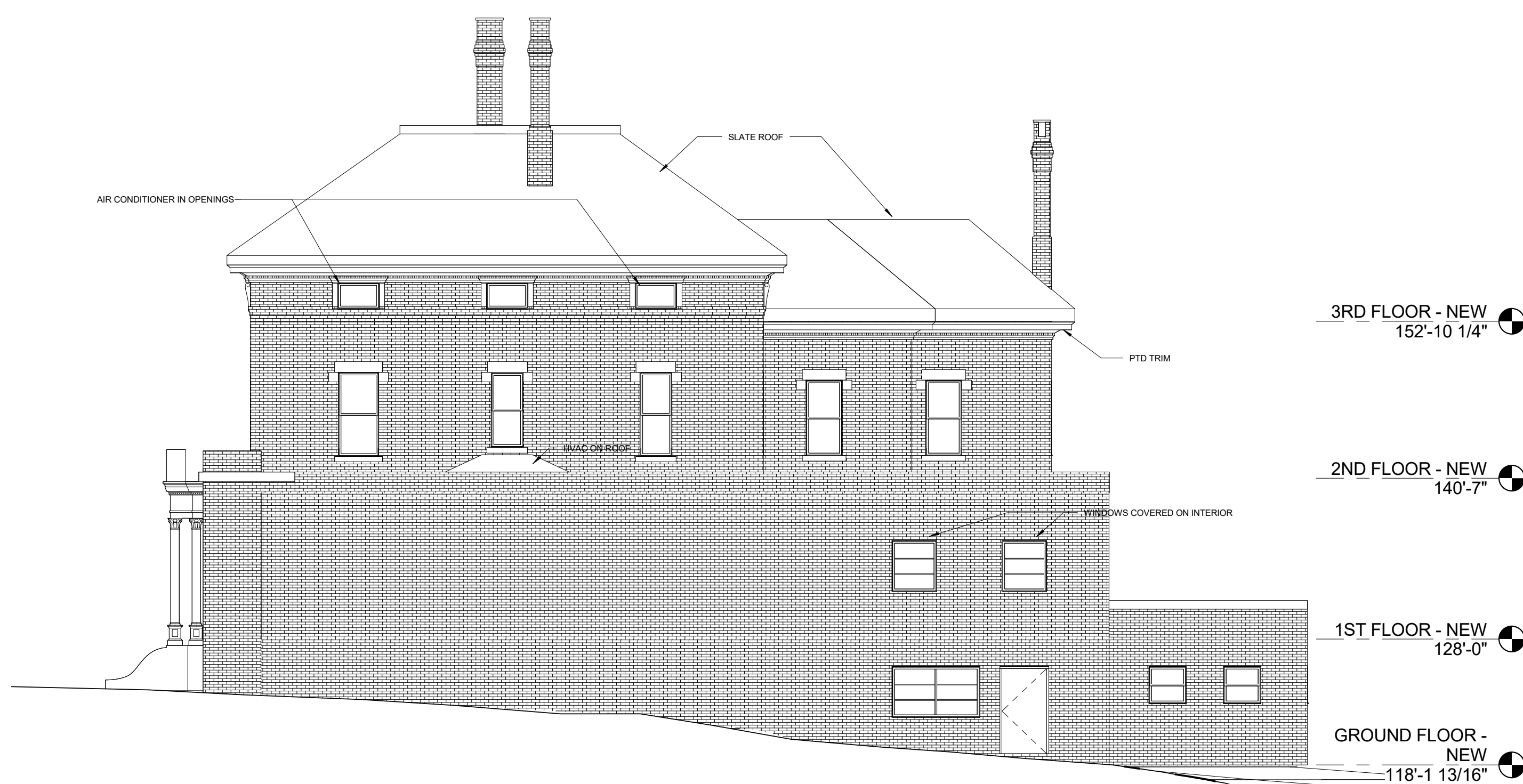
1 FRONT ELEVATION
1/8" = 1'-0"



3 LEFT ELEVATION
1/8" = 1'-0"



2 REAR ELEVATION
1/8" = 1'-0"



4 RIGHT ELEVATION
1/8" = 1'-0"

Prepared For:

OWNER

Address
City, State

Consultant:

Architect:
ARCHETYPE
architects
48 Union Wharf Portland, Maine 04101
(207) 772-4022 ARCHETYPE@ARCHETYPEPA.COM

Project:
749 CONGRESS ST
PORTLAND, ME 04102

Revisions:

Date: 19 FEB 2016
Scale: 1/8" = 1'-0"

EXG BUILDING
ELEVATIONS

A2.01

PROJECT NAME: 749 Congress Street

PROPOSED DEVELOPMENT ADDRESS:

749 Congress Street

PROJECT DESCRIPTION:

This project is the construction of 7 residential town houses and the conversion of the Congress Street building to a 16 room Hotel and Restaurant.

CHART/BLOCK/LOT: 47/A20, A28, A30 & A32

PRELIMINARY PLAN

(date)

FINAL PLAN

(date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Joe Delois Business Name, if applicable: Denovo LLC Address: 47 Waites Landing Road City/State : Falmouth, ME Zip Code: 04105	Applicant Contact Information Work # 207.899.4068 Home# Cell # 207.232.6274 Fax# e-mail: joedelois@gmail.com
Owner – (if different from Applicant) Name: Martin B. Dassa & Alyssa J. Dassa Trustees Rochelle G. Dassa Residuary Trust Address: 5 Cottonwood Lane City/State : Falmouth, ME Zip Code: 04105	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Agent/ Representative Thomas S. Greer, P.E. Name: Pinkham & Greer, Civil Engineers Address: 28 Vannah Avenue City/State : Portland, ME Zip Code: 04103	Agent/Representative Contact information Work # 207.781.5242 Cell # e-mail: tgreer@pinkhamandgreer.com
Billing Information Name: Denovo LLC (Joe Delois) Address: 47 Waites Landing Road City/State : Falmouth, ME Zip Code: 04105	Billing Information Work # 207.846.9535 Cell # Fax# e-mail: joedelois@gmail.com

Engineer Thomas S. Greer, P.E. Name: Pinkham & Greer, Civil Engineers Address: 28 Vannah Avenue City/State : Portland, ME Zip Code: 04103	Engineer Contact Information Work # 207.781.5242 Cell # Fax# 207.781.4245 e-mail: tgreer@pinkhamandgreer.com
Surveyor Rex Croteau Name: Titcomb Associates Address: 133 Gray Road City/State : Falmouth, ME Zip Code: 04105	Surveyor Contact Information Work # 207.797.9199 Cell # Fax# 207.878.3142 e-mail: rcroteau@titcombsurvey.com
Architect David Lloyd Name: Archetype Architects Address: 48 Union Wharf City/State : Portland, ME Zip Code: 04101	Architect Contact Information Work # 207.772.6022 Cell # Fax# 207.772.4056 e-mail: llloyd@archetypepa.com
Attorney Thomas Federle Name: FEDERLE LAW Address: 254 Commercial Street City/State : Portland, ME Zip Code: 04101	Attorney Contact Information Work # 207.899.0155 Cell # Fax# e-mail: Tom@federlelawmaine.com

APPLICATION FEES:

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

Level III Development (check applicable reviews) ☒ Less than 50,000 sq. ft. (\$500.00) ☐ 50,000 - 100,000 sq. ft. (\$1,000) ☐ 100,000 – 200,000 sq. ft. (\$2,000) ☐ 200,000 – 300,000 sq. ft. (\$3,000) ☐ over 300,00 sq. ft. (\$5,000) ☐ Parking lots over 11 spaces (\$1,000) ☐ After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) ☐ Planning Staff Review (\$250) ☐ Planning Board Review (\$500) The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) ☐ Traffic Movement (\$1,000) ☐ Stormwater Quality (\$250) ☒ Subdivisions (\$500 + \$25/lot) # of Lots <u>8</u> x \$25/lot = <u>200.00</u> ☐ Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots <u> </u> x \$200/lot = <u> </u> ☐ Other <u> </u> ☐ Change of Use ☐ Flood Plain ☐ Shoreland ☐ Design Review ☐ Housing Replacement ☐ Historic Preservation
--	--

APPLICATION SUBMISSION:

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

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

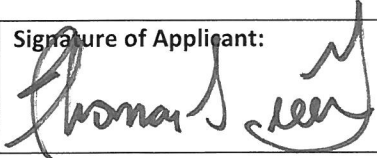
1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c), including evidence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

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

APPLICANT SIGNATURE:

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

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

Signature of Applicant: 	Date: 4/8/16
--	-----------------

PROJECT DATA

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

Total Area of Site	30,928 sq. ft.
Proposed Total Disturbed Area of the Site	22,368 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.	
Impervious Surface Area	
Impervious Area (Total Existing)	21,542 sq. ft.
Impervious Area (Total Proposed)	22,292 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	5,988 sq. ft.
Building Footprint (Total Proposed)	4,786 sq. ft.
Building Floor Area (Total Existing) Former Funeral Home=12,979, Carriage House=4290	sq. ft. 17,269 Total
Building Floor Area (Total Proposed) Hotel-Restaurant=12,979, Townhouse=16,856, Carriage House= 4,290	sq. ft. 34,125 Total
Zoning	
Existing	R6 & B-2b
Proposed, if applicable	N/A
Land Use	
Existing	Residential / Funeral Home
Proposed	Residential / Hotel-Restaurant
Residential, If applicable	
# of Residential Units (Total Existing)	2
# of Residential Units (Total Proposed)	9
# of Lots (Total Proposed)	1
# of Affordable Housing Units (Total Proposed)	0
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	0
# of One-Bedroom Units (Total Proposed)	0
# of Two-Bedroom Units (Total Proposed)	0
# of Three-Bedroom Units (Total Proposed)	7
Parking Spaces	
# of Parking Spaces (Total Existing)	28
# of Parking Spaces (Total Proposed)	11 exterior / 7 interior
# of Handicapped Spaces (Total Proposed)	0
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	2
Estimated Cost of Project	3.8 Million

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

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

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

- Continued on next page -

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

File: 15156

April 8, 2016

Ms. Shukria Wiar, Planning Department
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

Att. V

RE: 749 CONGRESS STREET

Dear Shukria,

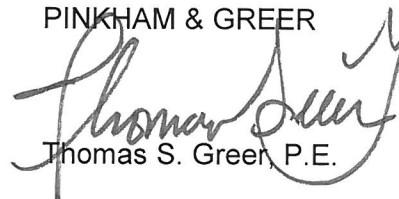
In response to Staff comments, we have made the following changes:

1. The building has been redesigned to provide more room for parking at each end.
2. A fire lane has been added at the end of the building.
3. We have created two lots for the project. Lot 1 is the hotel site and Lot 2 has the nine residential units.
4. We have added a 4' high fence around the Mellen Street connection.
5. We will be reconstructing the retaining wall on Mellen Street.
6. The water lines have been revised to provide separate services to each lot.
7. A landscape plan has been added showing trees on the Mellen Street lot.
8. The application has been revised to show the nine Residential units and sixteen hotel rooms.
9. Attached are the notes for the public information meeting.
10. Attached are building elevations and floor plans.
11. Attached is a revised wastewater application for the ability to serve.
12. We now show where the 8" clay pipe goes on the plan. We cleaned the catch basin and TVed the line. The pipe is in excellent shape. It goes 106 feet down the hill to a 90 degree main. This is under the building on Cumberland Avenue.
13. We added a foundation drain connection and drip strip connect to a new catch basin, replacing the existing brick catch basin. The basin will have a 3 foot deep sump.
14. We have added a dumpster enclosure.
15. We have added a direction sign at the entrance for the rear units, and a Hotel check in sign at the split.
16. We have reconfigured the parking to show 12 spaces. In addition, each of the 7 units has 2 compact spaces inside. The exterior spaces will be shared between the Hotel and Restaurant guests.
17. Attached are cut sheets for the lighting fixtures and a photometric plan.
18. We have revised the shading so the survey data shows.
19. We have added erosion control berm to the Mellen Street connection.

We believe this addresses the Staff comments. Condo documents will be submitted under a separate cover. Thank you very much for your help with this project.

Sincerely,

PINKHAM & GREER



Thomas S. Green, P.E.

Enclosures

cc: Joe Delois, David Lloyd, File
TSG/vjg

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Date: April 5, 2016

David Margolis-Pineo
Deputy City Engineer
207-874-8850
207-400-6696
dmp@portlandmaine.gov

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 749 Congress Street

Chart Block Lot Number: 47/A20, A28, A30 & A32

Proposed Use: Residential / Hotel-Restaurant

Previous Use: Residential / Funeral Home

Existing Sanitary Flows: 550 +/- GPD

Existing Process Flows: 0 GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

Mellen Street-Residential / Congress Street-Hotel/Restaurant

Site Category
Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

X
X

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: Shukria Wiar Phone: 207.756.8083

Owner/Developer Name: Denovo LLC (Joe Delois)

Owner/Developer Address: 47 Waites Landing Road, Falmouth, ME 04105

Phone: 207.899.4068 Fax: E-mail: joedelois@gmail.com

Engineering Consultant Name: Pinkham & Greer, Civil Engineers (Thomas S. Greer P.E.)

Engineering Consultant Address: 28 Vannah Avenue, Portland, ME 04103

Phone: 207.781.5242 Fax: 207.781.4245 E-mail: tgreer@pinkhamandgreer.com

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 3,610 + 1,194 Restaurant GPD

Peaking Factor/ Peak Times: 7am & 6pm

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)
ME Subsurface Wastewater Code

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

Hotel = 100 gpd/bedroom	1,600
Employees=10 gpd x12	<u>120</u>
	1,720

7 Residential Units @ 270 gpd = 1,890

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

4

Size of External Grease Interceptor:

500 gallons

Retention Time:

2 hrs

Peaking Factor/ Peak Times:

Peaking Factor 5, 8am - 8pm

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

n/a

GPD

Do you currently hold Federal or State discharge permits?

Yes

No

Is the process wastewater termed categorical under CFR 40?

Yes

No

OSHA Standard Industrial Code (SIC):

(<http://www.osha.gov/oshstats/sicser.html>)

Peaking Factor/Peak Process Times:

Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps.

Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided, or attached, as a separate sheet.

Eating Place 3 meals/day

30 gpd / seat + 12 gpd employee

35 seats x 30 gpd = 1,050 gpd

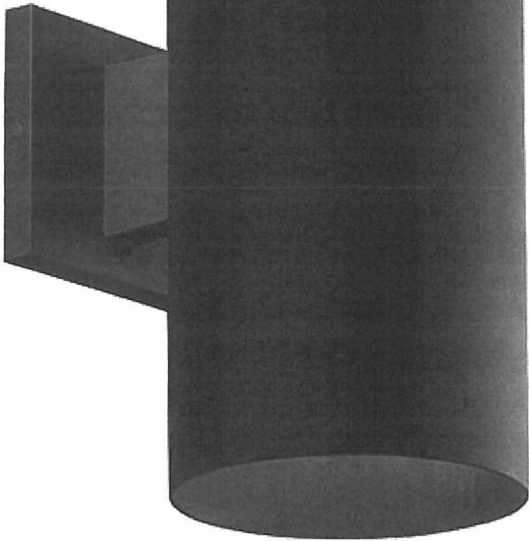
12 employees @12 pgd = 144 gpd

Total 1,194 gpd

$1,194/24 = 49.75 \text{ gal/hr} \times \text{peak fo } 5 = 248.75$

Retention time

$248.75 \text{ ghr} / 500 \text{ gallons} = 2 \text{ hours}$



P5641-31

6" cylinder with heavy duty aluminum construction and die cast wall bracket. Powder coated finish. cCSAus listed for wet locations.

\$129.58

BUY ONLINEFIND A DEALER



Att. X



Showcase Your Space
Tag Your Photos #progressing
& Join Our Instagram Feed!

Features

Product SKU

P5641-31

Family ?

Cylinder

Category

Outdoor

Description

6" cylinder with heavy duty aluminum construction and die cast wall bracket.
Powder coated finish. cCSAus listed for wet locations.

Finish

Black

Bulb Type ?

Uses PAR-38 or BR-40

Bulb Wattage ?

250/150

Bulb Quantity ?

1

Listed ?

Wet location listed



Style

Contemporary/Modern

Room Type

Outdoor Lighting and/or

Dimensions

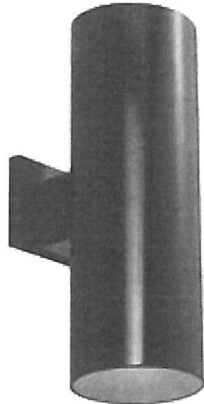
Width/Diameter: 6"

Height: 12"

You Might Also Like

<

>



P5642-20

CYLINDER OUTDOOR

\$176.44

WALL OR
CEILING MOUNT

EUROLUXE® SERIES

Cat.# BRLU-04

Job749 Congress St

TypeB

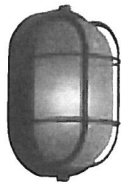
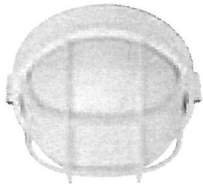
Approvals

 **HUBBELL**
Outdoor Lighting

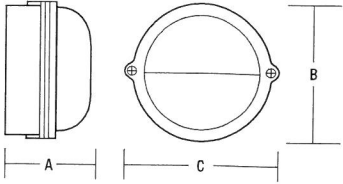
- Intended Use**
- Several colors and accessories, including guards and shields, are available for both interior and exterior applications, such as entry, perimeter, walls, stairwells, corridors, etc.
- Construction**
- Borosilicate glass lens sealed to housing by silicone gasket and stainless steel philips head screws; Ribbed lens uniformly spreads light for a symmetrical, soft distribution
 - Die cast aluminum housing and face trims
 - Two point lag or hickey mount to recessed junction box
 - Dark bronze, Black and White finishes are offered

- Electrical**
- Available in 50w HPS, 28w fluorescent and 100w max. incandescent, 120V only
 - BRLU LED has 6 LED in 15w, 120-277V, 830 lumens, 5000K, 700mA
 - Lamp included on 50w HPS, 28w fluorescent and 15w LED

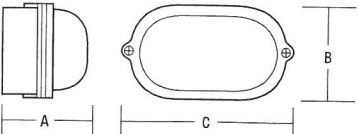
- Listings**
- Listed to UL1598 for use in wet locations



BR

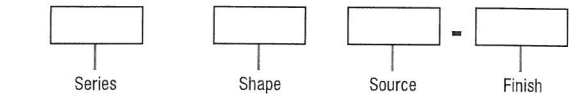


BO



	A	B	C
BRI ROUND	5 1/2"	9 1/2"	10 1/8"
	150 mm	241 mm	257 mm
BOI OVAL	5 1/2"	6 2/8"	11 1/4"
	150 mm	162 mm	286 mm

ORDERING INFORMATION ORDERING EXAMPLE: BOI-01



Catalog Number	Shape	Finish	Wattage	Weight	
				lbs.	kg
LED¹					
BRLU-01	Round	Bronze	15 max.	6.0	2.7
BRLU-04	Round	White	15 max.	6.0	2.7
INCANDESCENT²					
BRI-01	Round	Bronze	100 max.	4.0	1.8
BRI-02	Round	Black	100 max.	4.0	1.8
BRI-04	Round	White	100 max.	4.0	1.8
BOI-01	Oval	Bronze	100 max.	3.5	1.6
BOI-02	Oval	Black	100 max.	3.5	1.6
BOI-04	Oval	White	100 max.	3.5	1.6
HIGH PRESSURE SODIUM (lamp included)²					
BRS-01	Round	Bronze	50	7.5	3.4
BRS-02	Round	Black	50	7.5	3.4
BRS-04	Round	White	50	7.5	3.4
BOS-01	Oval	Bronze	50	7.0	3.2
BOS-02	Oval	Black	50	7.0	3.2
BOS-04	Oval	White	50	7.0	3.2
FLUORESCENT (lamp included)¹,³					
BRF-01	Round	Bronze	28	6.0	2.7
BRF-02	Round	Black	28	6.0	2.7
BRF-04	Round	White	28	6.0	2.7
BOF-01	Oval	Bronze	28	5.5	2.5
BOF-02	Oval	Black	28	5.5	2.5
BOF-04	Oval	White	28	5.5	2.5

1 Fluorescent CSA certified for outdoor applications only, not available in 277V
2 Pulse-rated medium base socket
3 Two-pin fluorescent socket - PLC 28, 2700K, -20°F starting
4 LED units feature 5 year limited warranty

ACCESSORIES (order as separate part #)	
Catalog Number	Description
BO-GX¹	Cast aluminum guard for oval fixture
BR-GX¹	Cast aluminum guard for round fixture
BO-SX¹	Cast aluminum shield for oval fixture
BR-SX¹	Cast aluminum shield for round fixture

1 Finish must be specified, substitute **X** for: **1**-bronze, **2**-black, **4**-white



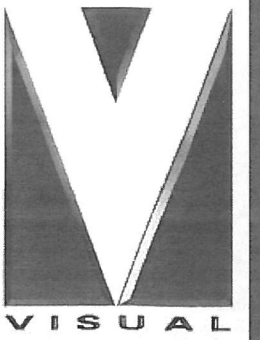
SHIELD



GUARD

PHOTOMETRIC REPORTS

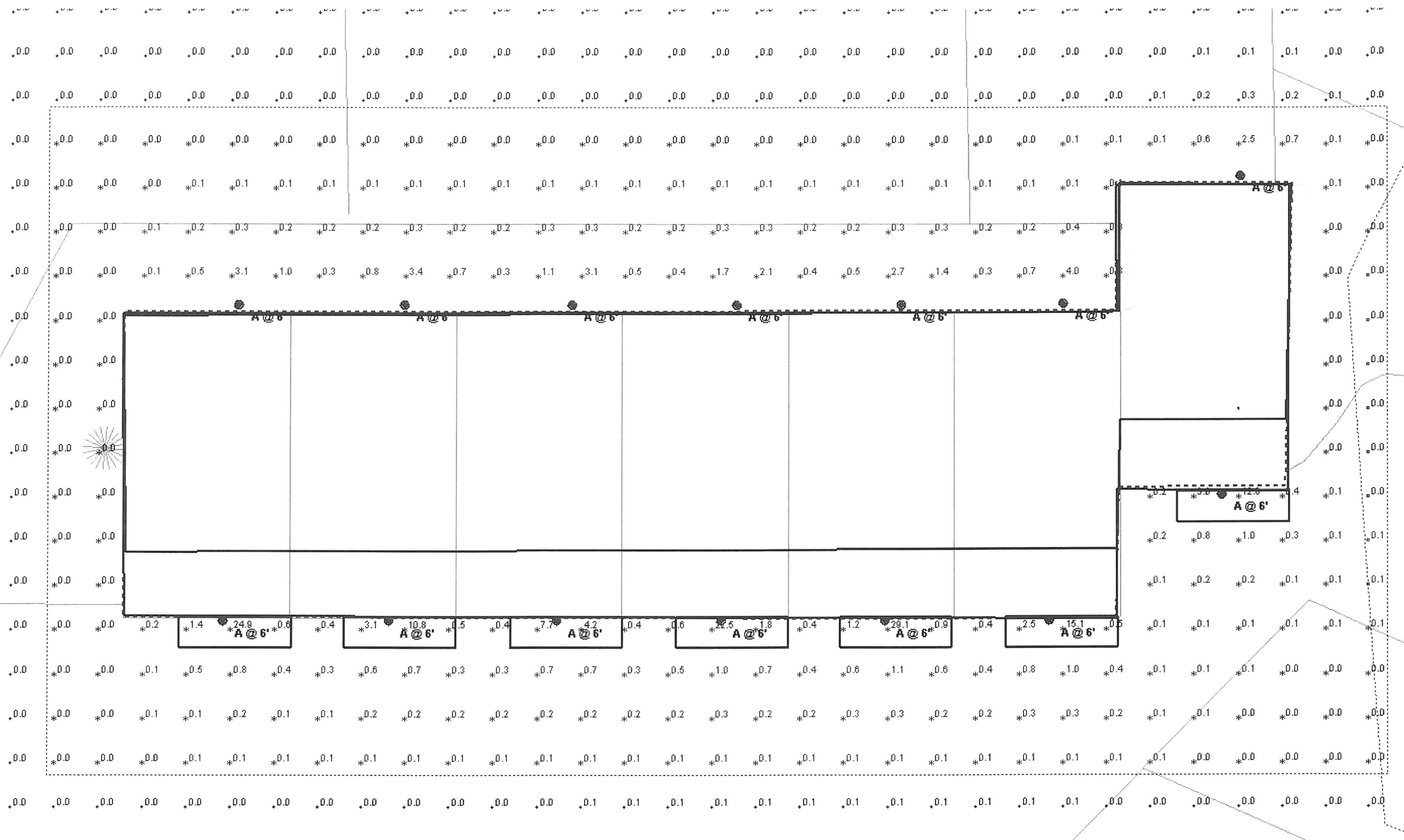
Catalog Number	Report #
BRI-0X	HP05330.IES
BRI-0X/BR-SX	HP05331.IES
BRI-XX	ITL60433.IES
BRLU-0X	BRLU01.IES

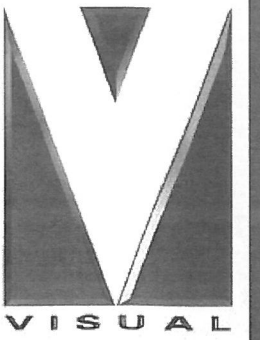


749 Congress St.
Portland, ME
Photometric

Designer
SAJ Bennett Eng.
Date
4/4/2016
Scale
Not to Scale
Drawing No.
E0
Summary

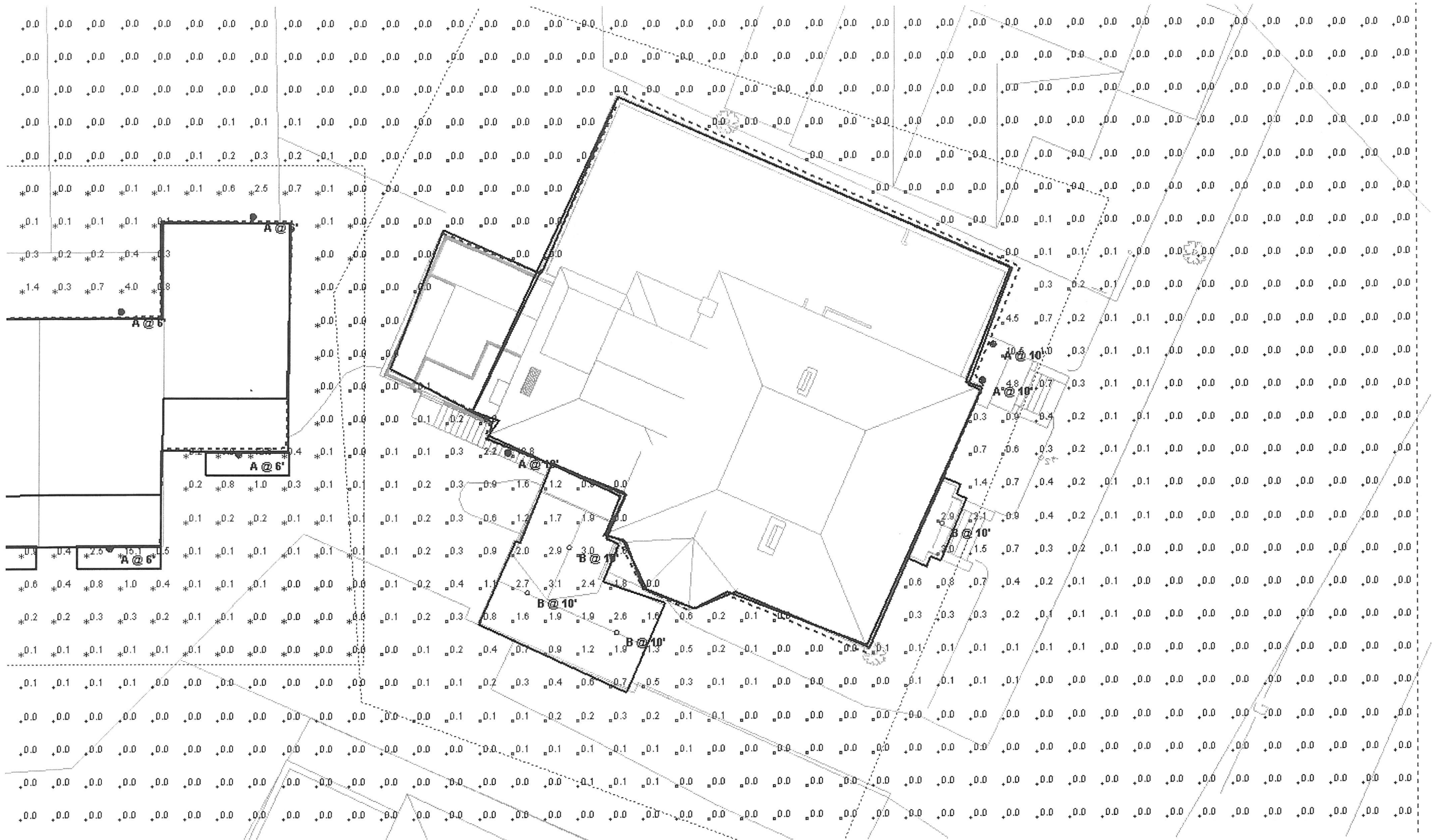
749 Congress St Townhouses



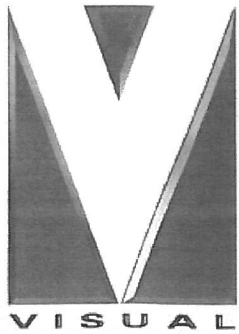


749 Congress St.
Portland, ME
Photometric

Designer
SAJ Bennett Eng.
Date
4/4/2016
Scale
Not to Scale
Drawing No.
E0
Summary

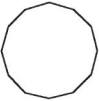


749 Congress St



749 Congress St.
Portland, ME
Photometric

Designer
SAJ Bennett Eng.
Date
4/4/2016
Scale
Not to Scale
Drawing No.
E0
Summary

Luminaire Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	17	Philips Lighting Company			75PAR30L/HAL/FL40 120V	1	229443.ies	769.744	0.8	75
	B	4	HUBBELL OUTDOOR	BRLU-0X	CAST BROWN PAINTED METAL HOUSING, FLAT DIFFUSE METAL CIRCUIT BOARD MOUNTING PLATE, ONE CIRCUIT BOARD WITH 6 LEDS, FROSTED LINEAR PRISMATIC GLASS DROP LENS WITH CONCENTRIC CIRCULAR BOTTOM	SIX WHITE LIGHT EMITTING DIODES (LEDs) EACH WITH CLEAR HEMISPHERICAL INTEGRAL LENS, VERTICAL BASE-UP POSITION. VOLTAGE (120VAC, 60Hz) TO THE LED DRIVER.	6	BRLU-0X.ies	153.8734	1	15

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
749 Congress St		0.5 fc	12.8 fc	0.0 fc	N/A	N/A	0.0:1
749 Congress Townhouse		0.8 fc	29.1 fc	0.0 fc	N/A	N/A	0.0:1
Overall Site		0.1 fc	29.1 fc	0.0 fc	N/A	N/A	0.0:1

**749 Congress Street
March 23, 2016**

SUMMARY OF PUBLIC INFORMATIONAL MEETING

The neighborhood meeting was held at the bakery across the street. It started promptly at 7:00pm and ended at 8:00pm with questions from people until 8:20. There were approximately 26 people in attendance plus the development team.

David Swardlick opened the meeting with introductions of the team. Nate DeLois talked about the hotel and its 16 rooms. It is being renovated under the Historic District Standards. Much of the existing architecture will be retained. The clock will be rehabilitated to a working condition. The Francis Hotel is named after the original designer of the building. He noted it would have a separate restaurant with 35 seats or so.

Tom Greer talked about the site design. The entrance is consolidated. Utilities come from Mellen Street with the exception of water, which comes from Congress Street. The trees on the Mellen Street side will be removed and replaced with lawn. The parking of the 12 spaces on the exterior and garages for the Townhouse meets the ordinance.

David Lloyd talked about the building design and materials to be used in the project.

The meeting was opened up to questions.

1. Parking for the hotel and restaurant was raised. The site currently meets city standards. The team is investigating off-site parking that may use valet parking. This is not part of the current proposal. There was a question on joint parking with the neighbor next door. This is a strong possibility but no agreement has been reached. Until then we stay on this site so city approval can be granted.

Parking on the west end is an issue all across the area. This project is trying to have a minimal impact. The residential units have the opportunity to park two small cars inside.

2. It was noted the Mellen Street area may open up a shortcut in behind the building. This is not desirable for the neighbors nor the hotel. This will have to be managed with fences or other security measures. Lighting in this area will have to meet city standards.
3. There was a discussion of why the utilities come from Mellen Street. It is the only opportunity to get gravity sewer service to the townhouses.

4. Pricing of the project was discussed. The rooms in the hotel will be midrange of the existing market and below. The townhouses will be in the \$600,000 to \$700,000 range. No final pricing is in place. We need to get through the final permitting and design phase.
5. One person wanted to know if this project incorporated "green" elements in the design. The design is efficient and compliant with the energy code. It does not have PV or other energy generating facilities. The carbon footprint will be small but it will have one.

Overall the comments were positive. Parking seemed to be the only major concern.

Respectfully Submitted

A handwritten signature in black ink, appearing to read "Thomas S. Greer". The signature is stylized with a large initial "T" and a long, sweeping underline that extends to the right.

Thomas S. Greer P.E.

749 Congress Street

Additional notes from Neighborhood Meeting, 7 PM – 8:20 PM March 23, 2016
Location: Tandem Café & Bakery, 742 Congress Street, Portland

Questions, comments, issues raised by members of the approximately 30-person audience:

Questions about parking for the hotel, and for guests or visitors to the condos

One asked if the residential units will be condos for sale, or apartments for rent?

Many favorable comments were made about renovating the historic building.

People clapped when they learned we are planning to restore the historic clock.

A Deering Street resident noted that parking is tight on Deering Street.

Concern that the large-scale development at former Joe's Smoke Shop was displacing parking.

Concern raised about possibility of unwanted foot traffic cutting through the Mellen Street portion of the subject property, up to Congress Street.

Question from Mellen Street abutter about relative height of new building to their building.

Questions about lighting in the new development, both at the rear of hotel, relative to security, and also about question about any high-level parking lot lighting.

Questions about why we are bringing some of the utilities through the Mellen Street side of our property, rather than all from Congress Street.

Questions about projected prices of hotel rooms and projected prices for condominium units.

One person said that she wished the residential units would be lower-priced.

Questions about construction schedule.

Question about environmental considerations – energy efficiency or carbon footprint of the development.

Many came up to us after the meeting to say they were very happy with what we were proposing, after the property had been vacant for so many years, and several offered their help and support.

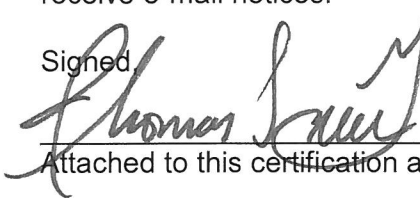
Neighborhood Meeting Certification

I, Thomas S. Greer hereby certify that a neighborhood meeting was held on March 23, 2016 at 742 Congress Street (Tandem Coffee and Bakery), in Portland at 7:00PM concerning 749 Congress Street.

I also certify that on March 9, 2016, invitations were mailed to all addresses on the mailing list provided by the Planning Division, including property owners within 500 feet of the proposed development or within 1000 feet of a proposed industrial subdivision or industrial zone change and the residents on the "interested parties" list.

A digital copy of the notice was also provided to the Planning Division (jmy@portlandmaine.gov and ldobson@portlandmaine.gov) to be forwarded to those on the interested citizen list who receive e-mail notices.

Signed



Attached to this certification are:

3/23/16 (date)

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes

NEIGHBORHOOD MEETING ATTENDEE LIST

749 Congress Street

March 23, 2016

Name & Address	Name & Address
Thomas S. Greer Pinkham & Greer Civil Engineers 28 Vannah Avenue Portland, ME 04103	Ted Hummel 14 Mellen St. Portland
Rox Dubois Elinore Dubois +318 Brighton Ave Portland, ME 04102	Robin Woodcock 727 Congress St #7 Portland, ME 04102
Steven Scharf 15 Salem St 04102 SCSmedia@aol.com	Keni Lord 158 Downing St
Sharon + Eric OBERLY 142 Neal St Portland 04102	RICHARD JULIO CHRIS HORNE PO BOX-106 PTLD. ME 04112
Joseph Napolitano 765 Robert Napolitano Congress St. Portland, ME 04102	741 CONGRESS ST. DAVID PRICE 24 MELLEN ST. PORTLAND, ME. 04101
MARIO PROIA PO BOX 125 PEAKS ISLAND ME 04108	102 TACKA 49 Downing St Portland
PETER L HALL 64 CARLETON ST. #3 04102	ALICE MAZURIE 247 BRACKETT ST PORTLAND ME 04102
Amy Kaplan	Lauri Gibson 295 Brackett Street Portland 04102
Jason Mallory 6 Walker St. Apt. 2 Portland, ME 04102	Nora Krevans 24 Mellen St. Portland 04101
Christine Mc Hale 11 Walker St 04102	LLOYD & JANE LEVI 3-5 DEERING Portland

Neighborhood Meeting

March 9, 2016

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for the redevelopment of 749 Congress Street. The existing building will be repurposed into a Bed and Breakfast with 16 rooms. We will also be adding 7 residential townhouses to the back of the property. The existing carriage house with its two units stays in place.

Meeting Location: 742 Congress Street (Tandem Coffee and Bakery)

Meeting Date: March 23, 2016 (Wednesday)

Meeting Time: 7:00pm

The purpose of this meeting is to introduce the project to our neighbors as part of the City approval process.

If you have any questions, please call Thomas S. Greer, P.E., Pinkham & Greer, Civil Engineers at 207-781-5242 or email him at tgreer@pinkhamandgreer.com.

LANDSCAPING SHALL MEET THE "ARBOR/CULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE GUIDELINES" OF THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.

- GENERAL NOTES

6. TOTAL PAVEMENT • 271 acres
7. UTILITIES TO BE SERVICED BY PUBLIC WATER FROM CONGRESS STREET AND MAIN STREET, AND GAS FROM TOLLEN STREET. THESE SERVICES, INCLUDING HYDRAULICS, ARE AS SHOWN ON SHEET CIV, GRADING AND UTILITIES PLAN.
8. POWER, TELEPHONE AND CABLE SERVICES ARE TO BE UNDERGROUND FROM A NEW POLE ON THE WEST SIDE OF TOLLEN STREET. THESE SERVICES ARE SHOWN ON SHEET CIV, GRADING AND UTILITIES PLAN.
9. CALL 800-SAFE PRIOR TO COMMENCING WORK. 1-800-DIG-4SAFE.

16. NEW PROPERTY FINS TO BE SET AT THE EXPENSE OF THE DEVELOPER AT THE END OF CONSTRUCTION.
17. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BYLAW, ENACTED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (LATEST EDITION, MARCH 2002).

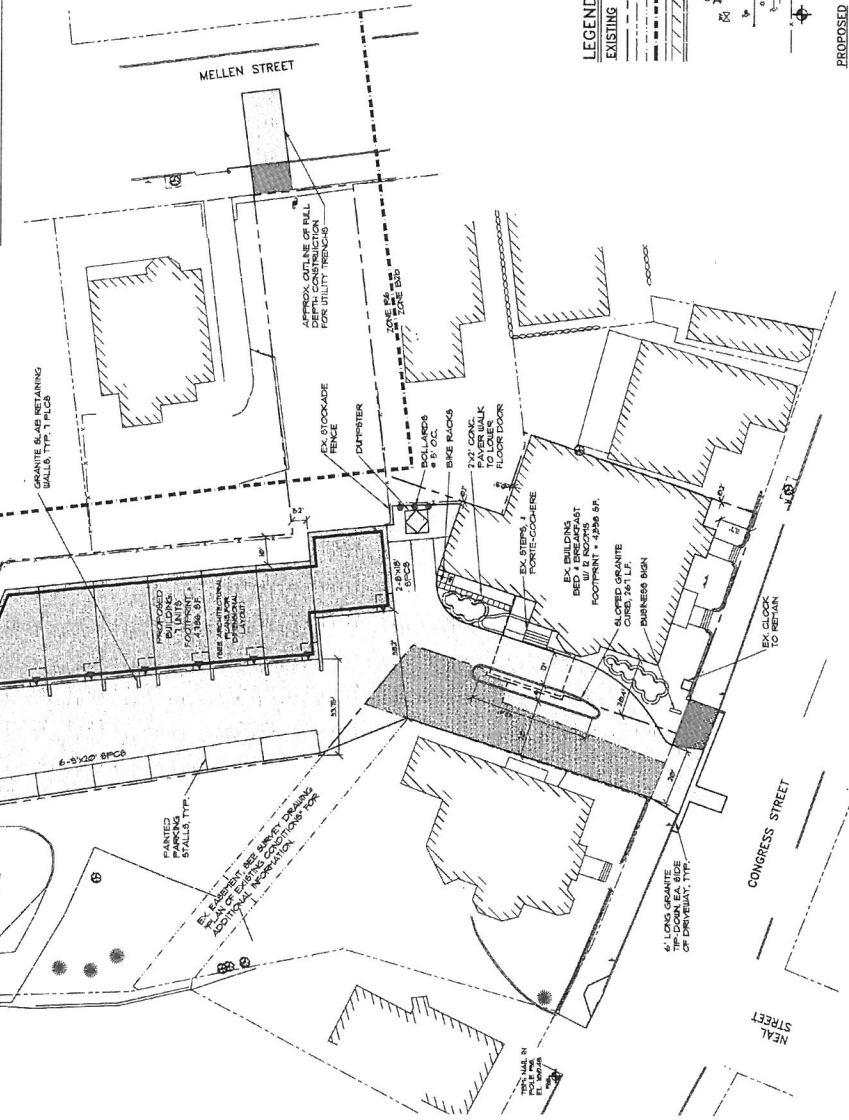
B2B - COMMUNITY BUSINESS ZONE

THAN 150 ROOMS

OFF STREET PARKING || SPACES

COVER SHEET

PLAN OF EXISTING CONDITIONS SURVEY



LOCATION PLAN

SCALE: 1"=400'

DATE _____

LEGEND

EXISTING

PROPERTY LINE
AND ADJACENT PROPERTY
EAST
ZONING DISTRICT
EDGE OF PAVEMENT
BUILDING
CATCH BASIN
GRILLER MANHOLE
HYDRANT
WATER VALVE
GAS VALVE
UTILITY POCKET OR GAS
LIGHT POLE
AREA LIGHT ON POLE
6' X 6' SIGN
BENCH-MARK

PROPOSED

	EDGE OF PAVEMENT VERTICAL GRANITE C BUILDING
	BUILDING ENTRY/EAR BUILDING OVERHEAD
	CATCH BASIN UTILITY POLE
	STOCKADE FENCE ROLLAND
	FULL DEPTH BITUMING
	BRICK PAVING CONCRETE PAVING

GRAPHIC SCALE

(IN 30007)

3 inch = 20 ft

PINKHAM & GREER
CIVIL ENGINEERS

[illegible]

APPLICANT: DENOVO, LLC
FALMOUTH, MAINE

SCALE: AS SHOWN	DRN BY: JDC
DATE: FEBRUARY 22, 2016	DESIGN: TBS
PROJECT: 15106	CHK BY: <i>[Signature]</i>

749 CONGRESS STREET
749 CONGRESS STREET
PORTLAND, MAINE

C1.2

CITY OF PORTLAND SITE PLAN
AND SUBDIVISION NOTES

- LANDSCAPING SHALL MEET THE "ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE GUIDELINES" OF THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
- 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.
- ALL POWERLINE UTILITIES SHALL BE UNDERGROUND.
- SIDEWALKS AND CURBING SHALL BE DESIGNED AND BUILT WITH TIPDOWN RAMPS AT ALL STREET CORNERS, CROSSWALKS AND DRIVEWAYS IN CONFORMANCE WITH THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs PUBLISHED BY THE BUREAU OF LAND AND QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR REGRADING.
- ALL DISTURBED AREAS ON THE SITE NOT COVERED BY BUILDINGS OR PAVED AREAS SHALL BE STABILIZED WITH LOAM AND SEED OR OTHER METHODS AS REQUIRED BY BEST MANAGEMENT PRACTICES (SEE ABOVE).
- PRIOR TO CONSTRUCTION, A PRECONSTRUCTION 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 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.
- EXISTING VEGETATION SHALL BE CONSERVED IN AREAS SHOWN ON THIS SITE. FENCING OR OTHER PROTECTIVE BARRIERS SHALL BE ERECTED OUTSIDE THE DRIP-LINE OF INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION. REGRADING SHALL NOT TAKE PLACE WITHIN THE DRIP-LINE OF TREES DESIGNATED FOR PRESERVATION. NO STORAGE OR CONSTRUCTION MATERIALS SHALL BE PERMITTED WITHIN THE DRIP-LINE OF TREES TO BE PRESERVED.
- SUBDIVISION AT THE TIME OF APPROVAL IS DEFINED AS "SUBDIVISION SHALL MEAN THE DIVISION OF A LOT, TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE LOTS, INCLUDING LOTS OF FORTY (40) ACRES OR MORE, WITHIN ANY FIVE-YEAR PERIOD WHETHER ACCOMPLISHED BY SALE, LEASE, DEVELOPMENT, BUILDINGS OR OTHERWISE AND AS FURTHER DEFINED IN 30-A M.R.S.A. SECTION 4401. THE TERM SUBDIVISION SHALL ALSO INCLUDE THE DIVISION OF A NEW STRUCTURE OR STRUCTURES ON A TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD AND THE DIVISION OF AN EXISTING STRUCTURE OR STRUCTURES PREVIOUSLY USED FOR COMMERCIAL OR INDUSTRIAL USE INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD. THE AREA INCLUDED IN THE EXPANSION OF AN EXISTING STRUCTURE IS DEEMED TO BE A NEW STRUCTURE FOR THE PURPOSE OF THIS PARAGRAPH. A DWELLING UNIT SHALL INCLUDE ANY PART OF A STRUCTURE WHICH, THROUGH SALE OR LEASE, IS INTENDED FOR HUMAN HABITATION, INCLUDING SINGLE-FAMILY AND MULTIFAMILY HOUSING CONDOMINIUMS, TIME-SHARE UNITS AND APARTMENTS."

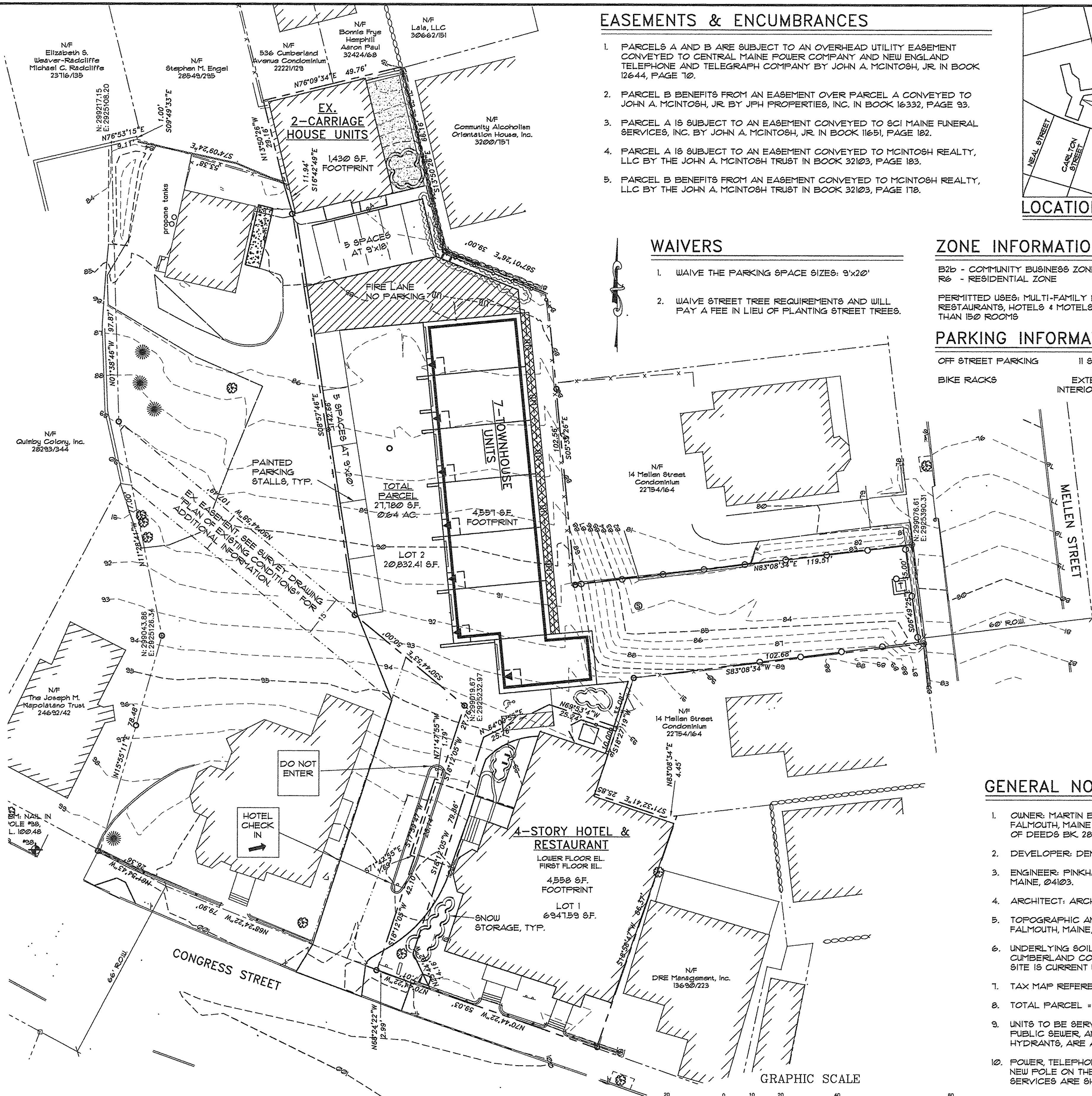
SURVEY GENERAL NOTES
AND PLAN REFERENCES

GENERAL NOTES:

- BOOK AND PAGE REFERENCES ARE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- BEARINGS ARE REFERENCED TO THE MAINE STATE COORDINATE SYSTEM, WEST ZONE NAD1983 (HARN) DERIVED FROM CITY OF PORTLAND INFORMATION. BASE POINT USED "T110-65-1B2" N 298010.8140 E 2925314.3180. AZIMUTH POINT "T124-26-1251" N 298424.6162 E 2925230.1931.
- ELEVATIONS ARE BASED ON CITY OF PORTLAND DATUM. BENCHMARK IS THE STREET MONUMENT AT THE NORTHEASTERLY CORNER OF SHERMAN AND MELLEN STREETS AS PROVIDED BY THE CITY OF PORTLAND. ELEVATION: 5170'.
- UTILITY INFORMATION ON THIS PLAN IS APPROXIMATE, BASED ON LOCATION OF VISIBLE, DIGSAFE AND/OR THE APPROPRIATE UTILITIES SHOULD BE CONTACTED PRIOR TO ANY CONSTRUCTION.
- PROPERTY LIES WITHIN ZONE X BASED ON FIRM COMMUNITY #230251 PANEL 00013 B, DATED JULY 17, 1986. IT DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA.
- THERE ARE DISCREPANCIES BETWEEN THE LANGUAGE CONTAINED IN THE DEED DESCRIPTIONS FOR EASEMENTS 3 AND 4 AND THE EXHIBIT A DIAGRAM ATTACHED TO THE DEEDS. CORRECTIVE DEEDS FOR THESE EASEMENTS ARE RECOMMENDED PRIOR TO THE CONVEYANCE OF EITHER PARCEL. AS PARCELS A AND B ARE CURRENTLY OWNED BY THE SAME ENTITY, THE EASEMENTS MAY BE CONSIDERED NULL AND VOID.

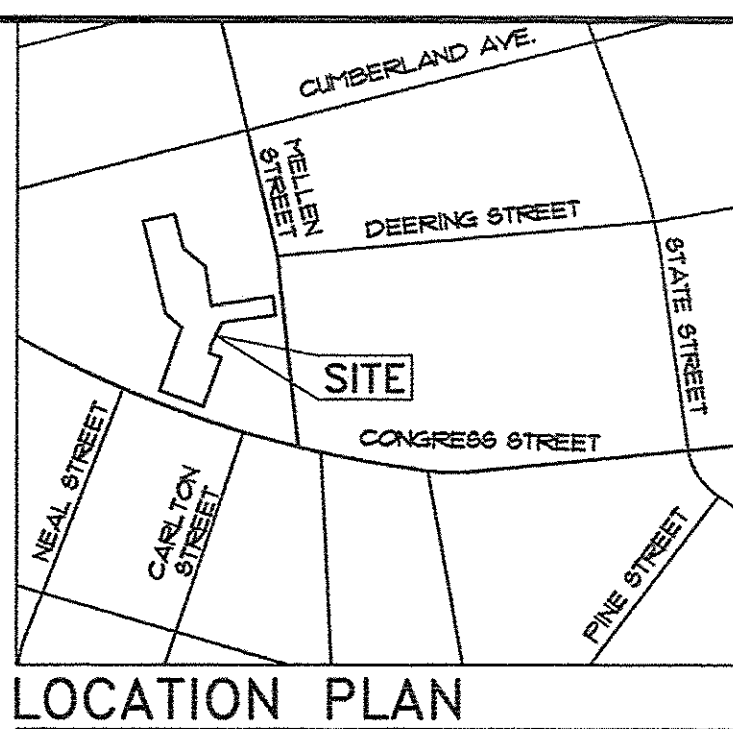
PLAN REFERENCES:

- 1) STANDARD BOUNDARY SURVEY, PLAN OF PROPERTY MADE FOR SCI MAINE FUNERAL SERVICES, INC. BY R.P. TITCOMB ASSOCIATES, INC. DATED FEBRUARY 5, 1981 AND REVISED THROUGH AUGUST 11, 2001.
- 2) ALTA/ACSM LAND TITLE SURVEY MADE FOR JPH PROPERTIES, INC. BY NORTHEAST CIVIL SOLUTIONS DATED SEPTEMBER 13, 2006.
- 3) CONDOMINIUM PLAT MADE FOR 14 MELLEN STREET CONDOMINIUMS BY BACK BAY BOUNDARY, INC. LAND SURVEYING DATED JANUARY 21, 2005 RECORDED IN BOOK 205, PAGE 361.
- 4) LAND TITLE SURVEY MADE FOR PEOPLES HERITAGE BANK BY STEVENS MORTON ROSE AND THOMPSON DATED OCTOBER 19, 1992 RECORDED IN PLAN BOOK 193, PAGE 5.
- 5) CONDOMINIUM CONVERSION MADE FOR OTIS C. AND A. MAVOUREEN THOMPSON BY NORTHEAST CIVIL SOLUTIONS DATED NOVEMBER 22, 2004 RECORDED IN PLAN BOOK 204, PAGE 896.



EASEMENTS & ENCUMBRANCES

- PARCELS A AND B ARE SUBJECT TO AN OVERHEAD UTILITY EASEMENT CONVEYED TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY BY JOHN A. MCINTOSH, JR. IN BOOK 12644, PAGE 10.
- PARCEL B BENEFITS FROM AN EASEMENT OVER PARCEL A CONVEYED TO JOHN A. MCINTOSH, JR. BY JPH PROPERTIES, INC. IN BOOK 16332, PAGE 93.
- PARCEL A IS SUBJECT TO AN EASEMENT CONVEYED TO SCI MAINE FUNERAL SERVICES, INC. BY JOHN A. MCINTOSH, JR. IN BOOK 11651, PAGE 182.
- PARCEL A IS SUBJECT TO AN EASEMENT CONVEYED TO MCINTOSH REALTY, LLC BY THE JOHN A. MCINTOSH TRUST IN BOOK 32103, PAGE 183.
- PARCEL B BENEFITS FROM AN EASEMENT CONVEYED TO MCINTOSH REALTY, LLC BY THE JOHN A. MCINTOSH TRUST IN BOOK 32103, PAGE 178.



WAIVERS

- WAIVE THE PARKING SPACE SIZES: 9'x20'
- WAIVE STREET TREE REQUIREMENTS AND WILL PAY A FEE IN LIEU OF PLANTING STREET TREES.

ZONE INFORMATION

B2b - COMMUNITY BUSINESS ZONE
R6 - RESIDENTIAL ZONE

PERMITTED USES: MULTI-FAMILY DWELLING, RESTAURANTS, HOTELS & MOTELS LESS THAN 150 ROOMS

PARKING INFORMATION

OFF STREET PARKING 11 SPACES
BIKE RACKS
EXTERIOR: 4
INTERIOR: GARAGE

IMPERVIOUS INFORMATION

EXISTING IMPERVIOUS 21542 SQ. FT.
PROPOSED IMPERVIOUS 22292 SQ. FT.
NET IMPERVIOUS 4150 SQ. FT.

SUBDIVISION PLAN, APPROVED BY THE
CITY OF PORTLAND PLANNING BOARD

THIS PLAN INCLUDES:	PARKING
16 HOTEL ROOMS	4
35 SEAT RESTAURANT	5
9 RESIDENTIAL UNITS	9
TOTAL REQUIRED	18
PROVIDED	18

GENERAL NOTES

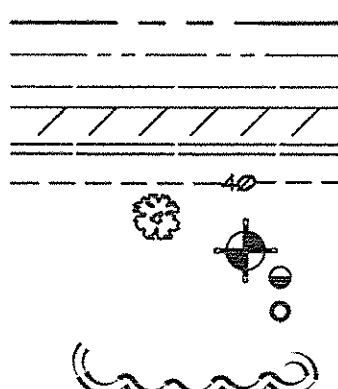
- OWNER: MARTIN B. DASSA & ALYSSA J. DASSA TRUSTEES, 3 COTTONWOOD LANE, FALMOUTH, MAINE 04105. DEEDS RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS BK. 28901, PG. 208, DATE 11/15/06.
- DEVELOPER: DENOVO, LLC, 41 WATERS LANDING ROAD, FALMOUTH, MAINE 04105.
- ENGINEER: PINKHAM & GREER CIVIL ENGINEERS, 28 VANNAH AVENUE, PORTLAND, MAINE, 04103.
- ARCHITECT: ARCHETYPE ARCHITECTS, 48 UNION WHARF, PORTLAND, MAINE 04101.
- TOPOGRAPHIC AND BOUNDARY: TITCOMB ASSOCIATES, 133 GRAY ROAD, FALMOUTH, MAINE, 04105.
- UNDERLYING SOILS MAPPING TAKEN FROM SOIL CONSERVATION STUDY OF CUMBERLAND COUNTY AND CLASSIFIED HINCKLEY (H1B). THE SURFACE OF THE SITE IS CURRENT URBAN LAND.
- TAX MAP REFERENCE: MAP 41 / BLOCK A / LOT 20, 28, 30, 32.
- TOTAL PARCEL = 0.71 acres
- UNITS TO BE SERVICED BY PUBLIC WATER FROM CONGRESS STREET AND PUBLIC SEWER, AND GAS FROM MELLEN STREET. THESE SERVICES, INCLUDING HYDRANTS, ARE AS SHOWN ON SHEET C14, GRADING AND UTILITIES PLAN.
- POWER, TELEPHONE AND CABLE SERVICES ARE TO BE UNDERGROUND FROM A NEW POLE ON THE SUBJECT PARCEL ADJACENT TO MELLEN STREET. THESE SERVICES ARE SHOWN ON SHEET C14, GRADING AND UTILITIES PLAN.
- CALL DIG-SAFE PRIOR TO COMMENCING WORK, 1-800-DIG-SAFE.
- ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
- PROPOSED PARKING SPACES: 11-OUTDOOR, 7-INDOOR
- THE SUBJECT PARCEL SHOWN AS 149 CONGRESS STREET IS SUBJECT TO A CITY OF PORTLAND LEVEL III SITE PLAN AND SUBDIVISION PERMIT.
- FLOODPLAIN: THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 230051 0014 B, EFFECTIVE DATE JULY 17, 1986. IT IS NOT IN A SPECIAL FLOOD HAZARD ZONE.
- NEW PROPERTY PINS TO BE SET AT THE EXPENSE OF THE DEVELOPER AT THE END OF CONSTRUCTION.
- ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMPs" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION, MARCH 2003.

SNOW CLEARANCE NOTES

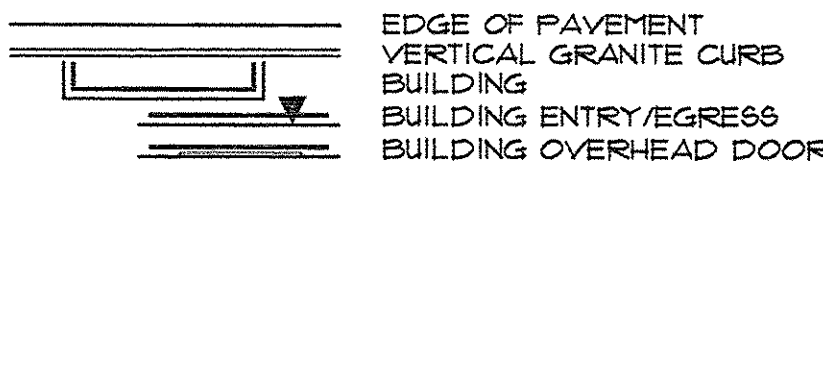
- SNOW MAY BE STORED WITHIN THE TEMPORARY SNOW STORAGE AREAS ONLY.
- ANY SNOW THAT CAN NOT BE STORED ON SITE SHALL BE PHYSICALLY REMOVED AND TRANSPORTED OFFSITE WITHIN 24 TO 48 HOURS FOLLOWING A SNOW STOP.
- SNOW TRANSPORTED OFFSITE SHALL BE BROUGHT TO A MAINE DEP APPROVED "SNOW DUMP" OR MEET THE EXEMPTION REQUIREMENTS SPECIFIED IN CHAPTER 513 WHEN THE ABOVE REQUIREMENTS CANNOT BE MET DUE TO AN ABUNDANCE OF SNOW.
- THE SNOW CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO VEGETATION, LANDSCAPING, CURBING, LIGHTING, FENCING ETC. RESULTING FROM THEIR ACTIVITIES.
- THE SNOW CONTRACTOR SHALL USE SALT OR CHLORIDE SUBSTITUTE TO DEICE THE PARKING LOT.
- THE CONDOMINIUM ASSOCIATION IS RESPONSIBLE FOR SNOW REMOVAL BEING UNDERTAKEN IN A TIMELY FASHION.

LEGEND

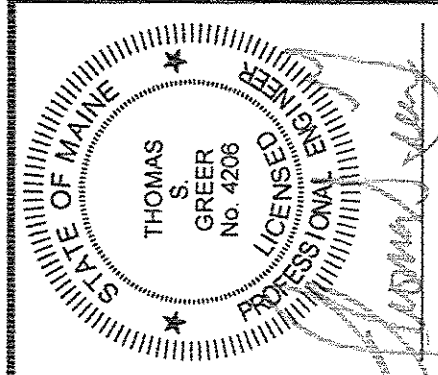
EXISTING



PROPOSED



PINKHAM & GREER
CIVIL ENGINEERS



749 CONGRESS STREET
749 CONGRESS STREET
PORTLAND, MAINE

APPLICANT: DENOVO, LLC 47 WATERS LANDING ROAD FALMOUTH, MAINE	SCALE AS SHOWN	DATE	DESIGN BY	CHK BY	PROJECT
		FEBRUARY 22, 2016	TSG	JDC	15156

C1.1

MAPLOT 47 / A / 20 30 28 32

CITY OF PORTLAND
SITE PLAN AND SUBDIVISION NOTES

1. LANDSCAPING SHALL MEET THE "ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE GUIDELINES" OF THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
2. 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.
3. ALL POWERLINE UTILITIES SHALL BE UNDERGROUND.
4. SIDEWALKS AND CURBING SHALL BE DESIGNED AND BUILT WITH TIPDOWN RAMPS AT ALL STREET CORNERS, CROSSWALKS AND DRIVEWAYS IN CONFORMANCE WITH THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
5. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs PUBLISHED BY THE BUREAU OF LAND AND QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003.
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR REGRADING.
7. ALL DISTURBED AREAS ON THE SITE NOT COVERED BY BUILDINGS OR PAVED AREAS SHALL BE STABILIZED WITH LOAM AND SEED OR OTHER METHODS AS REQUIRED BY BEST MANAGEMENT PRACTICES (SEE ABOVE).
8. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING SHALL BE HELD AT THE PROJECT SITE WITH THE CONTRACTOR, DEVELOPMENT REVIEW COORDINATOR, PUBLIC WORK'S 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.
9. EXISTING VEGETATION SHALL BE CONSERVED IN AREAS SHOWN ON THIS SITE. FENCING OR OTHER PROTECTIVE BARRIERS SHALL BE ERECTED OUTSIDE THE DRIP-LINE OF INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION. REGRADING SHALL NOT TAKE PLACE WITHIN THE DRIP-LINE OF TREES DESIGNATED FOR PRESERVATION. NO STORAGE OR CONSTRUCTION MATERIALS SHALL BE PERMITTED WITHIN THE DRIP-LINE OF TREES TO BE PRESERVED.
10. SUBDIVISION AT THE TIME OF APPROVAL IS DEFINED AS "SUBDIVISION SHALL MEAN THE DIVISION OF A LOT, TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE LOTS, INCLUDING LOTS OF FORTY (40) ACRES OR MORE, WITHIN ANY FIVE-YEAR PERIOD WHETHER ACCOMPLISHED BY SALE, LEASE, DEVELOPMENT, BUILDINGS OR OTHERWISE AND AS FURTHER DEFINED IN 30-A M.R.S.A. SECTION 4401. THE TERM SUBDIVISION SHALL ALSO INCLUDE THE DIVISION OF A NEW STRUCTURE OR STRUCTURES ON A TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD AND THE DIVISION OF AN EXISTING STRUCTURE OR STRUCTURES PREVIOUSLY USED FOR COMMERCIAL OR INDUSTRIAL USE INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD. THE AREA INCLUDED IN THE EXPANSION OF AN EXISTING STRUCTURE IS DEEMED TO BE A NEW STRUCTURE FOR THE PURPOSE OF THIS PARAGRAPH. A DWELLING UNIT SHALL INCLUDE ANY PART OF A STRUCTURE WHICH, THROUGH SALE OR LEASE, IS INTENDED FOR HUMAN HABITATION, INCLUDING SINGLE-FAMILY AND MULTIFAMILY HOUSING CONDOMINIUMS, TIME-SHARE UNITS AND APARTMENTS."

GENERAL NOTES

1. OWNER: MARTIN B. DASSA & ALYSSA J. DASSA TRUSTEES, 3 COTTONWOOD LANE, FALMOUTH, MAINE 04105, DEEDS RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS BK. 28927, PG. 208, DATE 11/5/206.
2. DEVELOPER: DENOVO, LLC, 41 WAITES LANDING ROAD, FALMOUTH, MAINE 04105.
3. ENGINEER: PINKHAM & GREER CIVIL ENGINEERS, 28 VANNAH AVENUE, PORTLAND, MAINE, 04103.
4. ARCHITECT: ARCHETYPE ARCHITECTS, 48 UNION WHARF, PORTLAND, MAINE 04101.
5. TOPOGRAPHIC AND BOUNDARY: TITCOMB ASSOCIATES, 133 GRAY ROAD, FALMOUTH, MAINE, 04105.
6. UNDERLYING SOILS MAPPING TAKEN FROM SOIL CONSERVATION STUDY OF CUMBERLAND COUNTY AND CLASSIFIED HICKLEY (H1B). THE SURFACE OF THE SITE IS CURRENT URBAN LAND.
7. TAX MAP REFERENCE: MAP 41 / BLOCK A / LOT 20, 28, 30, 32.
8. TOTAL PARCEL = 0.11 acres
9. UNITS TO BE SERVICED BY PUBLIC WATER FROM CONGRESS STREET AND PUBLIC SEWER, AND GAS FROM MELLEN STREET. THESE SERVICES, INCLUDING HYDRANTS, ARE AS SHOWN ON SHEET C14, GRADING AND UTILITIES PLAN.
10. POWER, TELEPHONE AND CABLE SERVICES ARE TO BE UNDERGROUND FROM A NEW POLE ON THE SUBJECT PARCEL ADJACENT TO MELLEN STREET. THESE SERVICES ARE SHOWN ON SHEET C14, GRADING AND UTILITIES PLAN.
11. CALL DIG-SAFE PRIOR TO COMMENCING WORK, 1-800-DIG-SAFE.
12. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
13. PROPOSED PARKING SPACES: 11-OUTDOOR, 1-INDOOR.
14. THE SUBJECT PARCEL SHOWN AS 149 CONGRESS STREET IS SUBJECT TO A CITY OF PORTLAND LEVEL III SITE PLAN AND SUBDIVISION PERMIT.
15. FLOODPLAIN: THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 230251 0014 B, EFFECTIVE DATE JULY 11, 1986. IT IS NOT IN A SPECIAL FLOOD HAZARD ZONE.
16. NEW PROPERTY PINS TO BE SET AT THE EXPENSE OF THE DEVELOPER AT THE END OF CONSTRUCTION.
17. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMPs" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION, MARCH 2003.

ZONE INFORMATION

B2b - COMMUNITY BUSINESS ZONE
R6 - RESIDENTIAL ZONE

PERMITTED USES: MULTI-FAMILY DWELLING, RESTAURANTS, HOTELS & MOTELS LESS THAN 150 ROOMS

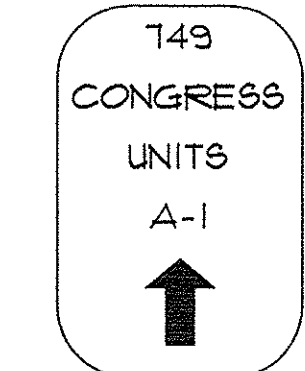
PARKING INFORMATION

OFF STREET PARKING 11 SPACES
BIKE RACKS
EXTERIOR: 4
INTERIOR: GARAGE

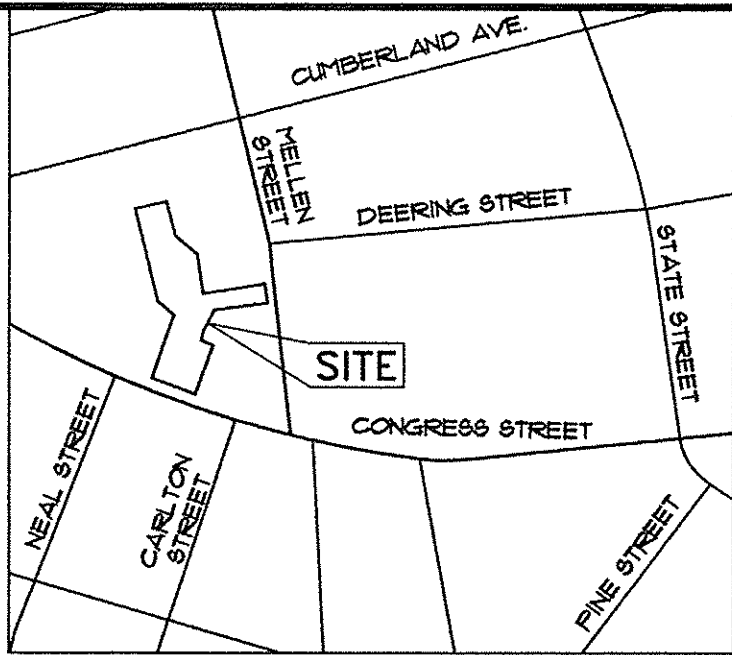
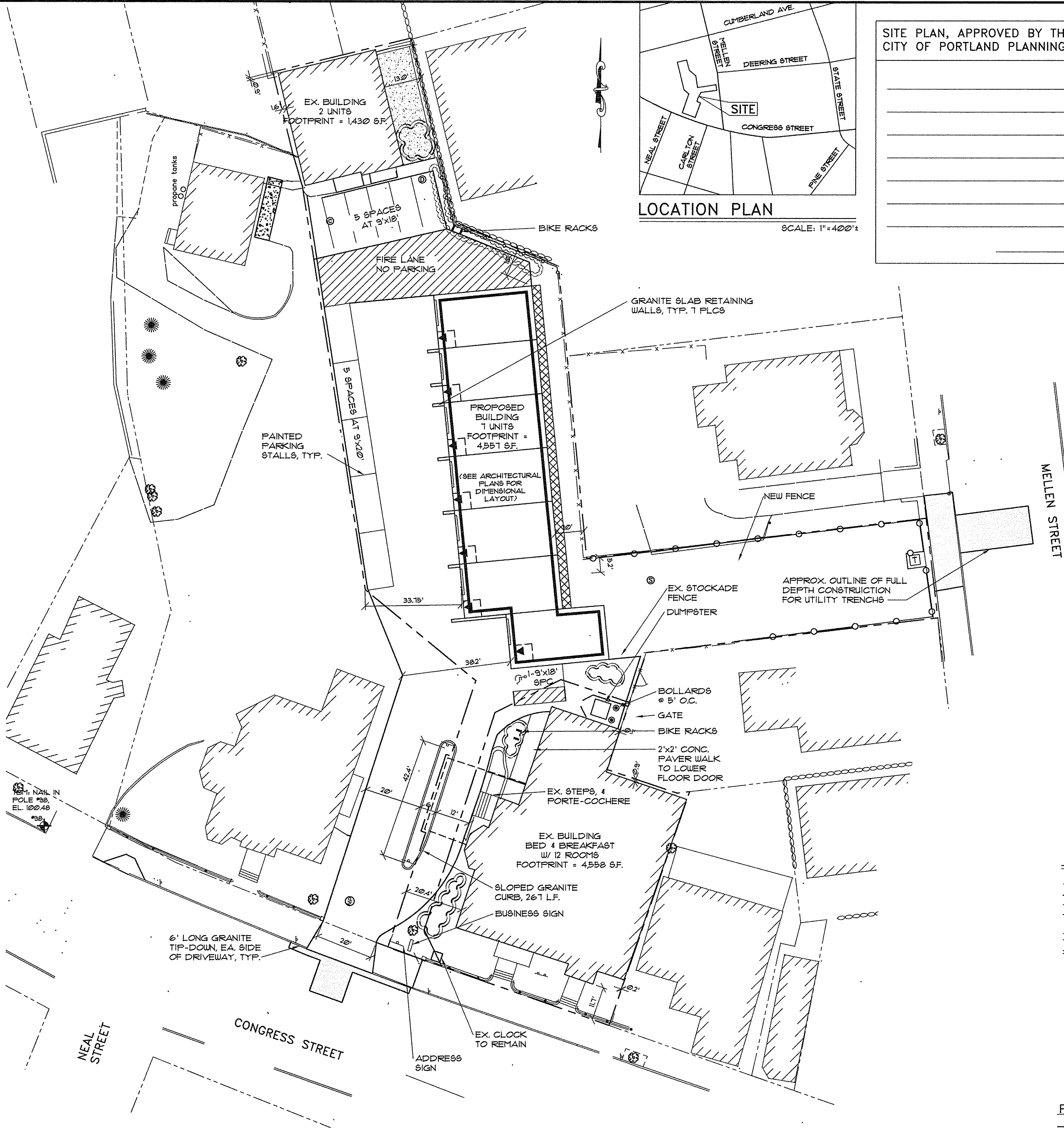
PROJECT DRAWINGS

C11 COVER SHEET
C12 SUBDIVISION RECORDING FLAT
C13 SITE PLAN
C14 EXISTING CONDITIONS AND DEMOLITION PLAN
C15 GRADING AND UTILITIES PLAN
C16 EROSION CONTROL PLAN, NOTES AND DETAILS
C21 LANDSCAPE PLAN, NOTES AND DETAILS
C22 SITE DETAILS
SITE DETAILS

PLAN OF EXISTING CONDITIONS SURVEY



ADDRESS SIGN
DETAIL



LOCATION PLAN
SCALE: 1"=400'

SITE PLAN, APPROVED BY THE
CITY OF PORTLAND PLANNING BOARD

DATE

Plan 2

LEGEND

EXISTING

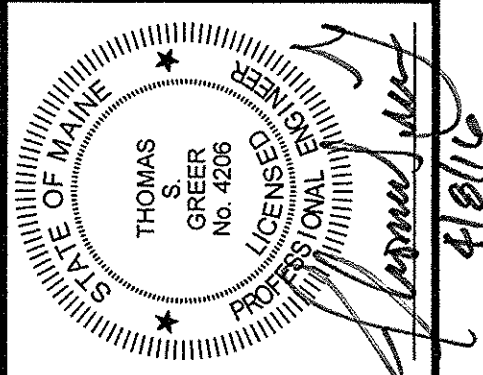
PROPERTY LINE
ABUTTER'S PROPERTY
EASEMENT

EDGE OF PAVEMENT
BUILDING
CURB
CATCH BASIN
SEWER MANHOLE
HYDRANT
WATER VALVE
POLE MOUNTED TRANSFORMER
UTILITY POLE W/ GUY WIRE
LIGHT POLE
AREA LIGHT ON POLE
SIGN
FENCE
BENCHMARK

PROPOSED

EDGE OF PAVEMENT
VERTICAL GRANITE CURB
BUILDING
BUILDING ENTRY/EGRESS
BUILDING OVERHEAD DOOR
CATCH BASIN
UTILITY POLE
STOCKADE FENCE
BOLLARD
FULL DEPTH BITUMINOUS PMT
BRICK PAVERS
CONCRETE PAVERS
SIGN

PINKHAM & GREER
CIVIL ENGINEERS
28 VANNAH AVE. PORTLAND, ME 04103
TEL: 207.781.5242 FAX: 207.781.4245



REV.	DATE	DESCRIPTION
1	4/8/16	Per Staff Comments

APPLICANT: DENOVO, LLC
47 WAITES LANDING ROAD
FALMOUTH, MAINE

749 CONGRESS STREET
749 CONGRESS STREET
PORTLAND, MAINE

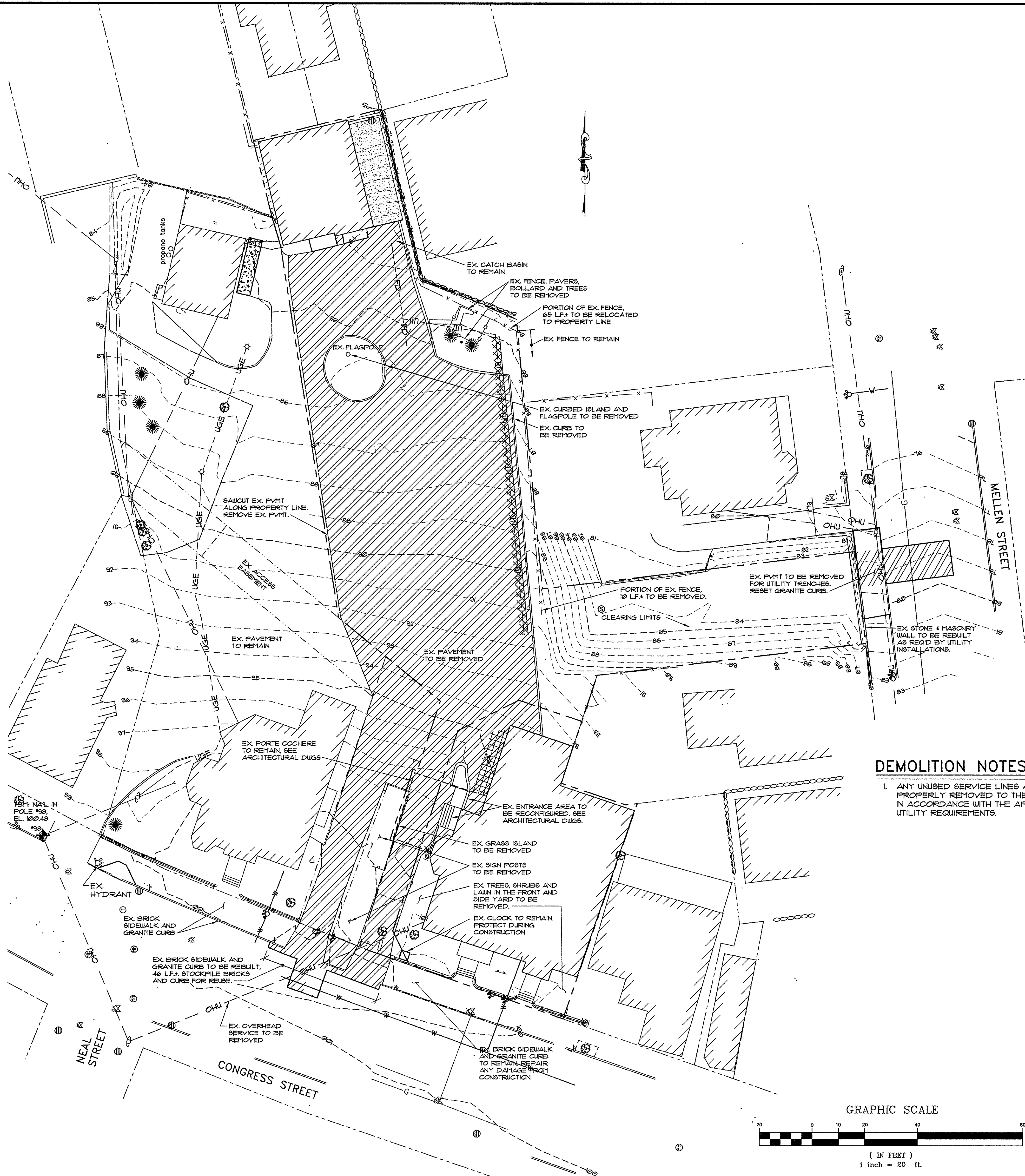
C1.2

MAPLOT: 47 / A / 20, 30, 28, 32

LEGEND

EXISTING

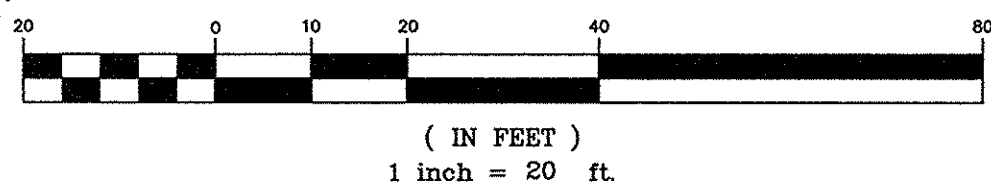
- PROPERTY LINE
- ABUTTERS PROPERTY
- EASEMENT
- EDGE OF PAVEMENT
- CONTOURS
- BUILDING
- CURB
- GAS LINE
- SANITARY SEWER
- STORMDRAIN
- OVERHEAD UTILITY
- WATER LINE
- CATCH BASIN
- SEWER MANHOLE
- HYDRANT
- WATER VALVE
- GAS VALVE
- POLE MOUNTED TRANSFORMER
- UTILITY POLE W/ GUY WIRE
- LIGHT POLE
- AREA LIGHT ON POLE
- SIGN
- FENCE
- BENCHMARK
- TREE
- IMPERVIOUS TO BE REMOVED



DEMOLITION NOTES

- ANY UNUSED SERVICE LINES ARE TO BE PROPERLY REMOVED TO THE MAIN. CAP EACH IN ACCORDANCE WITH THE APPROPRIATE UTILITY REQUIREMENTS.

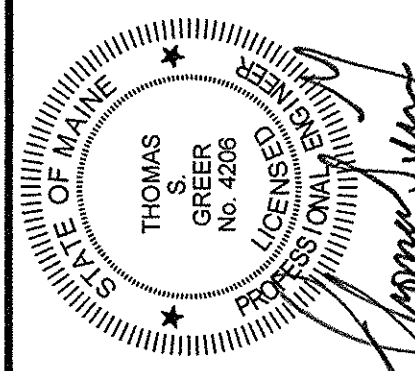
GRAPHIC SCALE



Plan 3

PINKHAM & GREER
CIVIL ENGINEERS

28 WANNAMUESE ROAD, PORTLAND, ME 04103
TEL: 207.781.5242 FAX: 207.781.4245



REV.	DATE	DESCRIPTION
1	4/8/16	REV. STAFF COMMENTS

APPLICANT: DENOVO, LLC
47 WAITES LANDING ROAD
FALMOUTH, MAINE

SCALE: AS SHOWN
DATE: FEBRUARY 22, 2016
PROJECT: 15166

DRN BY: JDC
DES BY: TSG
CHK BY: JS

749 CONGRESS STREET
749 CONGRESS STREET
PORTLAND, MAINE

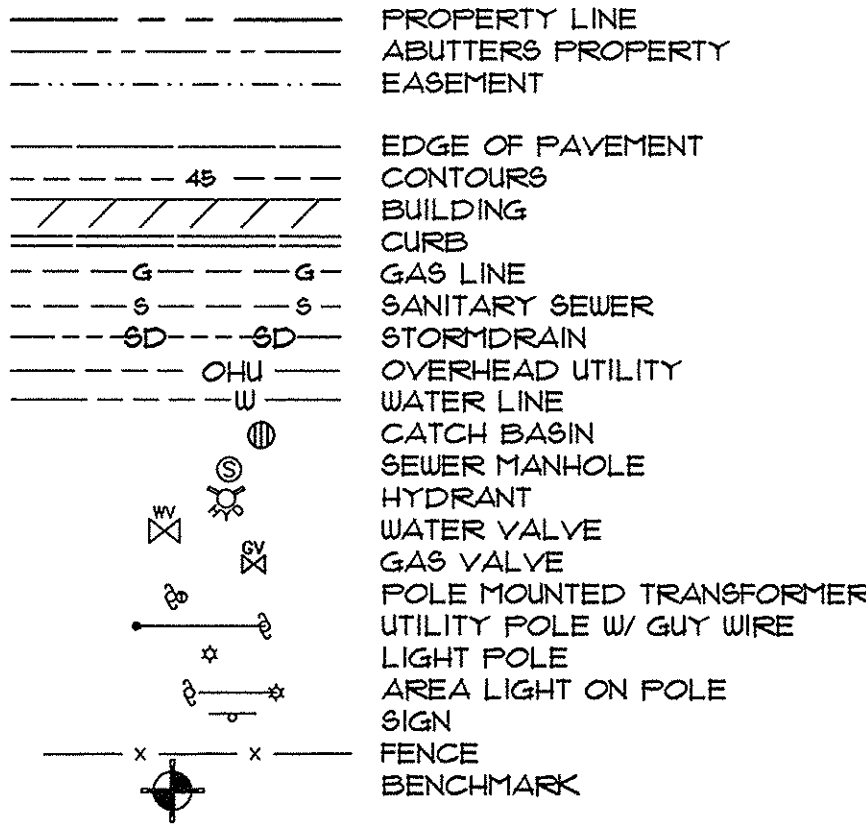
EXISTING CONDITIONS
AND DEMOLITION PLAN

C1.3

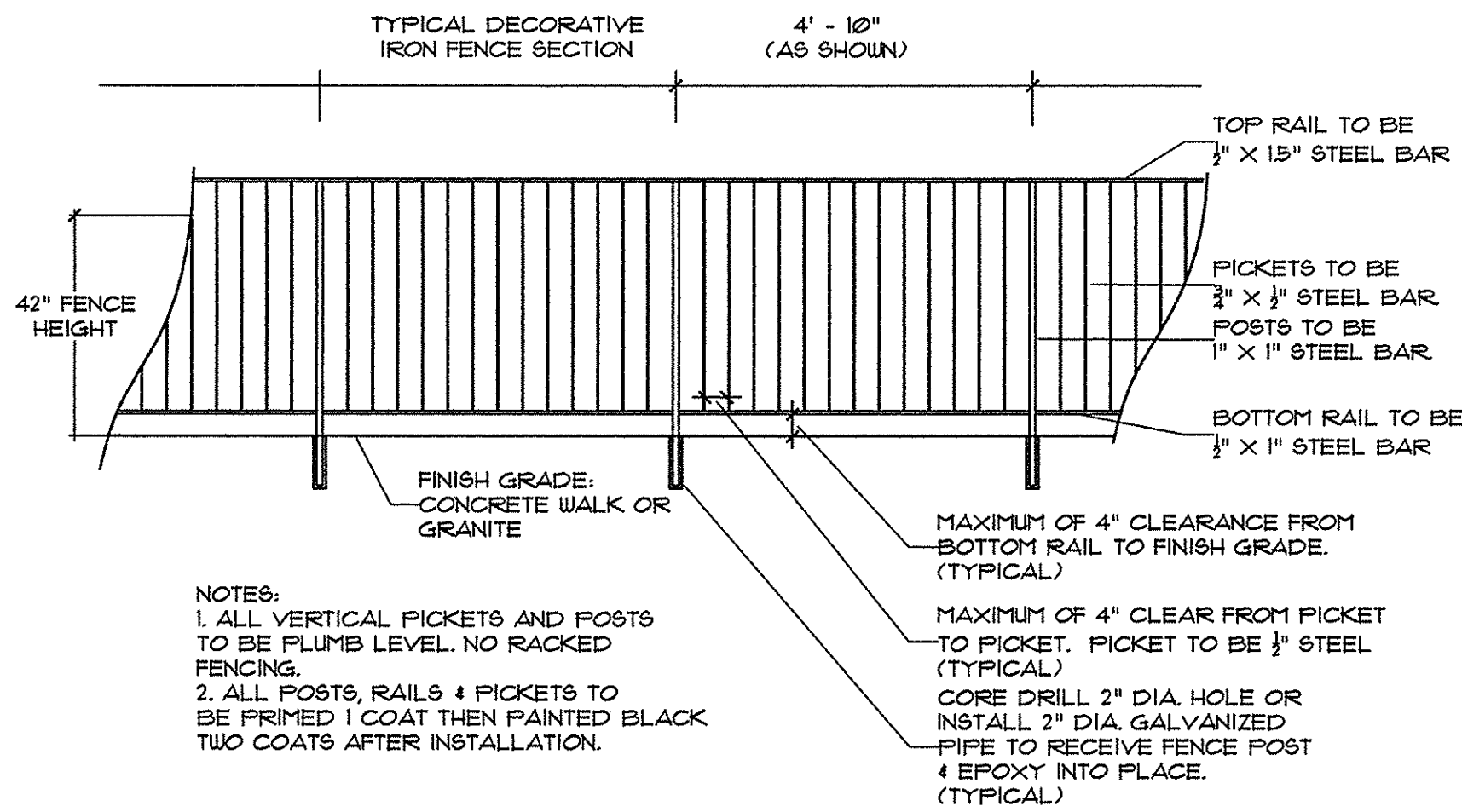
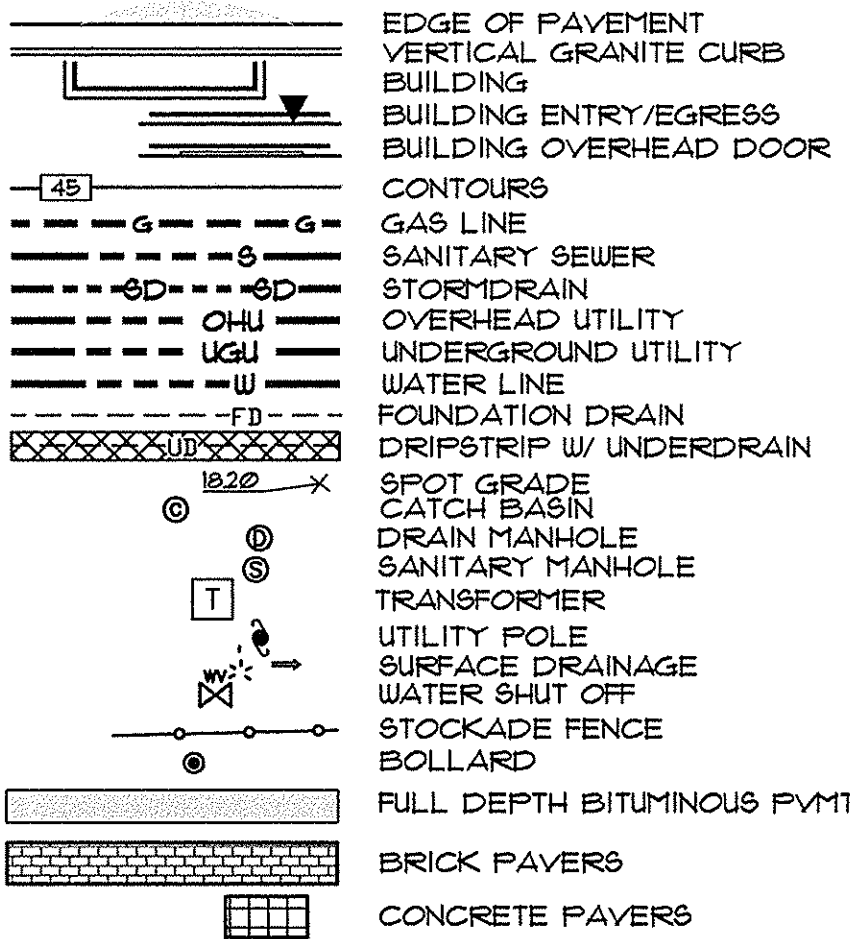
MAP/LOT 47 / A / 20, 30, 28, 32

LEGEND

EXISTING

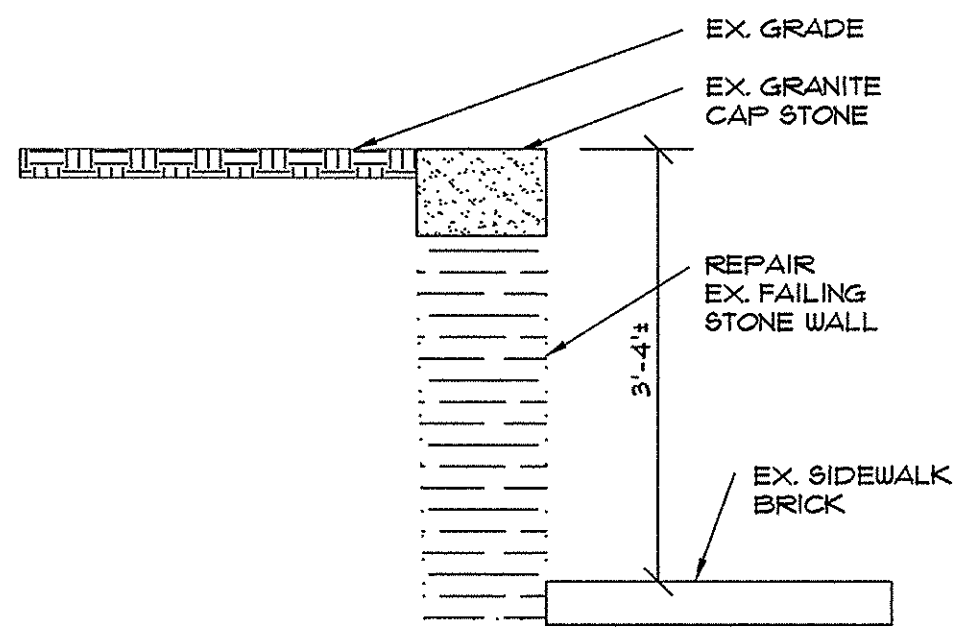


PROPOSED



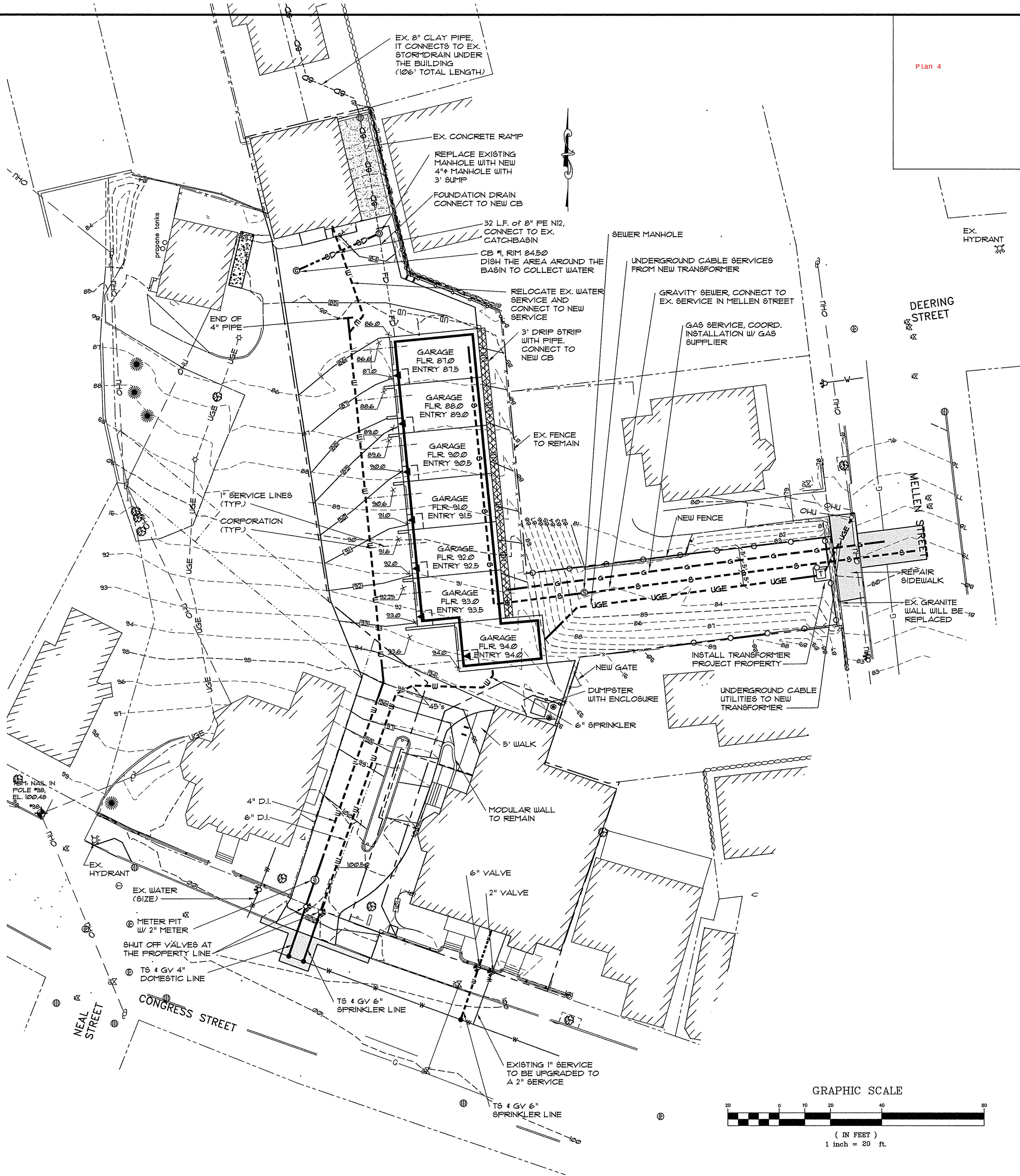
DECORATIVE IRON FENCING

N.T.S.



STONE WALL REPAIR

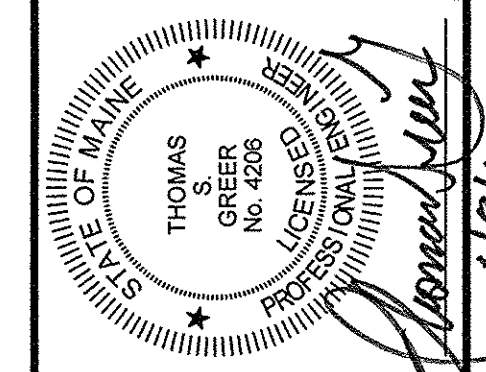
N.T.S.



Plan 4

PINKHAM & GREER
CIVIL ENGINEERS

28 WILMOUTH AVE. PORTLAND, ME 04103
TEL: 207.781.5242 FAX: 207.781.4245



REV.	DATE	DESCRIPTION
1	4/18/16	NEW STAFF COMMENTS

APPLICANT: DENOVO, LLC
47 WAITES LANDING ROAD
FALMOUTH, MAINE

SCALE: AS SHOWN
DATE: FEBRUARY 22, 2016
PROJECT: 15166

DRN BY: JDC
DESIGN BY: TSG
CHK BY: TSG

749 CONGRESS STREET
749 CONGRESS STREET
PORTLAND, MAINE

GRADING & UTILITIES PLAN

C1.4

MAPLOT 47 / A / 20, 30, 28, 32

EROSION CONTROL NOTES

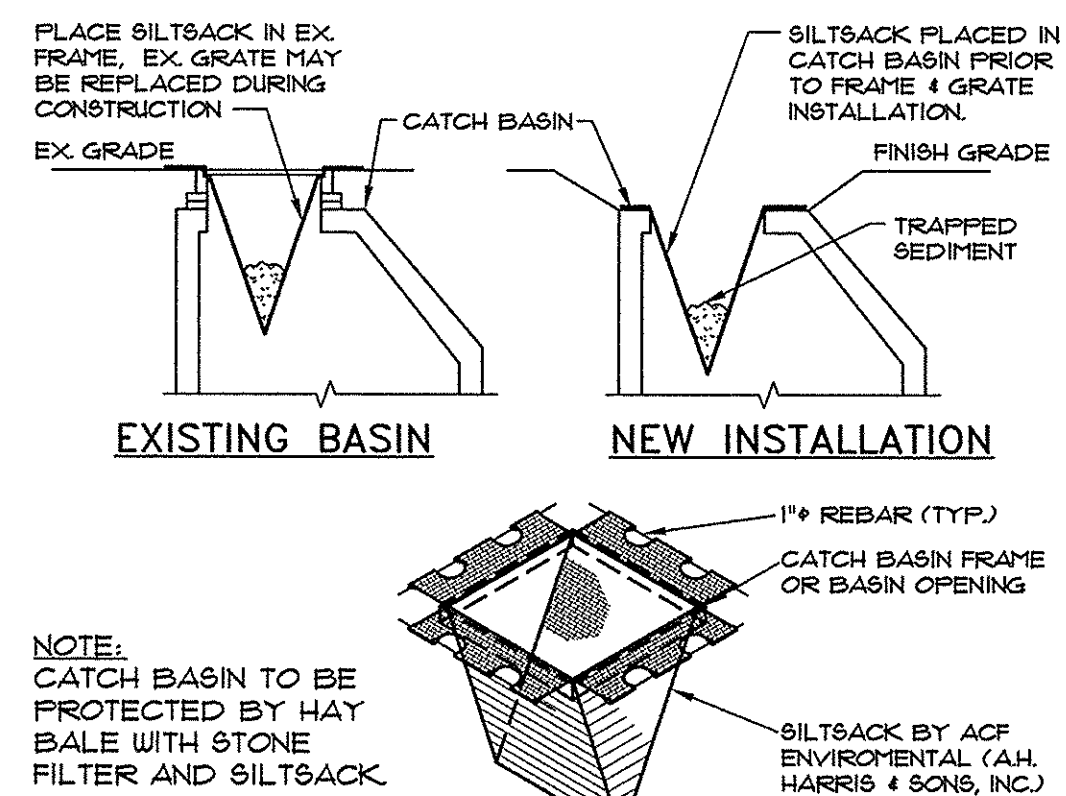
GENERAL:

- THE DRAWINGS DEPICT THE REQUIRED SOIL EROSION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE IN SUCH A MANNER THAT:
- SOIL EROSION IS KEPT TO A MINIMUM.
 - NO SEDIMENT LEAVES THE CONSTRUCTION SITE PROPER.
 - ALL POSSIBLE MEASURES ARE EMPLOYED TO PREVENT SEDIMENT FROM ENTERING DRAINAGE COURSES AND WETLANDS EVEN BEYOND THE DETAILS SHOWN ON THIS PLAN IF NECESSARY.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATERBODIES, OR WETLAND AS A RESULT OF THIS PROJECT.
- LOAM AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER DISTURBANCE, BUT NO LONGER THAN 7 DAYS. LOAM AND SEED ANY DISTURBED AREA WITHIN 15' OF WETLANDS OR WATERBODIES WITHIN 48 HOURS OR PRIOR TO AND STORM EVENT. USE WATER SEED RATES AND SPECIFICATIONS IF APPROPRIATE.
- INSPECT SOIL EROSION MEASURES WEEKLY AND AFTER SIGNIFICANT STORM EVENTS. MAKE ALL NECESSARY REPAIRS TO FACILITIES AS SOON AS POSSIBLE, BUT NO LONGER THAN 2 DAYS. CLEAN AND RESET SILT FENCES AND STONE CHECK DAMS WHICH ACCUMULATE SEDIMENT AND DEBRIS.
- PROTECT AND STABILIZE ALL AREAS NOT SCHEDULED FOR EROSION PREVENTION OR STABILIZATION BUT THAT SHOW SIGNS OF EROSION. NOTIFY OWNER OF ANY SIGNIFICANT EROSION PROBLEM.
- APPLY MULCH TO BARE SOILS WITHIN 7 DAYS OF INITIAL DISTURBANCE OF SOILS, WITHIN 48 HOURS IF WITHIN 15' OF WETLAND OR WATERBODY, PRIOR TO ANY RAIN EVENT, OR PRIOR TO ANY WORK SHUTDOWN LASTING MORE THAN ONE DAY.
- TEMPORARILY SEED WITHIN 7 DAYS ANY AREA WHICH WILL BE LEFT DISTURBED AND UNWORKED FOR MORE THAN 14 DAYS WITH THE TEMPORARY SEED MIX LISTED BELOW. IF AREA IS WITHIN 15' OF A WETLAND OR WATERBODY, SEED WITHIN 48 HOURS. PERMANENTLY SEED ANY AREA WHICH CAN BE LOAMED AS SOON AS POSSIBLE WITH THE PERMANENT SEED MIX LISTED BELOW. DO NOT USE PERMANENT SEED MIX AFTER SEPTEMBER 15.
- MULCH ALL AREAS SEEDED SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. DURING THE GROWING SEASON (APRIL 15 - SEPT. 30) USE EROSION CONTROL MESH (OR MULCH AND NETTING) ON:
- THE BASE OF GRASSED WATERWAYS
 - SLOPES STEEPER THAN 15%
 - WITHIN 100' N. OF STREAMS AND WETLANDS
- BETWEEN OCT. 1 AND APRIL 14 USE EROSION CONTROL MESH (OR MULCH AND NETTING) ON:
- SIDE SLOPES OF GRASSED WATERWAYS
 - SLOPES STEEPER THAN 8%
- FOLLOW SILT FENCE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS FOR INSTALLATION OF SILT FENCE. SECURE ENTIRE BOTTOM OF FENCE EITHER BY BURYING BOTTOM OF FENCE IN A TRENCH OR BERMING WITH SOIL OR CHIPPED GRUBBINGS. REFER TO SILT FENCE DETAILS.
- PLACE AND GRADE LOAM IN A REASONABLY UNIFORM MANNER. WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEED BED IS PREPARED. REMOVE FROM SURFACE ALL STONES LARGER THAN 2" AND ALL OTHER UNSUITABLE MATERIAL. LIME AND FERTILIZER SHOULD BE MIXED INTO SOIL PRIOR TO ROLLING EXCEPT IF INCLUDED IN HYDROSEED MIXTURE. PERMANENT STABILIZATION OF REVEGETATED AREAS IS CONSIDERED AS 90% CATCH.
- ALL CATCH BASINS, NEW OR EXISTING, THAT MAY RECEIVE RUNOFF FROM DISTURBED AREAS MUST BE PROTECTED BY INSTALLING AND MAINTAINING SILT SACKS DURING CONSTRUCTION.

SUGGESTED SEQUENCE OF CONSTRUCTION TO CONTROL EROSION

THIS SEQUENCE OF CONSTRUCTION IS A GENERAL GUIDE TO THE CONTRACTOR. ACTUAL CONSTRUCTION PRACTICES WILL DICTATE VARIATIONS IN THE ORDER OF MAJOR EVENTS.

- INSTALL PERIMETER SILT FENCE.
- CLEAR AND GRUB WORK AREAS. TEMPORARILY SEED AREAS NOT TO BE WORKED ON WITHIN 14 DAYS.
- BEGIN EARTHWORK FOR BUILDING FOUNDATION.
- STABILIZE AREAS DRAINING TO STORMDRAIN SYSTEM.
- INSTALL NEW STRUCTURES AND CONNECT STORMDRAIN SYSTEM TO EXISTING SYSTEM.
- BEGIN BUILDING CONSTRUCTION.
- FINE GRADE STREET SIDEWALKS AND ROUGH GRADE REMAINDER OF SITE.
- RESEED OR TEMPORARILY SEED ANY AREA WHICH WILL BE LEFT UNDISTURBED FOR MORE THAN 14 DAYS.
- COMPLETE FINE GRADING AND INSTALLATION OF SIDEWALKS, REAR WALK AND STREET PAVEMENT REPAIRS.
- CLEAN STORMDRAIN SYSTEM OF CONSTRUCTION SEDIMENTATION.
- FINE GRADE, LOAM, SEED AND FERTILIZE REMAINDER OF SITE.
- REMOVE TEMPORARY SOIL EROSION MEASURES.



3 CATCH BASIN PROTECTION

TOPSOIL:

- SUITABLE TOPSOIL SALVAGED FROM SITE OR SCREENED, LOOSE AND FRIABLE SANDY LOAM OR LOAM AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE CLASSIFICATION SYSTEM, FREE FROM ADMIXTURE OF SUBSOIL, REFUSE, LARGE STONES, CLODS, ROOTS, WEEDS, RHIZOMES OR OTHER UNDESIRABLE FOREIGN MATTER AS DETERMINED BY THE INSPECTING AUTHORITY. CONTRACTOR SHALL SUBMIT REPORTS OF LOAM TEST RESULTS PERFORMED BY AN INDEPENDENT TESTING LABORATORY FOR TOPSOIL FROM DIFFERENT SOURCES PRIOR TO PLACING. THE COST OF TESTING SHALL BE INCIDENTAL TO THE COST OF TOPSOIL. TOPSOIL SHALL MEET THE FOLLOWING SPECIFICATIONS:
 - MATERIAL
 - SAND - 0.08 IN. TO 0.002 IN. DIAMETER (% BY VOLUME)..... 45 - 75
 - SILT - 0.002 IN. TO 0.00008 IN. DIAMETER (% BY VOLUME).... 20 - 40
 - CLAY - LESS THAN 0.00008 IN. DIAMETER (% BY VOLUME).... 5 - 15
- ORGANICS (SHALL MEET THE REQUIREMENTS OF MDOT STANDARD SPECIFICATION 111.03 PEAT HUMUS) (% BY VOLUME) . 10 - 20
- NUTRIENTS:
- CALCIUM (CA) (% SATURATION)..... 60 - 80
 - MAGNESIUM (MG) (% SATURATION)..... 10 - 25
 - POTASSIUM (K) (% SATURATION)..... 21 - 30
 - PHOSPHORUS (P) (POUNDS/ACRE)..... 10 - 40
 - PH..... 6.0 - 6.5
- PERMEABILITY (INCHES PER HOUR)..... 3 - 10
- MAXIMUM STONE SIZE (INCHES)..... 3/4

SEEDING:

USE PERMANENT SEED MIXES AND RATES BETWEEN 5/15 AND 9/30. USE TEMPORARY SEED MIXES FOR PERIODS LESS THAN 12 MONTHS. IF USING TEMPORARY SEED MIXES AND RATES BETWEEN 10/1 AND 5/14, RE-SEED WITH PERMANENT SEED MIX AFTER 5/15.

PERMANENT SEED:

MDOT 111.03(a) METHOD NUMBER 3

TEMPORARY SEED:

OATS.....	80.00 LBS/ACRE	4/01 - 5/14
ANNUAL RYEGRASS.....	40.00 LBS/ACRE	
SUDANGRASS.....	40.00 LBS/ACRE	5/15 - 8/14
ANNUAL RYEGRASS.....	80.00 LBS/ACRE	5/15 - 9/14
WINTER RYE.....	112.00 LBS/ACRE	9/15 - 9/30
WINTER RYE (W/ MULCH COVER).....	112.00 LBS/ACRE	10/01 - 3/31

LIME AND FERTILIZER:

APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 POUNDS PER 1000 SQUARE FEET). APPLY FERTILIZER (10-20-20) AT A RATE OF 800 POUNDS PER ACRE (184 POUNDS PER 1000 SQUARE FEET).

MULCH:

STRAW OR HAY (ANCHORED).....	10 - 90 LBS
STRAW OR HAY (ANCHORED).....	105 - 215 LBS
SHREDDED OR CHOPPED.....	105 - 215 LBS
JUTE MESH.....	AS REQUIRED

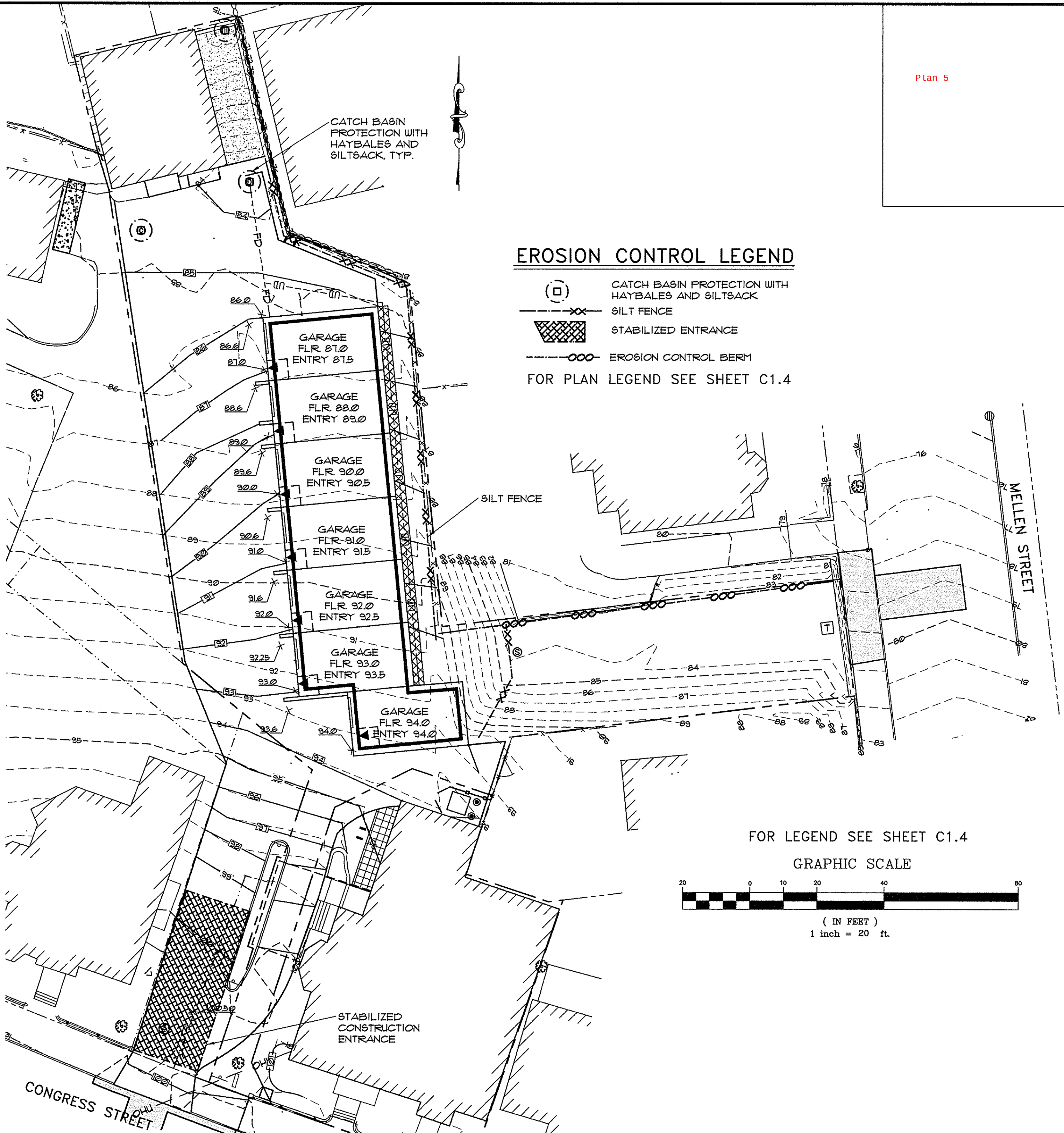
PROTECTED AREAS
WINDY AREAS

MODERATE TO HIGH
VELOCITY AREAS &
STEEP SLOPES

EXCELISIOR MAT..... AS REQUIRED

MULCH ANCHORING

PEG AND TWINE.....	LIQUID ASPHALT
MULCH NETTING.....	WOOD CELLULOSE FIBER
ASPHALT EMULSION.....	CHEMICAL TACK



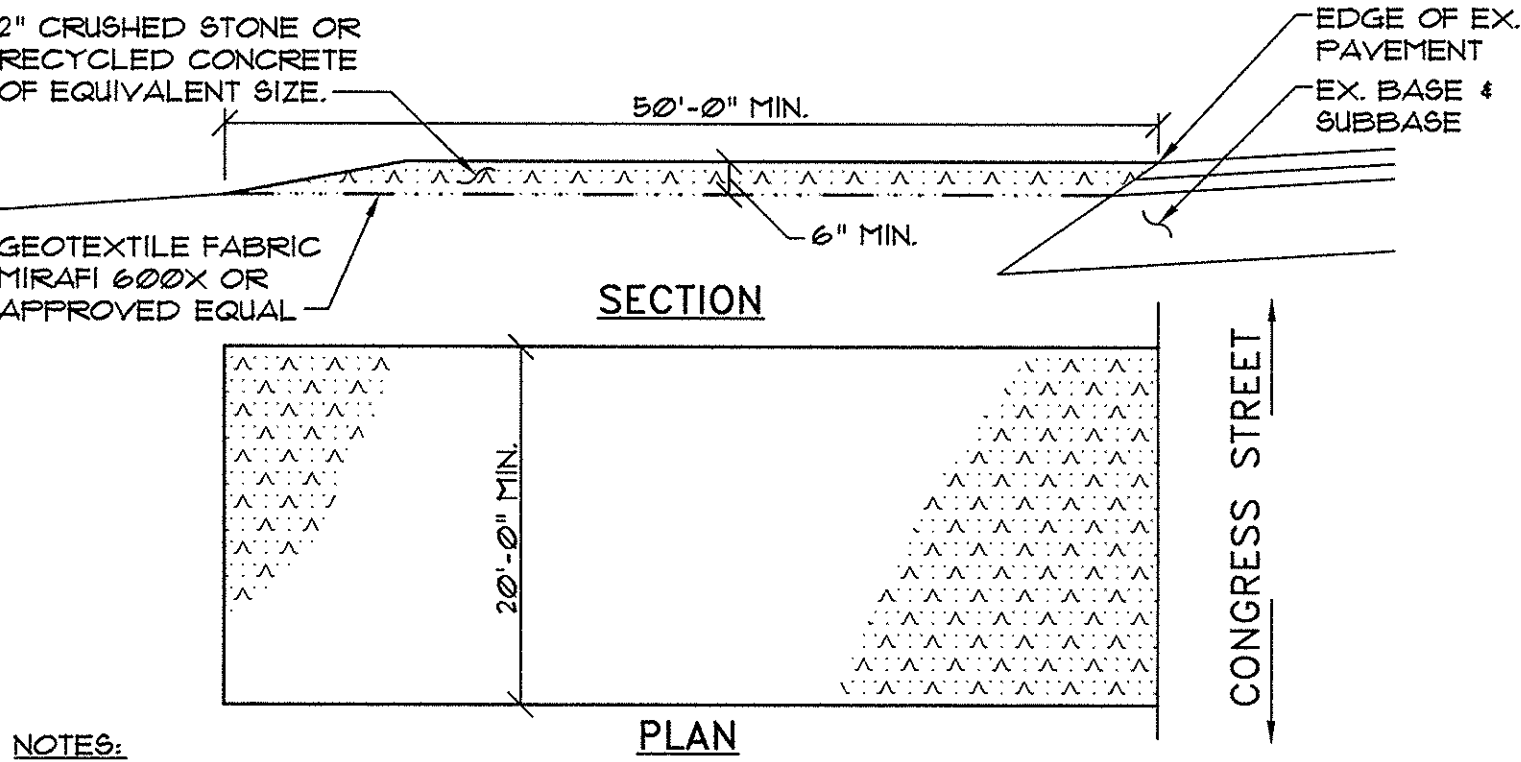
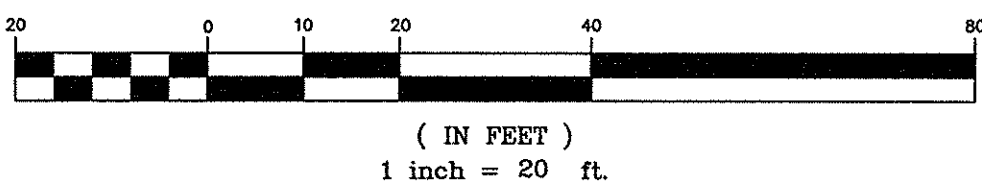
Plan 5

EROSION CONTROL LEGEND

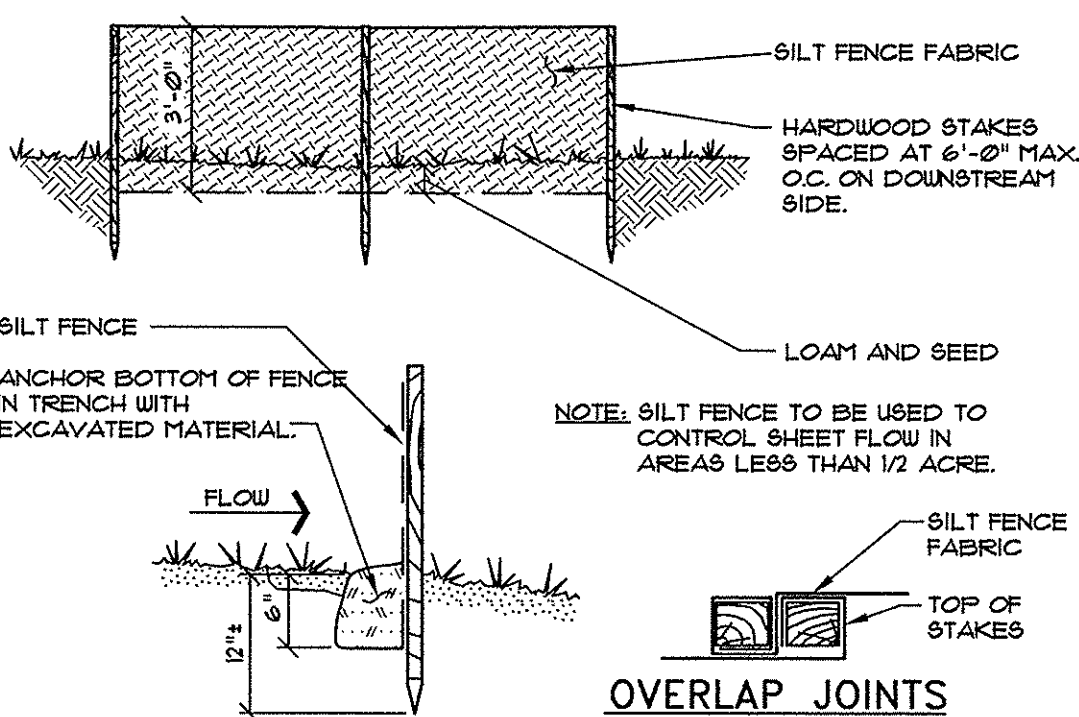
- CATCH BASIN PROTECTION WITH HAYBALES AND SILT SACK
 - SILT FENCE
 - STABILIZED ENTRANCE
 - EROSION CONTROL BERM
- FOR PLAN LEGEND SEE SHEET C1.4

FOR LEGEND SEE SHEET C1.4

GRAPHIC SCALE



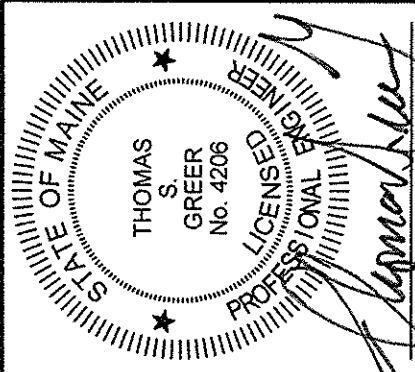
2 STABILIZED CONSTRUCTION ENTRANCE DETAIL



1 SILT FENCE DETAIL

PINKHAM & GREER
CIVIL ENGINEERS

28 WAWMAM AVE. PORTLAND, ME. 04103
TEL: 207.761.5242 FAX: 207.761.4245



REV.	DATE	DESCRIPTION
1	4/8/10	PER STAFF COMMENTS

APPLICANT: DENOVO, LLC
47 WATKES LANDING ROAD
FALMOUTH, MAINE

SCALE: AS SHOWN
DATE: FEBRUARY 22, 2016
PROJECT: 15166

749 CONGRESS STREET
749 CONGRESS STREET
PORTLAND, MAINE

EROSION CONTROL
PLAN, NOTES AND DETAILS

C1.5

MAPLOT: 47.1 A / 20, 30, 28, 32

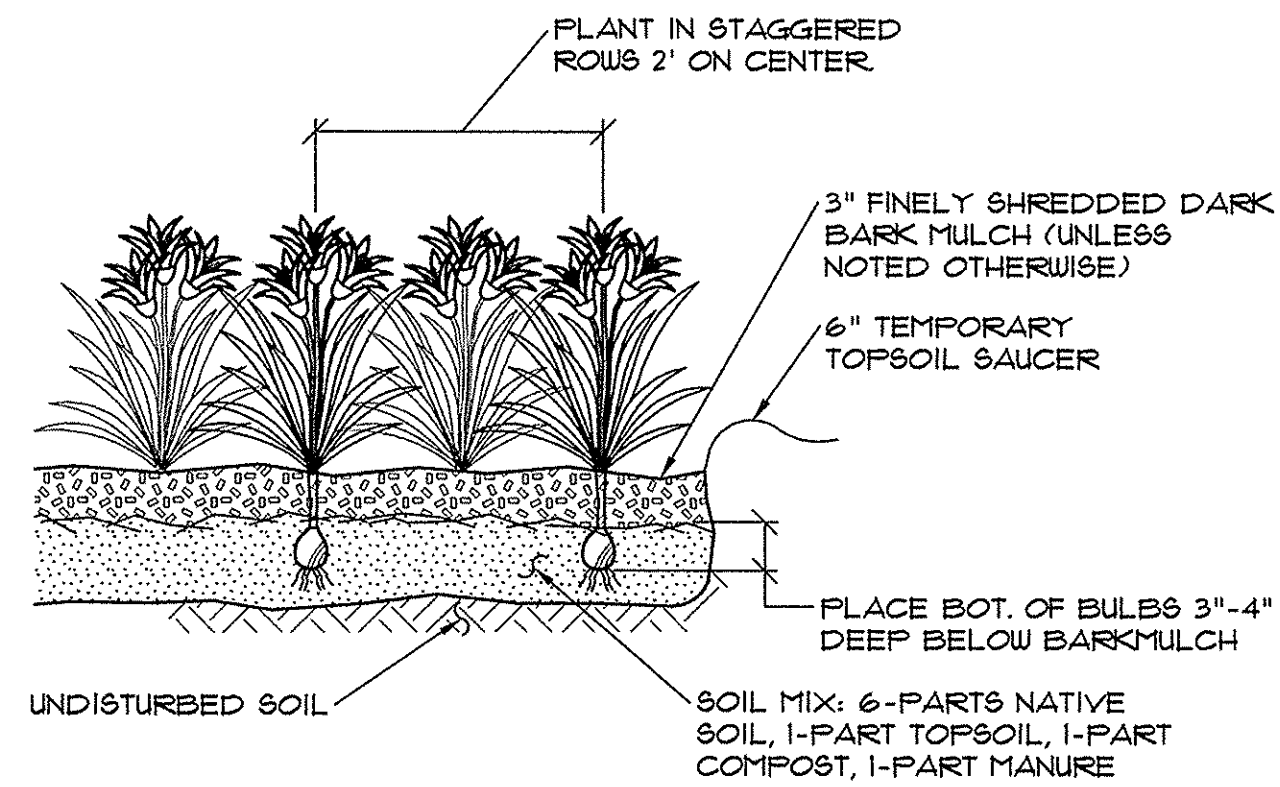
LANDSCAPE NOTES

GENERAL:

1. SAVE EXISTING TREES AS SHOWN. DO NOT CUT OR CLEAR ANY VEGETATION BEYOND THE IMPACT LIMIT LINE.
2. ALL PLANT MATERIALS INSTALLED ARE TO MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSEYMEN.
3. ALL PROPOSED PLANT LOCATIONS SHALL BE AS SHOWN ON PLANS. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLANTING AND WILL NOTIFY OWNER'S REPRESENTATIVE IN THE EVENT OF CONFLICTS.
4. PLANT LOCATIONS ARE TO BE SCALED FROM THE LANDSCAPE PLAN UNLESS NOTED OTHERWISE.
5. NO PLANT MATERIAL SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
6. FINAL QUANTITY FOR EACH PLANT TYPE IS NOTED IN THE PLANT LIST. THIS NUMBER SHALL TAKE PRECEDENCE IN THE CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE LIST AND ON THE PLAN.
7. ANY PROPOSED SUBSTITUTIONS MUST BE APPROVED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
8. ALL DISTURBED AREAS TO BE LOAMED AND SEEDED.

MAINTENANCE:

1. LAWN: SHALL BE WATERED, FERTILIZED AND MOWN ON A REGULAR BASIS ACCORDING TO SEASON AND RAINFALL, TO PRODUCE A STRONG TURF OF 80% MIN. COVERAGE WITHIN THE FIRST YEAR, FREE FROM SIZABLE THIN OR BARE SPOTS. REGRADING AND RESEEDING WILL BE PERFORMED ON BARE SPOTS UNTIL COVERAGE IS COMPLETE.
2. TREES & SHRUBS: THE ESTABLISHMENT PERIOD SHALL BE TWO CALENDAR YEARS FROM THE DATE OF FINAL ACCEPTANCE. DURING THE ESTABLISHMENT PERIOD THE OWNER OR OWNER'S CONTRACTOR SHALL WATER, CULTIVATE AND PRUNE AS REQUIRED TO MAINTAIN A HEALTHY GROWING CONDITION.
3. AT THE END OF THE ESTABLISHMENT PERIOD AND UPON SUBSEQUENT ANNUAL INSPECTIONS, PLANTS WHICH HAVE DIED OR FAILED TO THRIVE SHALL BE REPLACED WITH EQUIVALENT SIZE AND SPECIES. AFTER THE CONTRACTOR'S GUARANTEE PERIOD HAS ENDED, IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN AND REPLACE PLANTINGS.
4. TREES, SHRUBS AND LAWN WHICH ARE NOT IRRIGATED WITH AN AUTOMATIC SPRINKLER OR DRIP SYSTEM SHALL BE THOROUGHLY WATERED ON A REGULAR BASIS DURING PERIODS OF BELOW AVERAGE RAINFALL. SOIL SHOULD BE SAMPLED AT A DEPTH OF 12" AND IF DRY, WATER TO DEPTH OF 24".
5. MULCH IS TO BE MAINTAINED AT A DEPTH TO COMPLETELY COVER THE SOIL AND TO PRESERVE MOISTURE AND MINIMIZE WEEDS.
6. TREES, SHRUBS AND LAWN SHALL BE FERTILIZED ANNUALLY AND TREATED WITH INSECTICIDES AND/OR FUNGICIDES AS REQUIRED FOR CONTINUED HEALTHY GROWTH.
7. SUCKERS, WEEDS, AND DEAD WOOD SHALL BE REMOVED ON A SEASONAL BASIS, AND SHRUBS SHALL BE PRUNED TWICE A YEAR ACCORDING TO THE REQUIREMENTS OF EACH SPECIES (I.E. SOME SPECIES SHOULD NOT BE PRUNED AT ALL). SHRUBS SHALL NOT BE PRUNED INTO INDIVIDUALS BUT ALLOWED TO GROW INTO A MASS.
8. WHERE TREES ARE LOCATED NEAR SIDEWALKS OR PARKING LOTS, THE CANOPY SHALL BE LIMBED UP TO PROMOTE SAFE CLEARANCE TO 8' ABOVE GRADE.
9. LAWN AREAS SHALL BE MOWN AS OFTEN AS NECESSARY TO KEEP LAWN TO A 2 1/2 - 3" HEIGHT, AND AERATED ON A SEASONAL BASIS.
10. BEDS AND LAWN EDGES SHALL BE REGULARLY TRIMMED AND EDGED.
11. PERENNIAL AND ANNUAL BEDS SHALL BE DESIGNED, PLANTED AND MAINTAINED FOR SEASONAL COLOR AND INTEREST. ANNUALS MAY BE INCORPORATED TO A MAXIMUM LIMIT OF 25% OF THE BED AREA OF MAINTAINED BEDS FROM MAY 15 THROUGH NOVEMBER 15. PERENNIAL BEDS SHALL BE WATERED AS REQUIRED FOR HEALTHY PLANT GROWTH, AND WEEDED AND DEADHEADED ON A MONTHLY BASIS.

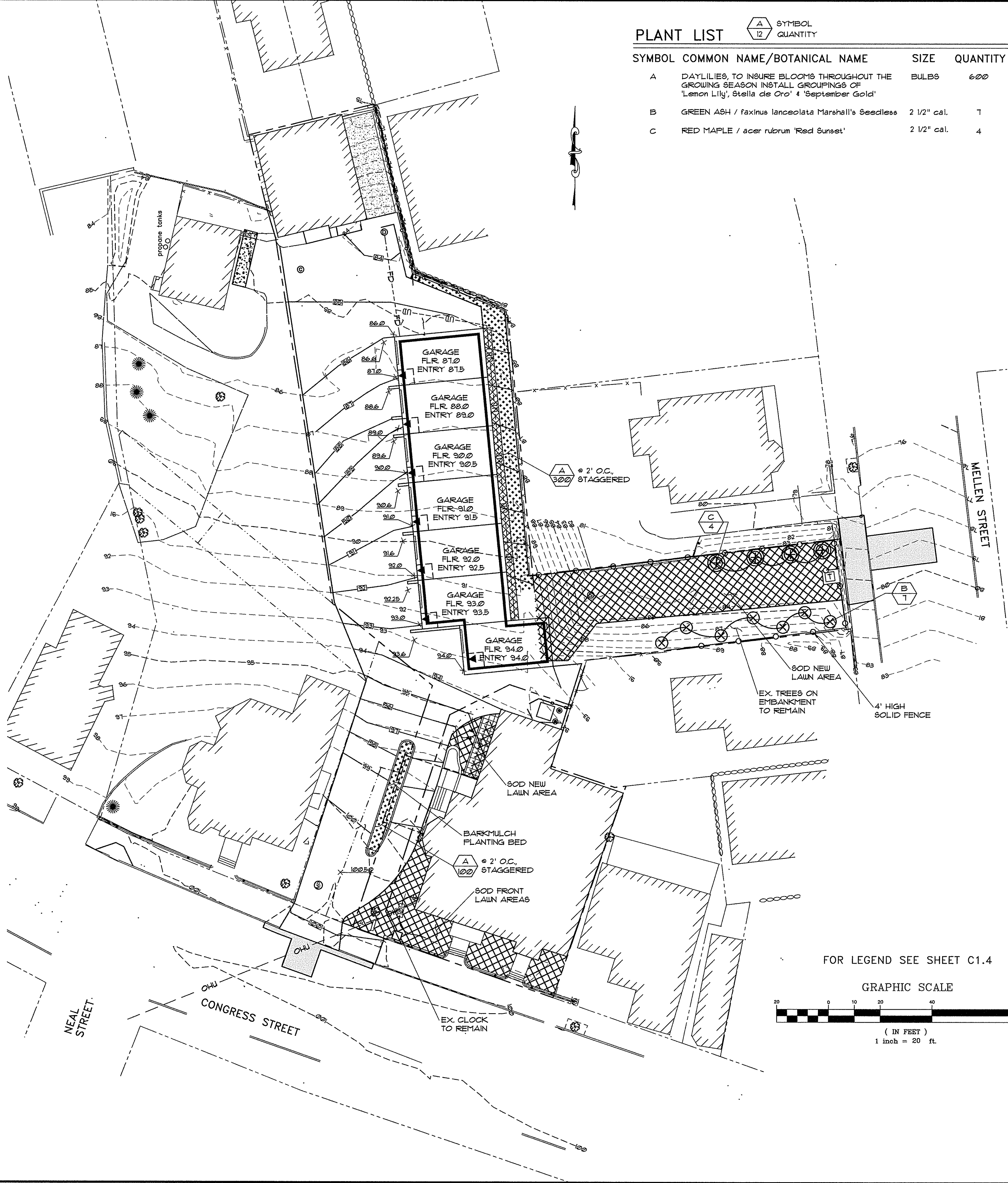


1 DAYLILY PLANTING DETAIL

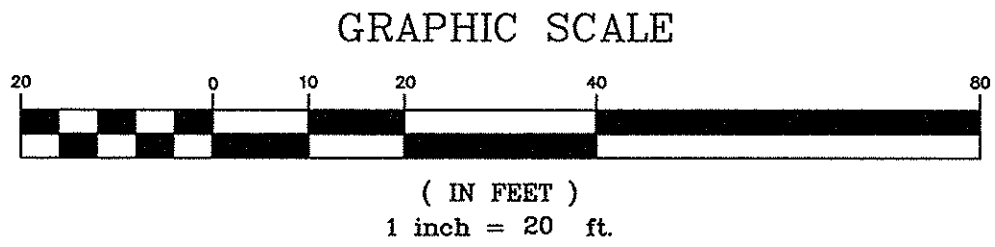
NOT TO SCALE

PLANT LIST

SYMBOL	COMMON NAME/BOTANICAL NAME	SIZE	QUANTITY
A	DAYLILIES, TO INSURE BLOOMS THROUGHOUT THE GROWING SEASON INSTALL GROUPINGS OF 'Lemon Lily', 'Stella de Oro' & 'September Gold'	BULBS	600
B	GREEN ASH / <i>fraxinus lanceolata</i> Marshall's Seedless	2 1/2" cal.	7
C	RED MAPLE / <i>acer rubrum</i> 'Red Sunset'	2 1/2" cal.	4



FOR LEGEND SEE SHEET C1.4



Plan 6

PINKHAM & GREER
CIVIL ENGINEERS
28 WAMPA AVE. PORTLAND, ME 04103
TEL: 207.781.5442 FAX: 207.781.4245

THOMAS S. GREER
No. 4680
LICENSED PROFESSIONAL ENGINEER
STATE OF MAINE
4/8/16

REV.	DATE	DESCRIPTION
1	4/8/16	PER. STAFF COMMENTS

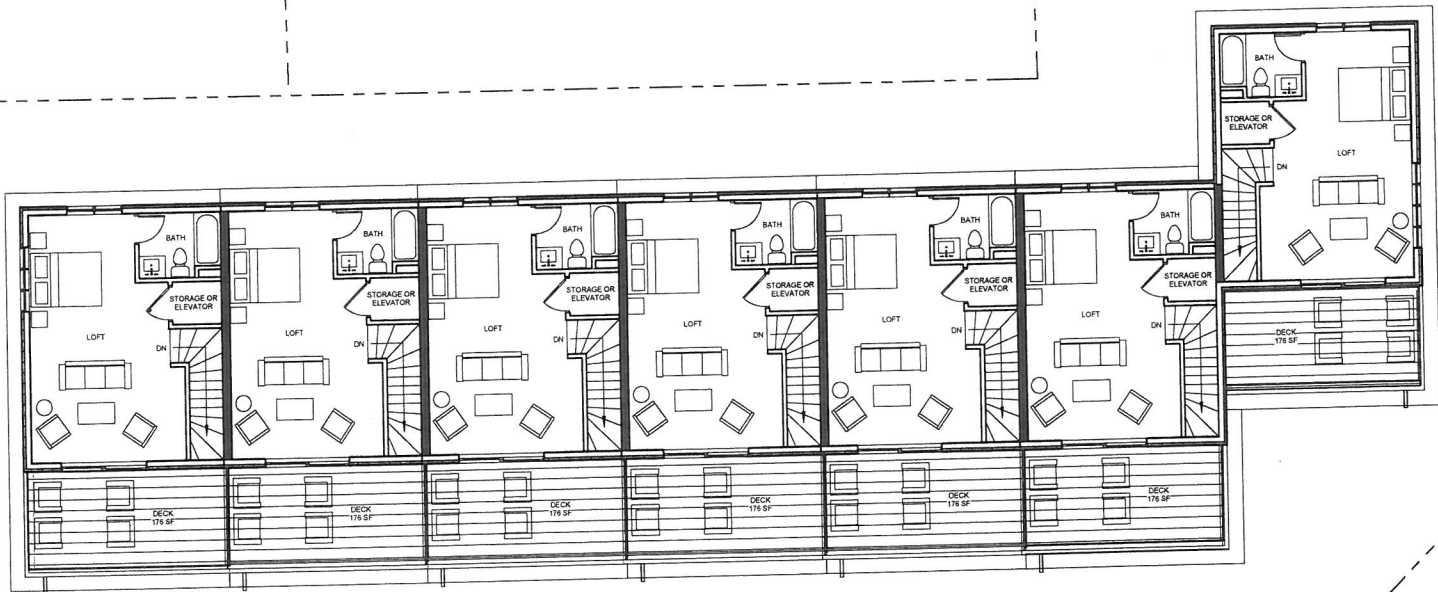
APPLICANT: DENOVO, LLC
47 WAITES LANDING ROAD
FALMOUTH, MAINE

SCALE: AS SHOWN
DATE: FEBRUARY 22, 2016
PROJECT: 15166

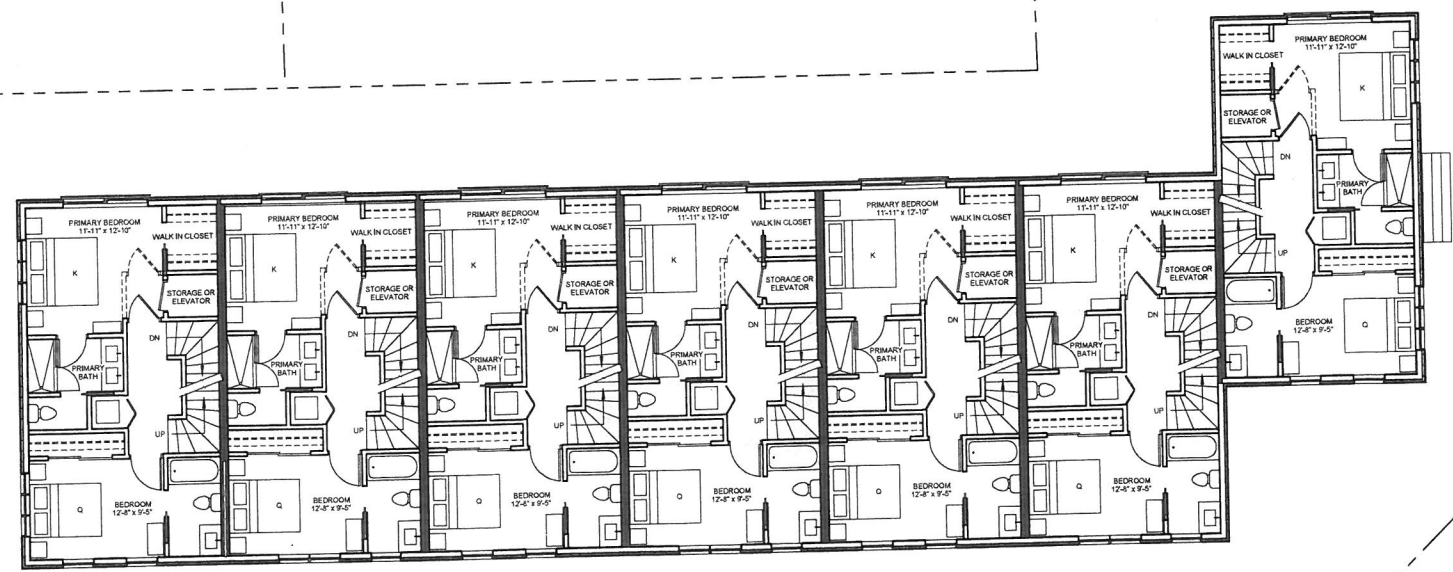
DRN BY: JDC
DESIGN BY: TSG
CHK BY: TSG

749 CONGRESS STREET
749 CONGRESS STREET
PORTLAND, MAINE

LANDSCAPE PLAN
NOTES AND DETAILS



2 | 4TH FLOOR PLAN
1/8" = 1'-0"



1 | 3RD FLOOR PLAN
1/8" = 1'-0"

Owner

Consultant:

Architect: **ARCHETYPE**
Architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEDA.COM

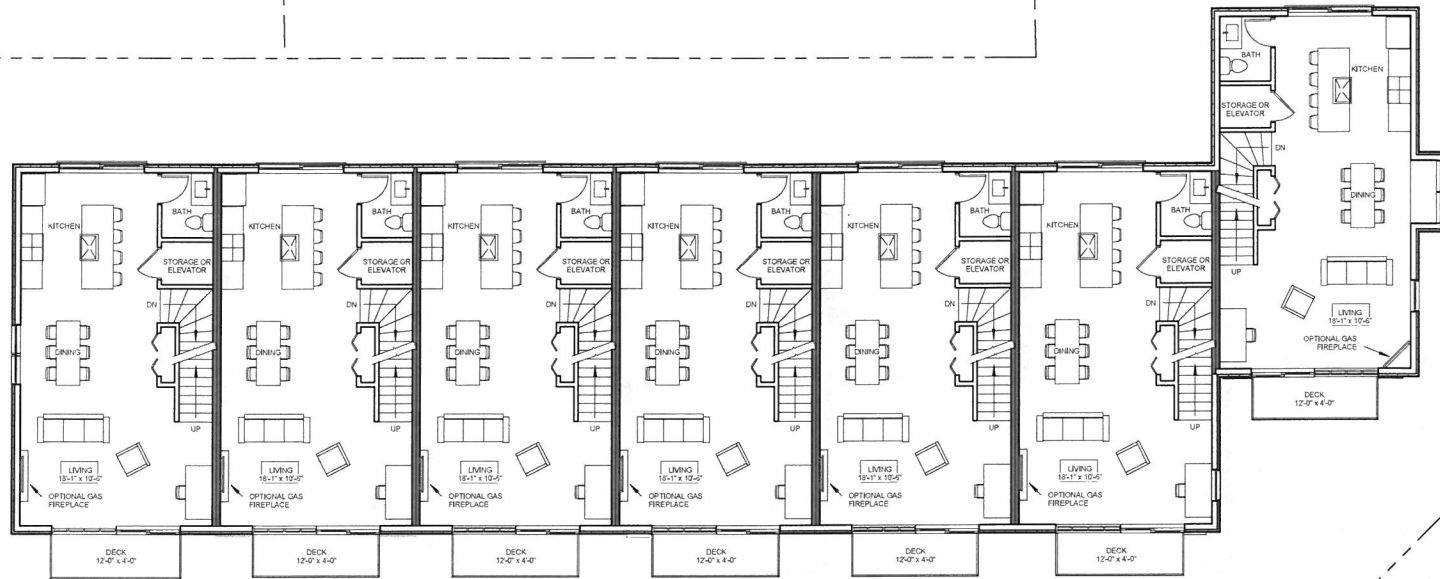
Project: **BRAMHALL ROW**

PORTLAND, MAINE

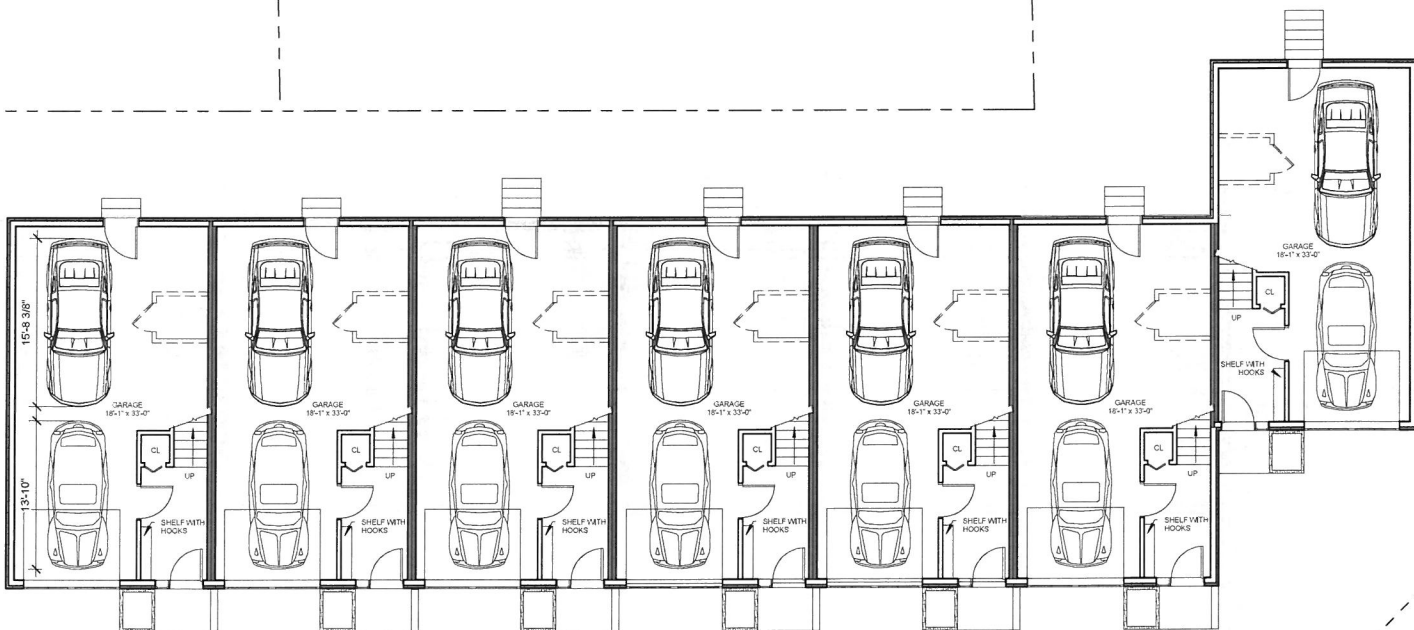
Revisions:

Date: APR 6, 2016
Scale: 1/8" = 1'-0"

3rd and 4th Floor



2 | 2ND FLOOR PLAN
1/8" = 1'-0"



1 | 1ST FLOOR PLAN
1/8" = 1'-0"

Owner

Consultant:

Architect:
ARCHETYPE
architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEDACOM

Project:
BRAMHALL ROW

PORTLAND, MAINE

Revisions:

Scale: 1/8" = 1'-0"

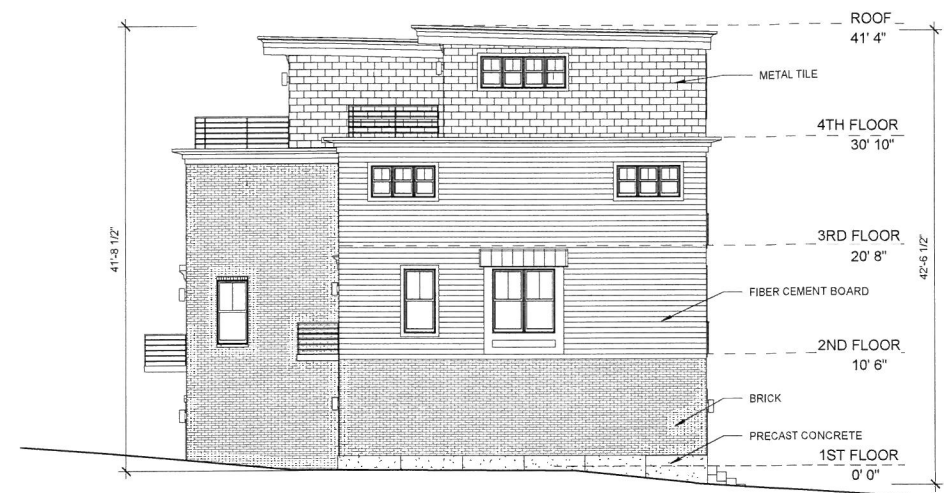
Date: APR 6, 2016

1st and 2nd floor

A2.03



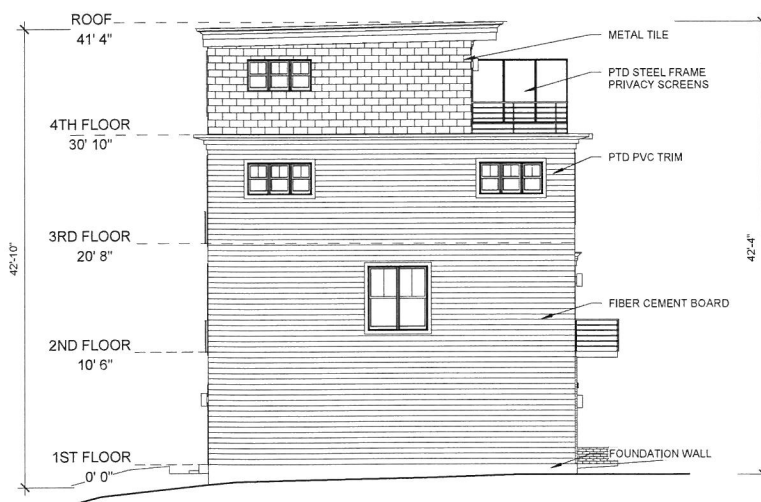
1 FRONT ELEVATION
1/8" = 1'-0"



2 RIGHT ELEVATION
1/8" = 1'-0"



3 REAR ELEVATION
1/8" = 1'-0"



4 LEFT ELEVATION
1/8" = 1'-0"

MEAN BUILDING HEIGHT - 43'-4 1/4"

Owner

Consultant:

Architect: **ARCHETYPE**
architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHYPEA.COM

Project: **BRAMHALL ROW**

PORTLAND, MAINE

Revisions:

Date: APR 6, 2016
Scale: 1/8" = 1'-0"

ELEVATIONS

A2.05



Memorandum
Planning and Urban Development Department
Planning Division

To: Elizabeth Boepple, Chair and Members of the Portland Planning Board

From: Nell Donaldson, Planner

Date: April 22, 2016

Re: **Recommendation to Postpone** – Suburban Propane Preliminary Site Plan and Subdivision Review, 636 Riverside Street

Forefront Partners, LP, acting on behalf of Suburban Propane, has requested that the Planning Board postpone the preliminary review of the proposed Suburban Propane facility at 636 Riverside Street to the workshop scheduled for May 10, 2016. This will allow the applicant additional time to process preliminary staff review comments.

**Memorandum
Planning and Urban Development Department
Planning Division**



To: Elizabeth Boepple, Chair and Members of the Portland Planning Board

From: Richard Knowland, Senior Planner

Date: April 22, 2016

Re: Asylum Expansion and Renovation; 121 Center Street; Valerie Levy

Project #: 2016-069

CBL: 27-F-9

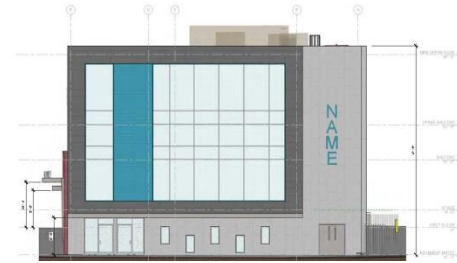
Meeting Date: April 26, 2016

I. INTRODUCTION

A workshop has been scheduled to consider a proposal to expand and renovate the Asylum building located at the corner of Center and Free Street. The redevelopment of this property results in a larger and taller building which expands the building wall along the entire lot frontage. The Asylum is described as a restaurant sports bar and performance hall.

The proposal is subject to Planning Board Level III Site Plan, Downtown Urban Design Guidelines review as well as a Traffic Movement Permit. As this site is located in the Congress Street Historic District, the Historic Preservation Board will be reviewing the exterior of the building.

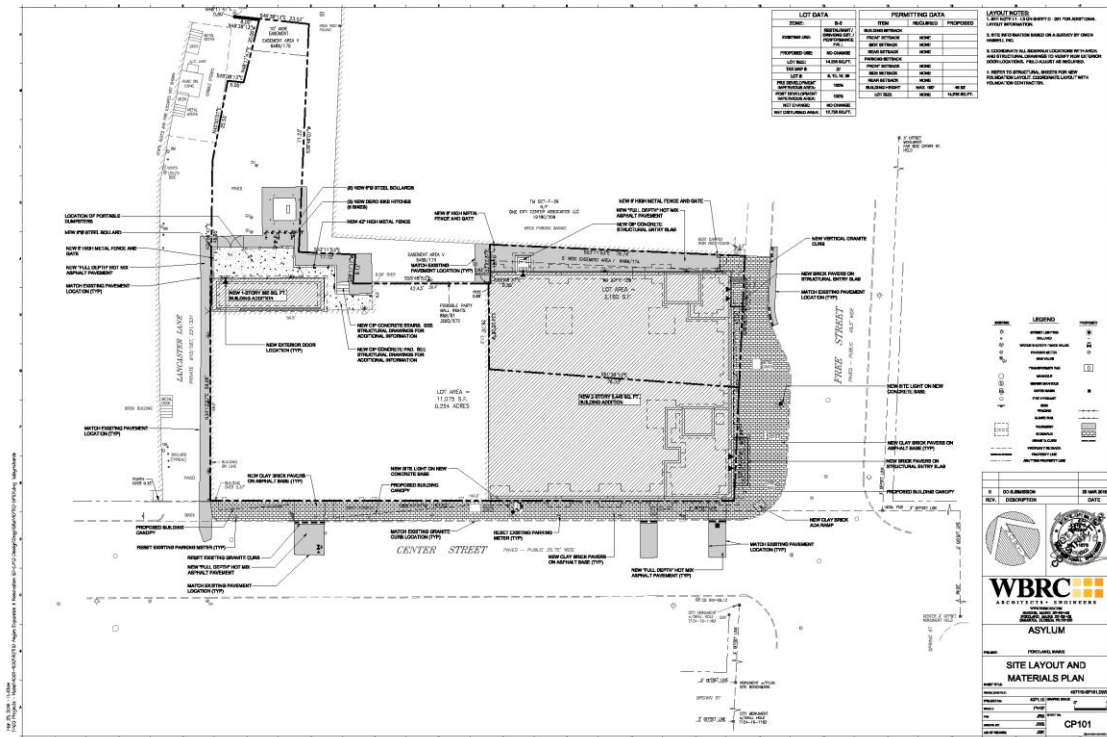
In addition to a newspaper agenda advertisement appearing in the April 18, 2016 and April 19, 2016 editions of the Portland Press Herald, 116 notices were sent to area property owners.



Site Context

II. FINDINGS

Zoning:	B-3; Congress Street Historic District
Lot Area:	14,235 SF
Use:	Restaurant, drinking establishment, perf. hall
Existing Occupancy:	769 people
Proposed Occupancy:	1,457 ppl. (main venue room has 1,009 capacity)
Building Footprint (existing):	8,460 SF
Building Footprint (proposed):	11,310 SF
Building Floor Area (existing):	15,600 SF
Building Floor Area (proposed):	24,459 SF
Building Height:	47' 9" (Free St side building addition)
Parking (existing):	8 on-site spaces
Parking (proposed):	60 off-site spaces
Project Cost:	\$9.1 million



Proposed Site Plan

III. Proposed Development

The proposed expansion addresses a number of internal needs for the Asylum which is described as a restaurant, sports bar and performance hall. The submission describes a variety of improvements including more venue space for events and upgrades to dining, bar, rest room and kitchen areas. The floor area of the facility will be increased from 15,600 SF to 24,457 SF while the overall building occupancy rises from 769 to 1,457 people.

The present site is underutilized. It features a one story building with one entrance on Center but none on Free Street and an 8 space parking lot which serves as a gap in the building wall along this section of Free Street. The existing building is a one story building with basement which originally consisted of 3 separate buildings, resulting in varying floor and ceiling heights through the 3 different spaces.

The proposed development significantly increases building mass and density as viewed from Free Street in supporting a more urban identity for this site. This expansion is accommodated by demolishing a portion of the existing one story building and constructing an addition of about 8,500 SF on the Free Street side of the property. On the Free Street side, the addition measures 47' 9" high and stretches the building wall along the entire property frontage by removing the surface parking lot.

The one story section of the building closest to Center Street remains. As measured along the Center Street frontage, 87 feet of the one story building will be retained while the remainder of the building (76 feet) frontage will be removed to accommodate the expansion.

Presently a portion of the existing building overlaps into Center Street public sidewalk by about 4 inches. Apparently brick was added to the existing wall at some point without benefit of a City Council license. To address this issue the building wall will be altered so the building will be built entirely on Asylum property.

A small one story addition (350 SF) is proposed on the Lancaster Lane side of the building adjacent to the kitchen.

IV. Staff Comments

Historic Preservation Board Review (Architectural Design)

As the Asylum is located within a historic district, the Historic Preservation Board will take the City lead in reviewing the façade design. The existing building is classified as a “non-contributing structure”. A certificate of appropriateness from the Historic Preservation Board is required. The Board has held several workshops on the proposal, the latest occurring on April 20th. Attached is the staff report from that workshop along with graphic depictions of the façade design. See Attachment A. See also Attachment Plan 21 for façade depictions. A Historic Preservation Board public hearing on this item is anticipated in May. The Board appears supportive of the design as it has presently evolved with some adjustments. Some concerns were expressed regarding building signage.



LIGHTING LOCATION

Façade View at Center and Free Street

The Center Street design retains the existing brick theme along the first floor of the building. Above the first level where the upper story addition begins a dark metal panel is introduced. As the building turns the corner to Free Street, the brick base is replaced by 24 inch wide by 48 inch tall limestone panels in a vertical running bond pattern. The upper story Free Street façade is composed of an curtain wall system featuring acoustical glazing. The curtain wall is divided into two portions, one for the event space and one for the tower, with a solid colored metal panel accent between. This glazing is complimented by the limestone panels and dark metal panel previously discussed.

Both Center Street and Free Street will have active public entrances. The present building has a public entrance on Center Street only.

Three canopies are proposed for the building which cross the public sidewalk. Applicant indicates the canopy material will be a light grey colored metal panel on the fascia and soffit. The canopies are quite large ranging from 21 to 56 feet in length. The canopies are listed below:

Sports Bar Canopy: Canopy is designed at 8'-6" clear above the sidewalk, 21'-9" in length and protrudes 2'-6" the Lancaster Lane side and tapers to 1'-0" at the other end.

Main Entry Canopy: Canopy is designed at 12'-0" clear above the sidewalk, is 49'-6" in length and protrudes 5'-0" at the Lancaster Lane side and tapers to 4" at the other end.

Free Street Canopy: Canopy is designed at 8'-6" clear above the sidewalk, 56'-8" in length and protrudes 4'-0" at the Center Street side and tapers to 1" at the other end.

Traffic and Parking

The development qualifies for a Traffic Movement Permit since the expansion is expected to generate 156 PM peak hour trip ends. A Traffic Permit application Request for Scoping Meeting has been submitted. See Attachment 22. The scoping meeting and subsequent traffic analysis will take place prior to the public hearing. Tom Errico, Traffic Review Consultant, will be reviewing the submitted traffic information.

Vehicle circulation is limited primarily to the street. An existing 8 space parking lot will be eliminated to accommodate the addition. No on-site parking is proposed. Lancaster Lane a private right- of-way off Center Street is shared by abutting properties including the Asylum. It is 14 to 16 feet wide and provides Asylum access for service deliveries and dumpsters. The submission indicates that for concerts requiring the use of large trucks, the applicant will coordinate with the City to utilize up to five parallel parking spaces on Free Street for loading and unloading equipment. The "bagging" of parking meters is fairly common procedure for temporary use of parking spaces.

Parking – The B-3 zone does not require parking for existing buildings undergoing a change of use (sec. 14-332.1) but new construction does. Applicant has submitted a parking calculation substantiating a zoning requirement of 60 spaces for this project. City staff has reviewed the parking calculation and has determined it meets zoning requirements. To address this parking requirement applicant is proposing to lease spaces at an existing parking lot at the corner of Center Street and Free Street and/or at

the Midtown Parking Lot at 44 Free Street. Applicant has submitted a letter of intent with United Parking Partners but a formal lease will need to be provided. See Exhibit 3.

From a practical point of view unless the applicant publicizes the availability of off-site parking spaces their utility is limited. Asylum customers will likely park on the street, use the two nearby parking garages or other nearby parking lots without knowing their availability. To insure their use, a portion of the spaces could be provided to Asylum employees. Applicant should clarify how the spaces will be publicized and plan how they are to be used. An alternative would be for the applicant to contribute to the peninsula fee-in-lieu provision (sec. 14-345) to meet the requirement.

Bicycle parking is provided for 6 bikes off Lancaster Lane. This meets the standard of 1 space for every required 10 spaces.

Noise

The B-3 noise standard (sec. 14-221.1) requires uses not exceed 55 decibels between the hours of 9:00 p.m. and 7:00 a.m. and 60 decibels between the hours of 7:00 a.m. and 9:00 p.m. As a use that includes a sports bar and concert venue, applicant should demonstrate the ability to meet this standard. There are two Congress Street buildings with upper story residential units adjacent to the site so noise is a concern unless the applicant addresses this issue in the building design.

The submission indicates “the owner has retained Cavanaugh Tocci Associates as an acoustical consultant on the project. A full list of techniques taken to meet the noise requirements will be provided when they have finished their work, but will include vibration isolation on all of the mechanic equipment, specialty acoustical wall, ceiling and floor treatment inside the event space, special acoustical glazing and additional mass/insulation in the walls.”

New roof-top HVAC equipment and a new roof-top emergency generator are proposed. The new HVAC equipment is set back from the edge of the new roof while the generator will be located on the rear portion of the existing building roof off Lancaster Street. None of these will be visible from a public street. The application states that “the generator will be specified with a sound attenuated enclosure to reduce noise.” It further states “the emergency generator will not be activated for more than one hour per week for routine maintenance and testing. Noise levels will not exceed City standards except in designated emergencies or for emergency generator testing. Emergency generator testing will take place between the hours of 9:00 a.m and 5:00 p.m., Monday thru Friday”. Information on the specific noise levels of the emergency generator and HVAC equipment should be provided.

Streetscape

Applicant proposes to replace the existing brick sidewalk with a new brick sidewalk. Existing granite curb will be re-set.

The site plan indicates that a new street light will be installed along Center Street as well as on Center Street. The selected light pole/fixture are part of the Congress Street District series but staff will need to confirm the appropriate pole height and number of fixtures per pole.

Stormwater

The entire site is impervious. The proposed project will not increase the volume or rate of stormwater draining from the site. A new storm drain will be installed to capture run-off from the new roof.

Utilities

A new water service line off Center Street is proposed. A letter from the Portland Water District indicates the ability to serve the project. See Exhibit 3.

Sanitary sewer service will be provided by a new line from Center Street. A service capacity letter from Public Works indicates that the downstream sewers from the site have the capacity to convey the projected wastewater generated by the Asylum. See Attachment 2. The Portland Water District indicates there is adequate capacity at the East End Wastewater Treatment Plant to treat wastewater generated by this project. See Exhibit 3.

A new gas line is proposed from Center Street. Rather than crowding the sidewalk on Center Street we are recommending the applicant explore shifting the meter to Lancaster Street.

All power lines will be underground. A service capacity letter from CMP should be provided. A new exterior transformer off Lancaster Lane is proposed with an accompanying new line from Center Street.

Lighting

Proposed exterior lighting is listed below. See Attachment 21 for catalog cuts of the fixtures.

- 2 internally lit building signs (one on Free Street and one on Center Street)
- 1 internally lit canopy sign
- LED recessed strip lights in the canopy and vertically on the building façade as shown
- LED wall pack at service door and alley

The submission indicates all proposed building-mounted exterior lighting will be full cutoff fixtures. A photometric plan should be submitted.

Public Safety

The alley between the proposed building addition and the existing parking garage will be visible from Free Street and Lancaster Lane. A new fence and gate will be installed at either end of the alley, which will be locked on the exterior side of the gate and open for passage in the direction of the egress travel. The owner will be installing building-mounted lighting along the existing building façade on Lancaster Lane to improve safety.

Hydrants are located at the Free/Center Street corner and on Center Street.

Landscaping

Applicant is requesting a waiver for planting street trees. Site constraints (underground electrical utilities) prevent planting of street trees in the City right-of-way or within the site according to the submission. Applicant will contribute to the City of Portland Tree Fund an amount proportionate to the cost of 3 street trees, which is required for approximately 150 feet of street frontage on Center and Free Street. The Center Street sidewalk is tight but the Free Street sidewalk is wider. There are presently no street trees along the Asylum street frontage. Staff has not formulated a position on the waiver request.

Dumpsters are located behind the building off Lancaster Lane not visible from a public street. The plan indicates that a metal ornamental fence (not a solid fence) will enclose a service area where the dumpsters are located. A new transformer will be placed off the lane (unscreened) and outside the ornamental fence area.

Downtown Urban Design Guidelines

As a development in the B-3 zone, the proposed development is subject to the Downtown Urban Design Guidelines. The guidelines include standards related to *relationship to pedestrian environment* and *relationship to existing development*. Applicant should provide a response to the standards for the public hearing.

(1) STANDARDS.

- a. In addition to applicable standards of Section 14-526 of the Land Use Code, development located within the B-3 zone shall also meet the following standards. Adequacy in meeting these standards will be evaluated on the basis of descriptions and illustrations in the Downtown Urban Design Guidelines included as Appendix 1 of this manual. Nothing in this section is intended to discourage creative and responsive design or to mandate similarity or mimicry of design in order to achieve the standards herein:

1. Relationship to the pedestrian environment:

- i. General: 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:
 - 1) Storefronts and building facades, including such factors as relationship to adjacent or nearby structures or open space, pedestrian character, materials and detailing, transparency (having a visible transmittance (VT) of .7 or higher) and contemporary design;

2) Building entrances, including such factors as compatibility with the building's façade, prominence along the street, access to the street, and accessibility for physically handicapped or for those with special needs;

3) Blank facades; and

4) Special features, such as selective use of such features as building arcades and skywalks or elevated walkways.

b. Pedestrian Activities District (PAD): Not applicable. Asylum is located In Pedestrian Activities Encouragement Area.

c. Pedestrian activities district (PAD) encouragement areas: In addition to subsection 1 of this section, proposed development located within the pedestrian activities district (PAD) encouragement areas, as shown on the pedestrian activities district map, a copy of which is on file in the Planning and Urban Development Department, shall be designed and constructed to be reasonably capable of being converted to accommodate uses permitted in the PAD overlay zone in accordance with the factors set forth in subsection b. of this section.

d. 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.

e. 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:

- i. Street walls and building setbacks;
- ii. Open space;
- iii. Building form, scale and massing;
- iv. Facade proportion and composition;
- v. Pedestrian circulation and building entrances;
- vi. Parking.

Note the following standards do not apply to the Asylum project: f (standards for increasing setback beyond street build-to-line); g (shadow impact on open space); h (wind impacts); and I (setbacks from existing structures).

Next Steps

- 1. Applicant submission of additional material as necessary for a public hearing including scheduling of a Neighborhood Meeting and Traffic Movement Permit Scoping Meeting.
- 2. Scheduling a public hearing.

ATTACHMENTS

Applicant Attachments

March 25, 2016 Submission

- 1. Level III Development Review Application
- 2. Description of the Project
- 3. Right, Title and Interest
- 4. State and/or Federal Permit Approvals
- 5. Compliance with Zoning Requirements
 - B-3 Downtown Business Zone Standards (14-203 to 14-215)
 - Site Plan Standards (14-526)
- 6. Existing & Proposed Easements
- 7. Request for Waivers
- 8. Financial and Technical Capacity
- 9. Traffic analysis
- 10. Construction Management Plan
- 11. Significant Natural Features
- 12. Stormwater Management Plan
- 13. Consistency with Master Plans
- 14. Utility Capacity to Serve
- 15. Solid Waste Generation and Management
- 16. Fire Safety
- 17. Conformity with Applicable Design Standards
- 18. Emissions Requirements
- 19. Response to Staff Comments (4-19-16)
- 20. Historic Preservation Board Submission with Building Exterior Plans (4-14-16)
- 21. Exterior Lighting
- 22. Asylum Traffic Permit Application for Scoping Meeting (4-14-16)

Exhibits

Exhibit 1	Deeds
Exhibit 2	HVAC/Generator Information
Exhibit 3	Capacity to Serve Letters
Exhibit 4	Financial Capacity Information
Exhibit 5	Technical Capacity Information
Exhibit 6	Geotechnical Information

Staff Attachments

- A. Historic Preservation Board Workshop Memo (4-20-16) with Building Design Graphics
- B. David Margolis Pineo, Deputy City Engineer (4-21-16) Regarding Wastewater Capacity

Plans

- Plan 1 - Permitting Cover Sheet
- Plan 2 - Site Grading and Utility Plan
- Plan 3 - Boundary and Topographic Survey
- Plan 4 - Site Layout Plan
- Plan 5 - Site Removals Plan
- Plan 6 - Site Construction Plan
- Plan 7 - Site General Notes and Abbreviations
- Plan 8 - Site Details
- Plan 9 - Site Details
- Plan 10 - Site Details
- Plan 11 - Code Review Notes
- Plan 12 - Code Review Basement and First Floor Plans
- Plan 13 - Building Elevations
- Plan 14 - Building Elevations
- Plan 15 - Building Elevations
- Plan 16 - Basement Floor Plan
- Plan 17 - Basement and First Floor Removals Plan
- Plan 18 - First Floor Plan
- Plan 19 - Upper Balcony
- Plan 20 - Building Perspectives
- Plan 21 – Façade Elevation Images for Historic Preservation Board Presentation

THE ASYLUM EXPANSION & RENOVATION

PORTLAND, MAINE



CITY OF PORTLAND DEVELOPMENT REVIEW APPLICATION

March 25, 2016

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SECTION 1 – LEVEL III DEVELOPMENT REVIEW APPLICATION



Jeff Levine, AICP, Director
Planning & Urban Development Department

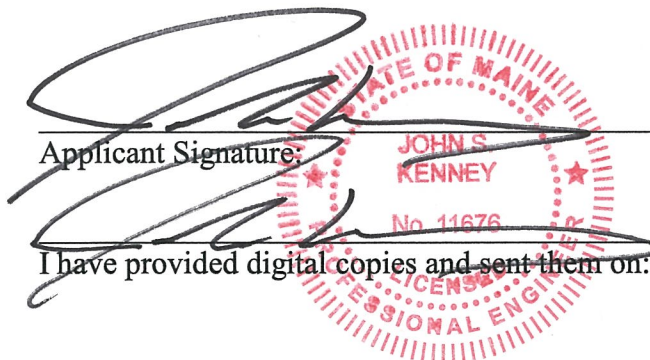
Electronic Signature and Fee Payment Confirmation

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

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

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

- ☐ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- ☐ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- ☒ I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.


Applicant Signature: _____
I have provided digital copies and sent them on: _____

March 25, 2016

Date: _____

March 25, 2016

Date: _____

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

389 Congress Street * Portland Maine 04101-3509 * Phone: (207) 874-8703 * Fax: (207) 874-8716
<http://www.portlandmaine.gov/planning/buildinsp.asp> * E-Mail: buildinginspections@portlandmaine.gov



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

Planning and Urban Development Department
Planning Division

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

Level III: Site Plan Development includes:

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

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

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

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

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

Planning Division

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

Office Hours

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

PROJECT NAME: The Asylum Expansion and Renovation

PROPOSED DEVELOPMENT ADDRESS:

121 Center Street, Portland, Maine

PROJECT DESCRIPTION:

The proposed project consists of the demolition of a basement and one-story 2940 SF portion of the existing building at located 121 Center Street in Portland, the construction of a new basement and two-story 5445 SF building addition with frontage on Free Street and Center Street, the construction of a new one-story 350 SF building addition adjacent to the existing kitchen area, interior renovations of the remaining building and related site improvements. Construction is scheduled to start in the early summer of 2016 with completion in the spring of 2017.

CHART/BLOCK/LOT: F9SE / 027-F009, F9SE / 027-F010,
F9SE / 027-F015, F9SE / 027-F028

PRELIMINARY PLAN _____ (date)
FINAL PLAN 3/25/2016 (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Valerie Levy Business Name, if applicable: Tedlum Associates LLC & The Asylum Inc. Address: 121 Center Street City/State : Portland, ME Zip Code: 04101	Applicant Contact Information Work # (207) 232-6556 Home# Cell # Fax# e-mail: levy9683@roadrunner.com
Owner – (if different from Applicant) Name: Address: City/State : Zip Code:	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: WBRC Architects Engineers Address: 30 Danforth Street, Suite 306 City/State : Portland, ME Zip Code: 04101	Agent/Representative Contact information Work # (207) 947-4511 Cell # e-mail: john.kenney@wbrcae.com
Billing Information Name: See Applicant/Owner Address: City/State : Zip Code:	Billing Information Work # Cell # Fax# e-mail:

Engineer Name: WBRC Architects Engineers Address: 30 Danforth Street, Suite 306 City/State : Portland, ME Zip Code: 04101	Engineer Contact Information Work # (207) 947-4511 Cell # Fax# e-mail: john.kenney@wbrcae.com
Surveyor Name: Owen Haskell Inc. Address: 390 US Route One, Unit 10 City/State : Falmouth, ME Zip Code: 04105	Surveyor Contact Information Work # (207) 774-0424 Cell # Fax# e-mail: jschwanda@owenhaskell.com
Architect Name: WBRC Architects Engineers Address: 30 Danforth Street, Suite 306 City/State : Portland, ME Zip Code: 04101	Architect Contact Information Work # (207) 828-4511 Cell # Fax# e-mail: jocelyn.booth@wbrcae.com
Attorney Name: Address: City/State : Zip Code:	Attorney Contact Information Work # Cell # Fax# e-mail:

APPLICATION FEES:

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

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

APPLICATION SUBMISSION:

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

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

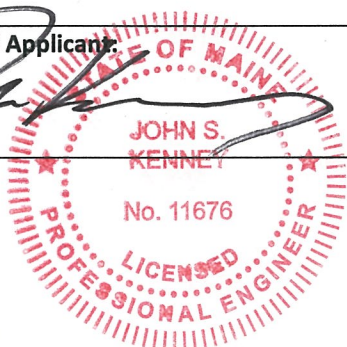
1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c), including evidence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

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

APPLICANT SIGNATURE:

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

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

Signature of Applicant:  	Date: 3/25/2016
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PROJECT DATA

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

Total Area of Site	14,235 sq. ft.
Proposed Total Disturbed Area of the Site	12,735 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.	
Impervious Surface Area	
Impervious Area (Total Existing)	14,235 sq. ft.
Impervious Area (Total Proposed)	14,235 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	8460 sq. ft.
Building Footprint (Total Proposed)	11,310 sq. ft.
Building Floor Area (Total Existing)	15,600 sq. ft.
Building Floor Area (Total Proposed)	24,459 sq. ft.
Zoning	
Existing	B3, Congress St. Historic District
Proposed, if applicable	No change proposed.
Land Use	
Existing	Restaurant, Drinking Est., Performance Hall
Proposed	No change
Residential, If applicable	Not Applicable
# of Residential Units (Total Existing)	
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	Not Applicable
# of Efficiency Units (Total Proposed)	
# of One-Bedroom Units (Total Proposed)	
# of Two-Bedroom Units (Total Proposed)	
# of Three-Bedroom Units (Total Proposed)	
Parking Spaces	
# of Parking Spaces (Total Existing)	8 standard spaces (per ordinance)
# of Parking Spaces (Total Proposed)	60 (off-site)
# of Handicapped Spaces (Total Proposed)	0
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	7
Estimated Cost of Project	\$9.1 million

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

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

- Continued on next page -

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



**PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST**



A separate drawing[s] shall be provided as part of the site plan application for the Portland Fire Department's review.

1. Name, address, telephone number of applicant Valerie Levy, 121 Center Street, Portland, ME 04101
2. (207) 232-4693
3. Name address, telephone number of architect Jocelyn Boothe, WBRC Architects Engineers, 30 Danforth Street, Portland, ME 04101 (207) 828-4511
4. Proposed uses of any structures [NFPA and IBC classification] See code sheets (GI003, GI004, GI005)
- 5.
6. Square footage of all structures [total and per story] See code sheets (GI003, GI004, GI005)
7. Elevation of all structures See sheets AE202 and AE203 - Building Elevations
8. Proposed fire protection of all structures Automatic Sprinkler System
 - **As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)**
9. Hydrant locations Hydrants are located on Center Street and at the intersection of Center Street and Free Street. See topographic survey for more information.
10. Water main[s] size and location A 12" diameter water main is located on Center Street and an 8" diameter water main is located on Free Street. See topographic survey for more information.
11. Access to all structures [min. 2 sides] Access to structure is provided from Free Street, Center Street and Lancaster Lane.
12. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards. See code sheets (GI003, GI004, GI005)

Some structures may require Fire flows using annex H of NFPA 1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



David Margolis-Pineo
Deputy City Engineer
207-874-8850
207-400-6696
dmp@portlandmaine.gov

Date: March 25, 2016

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 121 Center Street

Chart Block Lot Number: * See below.

Proposed Use: Sports Bar, Dance Club, Music Venue

Previous Use: Sports Bar, Dance Club, Music Venue

Existing Sanitary Flows: _____ GPD

Existing Process Flows: 0 _____ GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

A new 6" diameter SDR35 PVC sanitary service is proposed in place of the existing service near the intersection of Center and Free Streets.

Site Category	Commercial (see part 4 below)	☒
	Industrial (complete part 5 below)	☐
	Governmental	☐
	Residential	☐
	Other (specify)	☐

* F9SE / 027-F009, F9SE / 027-F010, F9SE / 027-F015, F9SE / 027-F028

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: Barbara Barhydt Phone: 207-874-8699

Owner/Developer Name: Tedlum Associates LLC & The Asylum Inc. (Valerie Levy)

Owner/Developer Address: 121 Center Street, Portland, ME 04101

Phone: 207-232-6556 Fax: _____ E-mail: levy9683@roadrunner.com

Engineering Consultant Name: WBRC Architects Engineers

Engineering Consultant Address: 30 Danforth Street, Suite 306, Portland, ME 04101

Phone: (207) 947-4511 Fax: _____ E-mail: john.kenney@wbrcac.com

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 8840 (Max. Occupancy) GPD

Peaking Factor/ Peak Times: _____

Specify the source of design guidelines: (i.e. X "Handbook of Subsurface Wastewater Disposal in Maine," "Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify) _____)

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

Sports Bar: 60 seats x 20 gallons per day per seat = 1200 gallons per day

Dance Hall: 1336 attendees x 5 gallons per day per attendee = 6680 gallons per day

Employees (max.): 80 employees x 12 gallons per day per employee = 960 gallons per day

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values: _____

Size of External Grease Interceptor: _____

Retention Time: _____

Peaking Factor/ Peak Times: _____

No external grease interceptors are proposed. See below.

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: _____

0 GPD

Do you currently hold Federal or State discharge permits? _____

Yes _____ No _____

Is the process wastewater termed categorical under CFR 40? _____

Yes _____ No _____

OSHA Standard Industrial Code (SIC): _____

(<http://www.osha.gov/oshstats/sicser.html>)

Peaking Factor/Peak Process Times: _____

Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps.

Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided, or attached, as a separate sheet.

Grease interceptors: There are three (3) existing internal grease interceptors in the basement. Wastewater from the existing kitchen near the sports bar flow to these grease interceptors prior to discharge to the sanitary sewer in Center Street. The proposed project will include new kitchen equipment to replace existing equipment, but capacity of the kitchen area will not change.



TOTALLY COMMITTED

Sports Bar

Dance Club

Lounge

March 17, 2016

To Whom It May Concern:

Tedlum LLC and The Asylum have retained the services of WBRC Architects · Engineers located in Portland, Maine to prepare requisite local site plan permit application materials for two building additions, building renovations and associated site improvements at 121 Center Street in Portland, Maine.

We, the undersigned, hereby authorize WBRC Architects · Engineers and their sub-consultants contracted and assigned to the above mentioned project to act on behalf of Tedlum LLC and The Asylum in matters related to these permits, including signing of documentation. Please contact my office at (207) 232-4693 should you have any questions.

Sincerely,

Valerie Levy, Owner

Asylum Inc.

121 Center Street

Portland Maine 04101

☎ 207.772.8274

fax **207.772.8738**



USGS Topographic Map

The Asylum
121 Center Street
Portland, Maine



WBRC
ARCHITECTS • ENGINEERS

1 inch equals 2,000 feet

SECTION 2 – DESCRIPTION OF THE PROJECT

The existing Asylum event venue is a 1-story plus basement building, constructed in 1960. The structure originally consisted of 3 separate buildings, resulting in varying floor and ceiling heights throughout the 3 different spaces. The building is located at the corner of Center Street and Free Street in Portland, Maine with the main entrance located along Center Street. The exterior is a brick and CMU structure, with minor amounts of storefront glazing, spandrel and brick accents. The majority of the façade along Center Street is an unarticulated brick expanse with a brick entry arch and individual letters/signs near the parapet. The façade along Free Street consists of a number of brick piers with metal panels located near the parapet and a curtain wall system near the emergency egress.

The existing venue consists of 15,600 gross square feet, divided between the fully occupied first floor and partially occupied basement level. The existing first floor consists of a sports bar, kitchen, lobby area and event space. The current first floor event space includes a stage and three separate bars. The current basement consists of a utility/storage area, a basement club, a green room and office space. All existing areas, except the basement utility area and first floor sports bar will be renovated/refreshed as part of this project.

The proposed addition includes demolishing and rebuilding the portion of building at the corner of Center Street and Free Street, and expanding the building into the adjacent parking lot space to the north east of the site along Free Street. The addition will add 5,208 gross square to the basement and 5,497 gross square feet to the first floor and building a 3,732 gross square foot balcony. The resultant building will have a total area of 24,459 gross square feet.

Included in the new first floor program is an expansion to the existing event venue, a separate pre-function/flex space, restroom upgrade and addition to the kitchen. Spread throughout the existing building are a number of coolers, which will be consolidated to one central unit off of the kitchen. The existing kitchen layout will remain the same, though finishes will be upgraded and some new equipment will be purchased. A kitchen vendor has been hired to prepare design services and supply equipment for the kitchen and bars. The pre-function space will include the main bar for the event venue, and will have a top hung sliding glass partition between it and the event space. The bathrooms and support areas will be updated and enlarged to accommodate the increase in occupants. The new/renovated event space will include a 4 foot tall stage and 3 foot tall seating tier. The main level and the top seating tier/stage will be accessible via a new elevator. The new elevator will also service the basement level and the balcony.

The program for the basement addition/renovation includes a 2 new Green Rooms for touring acts, complete with private toilet and shower rooms. The basement addition will also include a pre-function space and separate bar. The bathrooms and support areas will be updated and enlarged to accommodate the increase in occupants. Renovations to the existing basement dance club include

removing an existing CMU wall to provide more space, and switching the locations of the bar and stage, both of which will be new. The office and restrooms will be refreshed to bring the finishes up to date.

The new design approach is based on grounding the building in strong existing masonry site elements, especially the brick wall along Center Street, and contrasting the historic masonry nature with a more modern aperture highlighting the event space. While a portion of this brick wall will need to be removed during construction, the intent is to replace this wall in its original location. New punched windows will be introduced along the Center Street brick wall to provide a connection to the interior space. A lighter colored masonry base will wrap around the corner to Free Street and culminate in a vertical masonry element acting as an end cap to the design and a tie to the surrounding buildings. The same light colored masonry used at Free Street, will also be used at the main entry, as will the smaller punched windows, tying together to two facades. Additionally, new angled canopies with recessed LED lighting are proposed over each of the three entries, further tying together the design.

Sitting on top of this masonry base, we have proposed a simple, modern form, which will act as a 'lens' to the event venue and a connection between the pedestrian district and the performance space. This upper mass will be clad in a dark metal panel with simple lines. Two large curtainwall openings with acoustical glazing are proposed along free street for maximum transparency. Additionally, smaller punched windows are proposed along Center Street and along the rear façade over Lancaster Lane. Each of these openings, as well as the main entries have an accent band of color surrounding them. A new building sign/logo will be located on the metal panel along Center Street, as well as the masonry 'tower' along Free Street.

Construction is scheduled to begin in the early summer 2016 with completion in early spring of 2017.

SECTION 3 – RIGHT, TITLE AND INTEREST

Att. 3

The project site is located at 121 Center Street and consists of four parcels (F9SE-027-F009, F9SE-027-F010, F9SE-027-F015, and F9SE-027-F028) owned by Tedlum Associates, LLC.

Three parcels (F9SE-027-F009, F9SE-027-F010 and F9SE-027-F015) were conveyed from Valerie J. Levy to Tedlum Associates, LLC on October 29, 2015 (Cumberland County Registry of Deeds Book 32711 Page 4). This deed describes various rights, including access to Lancaster Lane, and encumbrances.

The fourth parcel (F9SE-027-F028) was conveyed from The Surplus Store, Inc. to Tedlum Associates, LLC on July 21, 2015 (Cumberland County Registry of Deeds Book 32452 Page 114). Exhibit A of this warranty deed references the plan entitled "Plan of Land for Art Gallery Restaurant, Center and Free Street, Portland, Maine", dated May 23, 1985, a copy of which is attached for reference. Certain rights and encumbrances affecting this parcel are described in the quitclaim deed from the City of Portland to John Martin Enterprises dated June 22, 1984 (Cumberland County Registry of Deeds Book 6489 Page 175).

See Exhibit 1 for copies of deeds.

SECTION 4 – STATE AND/OR FEDERAL PERMIT APPROVALS

Att. 4

No State or Federal land use permit approvals are required for this project.

SECTION 5 – COMPLIANCE WITH ZONING REQUIREMENTS

Att. 5

B-3 Downtown Business Zone Standards (14-203 to 14-215)

The proposed project is located in the B-3 Downtown Business Zone where “Restaurants”, “Drinking Establishments” and “Theaters and performance and exhibition halls” are permitted uses (14-217).

The Free Street façade of the proposed 5445 SF building addition is located in the PAD overlay zone, where additional restrictions apply. Restaurants and drinking establishments are permitted uses in the PAD overlay zone. In the PAD overlay zone, at least 75% of the street frontage must be available for public use and publicly available floor area must equal or exceed 75% of the street frontage multiplied by 20’ depth (1025 SF). On the Free Street façade, the elevation of the first floor level is approximately 6’ above street level and the elevation of the basement level is approximately 4’ below street level. 75% of the basement level street frontage, which consists of an entry space and pre-function room, are available for public use and 80% of the first floor street frontage, which consists of a stair and event space, are available for public use. Publicly available floor areas for the basement level and first floor level equal 1028 SF and 1092 SF, respectively, which exceeds the minimum required floor area of 1025 SF. As previously discussed with the City’s Zoning Administrator, the first floor is considered the main activity level for this project. See architectural floor plans and elevations for more information.

Dimensional Requirements (14-220)

Dimensional requirements are summarized in the following table.

Standard	
<i>Min. lot size</i>	<u>Ordinance:</u> None
<i>Min. street frontage</i>	<u>Ordinance:</u> 15 FT <u>Existing:</u> 76.53’ (Free Street) & 163.62 FT (Center Street) <u>Proposed:</u> No Change
<i>Street wall build-to line:</i>	<u>Ordinance:</u> All buildings or structures shall be located within five (5) feet of the property line along street frontages, unless the Planning Board requires or approves an additional distance to comply with the requirements of section 14-526 (d)9 and the City of Portland Design Manual

	<u>Existing:</u> The existing building is located within 5' of the Center Street and Free Street rights-of-way. <u>Proposed:</u> The proposed 5445 SF building addition is located within 5' of the Center Street and Free Street rights-of-way.
<i>Min. yard dimensions</i>	<u>Ordinance:</u> None
<i>Min. lot width</i>	<u>Ordinance:</u> None
<i>Max. length of undifferentiated blank wall along a public street or publicly accessible pedestrian way</i>	<u>Ordinance:</u> 30 FT on Center Street and 15 FT on Free Street <u>Existing:</u> The existing undifferentiated brick wall on Center Street and Free Street is approximately 85 FT and 7 FT, respectively. <u>Proposed:</u> The proposed renovation of the existing building on Center Street will include façade features that will provide differentiation to the existing brick wall. The building addition on Center Street and Free Street will not include any undifferentiated blank walls exceeding 15 FT. See architectural elevations for more information.
<i>Maximum lot coverage</i>	<u>Ordinance:</u> 100% <u>Existing:</u> 59% <u>Proposed:</u> 79%
<i>Min. building height</i>	<u>Ordinance:</u> No new construction of any building shall be less than thirty-five (35) feet in height within fifty (50) feet of any street frontage. <u>Proposed:</u> Within 50' of the Free Street and Center Street frontage, the roof elevation of the proposed building addition at the intersection of Free Street and Center Street is 114.6' (NGVD 1929). The existing elevation varies from 68.08' to 68.62' along Free Street and 68.62' to 71.85' along Center Street. Therefore, the height of the proposed building addition above existing grade varies from 42.75' to 46.52' within 50' of the street right-of-way. See architectural elevations and the topographic survey for more information.
<i>Max. height of structures</i>	<u>Ordinance:</u> 150 FT + 40 FT additional height for building cap per Downtown Height Overlay Map <u>Proposed:</u> The height of the proposed building addition will not exceed 150' in height. See <i>Min. building height</i> above.
<i>Maximum building area and floor area for buildings which exceed one hundred twenty-five (125) feet in height</i>	Not applicable. The existing building and proposed additions do not exceed 125' in height.

Sec. 14-221. Other requirements and standards.

(a) *Downtown Urban Design Guidelines: The proposed project is consistent with Downtown Urban Design Guidelines.*

(b) *Off-street parking and loading:* Off-street parking and loading are required as provided in division 20 and division 21 of this article. ***See Section (a)(4) in Site Plan Standards narrative below.***

(c) *Signs:* Signs shall be subject to the provisions of division 22 of this article. In addition, signs within the pedestrian activities district (PAD) overlay zone or in areas designated as PAD encouragement areas, as shown on the pedestrian activities district map, a copy of which is on file in the department of planning and urban development, shall be consistent with the Downtown Urban Design Guidelines. ***See Section (d)(8) in Site Plan Standards narrative below.***

(d) *Exterior storage:* There shall be no exterior storage, with the exception of receptacles for solid waste disposal which are not visible from a public street. Such receptacles shall be shown on the approved site plan. ***Exterior storage is not proposed. Receptacles for solid waste will be located in a secured area located off Lancaster Lane as shown on sheet CP101 – Site Layout & Materials Plan.***

(e) *Storage of vehicles:* No more than one (1) unregistered vehicle shall be stored outside for a period in excess of thirty (30) days. ***Storage of vehicles storage is not proposed.***

(f) *Shoreland and flood plain management regulations:* If the lot is located in a shoreland zone or in a flood hazard zone, then the requirements of division 26 and/or division 26.5 shall apply. ***The proposed project is not located in the shoreland zone or in a flood hazard zone.***

(g) *Downtown arts program:* All new development subject to section 14-851 shall make provision for participation in the public arts program. ***The proposed project is not subject to section 14-851.***

(h) *Relocation of displaced residents:* Any development which results in the displacement of residents of dwelling units currently located on the development site shall meet the requirements of sections 14-861 through 14-864. ***The proposed project will not result in the displacement of residents.***

(i) *Historic resources:* The exterior design of proposed or renovated structures located within historic districts shall be subject to the provisions of article IX (historic preservation) of this chapter. The exterior design of proposed or renovated structures located adjacent to historic districts or historic resources shall be subject to section 14-526(d) 5, b. ***See Section (d)(5) in Site Plan Standards narrative below.***

Sec. 14-221.1. External effects.

Every use in the B-3, B-3b and B-3c zones shall be subject to the following requirements:

(a) *Enclosed structure:* The use shall be operated within a completely enclosed structure, except for those uses customarily operated in the open air. ***The proposed use will be operated within a completely enclosed structure.***

(b) *Noise:* The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently within the B-3 and B-3b zones shall not exceed fifty-five (55) decibels on the A scale between the hours of 9:00 p.m. and 7:00 a.m., and sixty (60) decibels on the A scale between

7:00 a.m. and 9:00 p.m. at the boundaries of any lot nor within publicly accessible pedestrian open space, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ1). ***With the exception of noise related to construction activities, the proposed building additions and renovation will not result in noise that exceeds this standard. CavanaughTocci acoustical consultants have been hired to ensure that acoustical treatments within the event space will be installed to comply with this standard during concert events. See Exhibit 2 for proposed roof-top HVAC unit cutsheets.***

(c) *Vibration*: Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. ***With the exception of vibration related to construction activities, the proposed building additions and renovation will not result in any vibration that is perceptible without instruments at lot boundaries.***

(d) *Heat*: Heat shall be imperceptible without instruments at lot boundaries. Heating elements which are intended to melt snow and ice shall be placed within sidewalk paving only when approved by the department of parks and public works. ***The proposed building additions and renovation will not result in any heat that is perceptible without instruments at lot boundaries.***

(e) *Glare, radiation or fumes*: Glare, radiation or fumes shall be imperceptible without instruments at lot boundaries. ***The proposed building additions and renovation will not result in any glare, radiation or fumes that are perceptible without instruments at lot boundaries.***

(f) *Smoke*: Smoke shall not be emitted at a density in excess of twenty (20) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency. ***The proposed building additions and renovation will not result in any smoke at a density in excess of twenty (20) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.***

(g) *Materials or wastes*: No materials or wastes shall be deposited on any lot in such form or manner that they may be transferred beyond the lot boundaries by natural causes or forces. All material which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors, shall be only in closed containers and in accordance with section 14-221(d). Areas attracting large numbers of birds, rodents or insects are prohibited. ***No material or waste deposits are proposed as part of this project.***

Site Plan Standards (14-526)

Sec. 14-526. Site plan standards.

Requirements for approval. The Planning Board or Planning Authority shall not approve a site plan application unless the development proposal meets the following criteria:

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The provisions for vehicular loading and unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets and ways; and the incremental volume of traffic will not create or aggravate any significant hazard to safety at or to and including intersections in any direction where traffic could be expected to be impacted; and will not cause traffic congestion on any street which reduces the level of service below Level "D" as described in the 1985 Highway Capacity Manual published by the Transportation Research Board of the National Research Council, a copy of which manual is on file with the public works authority, or substantially increase congestion on any street which is already at a level of service below Level "D";

According to the City's Land Use ordinance, the proposed building additions and renovation will require an additional 60 parking spaces (see parking calculations below). The applicant is proposing to provide off-site parking to meet this requirement at the existing parking lot at the intersection of Center Street and Free Street and/or at the Midtown Parking Lot at 44 Free Street. In 2012, Gorrill Palmer Consulting Engineers wrote that the addition of up to 70 peak hour trips associated with the Cross Arena project would have a minimal impact on the adjacent street system. Because the additional 60 trips associated with The Asylum project will take place in the evenings and on weekends, it is our opinion that the additional traffic will have a minimal impact on the adjacent street system. Due to the nature of the proposed use, many attendees will be combining activities such as attending other restaurants or entertainment venues and will be walking to The Asylum for events. Pedestrian facilities in the vicinity of the Cross Area, including the crosswalks and accessible ramps at the intersection of Center Street and Free Street, were upgraded and improved recently as part of the Cross Center renovation project. A new entrance is proposed on Free Street, which has a 16' wide sidewalk for approximately 40' to allow for ample pedestrian use. The existing entrance on Center Street will remain. Deliveries to the facility will remain on Lancaster Lane. For concerts requiring the use of full-size semi-trailer trucks, the applicant will coordinate with the City to utilize up to five parallel parking spaces on Free Street for loading and unloading equipment.

2. Access and Circulation:

a. Site Access and Circulation.

(i) The development shall provide safe and reasonable access and internal circulation for the entire site for all users of the site and shall comply with the standards set forth in Sections 1 of the Technical Manual. ***A new entrance is proposed on Free Street, which has a 16' wide sidewalk for approximately 40' to allow for ample pedestrian use. The existing entrance***

on Center Street will remain. Safe and reasonable access and internal circulation for the entire site is provided.

(ii) Points of access and egress shall be located to avoid conflicts with existing turning movements and traffic flows. **The existing parking lot curb-cut on Free Street will be removed. No new points of access or egress are proposed.**

(iii) Where drive up features such as gasoline pumps, vacuum cleaners and menu/order boards are permitted, they shall not extend nearer than twenty five (25) feet to the street line. The site must have stacking capacity for vehicles waiting to use these service features without impeding on-site vehicular circulation or creating hazards to vehicular circulation on adjoining streets. **Not applicable for this project.**

b. Loading and Servicing.

(i) All developments served by delivery or other service vehicles shall provide a clear route and travel way geometric design that permits safe turning and backing for the maximum vehicle length that would service the development and does not impede site access, vehicle circulation, pedestrian movements or parking. **Delivery and service vehicles will continue to use Lancaster Lane to access the facility. For concerts requiring the use of full-size semi-trailer trucks, the applicant will coordinate with the City to utilize up to five parallel parking spaces on Free Street for loading and unloading equipment.**

c. Sidewalks.

(i) All proposed developments shall provide sidewalks along all frontages in accordance with Sections 14-498 and 14-499 of the City Code, installed to City specifications as described in Section 1 of the Technical Manual. An applicant may request a waiver from curb and sidewalk installation requirements if they meet applicable waiver criteria listed in Section 14-506 (b) of the City Code. **The existing sidewalk layout configuration will remain. The existing parking lot curb-cut on Free Street will be removed and replaced with vertical granite curb. The existing brick sidewalk surface will be reconstructed with new or salvaged brick according to requirements in the City's technical Manual.**

(ii) Where sidewalks already exist but are in substandard condition, they shall be repaired or replaced in conformance with Chapter 25 of the City Code and Section 1 of the Technical Manual. **The existing brick sidewalk surface on Center Street and Free Street as shown on sheet CP101 – Site Layout plan will be reconstructed with new or salvaged brick according to requirements in the City's technical Manual.**

(iii) Continuous internal walkways shall be provided between existing or planned public sidewalks adjacent to the site, transit stops and street crossings and primary building entrances on the site. **Not applicable.**

3. Public Transit Access:

a. For any residential development consisting of twenty (20) or more dwelling units or commercial or institutional development of at least 20,000 square feet gross floor area, a transit facility shall be constructed where the following criteria are met:

(i) The development is proposed along an existing public transit route on a local principal or minor arterial roadway, as shown in the Federal Street Classification Map provided in Section 1 of the Technical Manual.

(ii) The nearest existing transit shelter and/or bus pullout on the route is $\frac{1}{4}$ mile (1,320 feet) or more away from the closest primary building on the site, measured along rights-of-way.

b. Transit facilities shall consist of a transit shelter and a transit pullout bay.

c. Transit facilities shall be connected to the public sidewalk system.

d. Waiver: All or some of this standard may be waived if the Reviewing Authority determines one or more of the following:

(i) That some or all of the required improvements cannot reasonably be made due to site constraints and/or insufficient right of way width; or

(ii) That the development is not anticipated to generate public transit usage due to particular characteristics or proposed use of the development.

Not applicable. The proposed building additions are less than 20,000 SF gross floor area.

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

(i) Off-street parking shall meet the applicable zoning requirements, except the Planning Board shall determine the parking requirement, based upon the applicant's parking study and a recommendation from the City Transportation Engineer, for new structures, building additions and changes of use with a total floor area of 50,000 sf or more and for projects, regardless of size, in the B-6, B-7 and USM Overlay zone.

Required parking calculations for this project are as follows:

Existing parking removed [14-332.2(d)]: Eight (8) standard 9' x 18' parking spaces (see sheet CD101 – Site Removals Plan)

Basement: 557 SF new pre-function room minus 450 SF demolished pre-function room = 107 SF net new pre-function room. 107 SF @ 1 space per 400 SF [14-332(j)] = 1 space

(see sheet AD101 – Basement & First Floor Removals Plan and sheet AE101 Basement Floor Plan)

First Floor: 2838 SF new event space minus 2800 SF demolished event space = 38 SF net new event space. 38 SF @ 1 space per 100 SF = 1 space (see sheet AD101 – Basement & First Floor Removals Plan and sheet AE102 First Floor Plan)

Balcony:

175 SF new standing area @ 1 space per 100 SF = 2 spaces

239 new seats @ 1 space per 5 seats = 48 spaces

(see sheet AE104 Balcony & Roof Plan)

Required Parking: 8 +1+1+2+48 = 60 spaces

The applicant is proposing to enter into a lease agreement with Unified Parking Partners to lease 60 spaces in the parking lot at the intersection of Center Street and Free Street and/or the Midtown Parking Lot located at 44 Free Street. See Exhibit 3 for a copy of the letter of intent from Unified Parking Partners. The applicant understands that an executed lease agreement will be required prior to issuance of any certificate of occupancy.

(ii) Where a parking study is required, the City encourages Transportation Demand Management (TDM) strategies to be employed. ***A parking study is not required.***

(iii) Developments proposing to exceed minimum parking requirements by 10% or more must demonstrate through a parking analysis that the amount of parking is appropriate for the proposed use of the site. ***No on-site parking is proposed.***

(iv) Parking spaces and aisles shall meet applicable dimensional standards as detailed in Section 1 of the Technical Manual. ***No on-site parking is proposed. Proposed off-site parking will meet applicable dimensional standards.***

(v) Parking lots, except for temporary lots to be used for less than one year, shall be constructed of a permanent and durable hard surface that is not subject to ponding or erosion. ***No on-site parking is proposed.***

b. Location and Required Number of Bicycle Parking Spaces:

(i) The site plan shall provide secure bicycle parking in conformance with Section 1 of the Technical Manual and shall meet the following requirements:

(a) Residential structures. Two (2) bicycle parking spaces for every five (5) dwelling units shall be required. ***Not applicable.***

(b) Non-residential structures. Two (2) bicycle parking spaces for every ten (10) vehicle parking spaces for the first one hundred (100) required vehicle parking spaces, plus one (1) bicycle parking space for every twenty (20) required motor vehicle parking space over one hundred (100) City of Portland Land Use required vehicle parking spaces.

60 parking spaces are required. Therefore, 6 bicycle parking spaces are required. Bicycle parking is provided off Lancaster Lane. See sheet CP101 – Site Layout Plan.

(c) Development with zero (0) to ten (10) required vehicle parking spaces shall provide at least two (2) bicycle parking spaces. **Not applicable.**

(ii) Waiver: The reviewing 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 characteristics or uses such as elderly or disabled persons housing or industrial uses located in outlying areas. **No waivers are proposed.**

c. Motorcycle and Scooter Parking.

(i) The site plan shall accommodate access and parking for two-wheeled motorized vehicles such as motorcycles and scooters. **No on-site two-wheeled parking is proposed. Adequate off-site parking for two-wheeled motorized vehicles is available in the vicinity of the project site.**

d. Snow Storage.

(i) The site plan shall include areas for snow storage or shall include an acceptable snow removal plan. **No snow storage areas are proposed. Snow removal from public access areas and the alley between the proposed building addition and the existing parking garage will be minimal and transported off-site.**

(ii) Snow storage areas may not encroach on areas designated to meet minimum parking requirements or on pedestrian walkways and shall not be located where they would adversely impact the functionality of bioretention or other stormwater management systems. Landscaping in designated snow storage areas shall be such that it can withstand the snow pile. **No on-site snow storage areas are proposed. Snow will be removed off-site.**

5. Transportation Demand Management (TDM):

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

(i) All Level III development in the B7 zone;

- (ii) All commercial or institutional uses of 50,000 sf or more total floor area;
 - (iii) All commercial or institutional uses designed to accommodate 100 or more employees and, for educational institutions, 100 or more students.
- b. The TDM Plan shall establish trip reduction targets and shall employ a combination of the following elements to achieve these targets:
- (i) Public transit incentives;
 - (ii) Parking cash-out;
 - (iii) Car sharing;
 - (iv) Car and van pooling incentives;
 - (v) Guaranteed ride home programs;
 - (vi) Other such strategies that reduce single occupancy vehicle trips to and from the development.
- c. The development shall comply with the City of Portland TDM standards as described in Section 1 of the Technical Manual.

A Transportation Demand Management plan is not required for this project.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. The site plan shall preserve and protect significant natural features by incorporating them into site design. Significant natural features shall be defined as:
- (i) Populations of trees and plants listed on the Official List of Endangered and Threatened Plants in Maine, published by the Maine Natural Areas Program.
 - (ii) Habitat for species appearing on the official state or federal list of endangered or threatened animal species;
 - (iii) High and moderate value waterfowl and wading bird habitat including nesting and feeding areas, as defined by the Department of Inland Fisheries and Wildlife;
 - (iv) Aquifers on islands in Casco Bay, as identified in the City of Portland Island Groundwater Management Study and/or by the Maine Geological Survey;
 - (v) Waterbodies including wetlands, watercourses, significant vernal pools and floodplains. These features may also be regulated by Division 26, Shoreland Regulations, Division 26.5,

- Flood Plain Management Regulations and Division 26.7, Stream Protection Ordinance of the City Code, along with Sections 5 and 8 of the Technical Manual or other State regulations.
- b. Where areas set aside for preservation are part of a larger existing habitat block extending beyond the boundaries of the site, the contiguity of these features shall be preserved, where possible.
 - c. Waiver: Where complete preservation of significant natural features substantially compromises development of the site otherwise permitted by zoning, the Reviewing Authority may reduce the requirement to accommodate development provided that the applicant demonstrates compliance with applicable state and federal regulations and implements preservation measures to the extent practicable.

There are no significant natural features on the project parcel.

2. Landscaping and Landscape Preservation:

a. Landscape Preservation.

(i) Site development shall be designed to incorporate, and limit disturbance to or removal of existing trees, as specified below. Preserved trees may be counted towards site landscaping requirements.

(ii) All development subject to zoning setbacks shall preserve a minimum of 30% of existing trees ten (10) inches DBH or greater within the required setback area unless trees are non-native invasive species, as identified in Section 4 of the Technical Manual, or are deemed unsalvageable by the Portland City Arborist or their designee.

(iii) Protection during Construction: The site plan shall include adequate measures to protect vegetation to be preserved from construction impacts, in accordance with the tree preservation standards listed in Section 4 of the Technical Manual.

(iv) Waiver: Where the applicant can demonstrate that preservation of existing vegetation would compromise development of the site, the Reviewing Authority may permit the substitution of replacement landscaping in other areas of the site, and/or a financial contribution to the City of Portland Tree Fund for an amount proportionate to the cost of trees removed, as described below:

(a) For each tree required to be preserved that is removed and is greater than 16" in caliper DBH, two (2) replacement trees of a species identified on the City of Portland Recommended Tree List shall be planted on the site as detailed in Section 4 of the Technical Manual).

(b) For each tree required to be preserved that is removed and is between ten (10) and sixteen (16) inch DBH, one (1) replacement tree of a species identified on the City of

Portland Recommended Tree List shall be planted on the site as detailed in Section 4 of the Technical Manual).

(c) Where the planting of replacement trees on the site is not feasible, the applicant shall contribute an amount proportionate to the cost of required replacement trees to the City of Portland Tree Fund, as detailed in Section 4 of the Technical Manual.

(v) In addition to the provisions of this section, all development within the Shoreland Zone shall meet the requirements of Division 26, Shoreland Regulations.

There are no existing trees or vegetation located on the project parcel. The parcel is completely developed.

b. Site Landscaping.

(i) Landscaped Buffers:

(a) Screening. Loading and servicing areas, dumpsters, storage areas and utility structures, except for renewable energy systems, shall be screened from view from public sidewalks, streets and adjacent properties by dense evergreen landscaping, fencing, masonry wall building walls, or a combination thereof. ***The proposed loading and servicing area, dumpsters, storage areas and utility structures will be located off Lancaster Lane and will not be visible from public sidewalks or streets.***

(b) Understory Plantings. All development subject to required zoning setbacks shall include a minimum of six (6) shrubs per forty five (45) linear feet of all frontages as measured along the property line. A shrub shall be defined as one shrub, one ornamental grass, and/or 3 perennials. Required shrubs may be installed anywhere on the site, including a green roof, if proposed, and may be planted in any arrangement.

Existing vegetation to be preserved on the site may be counted towards this requirement as detailed in Section 4 of the Technical Manual.

Not applicable. The proposed project is located in the B-3 zoning district and is not subject to zoning setbacks.

(c) Industrial and Commercial Zones. For non-residential development proposed in an industrial or commercial zone subject to required zoning setbacks and abutting a residential zone, an evergreen, densely landscaped buffer of not less than ten (10) ft wide and six (6) ft tall is required along the side abutting the residential zone. Where site constraints prevent such a buffer from being established, the width of the landscaped buffer may be reduced but shall include architectural quality fencing of not less than six (6) ft tall and a mix of evergreen and deciduous trees spaced no further than twenty (20) ft apart along the abutting the residential zone. ***Not applicable. The***

proposed project is located in the B-3 zoning district and is not subject to zoning setbacks.

(d) Buffer from Surrounding Development. All residential development shall provide and/or preserve evergreen vegetated buffers where necessary to buffer the development from detrimental impacts of existing surrounding development. ***Not applicable.***

(ii) Parking Lot Landscaping:

(a) Developments with five (5) or more parking spaces shall include at least two (2) trees (or one (1) tree and three (3) shrubs) per five (5) parking spaces 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 detailed in Section 4 of the Technical Manual.

(b) Landscaped islands shall be distributed so that uninterrupted pavement does not exceed forty (40) parking spaces.

(c) Landscaped islands shall be curbed and a minimum of eight (8) feet in width, not including curbing. The incorporation of bioretention into landscaped islands is strongly encouraged.

(d) Vehicle display lots shall be subject to the parking lot landscaping standards of this section.

(e) Waiver: Where site constraints prevent implementation of all or a portion of required parking lot landscaping, as determined by the Reviewing Authority, the requirements may be all or partially waived and the applicant shall contribute an amount proportionate to the cost of required parking lot trees to the City of Portland Tree Fund.

No new parking lots are proposed.

(iii) Street Trees:

(a) All development shall include street trees in numbers and locations as specified in Section 4 of the Technical Manual. Street trees shall be planted in the right of way, as specified in Section 4 of the Technical Manual. Street trees shall be of a species identified on the City of Portland Recommended Tree List, unless otherwise approved by the Portland City Arborist or his/her designee.

(b) Waiver. Where the applicant can demonstrate that site constraints prevent the planting of required street trees in the City right of way, the Reviewing Authority may permit the planting of street trees in the front yard, within ten feet of the property line.

Existing preserved healthy trees that are six (6) inches or more in caliper and are on the site within ten (10) feet of the property line may be counted towards this requirement. If planting street trees is neither feasible in the City right of way nor within the site, the applicant shall contribute to the City of Portland Tree Fund an amount proportionate to the cost of required street trees. ***Site constraints (underground electrical utilities) prevent the planting of street trees in the City right-of-way or within the site. Therefore, the applicant will contribute to the City of Portland Tree Fund an amount proportionate to the cost of 3 street trees, which is required for approximately 150' of new street frontage on Center Street and Free Street.***

3. Water Quality, Stormwater Management and Erosion Control:

a. All development must demonstrate that the proposed site improvements are designed to minimize the amount of stormwater leaving the site. This must include consideration of the design and location of improvements to minimize the total area of impervious surface on the site and stormwater management techniques to minimize both the volume and rate of runoff from the lot. The stormwater management plan must demonstrate the following:

- (i) Any stormwater draining onto or across the lot in its pre-improvement state will not be impeded or re-directed so as to create ponding on, or flooding of, adjacent lots;
- (ii) Any increase in volume or rate of stormwater draining from the lot onto an adjacent lot following the improvement can be handled on the adjacent lot 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;
- (iii) Any increase in volume or rate of stormwater draining from the lot onto City property following the improvement can be handled 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 City's property; and
- (iv) Any increase in volume or rate of stormwater draining from the lot into the City's separate storm sewer system can be accommodated in the system without creating downstream problems or exceeding the capacity of the storm sewer system.

Stormwater draining onto or across the lot in its pre-improvement state will not be impeded or re-directed so as to create ponding on, or flooding of, adjacent lots. The entire parcel is currently an impervious surface. The proposed project will not increase the volume or rate of stormwater draining from the site.

b. All development, except Level I minor residential development, shall comply with the standards of Section 5 of the Technical Manual including basic, general and flooding standards, as applicable, to prevent and control the release of pollutants to waterbodies, watercourses, wetlands and groundwater, and reduce adverse impacts associated with increases or changes in

flow, soil erosion and sedimentation. ***General and flooding standards are not applicable for this project. The entire parcel is impervious. See sheet CG101 – Site Grading, Erosion Control & Utility Plan and Site Details for proposed erosion control best management practices.***

c. All development, except Level I minor residential development, that are located within the watershed of an Urban Impaired Stream shall comply with the Urban Impaired Stream standards pursuant to Maine DEP Chapter 500 Stormwater Management Rules, as described in Section 5 of the Technical Manual. ***The proposed project is not located in an Urban Impaired Stream.***

d. Level I: minor residential development shall comply with basic erosion control standards, as described in Section 6 of the City of Portland Technical Manual. ***Not applicable. The proposed project requires a Level III application.***

e. Development shall not pose a risk of groundwater contamination either during or post-construction, as described in Sections 5 and 9 of the Technical Manual. ***The proposed project does not pose a risk of groundwater contamination either during or post-construction.***

f. Development shall provide for adequate and sanitary disposal of sewage as described in Section 2 of the Technical Manual. ***Sewage disposal and treatment will be provided by the City of Portland sanitary sewer system and the Portland Water District's wastewater treatment facility. The applicant has submitted a Wastewater Capacity Application to the City of Portland regarding the adequacy of the sanitary sewer system to convey wastewater to the treatment plant. Portland Water District provided a letter stating that the East End Wastewater Treatment Plant has the capacity to treat wastewater generated as a result of this project. See Exhibit 3 for a copy of their letter.***

(c) Public Infrastructure and Community Safety Standards.

1. Consistency with City Master Plans:

a. All developments shall be designed so as to be consistent with City Council approved master plans and facilities plans and with off-premises infrastructure, including but not limited to sewer and stormwater, streets, trails, pedestrian and bicycle network, environmental management or other public facilities (see Section 15 of the Technical Manual). ***The proposed building addition and renovation project is consistent with all applicable City master plans.***

b. The site plan shall include suitable easements, rights and improvements to connect or continue off-premises public infrastructure as may be required by the reviewing authority. ***Not applicable.***

2. Public Safety and Fire Prevention:

a. The 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:

(i) Natural surveillance that promotes visibility of public spaces and areas.

(ii) Access control that promotes authorized and/or appropriate access to the site.

(iii) Territorial reinforcement that promotes a sense of ownership and responsibility through environmental design.

The alley between the proposed building addition and the existing parking garage will be visible from Free Street and Lancaster Lane. A new fence and gate will be installed at either end of the alley, which will be locked on the exterior side of the gate and open for passage in the direction for egress travel. The owner will be installing building-mounted site lighting along the existing building façade on Lancaster Lane to improve safety.

b. Provide adequate emergency vehicle access to the site in accordance with City standards for street widths and turning radii, as described in Section 1 of the Technical Manual. ***Street widths and turning radii on Free Street, Center Street and Lancaster Lane will not change as a result of this project.***

c. Be consistent with City public safety standards, Section 3 of the City of Portland Technical Manual, including but not limited to availability and adequacy of water supply and proximity of fire hydrants to structures. ***Existing hydrants are located on Center Street and at the intersection of Center Street and Free Street (see topographic survey). The Portland Water District has the capacity to serve this project. See Exhibit 3 for a copy of their letter.***

3. Availability and Adequate Capacity of Public Utilities:

a. The development shall not overburden sanitary sewers and storm drains, water lines, or other public infrastructure and utilities. Development shall provide adequate utility capacity and distribution network on-site and in connection to surrounding locations and facilities. ***The proposed building additions and renovation project are not expected to overburden existing sanitary sewers and storm drains, water lines, and other public infrastructure and utilities. The applicant has submitted a Wastewater Capacity Application to the City of Portland regarding the adequacy of the sanitary sewer system to convey wastewater from the project site to the East End Wastewater Treatment plant. Portland Water District provided a letter stating that the East End Wastewater Treatment Plant has the capacity to treat wastewater generated as a result of this project. See Exhibit 3 for a copy of their letter. Because the existing site is completely impervious, the proposed project will not***

overburden the City's storm drainage system. Electrical service will be upgraded, with new underground primary service from Center Street to a new exterior transformer off Lancaster Lane and new underground secondary service from the exterior transformer to the new electrical room. The existing gas service on Center Street will be upgraded with a larger capacity service.

b. 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 service will be upgraded, with new underground primary service from Center Street to a new exterior transformer off Lancaster Lane and new underground secondary service from the transformer to the new electrical room.***

c. Installation of new or upgrades to existing sanitary sewers, storm drains, water lines or other utilities shall meet the provisions outlined in Section 2 and Section 9 of the Technical Manual. ***Upgrades to existing water, sanitary sewer and storm drains are proposed. Installation of these improvements meets the provisions outlined in Section 2 and Section 9 of the Technical Manual (see sheet CG101 - Site Grading, Erosion Control and Utility plan and related site details for more information).***

d. 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 Section 2 of the Technical Manual. ***Connection to the public sanitary collection system is proposed.***

e. All sanitary sewer and stormwater utilities proposed as part of the development shall be designed to City standards as specified in Section 2 and Section 4, Chapter 500 Stormwater Management Standards, of the Technical Manual. ***New sanitary sewer and storm drain connections are proposed. Installation of improvements meets the provisions outlined in Section 2 and Section 4 of the Technical Manual (see sheet CG101 - Site Grading, Erosion Control and Utility plan and related site details for more information).***

f. 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. ***Dumpsters will be enclosed within the fenced storage area off Lancaster Lane, which is not visible from public sidewalks or streets .***

4. Reserved.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:

a. 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 proposed building additions will 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.***

b. The bulk, location or height of proposed buildings and structure shall minimize, to the extent feasible, any substantial diminution in the value or utility to neighboring structures under different ownership and not subject to a legal servitude in favor of the site being developed. ***The applicant anticipates that the proposed building additions and related site improvements will be beneficial in terms of the value or utility to neighboring structures under different ownership.***

c. Development shall locate all HVAC venting mechanisms to direct exhaust away from public spaces and residential properties directly adjacent to the site. ***New roof-top HVAC units are proposed that will direct exhaust vertically.***

2. Shadows:

a. All development outside the B3, B5, B6 and B7 zones 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 where such shadowing would adversely affects the viability of its use and/or the viability of existing vegetation. Examples of publicly accessible open spaces that may require direct sunlight for a portion of the day to maintain the viability of existing vegetation and/or use(s) include but shall not be limited to sitting or sunning areas, community gardens, grass sports fields, landscaped areas, children's play areas). For submittal requirements and additional information, please refer to Section 11 of the Technical Manual. ***Not applicable. The proposed project is located in the B-3 zone.***

3. Snow and Ice Loading:

a. The development shall be designed to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways. ***The proposed building additions have flat roofs that will prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.***

4. View corridors:

a. The massing, location and height of development shall not substantially obstruct public views corridors identified in the Downtown Vision View Corridor Protection Plan, as provided in the City of Portland Design Manual, Appendix 1. ***The proposed building additions are not located near a designated visual landmark or within a designated gateway area. The building addition at the intersection of Center Street and Free Street is located in the Center Street view corridor. The images below show existing conditions toward the harbor from near Congress Street.***



BUILDING MASSING - VIEW FROM CENTER STREET



Image 1 Existing view on Center Street toward Free Street and the harbor. The proposed building addition will be located at the intersection of Center Street and Free Street.



Image 2 Proposed view on Center Street toward Free Street and the harbor. The proposed building addition will be located at the intersection of Center Street and Free Street.

5. Historic Resources:

a. Developments affecting designated landmarks or within designated historic districts or historic landscape districts: Any proposed development required to obtain a certificate of appropriateness under article IX (historic preservation) of the land use code shall be exempt from the following design standards, as described in the Design Manual:

- (i) Section (b) of the Design Manual (development in B-3 zone), except for (b) (1) e.2. (increasing setback beyond street build-to line), (b) (1)f. (shadow impact on open space), (b)(1)h. (wind impacts), and b)(1)g. (setbacks from existing structures);
- (ii) Section (c) of the Design Manual (development in B-5 and B-5b zones), except for (c)a. (shared infrastructure) and (c)d. (parking lot location);
- (iii) Section (k) of the Design Manual (small residential lot development in R-6 zone);
- (iv) Section (e) of the Design Manual (University of Southern Maine);
- (v) Section (f) of the Design Manual (development in B-7 zone), except for (f)(1)a. (transportation demand management);
- (vi) Section (g) of the Design Manual (development in Eastern Waterfront zone).

The proposed project is located in the B-3 zone. Therefore, the project is exempt from Section (b) of the Design Manual (development in B-3 zone), except for (b) (1) e.2. (increasing setback beyond street build-to line), (b) (1)f. (shadow impact on open space), (b)(1)h. (wind impacts), and b)(1)g. (setbacks from existing structures).

The existing building is classified as a "Non-Contributing Structure" in the Congress Street Historic District. The proposed building addition will be constructed partially in the footprint of a portion of the existing building and within the existing parking lot off Free Street, which is classified as "Non-Contributing Vacant Land or Parking lot/Garage" in the Congress Street Historic District. Because the proposed project is located in the Congress Street Historic District, a Certificate of Appropriateness from the Historic Preservation Board is required and will be provided when received.

b. Development adjacent to designated landmarks, historic districts or historic landscape districts: when any part of a proposed development is within one hundred (100) feet of any designated landmark, historic district or historic landscape district, such development shall be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development. Character-defining elements of landmarks and historic districts are identified in the historic resources inventory and respective historic district designation reports For the purposes of this provision, "compatible" design shall be defined as design which respects the established building patterns and visual characteristics that exist in a given setting and, at the same time, is a distinct product of its own

time. To aid the planning board in its deliberations, historic preservation staff shall provide a written analysis of the proposed development's immediate context, identifying the major character-defining elements and any established building patterns that characterize the context.

The proposed project is located in the Congress Street Historic District.

c. Preservation and/or Documentation of Archaeological Resources. Where a state or local archaeological resource is known to exist or is discovered on the site, the developer shall inform the City and State and shall protect and/or document such resources.

(i) Protection shall include leaving archaeological resources untouched beneath a new development through adaptation of foundation design or architectural layout.

(ii) 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 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:

(a) Original seawall structure located landward of Commercial Street.

(b) Inactive historic family cemetery plots.

(c) Historic railroad beds including but not limited to the Portland-Lewiston interurban railroad.

(d) Original structure and/or landforms associated with the Cumberland and Oxford Canal.

(e) Buried portions of colonial and post-colonial period structures or built features located on the Portland Peninsula predating the Great Fire of 1866.

(f) Pre-colonial occupation sites identified by shell middens or other evidence.

(g) Sites listed or eligible for listing on the National Register of Historic Places.

There are no known state or local archaeological resources located on the project site.

(iii)Waiver Criteria: In order to preserve archeological resources, the Planning Authority may wave 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.

6. Exterior Lighting:

a. Site Lighting.

(i) All exterior site lighting, including lighting of building entrances, shall be City of Portland Land Use Code of Ordinances Chapter 14 Sec. 14-526 Rev. 3-22-12 14-764 full cutoff with no light emitted above the horizontal plane or spilled onto adjacent properties and streets. Illumination levels shall be adequate but not excessive for the safety, comfort and convenience of occupants and users of the site, and shall conform to applicable standards of Section 12 of the Technical Manual. ***All proposed building-mounted exterior site lighting will be full cutoff fixtures with no light emitted above the horizontal plane or spilled onto adjacent properties and streets. Proposed sidewalk lighting is consistent with site lighting specified in the City of Portland Technical manual. See sheet CG101 – Site Grading, Erosion Control and Utility plan for proposed sidewalk lighting locations (replace existing) and Site Details for site light base, pole and fixture information.***

(ii) For major or minor site plans within or abutting a residential use or zone where light from the proposed development may adversely impact adjacent residential properties, exterior lighting shall employ house-side shielding. ***The proposed project is not located within or abutting a residential use or zone where light from the proposed development may adversely impact adjacent residential properties.***

b. Architectural and Specialty Lighting.

(i) Architectural and specialty lighting, but not up-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 standards of Section 12 of the Technical Manual. ***Architectural and specialty lighting, when and if designed, will illuminate specific details or attributes only and shall meet the standards of Section 12 of the Technical Manual.***

(ii) 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. ***Uplighting is not proposed.***

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 standards contained in Section 12 of the Technical Manual.

c. Street Lighting.

(i) Municipal street lighting shall be adequate for the safety and comfort of pedestrians and motorists and, where applicable, shall conform to specific lighting district requirements, as specified in Section 10 of the Technical Manual. ***No new street lighting is proposed***

7. Noise and Vibration: Projected noise levels for all developments shall meet applicable zoning requirements.

a. HVAC and Mechanical Equipment.

(i) 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 comply with the following:

(a) Be located to the interior of the site, away from abutting residential properties;

(b) Be screened from view from any public street and from adjacent sites by structure walls, evergreen landscaping, fencing, masonry wall or a combination thereof.

New roof-top HVAC equipment and a new roof-top emergency generator are proposed. The new HVAC equipment is set back from the edge of the new roof and will not be visible from public street level. The new emergency generator will be located on the rear portion of the existing building roof off Lancaster Lane and will not be visible from public streets. The site does not abut any residential properties. See sheet AE201 Building Perspectives for street-level views of the project. See Exhibit 2 for HVAC and generator cutsheets.

(ii) In addition to the requirements listed above, emergency generators shall not be activated for more than one hour per week for routine maintenance and testing. Noise levels shall not exceed City standards except in designated emergencies or for emergency generator testing. Emergency generator testing is permitted only between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday. ***The emergency generator will not be activated for more than one hour per week for routine maintenance and testing. Noise levels will not exceed City standards except in designated emergencies or for emergency generator testing. Emergency generator testing will take place between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday.***

8. Signage and Wayfinding:

a. All signage shall meet applicable requirements of Division 22 of the City Code, in addition to provisions listed below:

(i) Historic Preservation: Any new sign or change in appearance of an existing sign located on a designated Historic Landmark or in a Historic District or Historic Landscape District shall be subject to the standards of Article IX and shall require a Certificate of Appropriateness. ***The proposed project is located in the Congress Street Historic District. Signage will require a Certificate of Appropriateness.***

If there is a conflict between the standards of Article IX and of Division 22 or other provisions of the City Code, the stricter standards shall apply.

(ii) Commercial Signage and Directional Traffic Signage: The size, scale, proportions, design, materials, placement and source and intensity of illumination of all permanent or freestanding building signs shall be designed to complement the subject building and its immediate context, as follows:

(a) Signage shall not conceal architectural features such as window sills, lintels or cornices from view. ***Proposed signage will not conceal architectural features.***

(b) Signs shall be designed and sized to fit the scale and proportions of the building and the feature or area of the building to which it is affixed. ***Proposed signage will fit the scale and proportions of the building and the feature or area of the building to which it is affixed.***

(c) Freestanding signs shall not adversely affect visibility at intersections or access drives. ***No freestanding signs are proposed.***

(d) Sign lighting shall be downwardly directed, internally illuminated and/or shielded to avoid glare and light spillover towards the sky. ***Sign lighting will be downwardly directed, internally illuminated and/or shielded.***

(e) Signs shall not be affixed to rooftop mechanicals, mechanical penthouses or other rooftop appurtenances unless those appurtenances have been screened and integrated into the architecture of the development. ***Signs will not be affixed to rooftop mechanicals, mechanical penthouses or other rooftop appurtenances.***

The signage design package is in the process of being completed. The applicant is requesting that signage review and approval be a condition of approval.

(iii) On-site directional traffic signage may be provided to enable users to safely and easily navigate into, around and out of the site. Directional signage shall not adversely affect visibility at intersections on or off the site. ***No new on-site directional traffic signage is proposed.***

(iv) Waiver Criteria: An applicant for site plan review that was either denied for failure to comply with the requirements of or is seeking a waiver as part of their site plan application from Section 14-369.5 shall meet the following standards for approval:

(a) Signs shall meet the requirements of Section 14-526 (e) 2. - Signage and Wayfinding;

(b) The size, scale, proportions, design, materials, placement, quantity and source and intensity of illumination of any approved signage shall be designed to complement and enhance the architectural attributes of the building(s) to which they are attached or to which they are visually related. In addition, such signs shall be appropriate to the scale and character of the neighborhood in which it is located and shall be designed to suit

the conditions from which it will be viewed, especially in relation to the distance, travel speed, and mode of travel of the viewing public;

(c) The signage shall either be of special design merit or shall respond to unique circumstances or characteristics associated with the subject property;

(d) The provisions of this subsection shall be limited to commercial uses in business or industrial zones, industrial uses or institutional uses.

9. Zoning Related Design Standards:

a. Development of certain types and/or proposed in certain zones, as specified below, are subject to design standards in addition to the provisions of Section 14-526 (a) in order to ensure designs that contribute to and enhance the goals and policies for specific districts of the City. The City of Portland Design Standards is listed in the City of Portland Design Manual, which is included by reference.

If the development is located in a historic district or associated with a historic landmark, City of Portland Historic Preservation standards shall supersede:

(i) B3, B5, B5-b, B7 Zones, and B6 and EWPZ Waterfront Zones: Development in the B3, B5, B5-b, B7 business zones and in the EWPZ waterfront zone shall be designed to support the development of dense, mixed-use neighborhoods with attractive, safe and convenient street level pedestrian environments as demonstrated by compliance with all applicable design standards listed in the Design Manual. ***The proposed project is located in the B-3 zoning district and is in compliance with applicable design standards listed in the Design Manual.***

(ii) RP Zone: Development in the RP Residential Professional zone where there is a discernable architectural style or character to existing structures in the immediate vicinity in which the development is proposed shall not be incongruous to that established style or character as demonstrated by compliance with all applicable design standards listed in the Design Manual. ***Not applicable. The proposed project is located in the B-3 zoning district.***

(iii) B1, B1-b, B2, B2-b Zones: Development in the B1, B1-b, B2 and B2-b business zones shall provide an established street wall with entrances and public portions of the building oriented to and directly accessible from the public sidewalk and shall be designed and scaled to be compatible with surrounding residential and commercial development as demonstrated by compliance with all applicable design standards listed in the Design Manual. ***Not applicable. The proposed project is located in the B-3 zoning district.***

(iv) USM Overlay Zone: Development in the University of Southern Maine (USM) Overlay Zone shall be designed to support a cohesive campus environment while integrating with and respecting the residential character of surrounding neighborhoods as demonstrated by

compliance with all applicable design standards listed in the Design Manual. ***Not applicable. The proposed project is located in the B-3 zoning district.***

(v) Residential Developments: Residential developments, as listed below, shall integrate with and respect the character of surrounding residential development in terms of architectural form, landscaping and open space, façade materials, roof pitch, massing and height as demonstrated by compliance with all applicable design standards as listed in the Design Manual. ***Not applicable. The proposed project is located in the B-3 zoning district.***

(vi) Residential Development in the following districts: ***Not applicable. The proposed project is not a residential development.***

(a) Planned Residential Unit Developments (PRUDS) in the R3, R5 and R5a residential zones;

(b) Multiple family and multiplex developments in the R5 zone;

(c) Small residential lot development of single family homes in the R5 zone;

(d) Multiple family and multiplex development in the R6 zone on lots of 10,000 square feet or less.

(vii) Residential Development of the following types: ***Not applicable. The proposed project is not a residential development.***

(a) Manufactured housing parks;

(b) Two-family and multiple family housing not already specified in (a) above;

(c) Special needs independent living units;

(d) Lodging houses;

(e) Bed and breakfasts;

(f) Emergency shelters.

10. Reserved.

(e) Conditions

1. Notwithstanding the provisions of subsections (a) through (d) of this section, the Planning Authority or Planning Board may impose any condition upon its approval of any site plan: (1) to minimize or abate any adverse impact of the proposed development on the value or utility of other private property, or on public property or facilities, to the extent feasible; or (2) to bring the development into compliance with the requirements of subsections (a) through (d); or (3) to minimize any other adverse environmental effects of the proposed development. Such conditions

may include, but are not limited to, enclosing of equipment or operations, imposing limitations upon the hours of operation, or requiring the employment of specific design technologies, modes of operation, or traffic patterns, and may also include the construction of, or financial contribution to the construction of, on- or off-premises public facilities including, without limitation, streets and sewers impacted by the development. All such conditions shall be consistent with the purposes set forth in section 14-521.

SECTION 6 – EXISTING & PROPOSED EASEMENTS

Att. 6

Existing Easements - Existing easements are shown on the topographic survey and described in copies of the deeds located in Exhibit 1.

Proposed Easements - No new easements are proposed.

SECTION 7 – REQUEST FOR WAIVERS

Att. 7

1. The applicant is requesting a waiver for planting street trees. Site constraints (underground electrical utilities) prevent the planting of street trees in the City right-of-way or within the site. Therefore, the applicant will contribute to the City of Portland Tree Fund an amount proportionate to the cost of 3 street trees, which is required for approximately 150' of new street frontage on Center Street and Free Street.

SECTION 8 – FINANCIAL AND TECHNICAL CAPACITY

Att. 8

Financial Capacity

Statement of Probable Cost:

1. Construction Costs	\$ 7,171,296
2. Administrative Cost & Reserve	\$ 1,038,470
3. Fees and Services	<u>\$ 926,267</u>
Total	\$ 9,136,033

See Exhibit 4 for financial capacity information.

Technical Capacity

Tedlum LLC and The Asylum are working with the following firms to complete this project:

1. Architecture & Civil, Structural, Mechanical, Electrical Engineering:

WBRC Architects · Engineers
30 Danforth Street
Portland, Maine 04101

2. Boundary and Topographic Survey

Owen Haskell Inc.
390 US Route 1 – Unit 10
Falmouth, Maine 04105

3. Geotechnical Engineering

SW Cole Engineering Inc.
286 Portland Road
Gray, Maine 04039

4. Acoustical Engineer

CAVANAUGHTOCCI
327 Boston Post Rd
Sudbury, MA 0177
<http://www.cavtocchi.com/>

See Exhibit 5 for technical capacity information.

SECTION 9 – TRAFFIC ANALYSIS

Att. 9

Because the proposed project will result in fewer than 100 additional trips, a traffic analysis is not required.

SECTION 10 – CONSTRUCTION MANAGEMENT PLAN

Att. 10

See sheet PH101 – Site Construction Plan.

SECTION 11 – SIGNIFICANT NATURAL FEATURES

Att. 11

There are no significant natural features located on the Cumberland County Civic Center site. The entire site is currently developed.

SECTION 12 – STORMWATER MANAGEMENT PLAN

Att. 12

The existing and proposed land cover on the project parcel is entirely impervious. Therefore, pre-development and post-development stormwater peak flows from site will not change as a result of this project. The quality of stormwater runoff from the site will improve from pre-development conditions because 2520 SF of existing asphalt parking lot will be replaced with roof area. New roof drains will be tied into the catch basin at the intersection of Center Street and Free Street, which connects into the City's sanitary sewer system. When the stormwater and sanitary sewer system is separated in the future, then the roof drain will tie into the City's stormwater system.

SECTION 13 – CONSISTENCY WITH MASTER PLANS

Att. 13

The proposed project is consistent with all applicable City master plans.

SECTION 14 – UTILITY CAPACITY TO SERVE

Att. 14

Water Capacity: See Exhibit 3 for a copy of the letter from the Portland Water District regarding capacity to provide potable and fire protection water for this project.

Wastewater Treatment Capacity: See Exhibit 3 for a copy of the letter from the Portland Water District regarding capacity of the East End Treatment Plant to treat wastewater from this project.

Wastewater Capacity: See Exhibit 3 for a copy of the City of Portland Wastewater Capacity application.

SECTION 15 – SOLID WASTE GENERATION AND MANAGEMENT

Att. 15

See Exhibit 3 for a copy of the capacity to serve letter from Pine Tree Waste Services.

SECTION 16 – FIRE SAFETY

Att. 16

See Section 1 for the Portland Fire Department Site Review Checklist.

SECTION 17 – CONFORMITY WITH APPLICABLE DESIGN STANDARDS

Att. 17

The proposed site improvements are consistent with the B-3 Downton Business Zone standards and the Downtown Urban Design Guidelines in the City of Portland Design Manual.

SECTION 18 – EMISSIONS REQUIREMENTS

Att. 18

See Exhibit 2 for emergency generator and HVAC equipment information.



April 19, 2016

Rick Knowland, Senior Planner
City of Portland Planning Division
389 Congress Street
Portland, ME 04101

**Re: 4071.10 – The Asylum – Level III Development Review Application
Response to City Staff Comments**

Dear Rick;

Below are our responses to staff comments that you provided to us on April 14 for the proposed Asylum project.

Staff Comments

1. Provide info on how you are going to meet the B-3 noise standards such as special building insulation, design techniques, etc.? **The owner has retained Cavanaugh Tocci Associates as an acoustical consultant on the project. A full list of techniques taken to meet the noise requirements will be provided when they have finished their work, but will include vibration isolation on all of the mechanical equipment, specialty acoustical wall, ceiling and floor treatment inside the event space, special acoustical glazing and additional mass/insulation in the walls.**

2. Provide more info on the canopies that stick out into the street r-o-w. The Center Street one is particularly large. For example, the materials, design and minimum clearance height for pedestrians **All three canopies will be design to look and act the same, but will be of varying lengths as outlined below. The canopy material will be a light grey colored metal panel on the fascia and soffit.**

Sports Bar Canopy: Canopy is designed at 8'-6" clear above the sidewalk, is 21'-9" in length and protrudes 2'-6" the Lancaster Lane side and tapers to 1'-0" at the other end.

Main Entry Canopy: Canopy is designed at 12'-0" clear above the sidewalk, is 49'-6" in length and protrudes 5'-0" at the Lancaster Lane side and tapers to 4" at the other end.

Free Street Canopy: Canopy is designed at 8'-6" clear above the sidewalk, is 56'-8" in length and protrudes 4'-0" at the Center Street side and tapers to 1" at the other end.

www.wbrcae.com

B A N G O R

44 Central Street

Bangor, Maine 04401-5116

207.947.4511 voice 207.947.4628 fax

P O R T L A N D

141 Preble Street

Portland, Maine 04101

207.828.4511 voice 207.828.4515 fax

S A R A S O T A

8130 Lakewood Main Street, Suite 210

Lakewood Ranch, Florida 34202

941.556.0757 voice 941.556.0759 fax

FL COA#AA260001395 & 27389

3. What is the seating/standing capacity for the existing facility in comparison to the existing facility? What is the seating/standing capacity of each floor for the new facility? What would be the expected attendance of a major event/concert at the new facility?

Please see chart below for occupancy comparison from existing to new facility. Please note existing occupancies are approximate. The new main event space has a ticket able occupancy of 1,009 people include the pre-function space. This could be occurring at the same time as a small event in the sports bar or basement event space.

	Existing Occupancy	Proposed Occupancy
First Floor		
Kitchen	4	4
Sports Bar	62	62
Pre-Function Area	NA	130
Main Event Space	~475	579
Storage/Stage/Staff Only Areas	46	64
First Floor Total	587	839
Basement Level		
Event Space	160	170
Office Space	6	6
Green Rooms	4	5
Pre-Function Space	NA	113
Storage/Staff Only Areas	12	24
Basement Level Total	182	318
Balcony Level		
Balcony Fixed Seats	NA	187
Balcony Standing	NA	113 (max per 300 total in balcony)
Balcony Total	NA	300 max occupancy
Project Total	769	1,457 Occupants

4. A traffic analysis needs to be done. How much vehicle traffic is the facility going to generate? An analysis of Free and Center is needed. Tom Errico (Traffic Consultant) can be contacted for specifics. The owner has retained Gorrill-Palmer Consulting Engineers to prepare a traffic analysis for the project and is currently coordinating work with Tom Errico.

5. Can the gas line meter and line be placed on Lancaster Lane rather than Center Street. Gas meter on Center Street will crowd the sidewalk. **We are working with Scott Carpenter at Unutil and plan to install the gas meter off Lancaster Lane. This change will be reflected in the revised site utility plan.**

6. Sidewalk ramps must meet City standards. City does not use a clay brick ramp. Check City technical standards. **The detail for the ADA ramp (A1/C503) is consistent with the City's Sidewalk Ramp Detectable Warning Panel (Historic Districts and Landscapes) (I-7A). The label on sheet CP101 – Site Layout Plan has been revised to clearly indicate ramp design.**

7. Street lighting. We will have specific comments on street lighting shortly. **The proposed project is located in the Downtown Street Lighting District. The proposed site lights are Downtown District Pedestrian Scale Light – Style 1 (City Detail X-3B) on a precast concrete base in close proximity to the existing site lights.**

8. What exterior building lighting is proposed including lighted signage? **Please see attached HB packet and cut sheets for images and locations of lighting and signs.**

- **2 internally lit building signs (one on Free Street and one on Center Street)**
- **1 internally lit canopy sign**
- **LED recessed strip lights in the canopy and vertically on the building façade as shown**
- **LED wall pack at service door and alley**

9. Parking arrangements to meet parking requirements. **The applicant has been working with United Parking Partners to provide necessary parking as required in their managed surface parking lots at 51-59 Free Street and One Portland Square. A letter was provided with the application materials.**

10. Any thought of enclosing the generator in some way to limit noise. **The generator will be specified with a sound attenuated enclosure to reduce noise. Periodic testing can be on an automatic schedule for midday when the building has lower occupancy and is less likely to disturb the neighbors.**

11. HP is reviewing the building facade but it would be helpful to have a list of the building materials. **Please see attached HB packet for images and locations of materials.**

- **Brick to match existing: Bedford Matt 12" Norman Brick, running bond pattern**
- **24" wide x 48" tall limestone panel in vertical running bond pattern**
- **24" wide x 48" tall light beige metal panel in vertical running bond pattern to match limestone**
- **72" wide x 18" tall dark grey metal panel in stacked bond pattern**
- **Kawneer 1600UT and 451/451T Curtainwall and Storefront with 1 ¾" glazing**

12. Utility ability to serve letters for City waste water and CMP.

I understand that David Margolis-Pineo has reviewed the wastewater application and will be forwarding his letter to your office shortly regarding the capacity of the City's sanitary sewer system to convey wastewater from the project site. The Portland Water District provided a letter stating that the East End Wastewater Treatment facility has the capacity to treat the anticipated increase in wastewater production following the completion of this project. A copy of their letter was provided in the application packet.

We are currently working with Jamie Cough at CMP and plan to tie in to the Pleasant Street Loop, which has adequate capacity to serve the project. A new 4'x6' pull box will be installed at the intersection of Center Street and Lancaster Lane and in Lancaster Lane near the kitchen addition to provide primary service to the new transformer.

Please contact me if you have any questions or would like additional information. Thank you.

Best regards,

A handwritten signature in black ink, appearing to read 'J. Kenney', with a long horizontal flourish extending to the right.

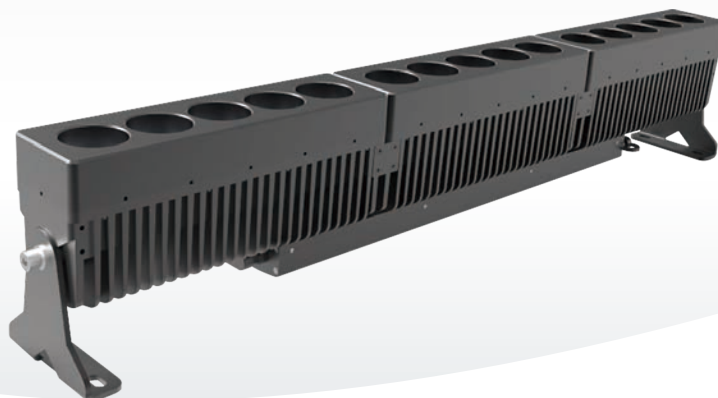
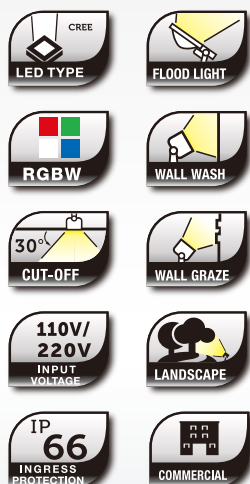
John Kenney P.E. LEED^{AP}
Senior Engineer, Firm Associate

CC: Valerie Levy, Krista Newman, Laurie Willey, JRB, MAC, SJL, RMF

TransFormers Series TF3C



StrongLED®
Switch on to awesome



FLOODLIGHT • WALL WASHER
WALL GRAZER

TF3C-L0852-0015XHM-00

Features:

- Elegant high power outdoor RGBW LED floodlight for architectural, monument, bridges and landscape lighting applications.
- High power Cree in whites and RGBW. Output power up to 120W.
- Brightness control of 256 and 10 bits contrast control level for smooth and consistent color change effect.
- Precision die-cast aluminum housing with efficient heat dissipation fins and anti-glare cover on deep-seated light emitters.
- Stainless steel mounting frame and tilt adjustable up to 180°.
- Customizable housing color and selection of other models in different power configurations.
- AC110V ~ 220V input; DMX control; Ingress Protection IP66.

Technical Specification:

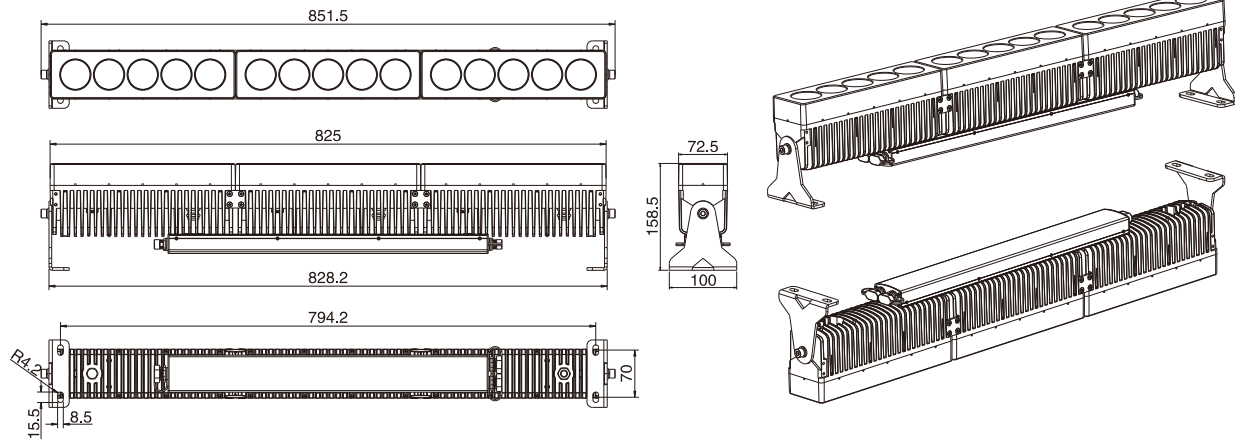
LED Type	CREE XM-L / XM-L2 (4 IN 1)
LED Quantity	15 (8W 700mA)
Power Rating	120W
Luminous Flux	5250 lm
Luminous Efficacy	44 lm/W
Contrast Level	10bit*4 (1024*1024*1024*1024)
Brightness Level	256
Input Voltage	AC110V~220V
Operating Temperature	-40°C~50°C
Operating Humidity	10%~95%RH
Material(Housing)	Powder coated die cast aluminum with clear tempered glass diffuser on steel frame
Cable Interconnect	Signal cable: PVC cable with waterproof connectors ≥ 500mm; Power cable: Neoprene ≥ 500mm
Dimension (without mounting bracket)	851.5*100*158.5 mm
Weight	13kg
Pixel Quantity	2
Control Gear	DMX
Ingress Protection	IP 66
Life Span	≥ 50000 hours
Application	Outdoor

Colour	Standard Specification
5000K	8700 lm
4000K	7500 lm
3000K	6375 lm
2700K	5790 lm
2400K	-
2200K	-
1700K	-
Blue	-
Amber	-
RGB	-
RGB + White	5250 lm

LED Type	Beam Angle
CREE XP-E2	-
LUMILEDS REBEL	-
CREE XM-L / XM-L2	10° / 15° / 20° / 25° / 30° / 60° / 10°*40° / 10°*70°

Dimension Details:

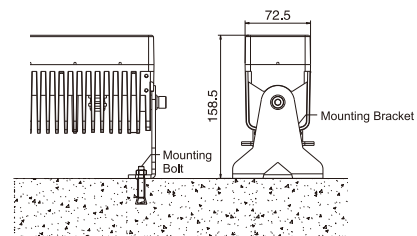
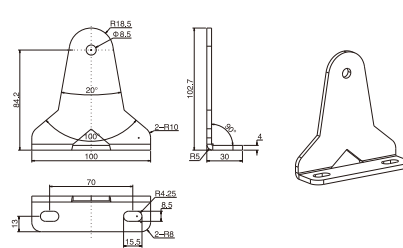
>>> unit: mm



Installation Details:

Mounting Bracket: 1PCS

Rotation Angle Curve:



Photometry:

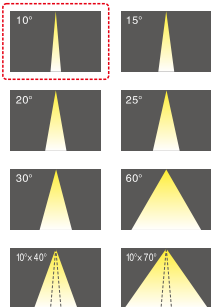
Lamp Source: CREE XM-L / XM-L2

Beam Angle: 11°

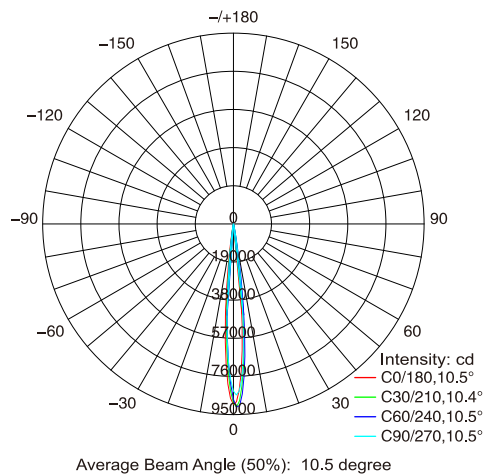
Field Angle: 18°

Cut-off Angle: 30°

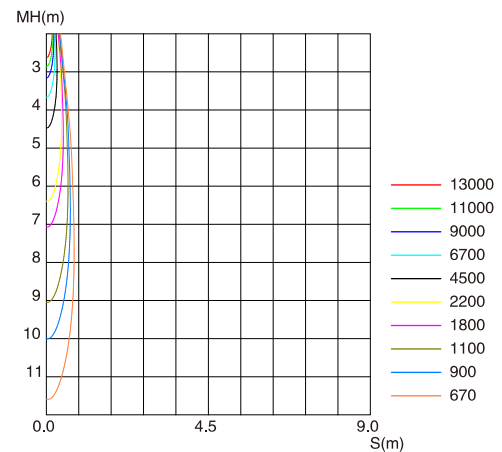
Beam Angle Curve:



Candela Distribution Curve

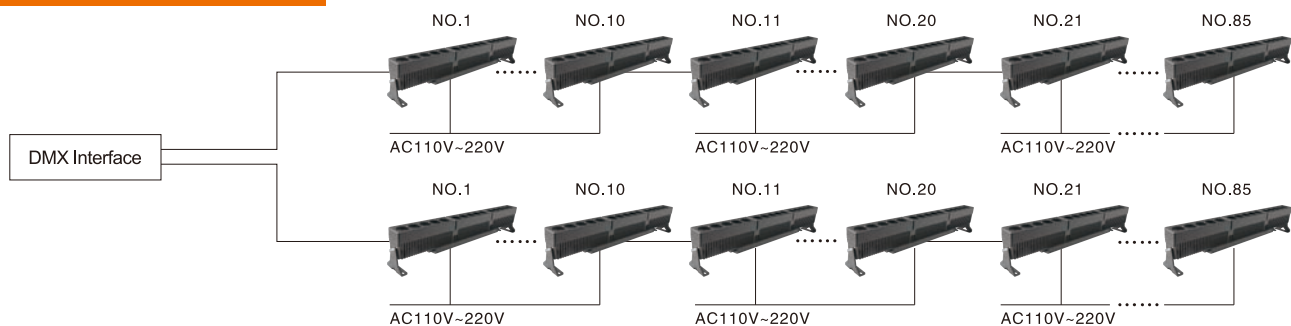


Isolux Curve (lx)



Note: Test data is based on TF3C-L0852-0015XHX-00 only.

System Schematic Diagram:



(Illustration: Each light fixture represents two pixel)

StrongLED®



STRONGLIGHTING SYSTEM GROUP
 STRONG LED LIGHTING SYSTEMS (CAYMAN) CO., LTD.
 SHANGHAI GRAND CANYON LED LIGHTING SYSTEMS CO., LTD.
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 NO. 2888, Linhu Avenue, Fohu Economic Development Zone,
 Wujiang City, Jiangsu Province, China 215211
 ☎ +86-512-8286 8008 ☎ +86-512-8286 8001
 ✉ global@strongled.com

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 All values are typical values measured under laboratory conditions. Due to continuous
 improvements and innovations, specifications may change without prior notice.

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TRF-16-04-15-V1

DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

SPECIFICATION FEATURES

Construction

Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 7W and 18W. The large housing is available in the 26W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 7W models operate in -40°C to 40°C [-40°F to 104°F]. 18W and 26W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 90% of initial

light output after 72,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

Finish

Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

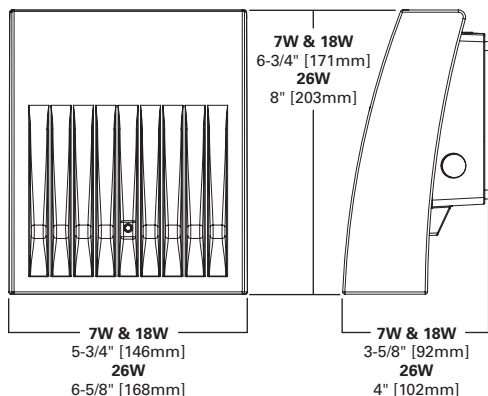
Five-year warranty.



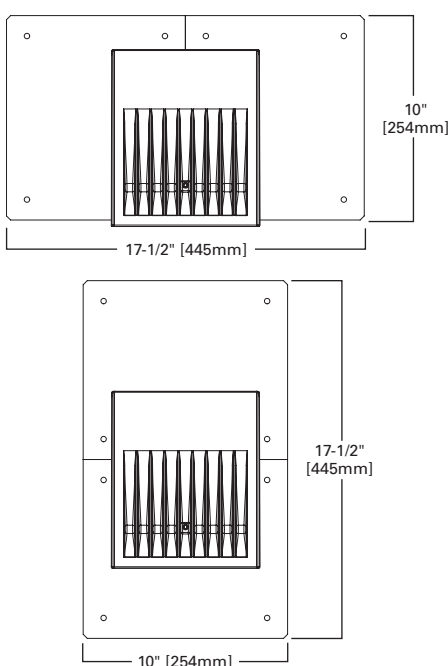
XTOR CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA

UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingress Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR1A/XTOR2A=0.34
XTOR3A=0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1A Model		
25°C	> 92%	> 290,000
40°C	> 92%	> 290,000
50°C	> 91%	> 270,000
XTOR2A Model		
25°C	> 91%	> 270,000
40°C	> 90%	> 260,000
50°C	> 88%	> 225,000
XTOR3A Model		
25°C	> 91%	> 280,000
40°C	> 91%	> 270,000
50°C	> 89%	> 240,000

LUMENS - CRI/CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens (Wall Mount)	722	1,633	1,523	2,804	2,284
Delivered Lumens (With Flood Accessory Kit) ¹	468	1,060	978	2,168	1,738
B.U.G. Rating ²	B0-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0
CCT (Kelvin)	5,000	5,000	3,500	5,000	3,500
CRI (Color Rendering Index)	65	65	70	65	70
Power Consumption (Watts)	7W	18W	18W	26W	26W

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

CURRENT DRAW

Voltage	Model Series		
	XTOR1A	XTOR2A	XTOR3A
120V	0.05A	0.15A	0.22A
208V	0.03A	0.08A	0.13A
240V	0.03A	0.07A	0.11A
277V	0.03A	0.06A	0.10A
347V	0.025A	0.058A	0.082A

ORDERING INFORMATION

Sample Number: XTOR2A-N-WT-PC1

Series ¹	LED Kelvin Color	Housing Color	Options (Add as Suffix)	Accessories (Order Separately)
XTOR1A=Small Door, 7W XTOR2A=Small Door, 18W XTOR3A=Small Door, 26W	[Blank]=Bright White (Standard) 5000K N=Neutral Warm White, 3500K ²	[Blank]=Carbon Bronze (Standard) WT=Summit White	PC1=Photocontrol 120V ³ PC2=Photocontrol 208-277V ^{3,4} 347V=347V ⁵ HA=50°C High Ambient ⁵	WG/XTOR=Wire Guard ⁶ XTORFLD-KNC=Knuckle Floodlight Kit ⁷ XTORFLD-TRN=Trunnion Floodlight Kit ⁷ XTORFLD-KNC-WT=Knuckle Floodlight Kit, Summit White ⁷ XTORFLD-TRN-WT=Trunnion Floodlight Kit, Summit White ⁷ EWP/XTOR=Escutcheon Wall Plate, Carbon Bronze EWP/XTOR-WT=Escutcheon Wall Plate, Summit White

NOTES: 1 DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. 2 XTOR1A not available in 3500K. 3 Photocontrols are factory installed. 4 Order PC2 for 347V models. 5 Thru-branch wiring not available with HA option or with 347V. 6 Wire guard for wall/surface mount. Not for use with floodlight kit accessory. 7 Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

STOCK ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A=7W, 5000K, Carbon Bronze	XTOR2A=18W, 5000K, Carbon Bronze	XTOR3A=26W, 5000K, Carbon Bronze
XTOR1A-WT=7W, 5000K, Summit White	XTOR2A-N=18W, 3500K, Carbon Bronze	XTOR3A-N=26W, 3500K, Carbon Bronze
XTOR1A-PC1=7W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT=18W, Summit White	XTOR3A-WT=26W, Summit White
	XTOR2A-PC1=18W, 120V PC, Carbon Bronze	XTOR3A-PC1=26W, 120V PC, Carbon Bronze

5-DAY QUICK SHIP ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A-WT-PC1=7W, 5000K, Summit White, 120V PC	XTOR2A-PC2=18W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2=26W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1=18W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1=26W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2=18W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2=26W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT=18W, 3500K, Summit White	XTOR3A-N-WT=26W, 3500K, Summit White
	XTOR2A-N-PC1=18W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1=26W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2=18W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2=26W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WHT-PC1=18W, 3500K, Summit White, 120V PC	XTOR3A-N-WHT-PC1=26W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2=18W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2=26W, 3500K, Summit White, 208-277V PC

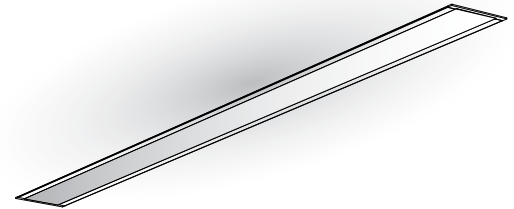
Client _____ Project name _____

Order# _____ Type _____ Qty _____

FEATURES AND BENEFITS

Physical :

- Aluminum extrusion housing, 2" wide
- Available in 1', 2', 3', 4', 5', 6', 7' or 8' sections
- Continuous runs available in 1' increments
- Durable polyester powder coat finish for trim
- Flange, flangeless and spackle flange trim options available
- Easy installation
- Extruded acrylic lens
- Illuminated corners available for custom configurations, consult factory for availability and orders
- Tool-less system for reflector assembly and control gear access
- Suitable for use with drywall ceiling and metal pan ceilings (millwork ceilings)
- Compatible with motion sensors
- CCEA option available
- Dry location only



lumentalk

EcoSystem.
Enabled

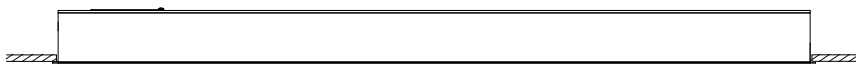
Performance :

- Available in 2700K, 3000K, 3500K, 4000K or RGB color mixing
- 87 lumens per watt (delivered, RO 4000K)
- CRI value: 80+
- Binning within a 3 step MacAdam ellipse
- Lumen maintenance: 100,000 hrs [L70 @ 25° C]
- Lumen measurements comply with LM - 79 - 08 standard
- Resolution per foot or per fixture (configured with LumenID V3 software & RDM)
- Operating temperatures: -25° C to 50° C [-13F to 122F]

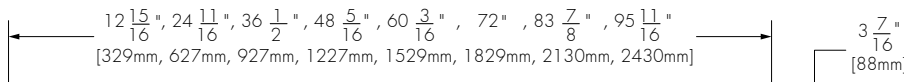
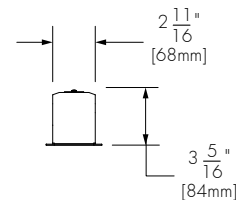
Lumens / 4ft	RO	HO
2700K	1831	3466
3000K	1871	3541
3500K	1910	3615
4000K	1969	3727
RGB	407	N/A

Electrical :

- Line voltage luminaire for 100 to 277V
- 6W/ft Regular Output version
- 12W/ft High Output version
- Dimming options for white light: 0-10 volt, DMX/RDM enabled, DALI, Lumentalk or Lutron® EcoSystem® enabled
- 6W/ft optional RGB source, DMX/RDM enabled
- Quick connectors for continuous runs

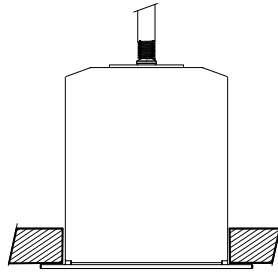


FRONT VIEW



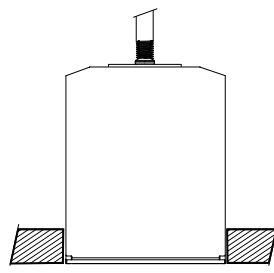
BOTTOM VIEW
FLANGE TRIM OPTION SHOWN

TRIM OPTION



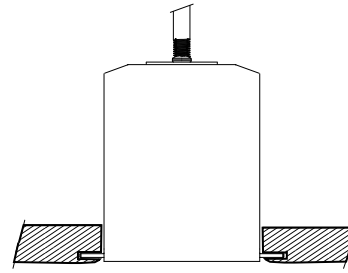
FG

Flange trim option



FGL

Flangeless trim option

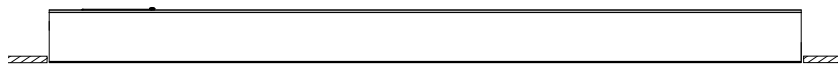


SFG

Spackle Flange trim option

TRIM OPTION DIMENSIONS

Flangeless and Spackle flange trim options



FRONT VIEW

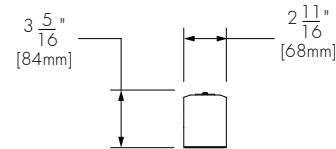
12 $\frac{1}{16}$ " , 23 $\frac{13}{16}$ " , 35 $\frac{5}{8}$ " , 47 $\frac{7}{16}$ " , 59 $\frac{5}{16}$ " , 71 $\frac{1}{8}$ " , 83" , 94 $\frac{13}{16}$ "
[306mm, 605mm, 905mm, 1205mm, 1507mm, 1807mm, 2108mm, 2408mm]



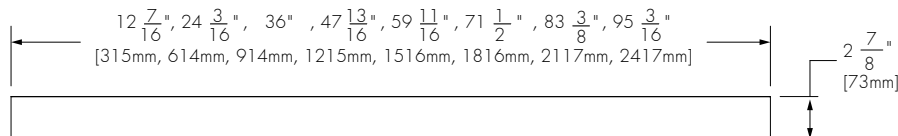
BOTTOM VIEW

FLANGELESS TRIM OPTION SHOWN

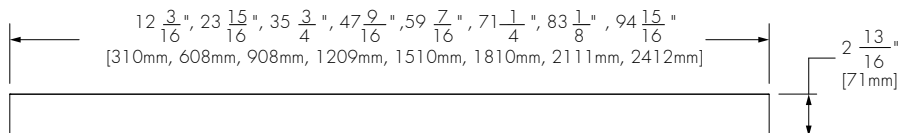
(USE SAME DIMENSIONS FOR SPACKLE FLANGE HOUSING)



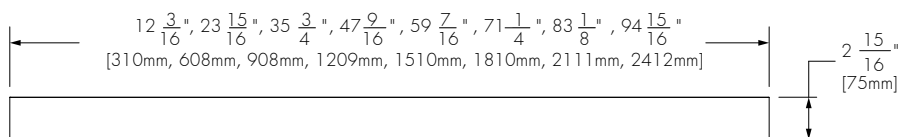
CEILING OR WALL CUTOUT DIMENSIONS



FLANGE CEILING OR WALL CUTOUT DIMENSIONS

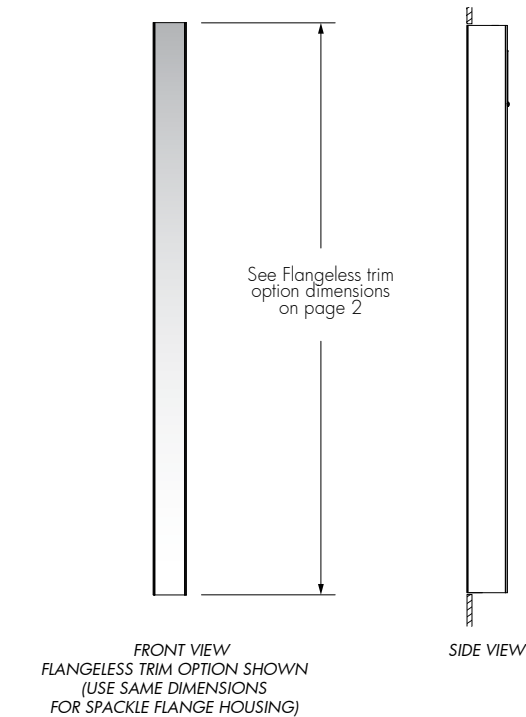
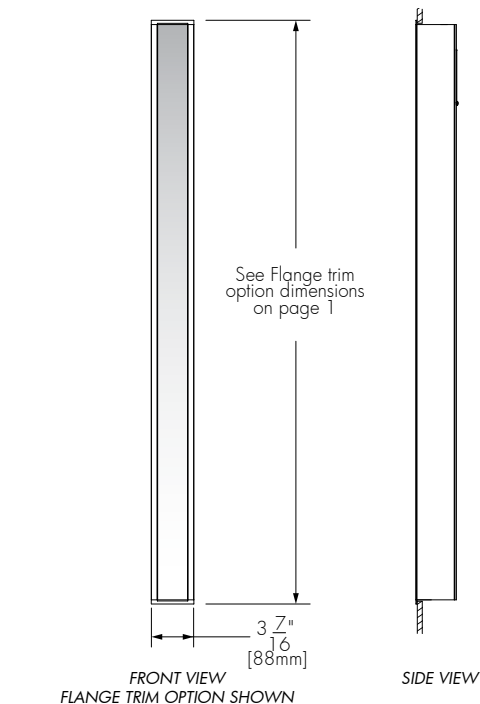


FLANGELESS CEILING OR WALL CUTOUT DIMENSIONS



SPACKLE FLANGE CEILING OR WALL CUTOUT DIMENSIONS

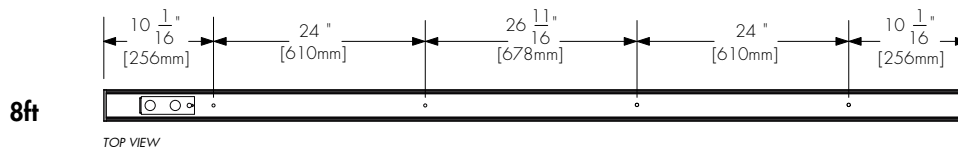
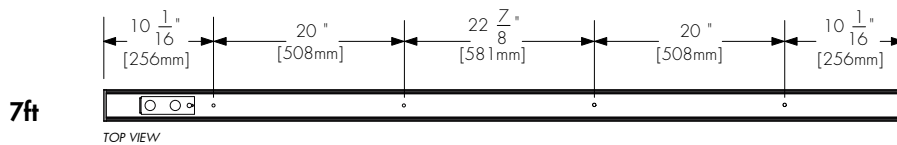
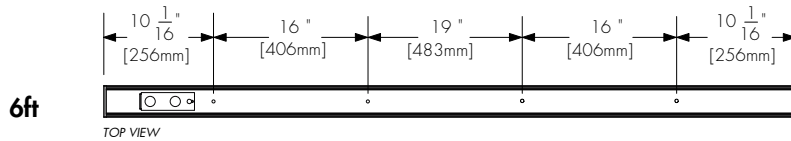
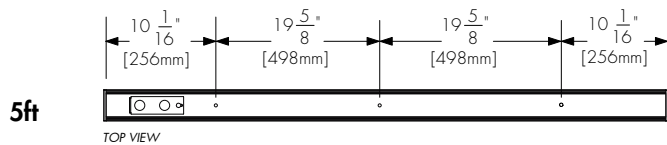
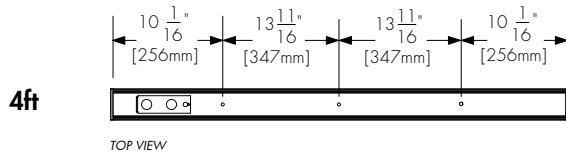
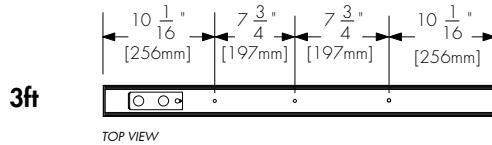
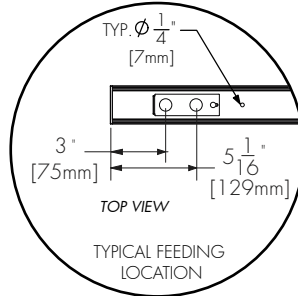
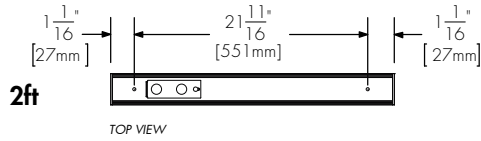
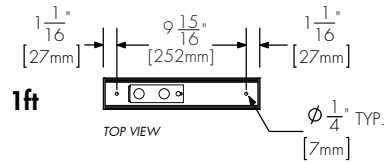
VERTICAL RECESSED MOUNTING OPTION



THREADED ROD MOUNTING HOLE PATTERN

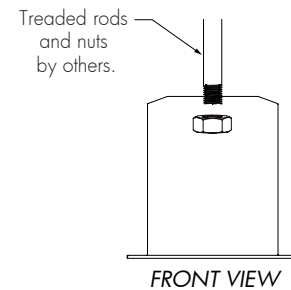
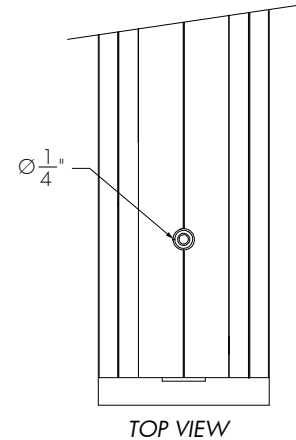
Flangeless trim option shown

RECESSED
SINGLE UNITS
CONTINUOUS RUNS
SHAPES



THREADED ROD MOUNTING DETAIL

Flangeless, spackle flange and flangeless trim options

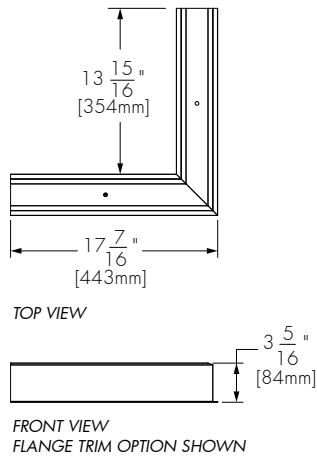


LIT JOINER TYPES AND DIMENSIONS

Refer to the SHAPE ordering page

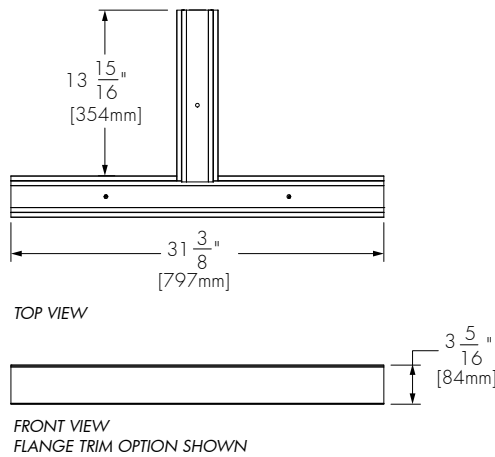
HCNR

Horizontal 90°
Used to build square,
rectangle and "L" shapes
(Equivalent of a 4' fixture)



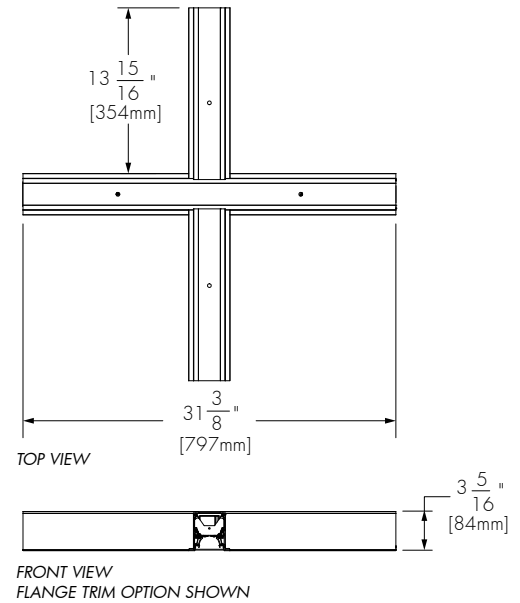
TCNR

Tee 90°
(Equivalent of a 6' fixture)



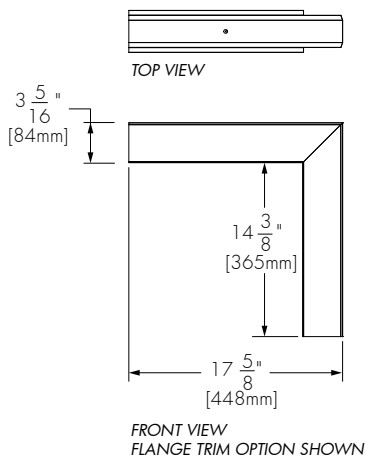
CCNR

Cross 90°
(Equivalent of an 8' fixture)



ICNR

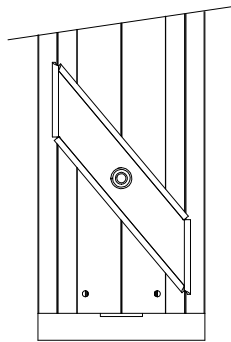
Inside 90°
For Ceiling to Wall
Configurations
(Equivalent of a 4' fixture)



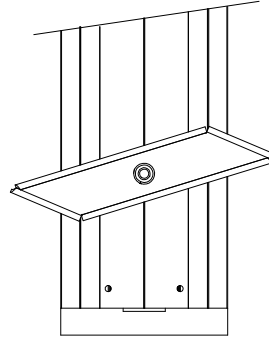
ROTATING CROSSBAR MOUNTING OPTION

Available with Flange trim option only

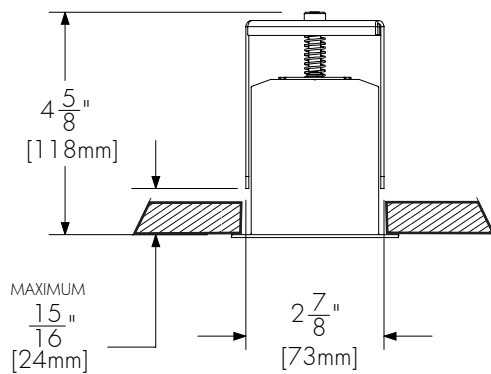
RECESSED
SINGLE UNITS
CONTINUOUS RUNS
SHAPES



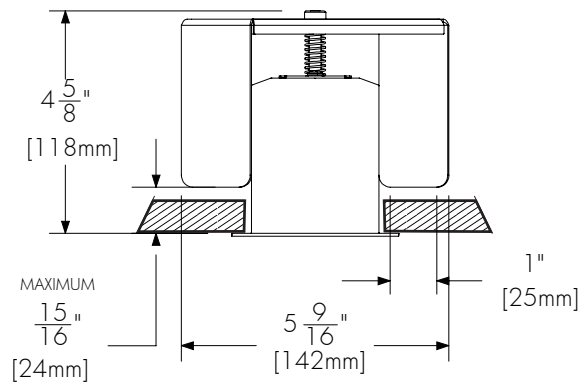
TOP VIEW
ROTATING CROSSBAR CLOSED



TOP VIEW
ROTATING CROSSBAR OPENED



SIDE VIEW
ROTATING CROSSBAR CLOSED



SIDE VIEW
ROTATING CROSSBAR OPENED

ACCESSORIES

Order separately

RECESSED
SINGLE UNITS
CONTINUOUS RUNS
SHAPES

Control Systems:

- LTO2** Lumentouch is a wall mount DMX 512 controller keypad.
- LCU** Lumencue is a USB / mini SD DMX 512 controller.
- LID** LumenID is a diagnostic and addressing DMX 512 controller.
It must be specified on all DMX applications.
Refer to LID specification sheet for details.
- LTN** Lumentone is a simple pre-programmed DMX 512 controller
with a push button rotary dial and live feedback.

Control Boxes:

- CBX** DMX/RDM control box.
Up to six power and data outputs to fixtures or fixture runs.
Ethernet enabled option.
Refer to CBX specification sheet for details.

RESOLUTION DETAILS

Applicable for DMX/RDM control option only.

Fixture resolution can be configured on-site within the LumenID V3 software.

A DMX/RDM enabled CBX is required.

Resolution per foot: each foot is addressed independently

Total number of DMX addresses required per fixture	Single units								
		1ft	2ft	3ft	4ft	5ft	6ft	7ft	8ft
	WH	1	2	3	4	5	6	7	8
	RGB	3	6	9	12	15	18	21	24

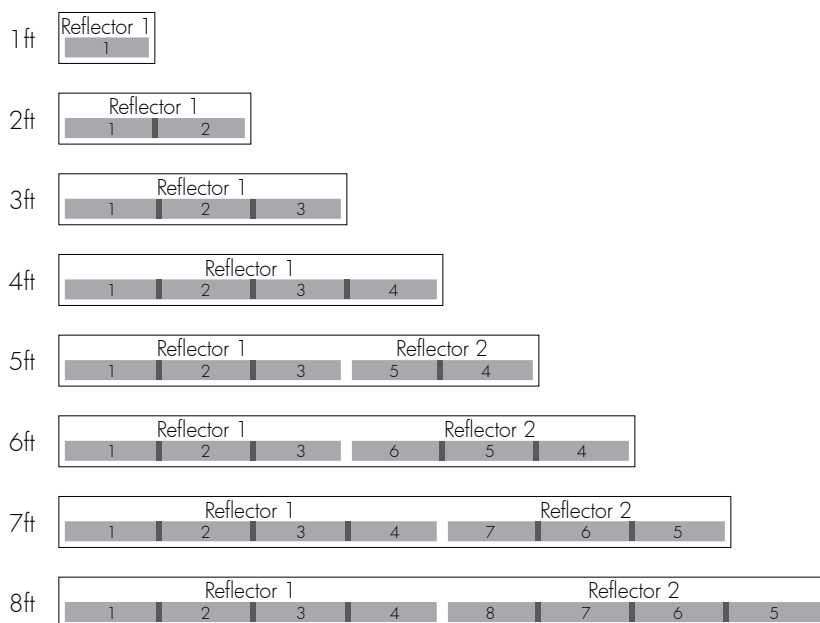
Lit joiners			
HCNR	TCNR	CCNR	ICNR
4	6	8	4
12	18	24	12

Resolution per fixture: each reflector is addressed independently

Total number of DMX addresses required per fixture	Single units		Lit joiners				
		1ft to 4ft	5ft to 8ft	HCNR	TCNR	CCNR	ICNR
	WH	1	2	1	2	2	1
	RGB	3	6	3	3	3	3

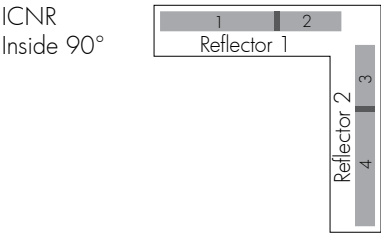
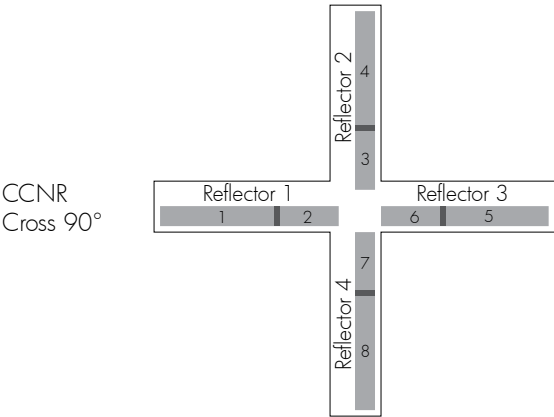
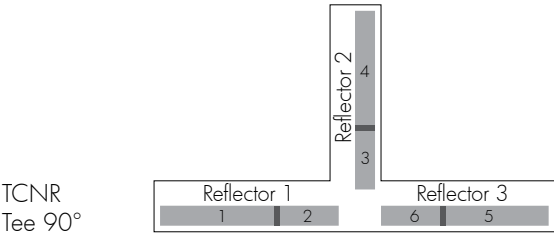
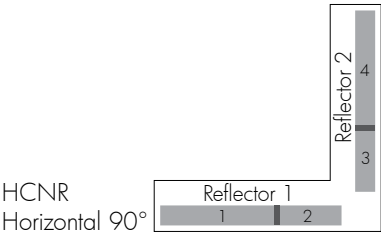
Board and reflector layout per fixture length

SINGLE UNITS



RESOLUTION DETAILS - continued

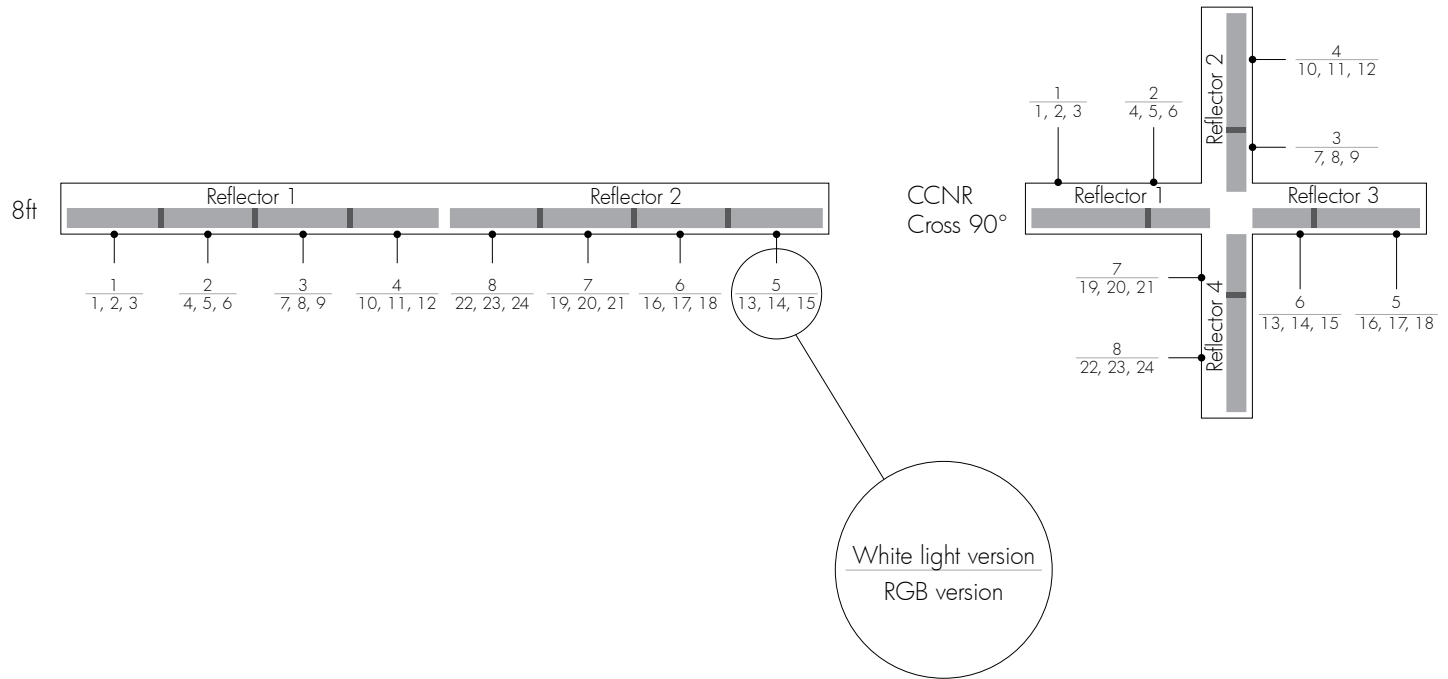
LIT JOINERS IN SHAPES



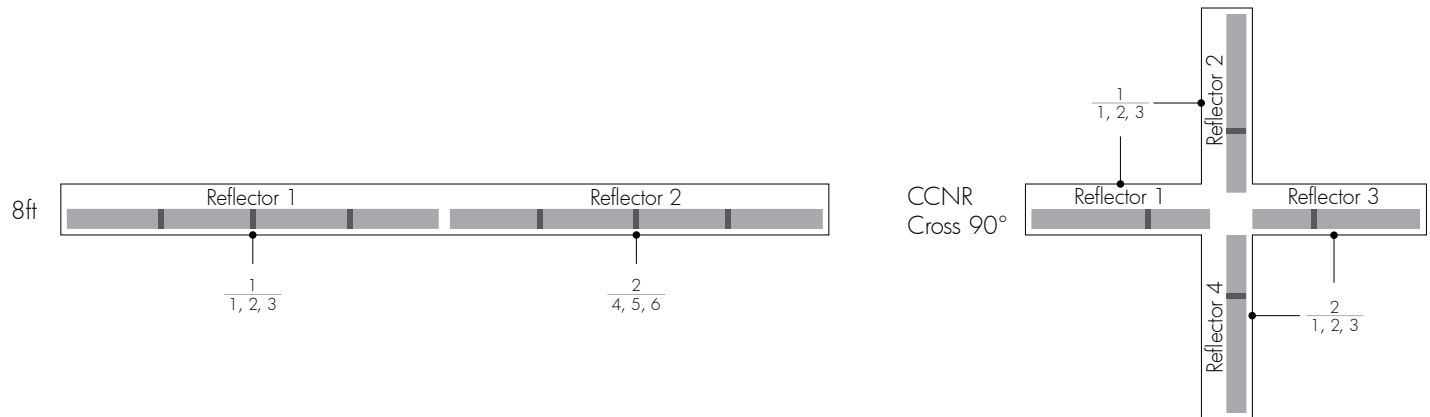
RESOLUTION DETAILS - continued

RECESSED
SINGLE UNITS
CONTINUOUS RUNS
SHAPES

Example: DMX addresses, resolution per foot, 8ft fixture and CCNR lit joiner



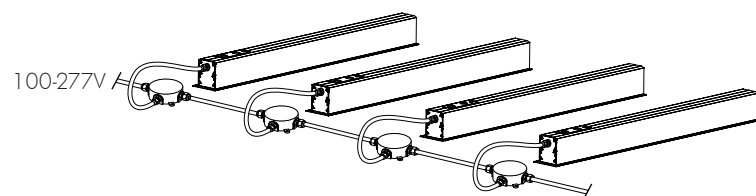
Example: DMX addresses, resolution per fixture, 8ft fixture and CCNR lit joiner



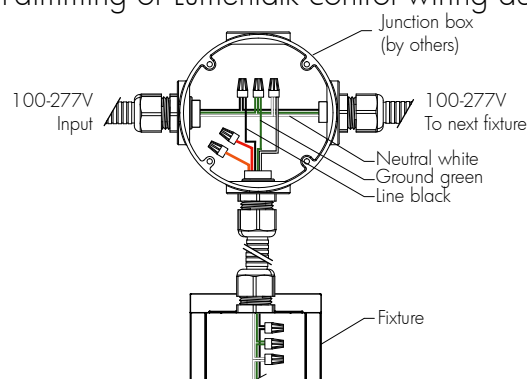
TYPICAL WIRING DIAGRAMS

Non-dimming or Lumentalk control options

Single units, daisy chain configuration
Flange option shown

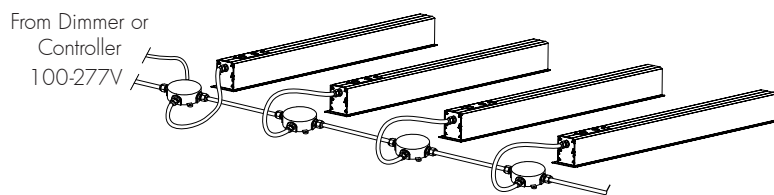


Non-dimming or Lumentalk control wiring detail



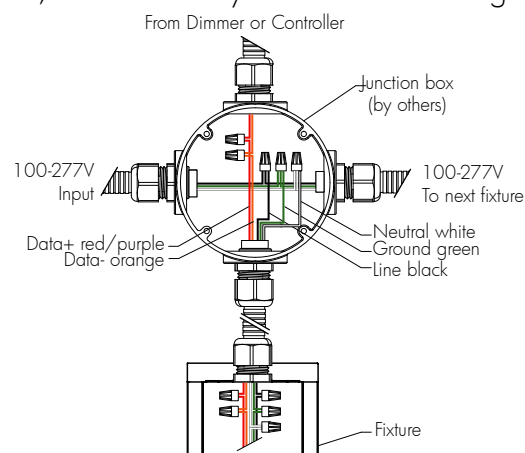
0-10V, DALI or EcoSystem® control options

Single units, daisy chain configuration
Flange option shown



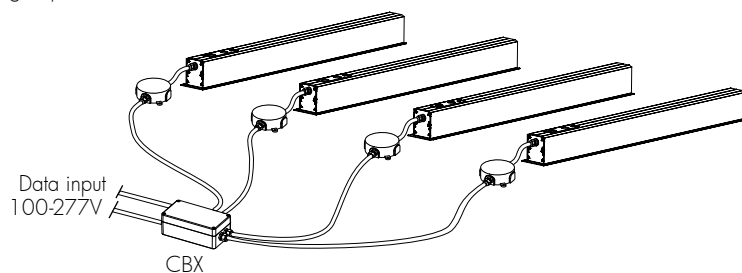
Each Lutron® EcoSystem® enabled fixture has its own address; for the example shown above, there are a total of 4 EcoSystem® addresses.

0/10V, DALI or EcoSystem® control wiring detail



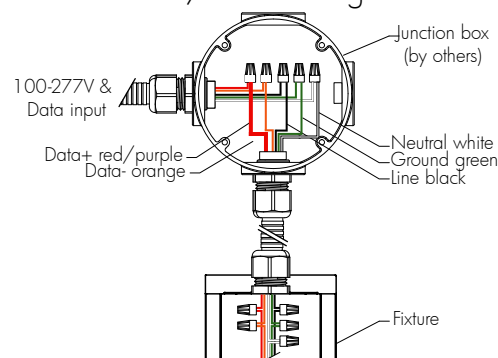
DMX/RDM control option

Single units, star layout chain configuration
Flange option shown



For stable DMX/RDM data signal, do not split data wires after CBX.

DMX/RDM wiring detail



Maximum run lengths 7A maximum with 10ft fixture cord						
Configuration/Voltage	100V	120V	208V	220V	240V	277V
RO: Regular Output	93ft	116ft	126ft	126ft	126ft	126ft
HO: High Output	46ft	56ft	98ft	104ft	116ft	126ft

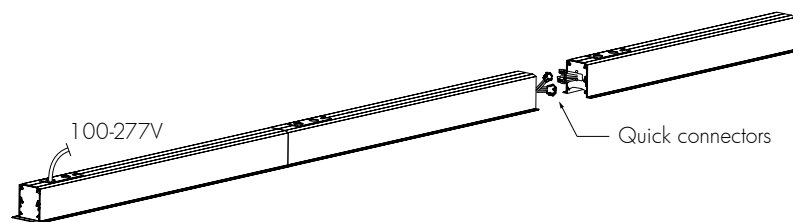
*Maximum run length calculations are typically based on 4ft fixtures.
Consult factory for specific applications.

Wiring detail

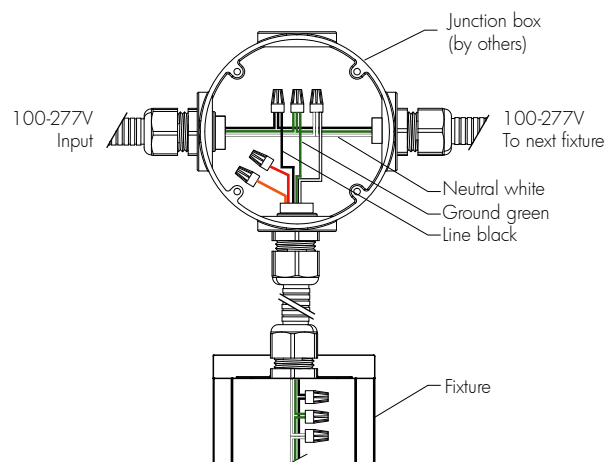
WIRE COLOR / USE	
GREEN	GROUND
WHITE	NEUTRAL
BLACK	LINE 100-277V
RED/ PURPLE	DATA +
ORANGE	DATA -

TYPICAL WIRING DIAGRAMS - continued

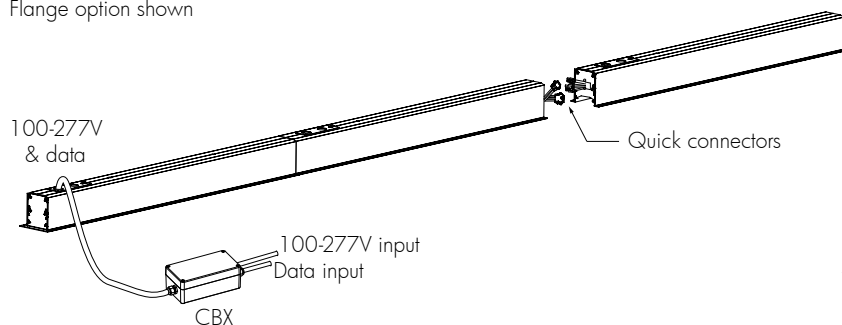
Non-dimming or Lumentalk control options Continuous run, single feed Flange option shown



Non-dimming or Lumentalk control wiring detail

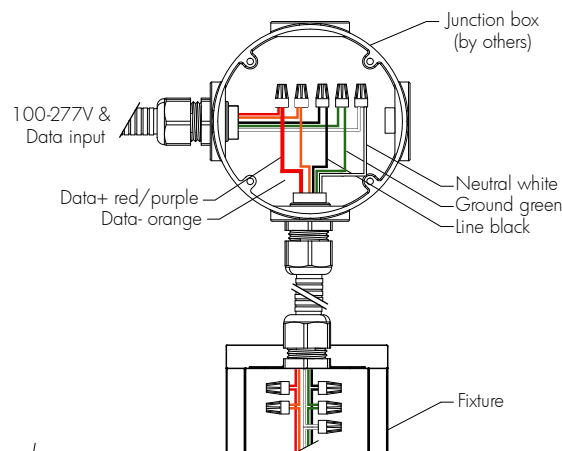


DMX/RDM control option Continuous run, single feed Flange option shown

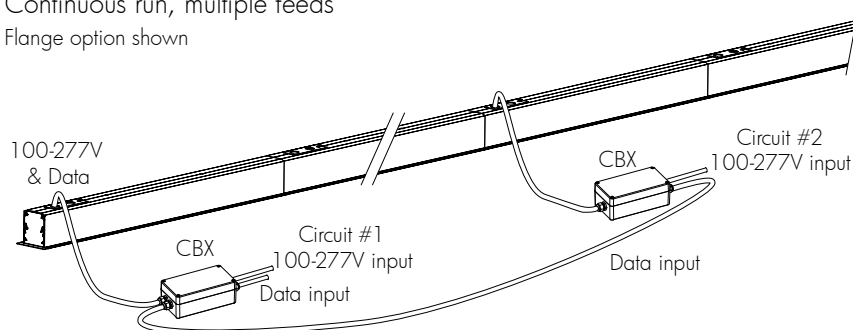


For stable DMX/RDM data signal, do not split data wires after CBX.

DMX/RDM wiring detail



DMX/RDM control option Continuous run, multiple feeds Flange option shown



For stable DMX/RDM data signal, do not split data wires after CBX.

HOW TO ORDER - SINGLE UNITS AND CONTINUOUS RUNS

RECESSED
SINGLE UNITS
CONTINUOUS RUNS

LLI2R	Select:	Select:	Select:	Select:	Select:	Select:	Select:
1	2	3	4	5	6	7	8

1 Housing:

LLI2R - Lumenline™ Recessed, 2" wide

2 Voltage:

100 - 100 volts
120 - 120 volts
208 - 208 volts
220 - 220 volts
240 - 240 volts
277 - 277 volts

3 Length:

Dimension shown are for flangeless
SU1 - Single Unit 12 1/16" (306mm)
SU2 - Single Unit 23 13/16" (605mm)
SU3 - Single Unit 35 5/8" (905mm)
SU4 - Single Unit 47 7/16" (1205mm)
SU5 - Single Unit 59 5/16" (1507mm)
SU6 - Single Unit 71 1/8" (1807mm)
SU7 - Single Unit 83" (2108mm)
SU8 - Single Unit 94 13/16" (2408mm)
C__ - Continuous run, specify in 1' increments

4 Output & Color temperature:

dRO 27K - 2700K regular output 6W/ft
dRO 30K - 3000K regular output 6W/ft
dRO 35K - 3500K regular output 6W/ft
dRO 40K - 4000K regular output 6W/ft
dHO 27K - 2700K high output 12W/ft
dHO 30K - 3000K high output 12W/ft
dHO 35K - 3500K high output 12W/ft
dHO 40K - 4000K high output 12W/ft
dRO RGB - Tri-color red, green and blue direct lighting 6W/ft¹

5 Control:

NO - On/Off control
LT - Lumentalk²
DIM - 0-10V Dimming option³
DMX/RDM - DMX/RDM enabled⁴
DALI - DALI Dimming option⁵
ES - Lutron® EcoSystem® Enabled Dimming⁶

6 Trim Option:

FG - Flange
FGL - Flangeless
SFG - Spackle Flange

7 Trim Finish:

WH - White
SI - Silver
CC - Custom (please specify RAL color)

8 Option:

CCEA - Chicago plenum rated option
RCB - Rotating Crossbar mounting, available for flange trim option only⁷
VS - Vertical recessed mounting

Notes:

- 1 RGB option requires DMX/RDM control to be specified in Control section.
- 2 Available with white light only, not available for 1' lengths. 1% minimum dimming value.
- 3 10% minimum dimming value.
- 4 1% minimum dimming value. Fixtures come pre-addressed by fixture (consult the Resolution Details pages for the number of DMX addresses per fixture length and type).
- 5 1% minimum dimming value.
- 6 Available with white light only, not available for 1' lengths. One EcoSystem® address per fixture length. 1% minimum dimming value.
- 7 1 rotating crossbar included for 1' lengths,
2 rotating crossbars included for 2' to 5' lengths,
3 rotating crossbars included for 6' to 8' lengths.

HOW TO ORDER - SHAPES

LLI2R	Select:	Select:	LJ	Select:	Select:	Select:	Select:	Select:
1	2	3	4	5	6	7	8	9

1 | Housing:

LLI2R - Lumenline™ Recessed, 2" wide

2 | Voltage:

100 - 100 volts **220** - 220 volts
120 - 120 volts **240** - 240 volts
208 - 208 volts **277** - 277 volts

3 | Length:

IMPORTANT: Side length up to 20' as a standard. Consult factory for any other shape requirements.

S__ - Square shape: specify side length (equal sides)
R_x__ - Rectangular shape: specify longer side x shorter side
L__ - "L" shape: specify side length (equal sides)
T__ - "T" shape: specify side length (equal sides)
X__ - Cross shape: specify side length (equal sides)
CW_ - Ceiling to wall: specify side length (equal sides)

4 | Joiner Type:

LJ - Lit joiner, 17 inches nominal side length module

5 | Output & Color temperature:

dRO 27K - 2700K regular output 6W/ft
dRO 30K - 3000K regular output 6W/ft
dRO 35K - 3500K regular output 6W/ft
dRO 40K - 4000K regular output 6W/ft
dHO 27K - 2700K high output 12W/ft
dHO 30K - 3000K high output 12W/ft
dHO 35K - 3500K high output 12W/ft
dHO 40K - 4000K high output 12W/ft
dRO RGB - Tri-color red, green and blue direct lighting 6W/ft¹

6 | Control:

NO - On/Off control
LT - Lumentalk²
DIM - 0-10V Dimming option³
DMX/RDM - DMX/RDM enabled⁴
DALI - DALI Dimming option⁵
ES - Lutron® EcoSystem® Enabled Dimming⁶

7 | Trim Option:

FG - Flange
FGL - Flangeless
SFG - Spackle Flange

8 | Trim Finish:

WH - White
SI - Silver
CC - Custom (please specify RAL color)

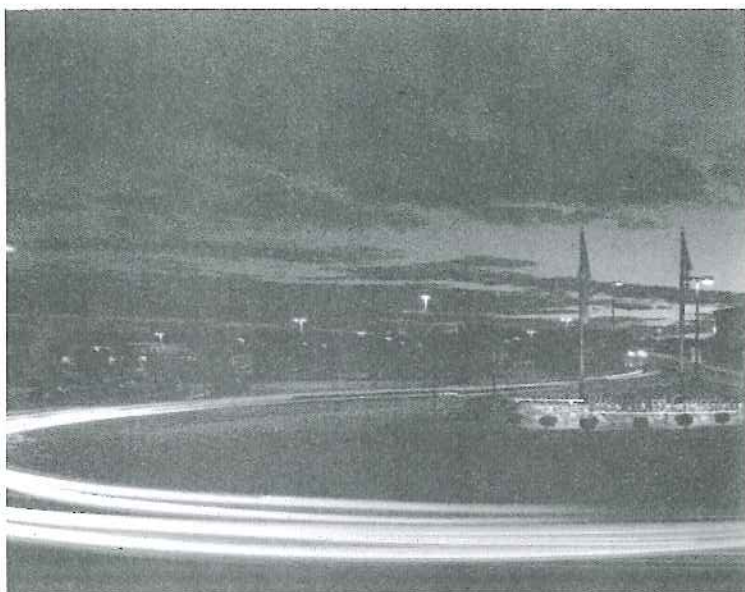
9 | Option:

CCEA - Chicago plenum rated option
RCB - Rotating Crossbar mounting, available for flange trim option only⁷

Notes:

- 1 RGB option requires DMX/RDM control to be specified in Control section.
- 2 Available with white light only, not available for 1' lengths. 1% minimum dimming value.
- 3 10% minimum dimming value.
- 4 1% minimum dimming value. Fixtures come pre-addressed by fixture (consult the Resolution Details pages for the number of DMX addresses per fixture length and type).
- 5 1% minimum dimming value.
- 6 Available with white light only, not available for 1' lengths. One EcoSystem® address per fixture length. 1% minimum dimming value.
- 7 1 rotating crossbar included for 1' lengths,
2 rotating crossbars included for 2' to 5' lengths,
3 rotating crossbars included for 6' to 8' lengths.

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Traffic Permit
Application
Request for
Scoping Meeting
The Asylum Expansion
Portland, Maine
(EXCERPT)

PREPARED FOR:
Tedlum Associates, LLC &
The Asylum, Inc.
121 Center Street
Portland, Maine 04101

April 2016

SUBMITTED BY:
Gorrill Palmer
707 Sable Oaks Drive
Suite 30
So. Portland, ME 04106
207.772.2515



GORRILL
PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

April 14, 2016

Mr. Rick Knowland
City of Portland Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04101

RE: Application for Traffic Movement Permit
Asylum Expansion Project
Portland, Maine

Dear Mr. Knowland,

Gorrill Palmer (GP) has been retained by the Asylum Inc. to prepare this Traffic Movement Permit Application for the proposed Asylum expansion project located on Center Street between Free Street and Lancaster Lane in Portland, Maine.

We have attached the following information in support of this application:

- Three copies of sections 1-6
- Signed application form
- Notice of intent to file
- List of abutters
- \$1,000 application fee

Please contact our office with any questions regarding this application.

Sincerely,

Gorrill Palmer

Randy Dunton, PE, PTOE
Senior Engineer

Copy: John Kenney, WBRC
Timothy Soucie, MaineDOT Region 1 Traffic Engineer



TOTALLY COMMITTED

Sports Bar

Dance Club

Lounge

March 17, 2016

To Whom It May Concern:

Tedlum LLC and The Asylum have retained the services of WBRC Architects - Engineers located in Portland, Maine to prepare requisite local site plan permit application materials for two building additions, building renovations and associated site improvements at 121 Center Street in Portland, Maine.

We, the undersigned, hereby authorize WBRC Architects - Engineers and their sub-consultants contracted and assigned to the above mentioned project to act on behalf of Tedlum LLC and The Asylum in matters related to these permits, including signing of documentation. Please contact my office at (207) 232-4693 should you have any questions.

Sincerely,

Valerie Levy, Owner

Asylum Inc.

121 Center Street

Portland Maine 04101

☎ 207.772.8274

fx 207.772.8738

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE
ID# _____

12/99

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 (check all that apply):

Traffic 100-200 PCE's ☒

Traffic 200 + PCE's ☐

Name of Applicant: Tedlum Associates LLC & The Asylum Inc.

Address: 121 Center Street, Portland, ME 04101

Telephone: _____

Name of local contact or agent: Randy Dunton - Gorrill Palmer

Address: 707 Sable Oaks Drive, Suite 30, South Portland, ME 04106

Telephone: (207) 772-2515

Name and type of development: The development consists of adding 5,208 sf to the basement, 5,497 sf to the first floor, and building a 3,732 sf balcony

Location of development including road, street, or nearest route number:

The site is located

at 121 Center Street.

City/Town/Plantation: Portland

County: Cumberland

Tax Maps: F9SE Lots: 027

F009, 027 F010, 027 F015, 027 F028

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)?

No

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?

None Known

Existing DEP or MDOT permit number (if applicable):

Delegated review is to the City

Name(s) DOT staff person(s) contacted concerning this application

None

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applicants:

To be held

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE
ID# _____

12/99

Total Fees: _____
Date Received: _____

CERTIFICATION

This person responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the applicant for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: *Randall E. Dunton*

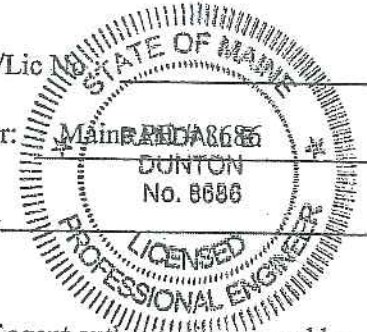
Name (print): Randall E. Dunton

Date: April 13, 2016

Re/Cert/Lic No. _____

Engineer: Maine PE# A8686

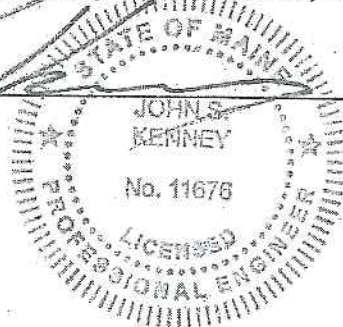
Other: _____



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."

Signature of applicant
John S. Kenney
AGENT



Date 4/5/2016

CBL	PROP_LOC	OWNR_NAME1	MAIL_ADDR1	OWNR_CITY	OWNR_STATE	ZIPCODE	ProjectDesc
027 F001001	50 MONUMENT SQ	50 MONUMENT LLC	PO BOX 1871	BLUE HILL	ME	04614	2016069 Asylum Expansion and Renovation
027 F002001	28 MONUMENT SQ	BUDE SCOTT & CHARLOTTE F COLE JTS	28 MONUMENT SQ # 1	PORTLAND	ME	04101	2016069 Asylum Expansion and Renovation
027 F002002	28 MONUMENT SQ	STODDARD ROBERT B & ELIZABETH W SODDARD JTS	28 MONUMENT SQ # 2	PORTLAND	ME	04101	2016069 Asylum Expansion and Renovation
027 F002003	28 MONUMENT SQ	28 MSQ LLC	302 CHANDLER'S WHARF	PORTLAND	ME	04101	2016069 Asylum Expansion and Renovation
027 F002004	28 MONUMENT SQ	28 MSQ LLC	302 CHANDLER'S WHARF	PORTLAND	ME	04101	2016069 Asylum Expansion and Renovation
027 F002005	28 MONUMENT SQ	28 MSQ LLC	302 CHANDLER'S WHARF	PORTLAND	ME	04101	2016069 Asylum Expansion and Renovation
027 F003001	22 MONUMENT SQ	22 MONUMENT SQUARE LLC	22 MONUMENT SQ STE 600	PORTLAND	ME	04101	2016069 Asylum Expansion and Renovation
027 F004001	6 MONUMENT SQ	PARCHEGGIO LLC	79 BOW ST	FREEPORT	ME	04032	2016069 Asylum Expansion and Renovation
027 F005001	18 MONUMENT SQ	18 MONUMENT SQUARE LLC	PO BOX 4894	PORTLAND	ME	04112	2016069 Asylum Expansion and Renovation
027 F029001	23 FREE ST	ONE CITY CENTER ASSOCIATES LLC	ONE CITY CENTER	PORTLAND	ME	04101	2016069 Asylum Expansion and Renovation
037 I003001	482 CONGRESS ST	482 CONGRESS LP	21 TECHNOLOGY DR	WEST LEBANON	NH	03784	2016069 Asylum Expansion and Renovation
037 I012001	104 CENTER ST	482 CONGRESS LP	21 TECHNOLOGY DR	WEST LEBANON	NH	03784	2016069 Asylum Expansion and Renovation
038 D015001	82 FREE ST	CUMBERLAND COUNTY RECREATION CENTER	1 CIVIC CENTER SQ	PORTLAND	ME	04101	2016069 Asylum Expansion and Renovation
038 I018001	46 FREE ST	JB BROWN & SONS	PO BOX 207	PORTLAND	ME	04112	2016069 Asylum Expansion and Renovation

NOTICE OF INTENT TO FILE

Please take notice that:

Tedlum Associates LLC & The Asylum Inc.
121 Center Street
Portland, ME 04101

is intending to file a MaineDOT Traffic Permit application with the City of Portland (Delegated Review Authority) pursuant to the provisions of 23 M.R.S.A. §704 – A on or about April 13, 2016.

This application is for:

The expansion of The Asylum in Portland, Maine. The proposed development is to expand the basement and first floor, and add a balcony to the facility. This expansion will increase the capacity of the facility by 557 people. The project is forecast to generate 156 PM peak hour trip ends. The project is expected to open in 2017.

At the following location:

The site is located within the block defined by Free Street, Center Street, and Lancaster Lane.

A request for a public hearing must be received by the City, in writing no later than 20 days after the application is found by the department to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Transportation's office in Scarborough (Region 1) during normal working hours. A copy of the application may also be seen at the municipal offices in Portland, Maine.

Written public comments may be sent to the following address: Attention Rick Knowland, Planning Division, 389 Congress Street, Portland, Maine 04101.



Randall Dunton, P.E., PTOE
Gorrill-Palmer Consulting Engineers, Inc.



4/13/16

121 Center Street

121 Center Street



Copyright 2011 Esri. All rights reserved. Thu Apr 7 2016 11:36:39 AM.

Section I Site and Traffic Information

I.A. Site Description and Site Plan

The site is located on Center Street between Free Street and Lancaster Lane in Portland, Maine. The site is identified on City Tax Map 27, Lots F009, F010, F015, and F028. A proposed site plan is included in Attachment 1A.

I.B. Existing and Proposed Site Uses

The existing site has a 15,600 sf building at 121 Center Street most of which is proposed to remain. The proposed project consists of the demolition of a small portion of the existing building, the expansion of the basement and first floor, and the addition of a balcony, which will give a total gross floor area of 24,459 sf. Existing vehicular access to the site is via a left in / left out driveway onto Free Street and Lancaster Lane on Center Street. The only proposed vehicular access to the site will be via Lancaster Lane on Center Street as the existing driveway on Free Street will be repurposed as a pedestrian access. There will be very limited on-site parking. The Asylum plans to lease the required number of parking spaces off-site.

I.C. Site Vicinity and Boundaries

The site is bordered by Free Street, Center Street, and Lancaster Lane. A site location map showing the development area is included in attachment 1C to this section.

I.D. Proposed Uses in the Vicinity of the Proposed Development

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Based on conversations with Barbara Barhydt, Portland Development Review Services Manager, there are many downtown projects that may need to be considered. Of the downtown projects the following may be included in the background traffic:

- 443 Congress Street – 28 Residential Units
- Eastman Block Condominium – 4 Residential Units with a Restaurant
- Longfellow Apartments – 139 Units with Retail
- 749 Congress Street – Hotel and 7 Townhouses
- York Street Development – 63 Residential Units with Retail

The traffic from these developments will be considered in the traffic analysis.

I.E. Trip Generation

The proposed Asylum expansion will increase the capacity of the facility by 557 people. The additional traffic will be 3.5 occupants per vehicle, which will result in 159 additional trip ends. This trip generation rate is consistent with the Civic Center project and the Thompson's Point project.

A trip end is defined as a trip into or out of the site; thus a round trip is equal to two trip ends. Since the forecast traffic exceeds 99 trip ends during a peak hour, a Maine Department of Transportation Traffic Movement Permit is required.

I.F. Trip Distribution

It is assumed that all traffic will be entering the site. This is a conservative approach, since this will assign more traffic to the study area intersection than is actually anticipated.

I.G. Trip Composition and Assignment

GP has assumed that all trips are primary trips made for the sole purpose of going to and from the site. The trip assignment has been based on the traffic counts at the study area intersections. The trip assignment is shown on the attached Figure.

I.H. Attachments

Attachment IA – Site Survey, Proposed Site Plan

Attachment IB – Trip Generation Calculations

Attachment IC – Site Location Map, Trip Assignment Diagram

Attachment 1B
Trip Generation Calculations



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JOB 3131

SHEET NO. _____ OF _____

CALCULATED BY ET DATE 4/6/16

CHECKED BY _____ DATE _____

SCALE _____

Expansion of Asylum

Increased capacity by 557 people

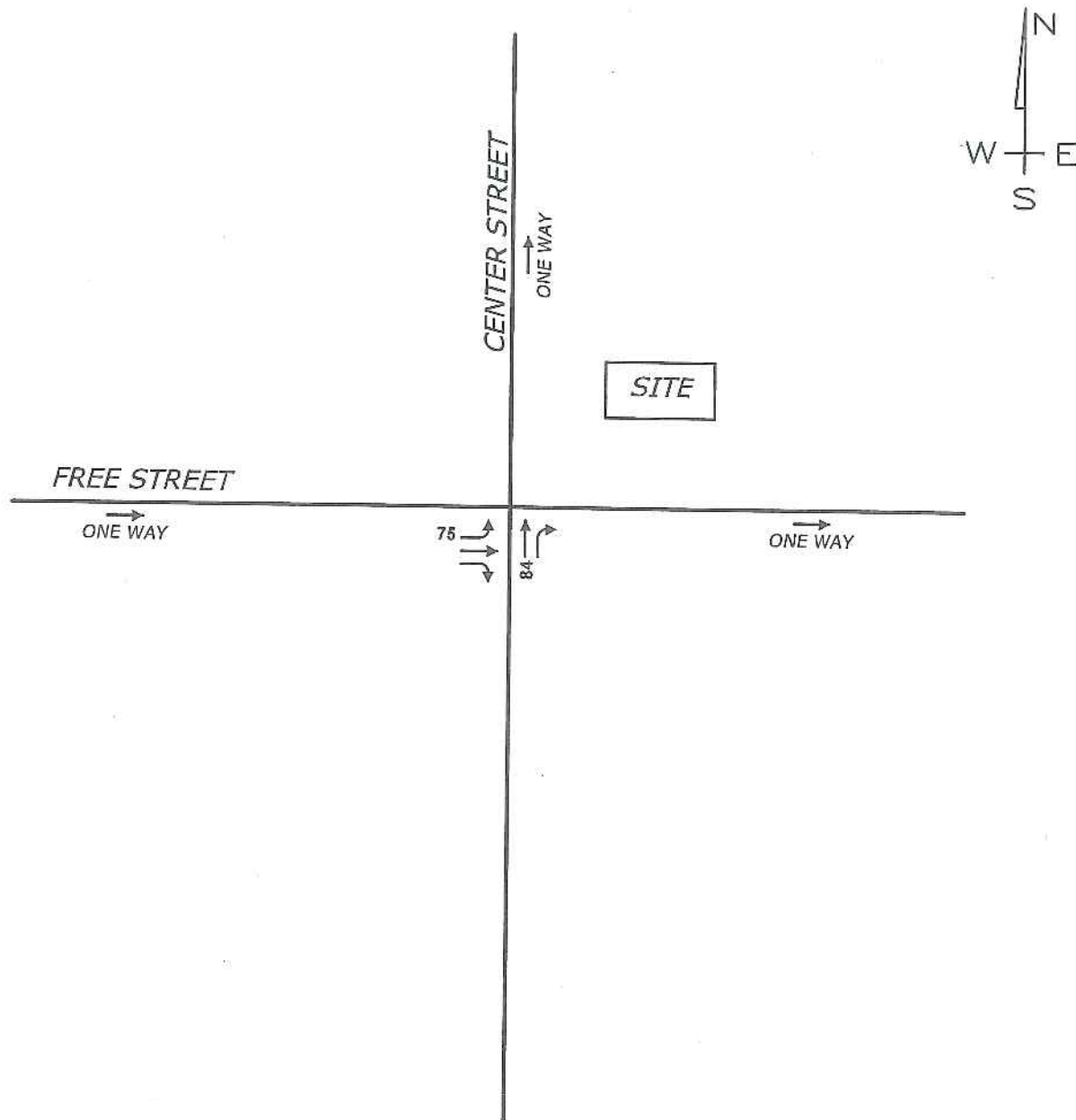
3.5 occupants/vehicle

$$\frac{557}{3.5} = \underline{159 \text{ trip ends}}$$

Trip Assignment

Figure No

2



XX = PM PEAK HOUR

ASYLUM EXPANSION PORTLAND, MAINE

Design: ET Scale: NONE
Draft: CG Date: APRIL 2016
Checked: RED File Name: 3131-TRAFF.dwg



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207.772.2515

Section 2 Traffic Crashes

2.A. Crash Summary Data

Gorrill Palmer obtained the crash data from MaineDOT for the period of 2013-2015, the most recent period available.

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average) and;
2. A minimum of eight crashes over the same three-year period.

Based on the crash data provided by MaineDOT, the intersection of Center Street / Free Street is not a high crash location. The intersection has a CRF of 1.29 and saw four collisions over the three-year period. Two of these collisions involved pedestrians on skateboards and a third collision was a rear end that occurred due to a vehicle stopped for a pedestrian in the crosswalk on Center Street. These collisions involving pedestrians all occurred after the intersection was updated with ADA compliant crosswalks during the Cross Insurance Arena renovations.

2.B. Attachments

Attachment 2A – Crash History

EXHIBIT 1 – DEEDS

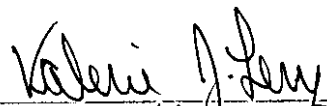
QUITCLAIM DEED WITHOUT COVENANT (Release Deed)
(Maine Statutory Short Form)

KNOW ALL BY THESE PRESENTS, that I, Valerie J. Levy of Buxton, County of York, and State of Maine, for consideration paid, RELEASE to Tedlum Associates, LLC a Maine Limited Liability Company, the mailing address of which is c/o Verrill Dana, LLP, One Portland Square, P.O. Box 586, Portland, Maine 04112, all my right, title, and interest in and to certain real estate situated on Free and Center Streets, in the City of Portland, County of Cumberland, and State of Maine, which is more particularly described in Exhibit A attached hereto and made a part hereof.

Meaning and intending to convey the premises conveyed to Valerie J. Levy by Quitclaim Deed with Covenant from Second Century Blues dated April 18, 1997 and recorded in the Cumberland County Registry of Deeds in Book 13038, Page 325 and by Quitclaim Deed with Covenant from Joseph Paulin dated June 16, 1997 and recorded in the Cumberland County Registry of Deeds in Book 13143, Page 256. Together with the right of first refusal as set forth in the Deed dated October 23, 1985 and recorded in Book 6946, Page 211, to the extent it is still in effect.

WITNESS my hand and seal this 29th day of October, 2015.

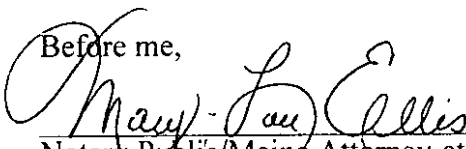
SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

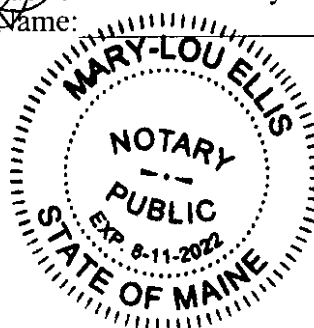

 Witness Raymond A. Pelletier By: 
 Printed Name: Valerie J. Levy

STATE OF MAINE
County of Cumberland, SS.

October 29, 2015

Then personally appeared the above-named Valerie J. Levy and acknowledged the foregoing instrument to be her free act and deed.

Before me,

 Notary Public/Maine Attorney at Law
 Printed Name: _____



SEAL

EXHIBIT A

A certain lot or parcel of land situated at the intersection of the easterly sideline of Center Street and the Northerly sideline of Free Street, so called, in the City of Portland, County of Cumberland, State of Maine and being more particularly bounded and described as follows:

Beginning at said intersection point on the easterly sideline of Center Street and the northerly sideline of Free Street;

Thence N68° 11' 20" E thirty-five and forty-nine hundredths feet (35.49') by and along the northerly sideline of said Free Street to a point at the southwesterly corner of other land now or formerly of John Martin Enterprises;

Thence N20° 15' 16"W one and seventy-five hundredths feet (1.75') by and along the westerly sideline of other land at said John Martin Enterprises to the southeasterly corner of the present Art Gallery Restaurant;

Thence continuing N20° 15' 16"W seventy-six and fifty-eight hundredths feet (76.58') by and along the easterly face of the present Art Gallery Restaurant to an internal corner of said Restaurant;

Thence N65° 23' 05" E twenty-six and seventy-six hundredths feet (26.76') by and along the southerly face of the present Art Gallery Restaurant to a point near an external corner of said Restaurant on the westerly sideline of land now or formerly of One City Center Associates;

Thence N24° 25' 40"W forty-two and forty-three hundredths feet (42.43') by or near the easterly face of said Restaurant and the westerly sideline of said One City Center Associates and to an angle point;

Thence N70° 34' 30"E nine and thirteen hundredths (9.13') by and along the northerly sideline of said One City Center Associates land to an angle point;

Thence N21° 48' 40"W seventeen and seventy-two hundredths feet (17.72') by and along the westerly sideline of said One City Center Associates land to an angle point;

Thence N68° 11' 20" E seventy-one and twenty-three hundredths feet (71.23') by and along the northerly sideline of said One City Center Associates to an angle point on the westerly sideline of land, now or formerly of A.H. Benoit & Company;

Thence N 18° 15' 00" W twenty-three and fifty-two hundredths feet (23.52') by and along the westerly sideline of said Benoit land to an angle point;

Thence S79° 41' 00" W zero and fifty hundredths feet (0.50') to an angle point;

Thence S18° 15' 00" E eight and zero hundredths feet (8.00') to an angle point;

Thence S 79° 41' W twenty and zero hundredths feet (20.00') to an angle point;

Thence N18° 15' 00" W five and zero hundredths feet (5.00') to an angle point on or near the southerly sideline on Lancaster Lane, so called;

Thence S76° 23' 20" W twenty-five and fifty-three hundredths feet (25.53') to an angle point in the southerly sideline of said Lancaster Lane;

Thence S66° 23' 00" W forty-six and ninety-five hundredths feet (46.95') by and along the southerly sideline of said Lancaster Lane to an angle point;

EXHIBIT A Continued

Thence S65° 40' 50" W fifty-nine and five hundredths feet (59.05') by and along the southerly sideline of said Lancaster Lane to an intersection point with the easterly sideline of said Center Street;

Thence S24° 21' 10" E one hundred sixty-three and sixty-three hundredths feet (163.63') by and along the easterly sideline of said Center Street to the point of beginning.

Meaning and intending to describe a parcel of land containing 11,070 square feet, more or less, and being shown on a plan entitled "Plan of Land for Art Gallery Restaurant -- Center and Free Streets -- Portland, Maine" by Sebago Technics dated May 23, 1985 as revised and to be recorded in the Cumberland County Registry of Deeds.

Meaning and intending to convey and hereby conveying a portion of the premises described in Indenture Deed from Portland Renewal Authority to StJ Corporation (now John Martin Enterprises) dated June 24, 1977 and recorded at the Cumberland County Registry of Deeds in Book 4050, Page 238, and the premises described in Deed from Anthony's to StJ Corporation (now John Martin's Enterprises) dated September 6, 1973 and recorded at the Cumberland County Registry of Deeds in Book 3455, Page 157.

Together with a certain easement in common with Grantor for purposes of pedestrian access, and a right to the grantee, its successors and assigns only, to construct and maintain a canopy, on and over Easement Area V as designated on "Plan of Land in Portland, Maine, Free Street, for One City Center Associates" prepared by Owen Haskell, Inc. dated June 20, 1984 and recorded in the Cumberland County Registry of Deeds in Plan Book 143, Page 27. Said Easement being further described in deed from the City of Portland to John Martin Enterprises dated June 22, 1984 and recorded at said Registry in Book 6489, Page 174, and together with the benefit of and subject to all appurtenances, additional rights, conditions, restrictions and encumbrances as referenced in said deed as affecting Easement Area V.

And further together with a right of way in common with others in, on and over a certain alley known as Lancaster Lane adjoining the above-described premises and extending from Center Street easterly to the rear of the easterly line of the premises herein conveyed, all as more particularly shown on the above-referenced Plan by Sebago Technics as "Lancaster Lane (private passageway)". Said right of way was established by agreement dated April 11, 1913, recorded in said Registry in Book 810, Page 187, and by agreement dated September 11, 1951 and recorded in said Registry in Book 231, Page 331, and as otherwise may exist.

And together with all rights, title or interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above-described premises.

The above-described premises are conveyed subject to the following:

1. Sewer Agreement between Fred H. Dow, William H. Dow, James P. Baxter dated August 27, 1913 and recorded in said Registry in Book 915, Page 452.
2. A ten foot wide easement identified as Easement Area II on the above-referenced Sebago Technics Plan, said easement being described in Deed of John Martin Enterprises to the City of Portland dated June 22, 1984 and recorded at said Registry in Book 6489, Page 170.
3. Terms and conditions contained and referenced in Indenture Deed from Portland Renewal Authority to S & J Corp. dated June 24, 1977 and recorded at said Registry of Deeds in Book 4050, Page 238, as the same have been modified and released by a certain Certificate of Completion and Release dated October 15, 1985, to be recorded at the Cumberland County Registry of Deeds.

EXHIBIT A Continued

4. Terms and Conditions of a certain party wall agreement by and between Fred H. Dow et al and James P. Baxter dated August 1, 1913 and recorded at said registry in Book 815, Page 299.

5. Terms and conditions of a certain party wall agreement by and between A. H. Benoit and Company and Anthony's dated April 2, 1969 and recorded at said Registry in Book 3083, Page 572.

6. Terms and conditions of a certain party wall agreement by and between Fred H. Dow et al and J. B. Brown & Sons dated May 17, 1910 and recorded in said Registry in Book 858, Page 81.

Reserving to the Grantor, its successors and assigns, the right to construct on adjoining land being retained by Grantor a wall abutting the two walls of the existing building on the above-described premises which adjoin the premises retained by Grantor, and Grantor covenants and agrees that said wall shall be constructed only after Grantee shall have had the opportunity to review and approve the plans of Grantor as to the structural matters only, and providing further, (1) that said wall shall not use the walls on land of Grantee for purposes of either lateral or horizontal support, (2) that such abutting wall shall be constructed in such manner so as to protect Grantee's existing walls from weather, (3) that Grantee shall have the right to construct abutting walls, (4) that Grantor in erecting any such wall and building shall do so at such times and in such manner so as not to and shall not interfere with or disrupt Grantee's use and enjoyment of the above granted premises and (5) that Grantor, its successors and assigns shall indemnify Grantee for any loss, cost or injury which Grantee may suffer by reason of the construction and/or maintenance of said abutting wall.

The above references to "Grantor" are to John Martin Enterprises in deed dated October 23, 1985 and recorded in said Registry of Deeds Book 6946, Page 211.

Received
Recorded Register of Deeds
Nov 03, 2015 11:50:42A
Cumberland County
Nancy A. Lane

WARRANTY DEED

This Warranty Deed (the "Agreement") is made and effective 7-21-15.

Between: The Surplus Store, Inc. (the "Grantor"), a corporation organized and existing under the laws of the State of Maine, County of Cumberland, with its office located at:

15 Woodville Road
Falmouth, Maine 04105

AND: Tedlum Associates, LLC (the "Grantee"), a Maine limited liability company with a mailing address of:

c/o Verrill Dana, LLP
One Portland Square, 9th Floor
P.O. Box 586
Portland, Maine 04112-0586

For good consideration, Grantor hereby grants, bargains, deeds and conveys, to Grantee the land legally described as a certain lot of land located on Free Street, in Portland, Maine, Lot 028, Block F, Map 027, and more fully described on Exhibit A attached hereto and made a part hereof.

COVENANTS

Grantor, for itself and its heirs, successors and assigns, hereby covenants with Grantee, its heirs, successors and assigns, that Grantor is lawfully seized in fee simple of the above-described premises; that it has a good right to convey; that the premises are free from all encumbrances; that Grantor and its, successors and assigns, and all persons acquiring any interest in the property granted, through or for Grantor, will, on demand of Grantee, or its heirs, successors or assigns, and at the expense of Grantee, its heirs, successors or assigns, execute an instrument necessary for the further assurance of the title to the premises that may be reasonably required; and that Grantor and its heirs, successors and assigns will forever warrant and defend all of the property

MAINE REAL ESTATE TAX PAID

so granted to Grantee, its heirs, successor and assigns, against every person lawfully claiming the same or any part thereof.

Being the same property conveyed to the Grantor by deed of March 4, 1997, and recorded in the Cumberland County Registry of Deeds in Book 13038, Page 288.

IN WITNESS WHEREOF, the Grantor has caused this agreement to be executed at the Portland, Maine office of Verrill Dana, LLP on July 1, 2015.

WITNESS

THE SURPLUS STORE, INC.

By: *Larry H. Rose*
Title: V.P.
Print Name: LARRY H. ROSE

State of Maine
County of Cumberland, ss.

July 21, 2015

Personally appeared the above named Larry H. Rose,
Vice President of The Surplus Store, Inc., and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free and deed of The Surplus Store, Inc.

Before me,

Ellen R. Guptill
Notary Public/Attorney at Law
Print Name: ELLEN R. GUPTILL
Commission Expires: NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES APRIL 23, 2021

SEAL

EXHIBIT A

A certain lot or parcel of land on the northerly side of Free Street, I the City of Portland and County of Cumberland, Maine bounded and described as follows:

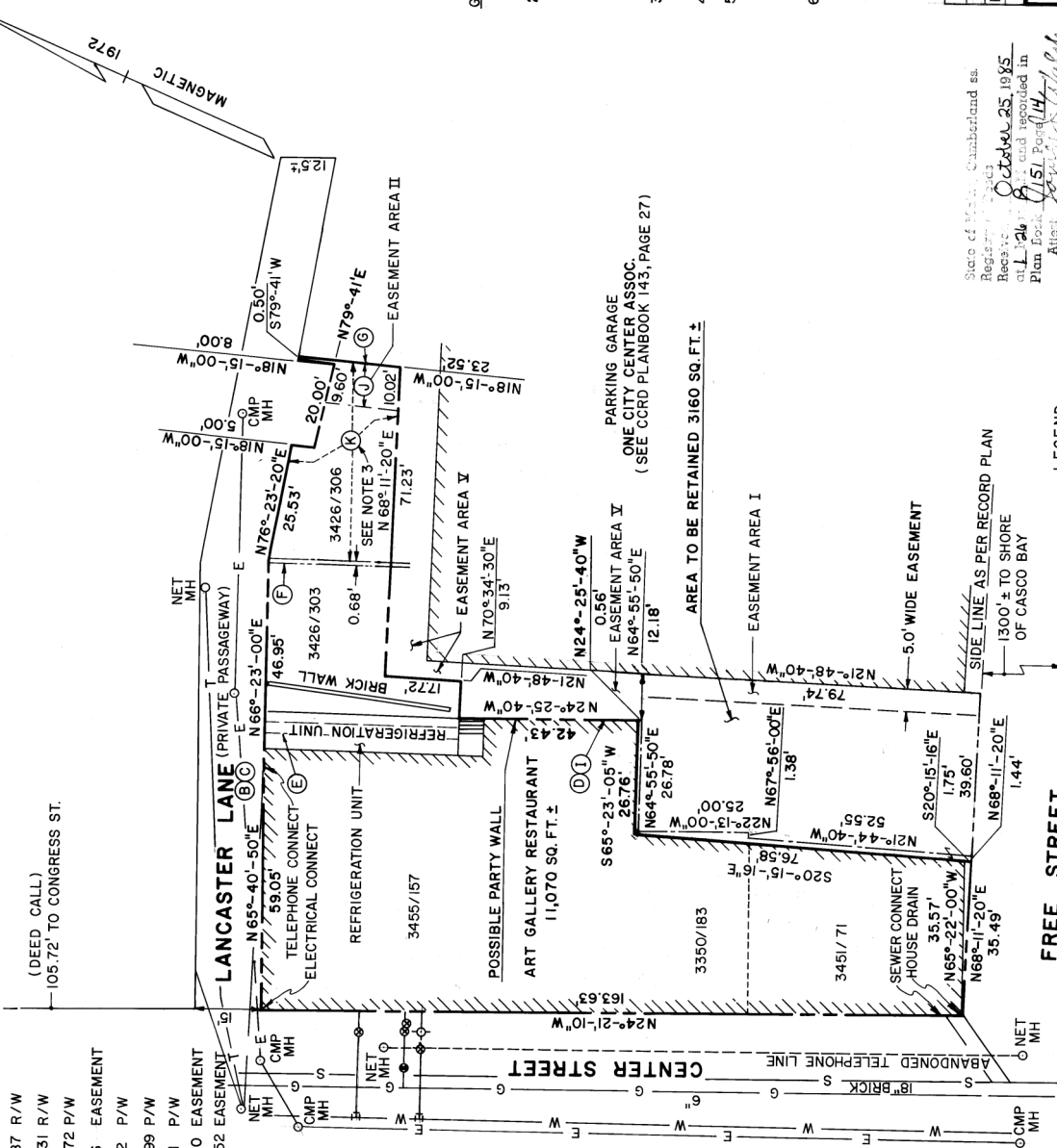
The lot or land on Free Street designated as "Area To Be Retained 3160 Sq. Ft." on the plan entitled "Plan of Land for Art Gallery Restaurant, Center and Free Street, Portland, Maine", dated May 23, 1985, a copy of which plan is attached to the deed from John Martin Enterprises dated January 15, 1986 and recorded in the Cumberland County Registry of Deeds in Book 7347, Page 8.

Received
Recorded Register of Deeds
Jul 23, 2015 11:31:22A
Cumberland County
Nancy A. Lane

EASEMENT REFERENCES
EASEMENT BOOK PAGE

(B)	910	187	R/W
(C)	231	331	R/W
(D)	3083	572	P/W
(E)	3124	16	EASEMENT
(F)	914	52	P/W
(G)	915	299	P/W
(H)	858	81	P/W
(I)	6489	170	EASEMENT
(J)	915	452	EASEMENT

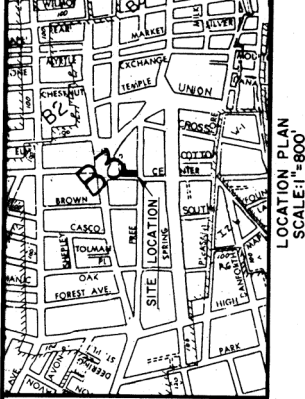
(DEED CALL)
105.72' TO CONGRESS ST.



FREE STREET

LEGEND

- R/W RIGHT-OF-WAY
- P/W PARTY WALL
- ⊙ WATER GATE
- ⊙ GAS GATE
- ⊙ HYDRANT
- 000/111 BOOK & PAGE REFERENCE



GENERAL NOTES

- 1.) RECORD OWNER OF PROPERTY, JOHN MARTIN ENTERPRISES, CCRD BOOK 4050, PAGE 238 AND BOOK 3455, PAGE 157.
- 2.) PLAN REFERENCES:
 - a. PLAN OF LAND IN PORTLAND, MAINE FOR JOHN MARTIN ENTERPRISES BY OWEN HASKELL, INC., DATED MAY 31, 1984.
 - b. PLAN OF LAND IN PORTLAND, MAINE, FREE STREET, FOR ONE CITY CENTER ASSOCIATES BY OWEN HASKELL, INC., DATED APRIL 1984. RECORDED C.C.R.D. PLANBOOK 143, PAGE 27.
- 3.) EASEMENT AREA 'K' MAY ENCUMBER THE AREA DESIGNATED ON THE PLAN AS PER 1913 DESCRIPTION.
- 4.) THIS LOT IS LOCATED IN THE B-3 BUSINESS ZONE.
- 5.) ACCORDING TO THE LOCAL MUNICIPALITY AND A REVIEW OF THE FLOOD HAZARD MAPS ON FILE AT THE CITY OF PORTLAND ENGINEERS OFFICE, THIS LOT DOES NOT FALL WITHIN A FLOOD HAZARD ZONE.
- 6.) UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE.

REV	DATE	BY	DESCRIPTION
1	9/23/85	FG	MISC. REVS. & ADDITIONS
2	10-10-85	fg/cb	MISC. REVS. & ADDITIONS

PLAN OF LAND
FOR

ART GALLERY RESTAURANT
CENTER AND FREE STREET
PORTLAND, MAINE

DEVELOPED BY: JOHN MARTIN ENTERPRISES

SHEET	1	OF	1
DATE:	05-23-85	SCALE:	1"=20'
PROJECT NO.	858	CHECKED BY:	C.L.B.



SEABO
TECHNICS
Engineering Consultants

9 Circus Time Rd.
So. Portland, Maine 04106
713-4044

State of Maine, Cumberland ss
Register of Deeds
Received for recording
at 11:24 AM on October 23, 1985
Plan Book 143, Page 27
Attest: *[Signature]*
Clerk

21246

Know all Men by these Presents,

That The City of Portland, Maine, a municipality and a body corporate,
located in Portland, in the County of Cumberland and State of Maine, organized
and existing under the laws of the State of Maine

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

paid by John Martin Enterprises, a Maine corporation

whose mailing address is
Portland, Maine

the receipt whereof it does hereby acknowledge, do hereby remise, release, bargain,
sell and convey, and forever quitclaim unto the said John Martin Enterprises

its successors
has and assigns forever,

the real estate situated in said Portland, County of Cumberland and State of
Maine, bounded and described as set forth in Schedule A attached hereto and
made a part hereof.

To have and to hold the same, together with all the privileges and appurtenances thereunto belonging, to the said **John Martin Enterprises, its successors**

~~xxxx~~and assigns forever.

And it does warrant with the said Grantees, its successors, heirs and assigns, that it shall and will warrant and defend the premises to the said Grantees, its successors, heirs and assigns forever, against the lawful claims and demands of all persons claiming by, through, or under said City of Portland, Maine

In Witness Whereof, _____, the said City of Portland, Maine,
by its Director of Finance, Richard J. Ranaghan, Jr., has

XPCK

|| ~~XXXXXXXXXXXXXXXXXXXX~~

I, James H. Jones, of the County of San Francisco, State of California, do hereby certify that the foregoing is a true and correct copy of the original as the same appears from the records of said County, and relinquishing and conveying all rights by descent and all other rights in the above described premises, hereunto set its hand and seal this 22nd day of the month of June, A.D. 1984.

Signed, Sealed and Delivered
in presence of

City of Portland, Maine
By: Richard T. Ranaighan, Jr.
Its Director of Finance

State of Maine, County of Cumberland ss. June 22, 1984.

Then personally appeared the above named Richard J. Ranaghan, Jr.

and acknowledged the foregoing instrument to be his free act and deed. in said capacity
and the free act and deed of the City of Portland, Maine.

Before me,

David A. Louie
David A. Louie Notary Public
Attorney at Law

**SCHEDULE A
(TO DEED FROM THE CITY OF PORTLAND, MAINE
TO JOHN MARTIN ENTERPRISES)**

A certain lot or parcel of land situated on the Northerly side of Free Street in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning on the Northerly sideline of said Free Street at the Southeasterly corner of land conveyed to S & J Corp. by the Portland Renewal Authority by deed dated June 24, 1977 and recorded in the Cumberland County Registry of Deeds in Book 4050, Page 239; said corner also being a distance of 36.93 feet as measured along the Northerly sideline of said Free Street on a bearing of N68°-11'-20"E from the Easterly sideline of Center Street; thence, from said point of beginning, N21°-44'-40"W along land of said S & J Corp. a distance of 52.55 feet to a point; thence N67°-57'-00"E along land of said S & J Corp. a distance of 1.38 feet to a point; thence N22°-13'-00"W along land of said S & J Corp. a distance of 25.00 feet to a point in the southerly sideline of other land conveyed to S & J Corp. by deed of Anthony's dated September 6, 1973 and recorded in said Registry, Book 3455, Page 157; thence N64°-55'-50"E along by said other land of said S & J Corp. and land described in the ground lease of even date herewith between the City of Portland, Maine and One City Center Associates, a distance of 38.40 feet to a point; thence S21°-48'-40"E along said land leased to One City Center Associates to a distance of 79.74 feet to the Northerly side of said Free Street; thence S68°-11'-20"W along the Northerly sideline of said Free Street a distance of 39.60 feet to the point of beginning, containing 3,078 square feet, more or less;

All bearings are magnetic in the year 1972.

Meaning and intending to convey and hereby conveying a portion of the premises described in the deed to Grantor herein from A. H. Benoit & Company of even date herewith to be recorded herewith.

Together with and also hereby conveying an easement for the purposes hereinafter described over the following area:

Easement Area V: The area westerly and northerly of the building to be constructed on the premises described in the Ground Lease of even date herewith between the City of Portland, Maine and One City Center Associates being delineated as easement area V on Plan of Land in Portland, Maine, Free Street for One City Center Associates prepared by Owen Haskell, Inc., dated June 20, 1984.

Said easement area being a portion of the premises conveyed to Grantor herein by deed of John Martin Enterprises of even date herewith to be recorded herewith and a portion of the premises conveyed to Grantor herein by deed of A. H. Benoit & Company of even date herewith to be recorded herewith.

Grantee, its successors and assigns shall have the perpetual right and easement with respect to easement area V in common with Grantor, its successors and assigns (a) for pedestrian access over said easement area V from the adjoining premises of Grantee to the public entrance at the northwesterly corner of the garage to be constructed on the premises of Grantor described in the Ground Lease of even date herewith between the City of Portland, Maine and One City Center Associates; (b) to construct and maintain thereon a canopy at the sole expense of Grantee, its successors and assigns. Said rights and easements shall be subject to

the restrictive covenants, running with the land and binding on Grantee, its successors and assigns, that Grantee, its successors and assigns maintain said easement area V in a clean and orderly condition, and that Grantee, its successors and assigns indemnify, defend and hold Grantor, its successors and assigns harmless from any liability arising from the use of said easement area V by Grantee, its successors and assigns, including any guests, licensees or business invitees thereof, or from the canopy located therein.

Said premises herein conveyed and said easement area are subject to a Lease of even date herewith between the City of Portland and A.H. Benoit & Company, a memorandum of which is being recorded herewith and to the temporary parking easement reserved in the deed from A.H. Benoit & Company to the City of Portland, Maine of even date herewith to be recorded herewith.

Excepting and reserving to the Grantor, its successors and assign an easement, for the purpose hereinafter described over the following portion of the premises herein conveyed:

Easement Area I: An easement area on the Westerly side of the premises herein conveyed bounded and described as follows: Beginning on the Northerly side of said Free Street at the South-westerly corner of the premises herein conveyed; thence N21°-48'-40"W along the Westerly side of the premises herein conveyed a distance of 79.74 feet to a point; thence S64°-55'-50"W a distance of 5.00 feet to a point; thence S21°-48'-40"E a distance of 79.46 feet to the Northerly side of said Free Street; thence N68°-11'-20"E along the Northerly side of said Free Street a distance of 5.00 feet to the point of beginning, containing 309 square feet, more or less.

Said easement area being delineated as easement area I on Plan of Land in Portland, Maine, Free Street for One City Center Associates prepared by Owen Haskell, Inc., dated June 20, 1984.

Grantor, its successors and assigns shall have the right and easement with respect to said easement area I to enter with persons and equipment for construction activities and to remove earth, grade, disturb, regrade and pave such area in order to complete construction of improvements on property described in the Ground Lease between Grantor and One City Center Associates of even date herewith, a memorandum of which is being recorded herewith and to provide suitable support therefor. The easement described in this paragraph, except for the right to use such easement area for support, shall terminate on March 15, 1986.

Following the termination of the easement described in the preceding paragraph, Grantor, its successors and assigns shall have the perpetual right and easement to enter said easement area I for the purposes of repair, maintenance and replacement of improvements on the premises described in the Ground Lease of even date herewith between Grantor and One City Center Associates, a memorandum of which is recorded herewith, provided, however, that Grantee, its successors and assigns shall have the right, pursuant to a Party Wall Agreement of even date herewith to be recorded herewith, to construct improvements within said easement area I not exceeding 24 feet in height. If Grantee, its successors or assigns exercise such right to construct improvements not exceeding 24 feet in height, Grantor, its successors and assigns shall have the perpetual right and easement to enter on such improvements within said easement area I, as well as any portion thereof not occupied by said improvements including the air space above any such improvements and easement area I for the purposes of repair, maintenance and replacement of improvements constructed or to be constructed on the premises described in said Ground Lease.

JUN 28 1984

84-144-004

REGISTRY OF DEEDS CUMBERLAND COUNTY, MAINE
Received at 3 29 PM, and recorded in

BOOK 6489 PAGE 174

-2-

James J. Walsh Register

EXHIBIT 2 – HVAC/GENERATOR INFORMATION



WELCOME TO A NEW ERA OF ULTRA.



ENERGENCE® ADVANCES COMMERCIAL HVAC INTO A WHOLE NEW ERA.

A NEW ERA DOESN'T JUST COME OUT OF NOWHERE. IT'S THE RESULT OF EVOLUTION.

We've expanded our industry-leading Energence® line to include ultra-high-efficiency rooftop units to deliver ultra innovation on every count. Advanced blower and compressor technologies allow these new units to perform at optimal levels throughout the year, even in extreme weather conditions. This can translate to substantial operational cost savings over the life of the system.



**ULTRA EFFICIENT.**

Achieves efficiency ratings of up to 21.5 IEER and 13.9 EER—the highest on the market today.*

**ULTRA QUIET.**

Operates at outdoor sound levels as low as 81 dBA, making the unit the quietest in its class.*

**ULTRA LIGHT.**

Up to 42% lighter in weight than leading competitors' units, even with a substantial array of customizable features.*

**ULTRA INTELLIGENT.**

Engineered with the newly enhanced Prodigy® Control System, which has more than 250 adjustable parameters to meet almost any design specification.

**Claim pertains to 7.5- to 12.5-ton units listed in the AHRI ratings directory and available manufacturer data as of May 2014.*



ULTRA EFFICIENT

BEYOND CURRENT EFFICIENCY STANDARDS. WAY BEYOND.

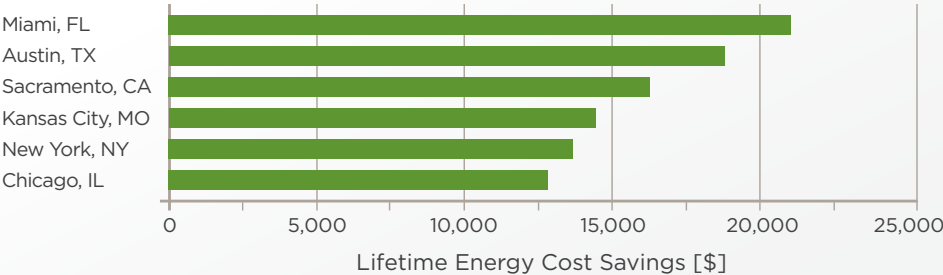
exceeds ASHRAE
standards by
up to
92%

Ultra-high efficiencies place the new Energyce® rooftop unit line in a class all its own. Industry-leading IEER ratings exceed ASHRAE 90.1-2010 minimum standards by as much as 92%.

Compared to standard-efficiency equipment, an Energyce ultra-high-efficiency unit can deliver energy savings ranging in the tens of thousands of dollars over the life of the system.*



LOWEST TOTAL COST OF OWNERSHIP



Energyce ultra-high-efficiency models may qualify for utility rebates and meet CEE Tier 2 and California Energy Code Title 24 requirements.

**Calculations based on Lennox' Total Cost of Ownership™ calculator, comparing 7.5-ton 21.5 IEER (13.9 EER) unit to a 7.5-ton 11.2 IEER (11 EER) standard-efficiency unit at a retail facility (under 25,000 square feet) and a 10:00 a.m. to 10:00 p.m. operating schedule. Lifetime energy cost savings are calculated by multiplying annual energy costs by 15 years. Actual savings may vary depending on system settings, equipment maintenance, local weather, construction, installation of equipment, duct system, hours of operation, local fuel rates and other factors. This information is intended as an example for comparison purposes only.*

**PACKED WITH INNOVATION.
AND ENERGY-SAVINGS POTENTIAL.**

MSAV® TECHNOLOGY.

Available on Emergence® units, MSAV® (Multi-Stage Air Volume) supply fan technology uses up to seven different airflow settings to automatically adjust operating speed, optimizing efficiency and performance.

Up to **72%**
IEER Improvement*

DIRECTPLUS™ BLOWER SYSTEM.

Ultra-high-efficiency models are offered with standard MSAV, along with the option of a belt drive or new patent-pending beltless DirectPlus™ system. Advantages of the DirectPlus system:

- High-efficiency motor with direct-mounted impeller provides exceptional performance and low energy consumption
- Fan design eliminates belts that age over time, reducing maintenance costs and service calls
- Slide-out blower assembly combines components, making service and installation easier
- Sound-reducing grille lowers indoor sound without affecting airflow

Up to **82%**
Supply Fan Power
Savings*

ADVANCED COOLING SYSTEM.

This patent-pending configuration is designed to deliver significant year-round savings:

- Scroll compressors use the full area of the coils, rather than parts, to better match cooling capacity to demand
- Compressor compartment is isolated, allowing for easier access and servicing
- Prodigy® Control System continuously monitors and adjusts the compressors to optimize performance and cost savings

SUNSOURCE® SOLAR READY.

SunSource® factory-installed option makes Emergence the first and only commercial HVAC system to integrate directly with solar power.

- Simple, scalable and easy to install on 3- to 12.5-ton units
- Units can achieve net-zero energy status by reaching effective efficiency levels of up to 43 IEER, 34 SEER and beyond**
- Includes an optional communication module for monitoring system status in real time

*At 55% airflow using the DirectPlus™ blower, when compared to full-load belt-drive units.

**Effective SEER and IEER estimates for the SunSource® air conditioning system are based on the U.S. Department of Energy (DOE) annual performance factor (APF) method for heat pumps and air conditioners (10CFR part 430). Estimates of annual solar energy production are calculated using National Renewable Energy Laboratory's (NREL) PVWatts, calculated at tilt angle 10 degrees with an 180 degree azimuth. Estimates of annual cooling operating cost savings for the rooftop units are calculated using Lennox' Total Cost of Ownership Calculator, with operating hours from 10:00 am to 10:00 pm in a small retail environment in the Omaha region. Estimated SEER energy calculations were made using Emergence® LGH060H4E (5 ton/17 SEER 3-phase - 460V) and six 275DC W solar modules. IEER effective efficiency calculations were made using Emergence LGH094U4E (7.5 ton/21.5 IEER 3-phase) and seven 275DC W solar modules. Note that SEER and IEER equivalents may vary by location.

ULTRA LIGHT

**AS LIGHT AS THE AIR IT PRODUCES.
WELL, ALMOST.**

Up to
42% lighter

New Energence® ultra-high-efficiency models are up to 42% lighter* in weight than leading competitors' units.

Advanced technologies and optimized cabinetry make Energence ultra-high-efficiency units lighter than other units in its class. The lighter weight makes buildings less vulnerable to structural issues, adding to your peace of mind.

Plus, they're designed to fit the same footprint as many existing Lennox® units. That means less labor and equipment is needed for setup, making replacement quick and cost effective.



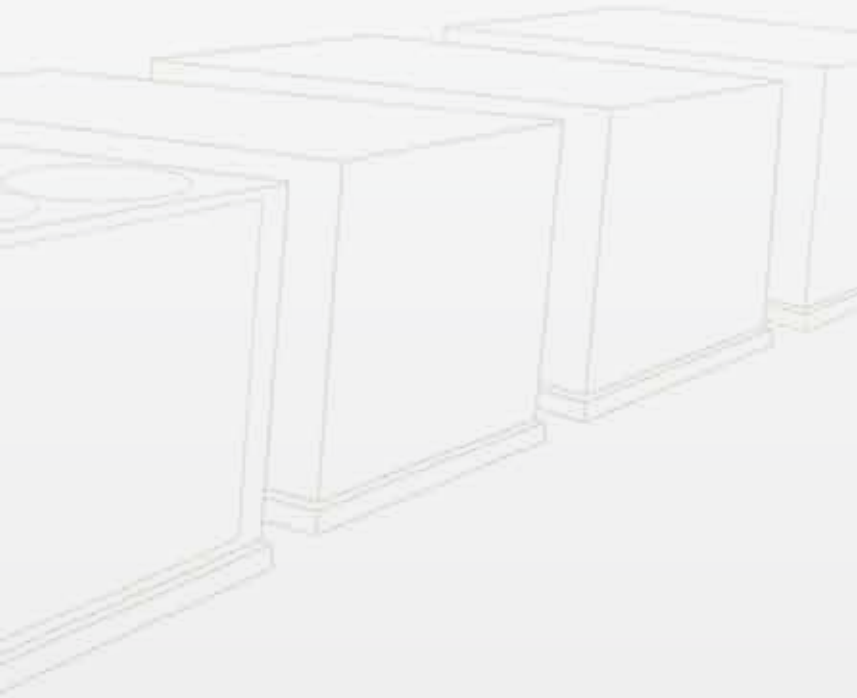
ULTRA QUIET

VIRTUALLY SILENT, EVEN WHEN RUNNING AT FULL CAPACITY

as low as
81 dBA

We've pushed the boundaries of innovation to design a rooftop unit that not only offers ultra-high efficiency, but also delivers the ultimate in quiet performance.

Technologies such as the advanced cooling system, DirectPlus™ blower system and ECM outdoor fans keep outdoor sound levels at a minimum. This helps ensure customers are comfortable whenever they enter a building, particularly if it's a movie theater, church or some other facility with low sound requirements. Ultra-quiet performance can also help keep business owners in compliance with changing environmental regulations.



ULTRA INTELLIGENT

A SMART IDEA THAT KEEPS GETTING SMARTER

Standard on every Energence® unit, the Prodigy® Control System helps optimize system performance with more than 250 adjustable parameters to meet almost any design specification. And with the new Prodigy 2.0 Unit Controller, monitoring and controlling the system is easier than ever before. This enhanced user interface includes additional space for a more intuitive navigation, along with access to the home screen from any point in the menu for quick, user-friendly operation.



ENHANCED USER INTERFACE

- 4-line by 20-character LCD with backlight provides more text/data, simplifying navigation in any condition
- Help button with menu-specific content simplifies operation and troubleshooting
- Clearly labeled scroll and adjustment buttons help eliminate accidental changes by users
- Menu LEDs clearly indicate your place in the menu

VERIFICATION WHEN AND WHERE YOU NEED IT

The USB service report makes service and troubleshooting easier than ever:

- Validates effectiveness of service and maintenance work
- Assists in making “service versus replacement” decisions based on component runtimes
- Alarm and status logs provide quick view of problem areas, speeding up maintenance
- Allows trending and verification of service and unit operation over time with time/date-stamped reports

RELIABLE, COST-SAVING OPERATION

More than 100 diagnostic codes detect operating issues to help prevent premature equipment failures and simplify troubleshooting. Plus, the Prodigy® Control System tracks the runtime of every major component and records when service or maintenance is performed, helping cut the length and cost of service calls.

PRODIGY APP ANSWERS ALL YOUR HOW-TO QUESTIONS

Available as a free download from iTunes or Google Play, the Prodigy mobile app speeds up service by giving you on-the-spot access to helpful resources. Features of the app include:

- Step-by-step troubleshooting guides
- Instructional videos
- Product and technical FAQs
- Searchable library of technical documents on lennoxcommercial.com



PERFORMANCE GEARED FOR YOUR APPLICATION

AN INNOVATIVE SOLUTION FOR EVERY BUSINESS, EVERY BUILDING

Every building is different, from its age and location to the needs and preferences of its occupants. That's why Lennox provides near-endless opportunities for customization of every Energence® rooftop unit. With more than three million possible factory configurations, it's never been easier to fine-tune your Energence unit to deliver optimal performance for your application and budget needs.

LEADING THE WAY IN LEED® CERTIFICATION

Every Energence rooftop unit is designed to reduce your business's carbon footprint:

- Industry-leading efficiencies exceed LEED® minimum requirements for EA Credit 1.3
- Environ™ Coil System (standard on most models) delivers exceptional performance, with up to 52% less refrigerant than typical units
- Millions of factory-installed options can add to the efficiency of units and help businesses qualify for additional LEED credits—as well as Title 24, ASHRAE 90.1 and many state and local utility rebates

INDOOR AIR THAT LETS EVERYONE BREATHE EASY

Improving a building's indoor air quality creates a better indoor environment, and a better indoor environment helps protect a company's productivity and profitability. Lennox' patented Humiditrol® dehumidification system removes moisture based on humidity requirements rather than temperature, making it easy and efficient to create a better indoor environment.

OPTIONS AND ACCESSORIES TO MAXIMIZE SYSTEM PERFORMANCE*

Factory- or Field-Installed Options:

- Condensate drain trap
- Blower proving switch
- Prodigy® BACnet® module (BTL certified)
- Prodigy LonTalk® module (LonTalk certified)
- Dirty filter switch
- Fresh air tempering
- Smoke detector (return and/or supply)
- Disconnect switch
- GFI service outlets
- Economizer
- Outdoor air dampers
- High-efficiency air filters
- UVC light kit
- Barometric relief dampers
- Low-temperature vestibule heater

Factory-Installed Options:

- HACR circuit breakers
- Direct-drive blower motor
- Belt-drive blower motor
- Drive kits
- Corrosion protection
- Novar® LSM
- Phase monitor
- Humiditrol dehumidification system
- Gas heat input
- Stainless steel heat exchanger
- SRC Electric Heat
- SunSource® ready

Field-Installed Options:

- Coil guards
- Hail guards
- L Connection® Network
- Horizontal economizer control kit
- Humidity sensor kit
- CO₂ sensor
- LGP/propane conversion kit

**All options are not available for all models of Energence® rooftop units. Please contact your Lennox sales representative for details.*

BACnet is a registered trademark of ASHRAE.

LonTalk is a registered trademark of the Echelon Corporation.

QUALITY COMPONENTS BUILT INTO EVERY ENERGENCE® ROOFTOP UNIT

1 HINGED ACCESS PANEL:

Provides quick access to components and protects panels and roof from damage during servicing.

2 ISOLATED COMPRESSOR COMPARTMENT:

Allows performance check during normal compressor operation without disrupting airflow.

3 CORROSION-RESISTANT, REMOVABLE, DOUBLE-SLOPED DRAIN PAN:

Provides application flexibility, durability and improved serviceability.

4 THERMOSTATIC EXPANSION VALVES:

Provide peak cooling performance across the entire application range.

5 SCROLL COMPRESSOR:

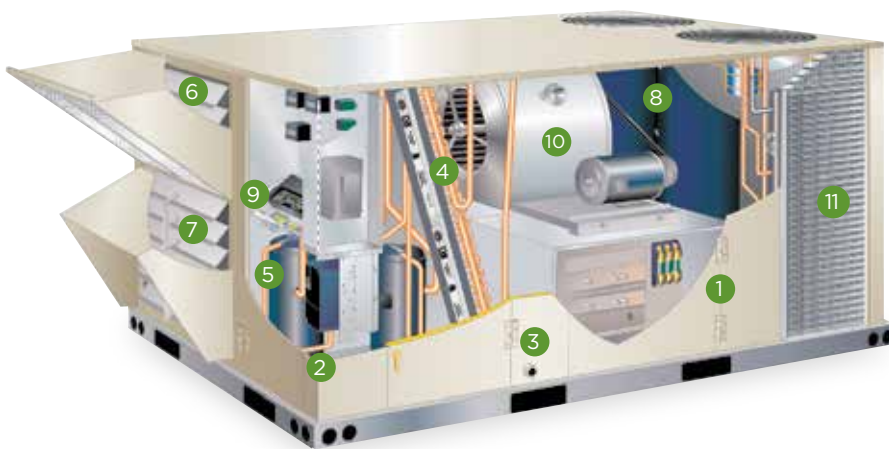
Standard on all units for reliable, long-term operation.

6 HUMIDITROL® DEHUMIDIFICATION SYSTEM:

Optional patented system allows for independent control of temperature and humidity, providing enhanced comfort control.

7 MERV 13 FILTERS:

Optional filters provide an enhanced level of indoor air quality, and can help the building qualify for additional LEED® credits.



8 FOIL-FACED INSULATION:

On all internal surfaces that contact airflow, helps minimize airborne fibers and improve IAQ.

9 PRODIGY® CONTROL SYSTEM:

Standard on every Energence® rooftop unit.

10 MSAV® (MULTI-STAGE AIR VOLUME) SUPPLY FAN:

Optional MSAV® helps achieve the highest level of energy savings and comfort control with blower speed modulation

11 ENVIRON™ COIL SYSTEM:

Uses less refrigerant and is lighter than traditional coils (available on select models).

BLOWER BELT AUTO TENSIONER:

Optional auto tensioner ensures blower is delivering the proper airflow for comfort, while maximizing efficiency and belt life (not shown).

ENERGENCE® ULTRA-HIGH-EFFICIENCY ROOFTOP UNIT PERFORMANCE SPECIFICATIONS

	NOM. TON	MODEL	COOLING DATA		HEATING INPUT					PHYSICAL DATA	
			EER	IEER	LOW	STD.	MED.	HIGH		DIMENSIONS H X W X L [INCHES]	SHIP WT. [LBS.]
GAS/ ELECTRIC UNITS	7.5	LGH094U4M/E	13.4/13.9	20.7/21.5	—	130	180	240		47 x 61 x 124	1,345
	10	LGH122U4M/E	12.6/13.1	19.2/20.0	—	130	180	240		47 x 61 x 124	1,355
	12.5	LGH152U4M/E	12.0/12.3	18.1/18.9	—	130	180	240		47 x 61 x 124	1,365
					KW RANGE						
ELECTRIC/ ELECTRIC UNITS	7.5	LCH094U4M/E	13.4/13.9	20.7/21.5	7.5	15	22.5	30	45	47 x 61 x 124	1,297
	10	LCH122U4M/E	12.6/13.1	19.2/20.0	15	22.5	30	45	60	47 x 61 x 124	1,307
	12.5	LCH152U4M/E	12.0/12.3	18.1/18.9	15	22.5	30	45	60	47 x 61 x 124	1,317

M=Belt Drive MSAV® option
E=DirectPlus™ option

ENERGENCE® ROOFTOP UNIT PERFORMANCE SPECIFICATIONS

			COOLING DATA		HEATING DATA				PHYSICAL DATA		
	NOM TON.	MODEL	EER	SEER OR IEER	LOW	STD.	MED.	HIGH	DIMENSIONS H X W X L [INCHES]	SHIP WT. [LBS.]	
GAS/ELECTRIC UNITS	3	LGH036S4T	11.6	15.0	—	65	105	—	39 x 47 x 86	610	
	3	LGH036H4E	12.7	18.0	—	65	105	—	39 x 47 x 86	610	
	4	LGH048S4T	12.5	15.0	—	65	105	150	39 x 47 x 86	626	
	4	LGH048H4E	12.8	17.6	—	65	105	150	39 x 47 x 86	626	
	5	LGH060S4T	12.5	15.5	—	65	105	150	47 x 4 ⁹ / ₆	704	
	5	LGH060H4E	12.7	17.1	—	65	105	150	47 x 47 x 86	704	
	6	LGH072H4B	12.0	13.5	—	65	105	150	47 x 47 x 86	781	
	7.5	LGH092H4B/M	12.5	13.0/14.0	—	130	180	240	47 x 61 x 102	1,173	
	8.5	LGH102H4B/M	12.2	12.9/14.0	—	130	180	240	47 x 61 x 102	1,180	
	10	LGH120H4B/M	12.0	13.0/13.8	—	130	180	240	47 x 61 x 102	1,215	
	12.5	LGH150S4B/M	11.0	11.4/13.1	—	130	180	240	47 x 61 x 102	1,255	
	13	LGH156H4B/M	12.0	13.6/14.1	169	260	360	—	55 x 91 x 108	2,135	
	15	LGH180H4B/M	12.0	13.5/13.7	169	260	360	480	55 x 91 x 133	2,315	
	17.5	LGH210H4B/M	12.0	13.0/14.0	169	260	360	480	55 x 91 x 133	2,440	
	20	LGH240H4B/M	12.0	13.2/14.5	—	260	360	480	55 x 91 x 133	2,525	
	20	LGH242H4V	12.3	15.5	—	260	360	480	65 x 91 x 145	3,317	
	25	LGH300S4B/M	10.5	10.9/13.8	—	260	360	480	55 x 91 x 133	2,630	
	25	LGH300H4B/V	11.6	12.5/14.3	—	260	360	480	65 x 91 x 145	3,317	
	30	LGH360H4B/V	10.6	11.5/13.5	—	260	360	480	65 x 91 x 145	3,317	
	35	LGH420S4B/V	9.8/10.0	10.2/11.0	—	500	—	800	68 x 90 x 286	6,345–8,600	
	35	LGH420H4B/V	10.8	11.3/12.5	—	500	—	800	68 x 90 x 286	6,345–8,600	
	40	LGH480S4B/V	9.8	10.1/11.0	—	500	—	800	68 x 90 x 286	6,345–8,600	
	40	LGH480H4B/V	11.0/10.8	12.0/13.0	—	500	—	800	68 x 90 x 286	6,345–8,600	
	45	LGH540S4B/V	9.8/10.0	10.5/11.7	—	500	—	800	68 x 90 x 286	6,345–8,600	
	50	LGH600S4B/V	9.8	10.3/11.0	—	500	—	800	68 x 90 x 286	6,345–8,600	
					KW RANGE						
ELECTRIC/ELECTRIC UNITS	3	LCH036S4T	11.6	15.0	7.5	15	—	—	39 x 47 x 86	574	
	3	LCH036H4E	12.7	18.0	7.5	15	—	—	39 x 47 x 86	574	
	4	LCH048S4T	12.5	15.0	7.5	15	—	—	39 x 47 x 86	590	
	4	LCH048H4E	12.8	17.6	7.5	15	—	—	39 x 47 x 86	590	
	5	LCH060S4T	12.5	15.5	7.5	15	22.5	—	47 x 47 x 86	668	
	5	LCH060H4E	12.7	17.1	7.5	15	22.5	—	47 x 47 x 86	668	
	6	LCH072H4B	12.0	13.5	7.5	15	22.5	30	47 x 47 x 86	745	
	7.5	LCH092H4B/M	12.7	13.0/14.0	7.5	15	22.5	30	45	47 x 61 x 102	1,125
	8.5	LCH102H4B/M	12.4	12.9/14.0	7.5	15	22.5	30	45	47 x 61 x 102	1,132
	10	LCH120H4B/M	12.2	13.2/14.0	15	22.5	30	45	60	47 x 61 x 102	1,167
	12.5	LCH150S4B/M	11.2	11.6/13.1	15	22.5	30	45	60	47 x 61 x 102	1,207
	13	LCH156H4B/M	12.0	13.6/14.1	15	30	45	60	—	55 x 91 x 108	1,985
	15	LCH180H4B/M	12.0	13.5/13.7	15	30	45	60	—	55 x 91 x 133	2,165
	17.5	LCH210H4B/M	12.0	13.0/14.0	15	30	45	60	90	55 x 91 x 133	2,290
	20	LCH240H4B/M	12.0	13.2/14.5	15	30	45	60	90	55 x 91 x 133	2,375
	20	LCH242H4V	12.5	15.5	30–120				65 x 91 x 145	3,207	
	25	LCH300S4B/M	10.5	10.9/13.8	15	30	45	60	90	55 x 91 x 133	2,480
	25	LCH300H4B/V	11.8	12.5/14.3	30–120				65 x 91 x 145	3,207	
	30	LCH360H4B/V	10.8	11.5/13.5	30–120				65 x 91 x 145	3,207	
	35	LCH420S4B/V	10.0	10.2/11.0	30–120				68 x 90 x 286	6,345–8,600	
	35	LCH420H4B/V	10.8	11.3/12.5	30–120				68 x 90 x 286	6,345–8,600	
	40	LCH480S4B/V	10.0	10.1/11.0	30–150				68 x 90 x 286	6,345–8,600	
	40	LCH480H4B/V	11.0/10.8	12.0/13.0	30–150				68 x 90 x 286	6,345–8,600	
	45	LCH540S4B/V	10.0	10.5/11.7	45–165				68 x 90 x 286	6,345–8,600	
	50	LCH600S4B/V	10.0	10.3/11.0	45–180				68 x 90 x 286	6,345–8,600	

E=Direct Drive, T=Belt Drive, CAV (2-speed), B=Belt Drive, CAV (1-speed), M= Belt Drive MSAV®, V=Variable Air Volume Belt Drive

NOTE: Due to Lennox' ongoing commitment to quality, all specifications, ratings and dimensions are subject to change.
All ratings shown are for the highest-rated model in the tonnage size.

**GROUNDBREAKING INNOVATION.
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Since 1895, Lennox has been on a continuous quest to reinvent indoor comfort. Today, we are proud to introduce our latest advancement in that pursuit.

The newest models in the Emergence® line are our most energy-efficient rooftop units yet, and efficiency is just the beginning. Emergence is engineered to deliver ultra innovation on all counts, making it an ultra-smart choice for optimal performance and total cost of ownership.

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Litho U.S.A.

Model: **30REZG**

KOHLER Power Systems

190-600 V

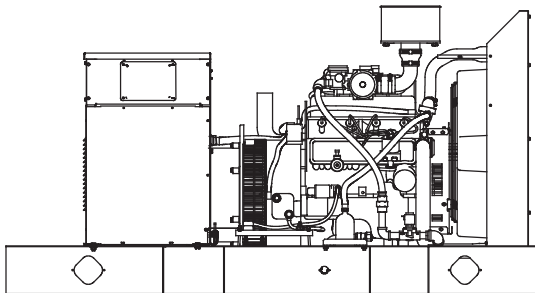
Gas



EPA-Certified for Stationary Applications

Ratings Range

		60 Hz	50 Hz
Standby:	kW	28-30	23-26
	kVA	28-38	23-33
Prime:	kW	25-27	18-26
	kVA	25-33	20-33



Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all systems and components. Two- and five-year extended warranties are also available.
- Alternator features:
 - The unique Fast-Response™ II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
 - The brushless, rotating-field alternator has broadrange reconnectability.

Generator Set Ratings

Alternator	Voltage	Ph	Hz	Natural Gas 130°C Rise Standby Rating		LP Gas 130°C Rise Standby Rating		Natural Gas 105°C Rise Prime Rating		LP Gas 105°C Rise Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps
4P5	120/208	3	60	29/36	101	30/38	104	26/32	90	27/33	93
	127/220	3	60	29/36	95	30/38	98	26/32	85	27/33	88
	120/240	3	60	29/36	87	30/38	90	26/32	78	27/33	81
	120/240	1	60	28/28	117	28/28	117	25/25	104	25/25	104
	139/240	3	60	29/36	87	30/38	90	26/32	78	27/33	81
	220/380	3	60	29/36	55	30/38	57	26/32	49	27/33	51
	277/480	3	60	29/36	44	30/38	45	26/32	39	27/33	40
	347/600	3	60	29/36	35	30/38	36	26/32	31	27/33	32
	110/190	3	50	25/31	95	25/31	95	21/27	82	21/27	82
	115/200	3	50	25/31	90	25/31	90	21/27	77	21/27	77
	120/208	3	50	25/31	87	25/31	87	21/27	74	21/27	74
	110/220	1	50	23/23	105	23/23	105	20/20	90	20/20	90
	110/220	3	50	25/31	82	25/31	82	21/27	70	21/27	70
	220/380	3	50	25/31	47	25/31	47	21/27	41	21/27	41
	230/400	3	50	25/31	45	25/31	45	21/27	38	21/27	38
	240/416	3	50	25/31	43	25/31	44	21/27	37	21/27	37
4P7	120/208	3	60	30/38	104	30/38	104	27/33	93	27/33	93
	127/220	3	60	30/38	98	30/38	98	27/33	88	27/33	88
	120/240	3	60	30/38	90	30/38	90	27/33	81	27/33	81
	120/240	1	60	28/28	117	28/28	117	25/25	104	25/25	104
	139/240	3	60	30/38	90	30/38	90	27/33	81	27/33	81
	220/380	3	60	30/38	57	30/38	57	27/33	51	27/33	51
	277/480	3	60	30/38	45	30/38	45	27/33	40	27/33	40
	347/600	3	60	30/38	36	30/38	36	27/33	32	27/33	32
	110/190	3	50	26/33	99	26/33	99	23/29	88	23/29	88
	115/200	3	50	26/33	94	26/33	94	23/29	83	23/29	83
	120/208	3	50	26/33	90	26/33	90	23/29	80	23/29	80
	110/220	3	50	26/33	85	26/33	85	23/29	76	23/29	76
	110/220	1	50	25/25	114	25/25	114	22/22	100	22/22	100
	220/380	3	50	26/33	49	26/33	49	23/29	44	23/29	44
	230/400	3	50	26/33	47	26/33	47	23/29	41	23/29	41
	240/416	3	50	26/33	45	26/33	45	23/29	40	23/29	40
4Q7	120/240	1	60	30/30	125	30/30	125	27/27	112	27/27	112
	110/220	1	50	25/25	114	25/25	114	22/22	100	22/22	100

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. **Standby Ratings:** The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. **Prime Power Ratings:** At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. For dual fuel engines, use the natural gas ratings for both the primary and secondary fuels.

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet
Leads: quantity, type	
4P5, 4P7	12, Reconnectable
4Q7	4, 110–120/220–240
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V, 380 V 4P5 (12 lead)	140 (60 Hz), 98 (50 Hz)
480 V, 380 V 4P7 (12 lead)	194 (60 Hz), 134 (50 Hz)
240 V, 220 V 4Q7 (4 lead)	104 (60 Hz), 91 (50 Hz)

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Vacuum-impregnated windings with fungus-resistant epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.
- Fast-Response™ II brushless alternator with brushless exciter for excellent load response.

Application Data

Engine

Engine Specifications	60 Hz	50 Hz
Manufacturer	General Motors	
Engine: model, type	Industrial Powertrain 3.0 L, 4-Cycle Natural Aspiration	
Cylinder arrangement	4 Inline	
Displacement, L (cu. in.)	3.0 (181)	
Bore and stroke, mm (in.)	101.6 x 91.4 (4.00 x 3.60)	
Compression ratio	8.2:1	
Piston speed, m/min. (ft./min.)	329 (1080)	274 (900)
Main bearings: quantity, type	2 Bolt	
Rated rpm	1800	1500
Max. power at rated rpm, kW (HP)	36.5 (49)	32 (43)
Engine power at standby rating, kW (HP)	36.5 (49)	32 (43)
Cylinder head material	Cast Iron	
Piston type and material	High Silicon Aluminum	
Crankshaft material	Nodular Iron	
Valve (exhaust) material	Forged Steel	
Governor type	Electronic	
Frequency regulation, no-load to full-load	Isochronous	
Frequency regulation, steady state	±0.5%	
Frequency	Fixed	
Air cleaner type, all models	Dry	

Exhaust

Exhaust System	60 Hz	50 Hz
Exhaust manifold type	Dry	
Exhaust flow at rated kW, m³/min. (cfm)	7.1 (250)	5.9 (208)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	688 (1270)	
Maximum allowable back pressure, kPa (in. Hg)	10.2 (3.0)	
Exhaust outlet size at engine hookup, mm (in.)	64 (2.5) OD	

Engine Electrical

Engine Electrical System	60 Hz	50 Hz
Ignition system	Electronic, Distributor	
Battery charging alternator:		
Ground (negative/positive)	Negative	
Volts (DC)	12	
Ampere rating	70	
Starter motor rated voltage (DC)	12	
Battery, recommended cold cranking amps (CCA):		
Qty., rating for -18°C (0°F)	1, 630	
Battery voltage (DC)	12	

Fuel

Fuel System	60 Hz	50 Hz
Fuel type	Natural Gas, LP Gas, or Dual Fuel	
Fuel supply line inlet	1 NPTF	
Natural gas fuel supply pressure, kPa (in. H ₂ O)	1.74–2.74 (7–11)	
LPG vapor withdrawal fuel supply pressure, kPa (in. H ₂ O)	1.24–2.74 (5–11)	
Dual fuel engine, LPG vapor withdrawal fuel supply pressure, kPa (in. H ₂ O)	1.24 (5)	

Fuel Composition Limits *	Nat. Gas	LP Gas
Methane, % by volume	90 min.	—
Propane, % by volume	1.0 max.	85 min.
Propene, % by volume	0.1 max.	5.0 max.
C ₄ and higher, % by volume	0.3 max.	2.5 max.
Sulfur, ppm mass	25 max.	
Lower heating value, MJ/m³ (Btu/ft³), min.	33.2 (890)	84.2 (2260)

* Fuels with other compositions may be acceptable. If your fuel is outside the listed specifications, contact your local distributor for further analysis and advice.

Application Data

Lubrication

Lubricating System	60 Hz	50 Hz
Type	Full Pressure	
Oil pan capacity, L (qt.)	3.8 (4.0)	
Oil pan capacity with filter, L (qt.)	4.1 (4.3)	
Oil filter: quantity, type	1, Cartridge	

Cooling

Radiator System	60 Hz	50 Hz
Ambient temperature, °C (°F) *	50 (122)	
Engine jacket water capacity, L (gal.)	6.8 (1.8)	
Radiator system capacity, including engine, L (gal.)	14.9 (3.9)	
Engine jacket water flow, Lpm (gpm)	42 (11)	35 (9)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	34.1 (1940)	28.4 (1617)
Water pump type	Centrifugal	
Fan diameter, including blades, mm (in.)	533 (21)	
Fan, kWm (HP)	1.5 (2.0)	1.0 (1.2)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H ₂ O)	0.125 (0.5)	

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

Air Requirements	60 Hz	50 Hz
Radiator-cooled cooling air, m ³ /min. (scfm) †	142 (5000)	113 (4000)
Combustion air, m ³ /min. (cfm)	2.1 (74)	1.75 (62)
Heat rejected to ambient air:		
Engine, kW (Btu/min.)	9.2 (522)	15.4 (860)
Alternator, kW (Btu/min.)	4.5 (259)	3.75 (216)

† Air density = 1.20 kg/m³ (0.075 lbm/ft³)

Fuel Consumption ‡	60 Hz	50 Hz
Natural Gas, m³/hr. (cfh) at % load	Standby Ratings	
100%	12.2 (430)	10.2 (358)
75%	9.6 (340)	8.0 (283)
50%	7.2 (255)	6.0 (213)
25%	5.1 (179)	4.3 (149)

LP Gas, m³/hr. (cfh) at % load	Standby Ratings	
100%	5.0 (175)	4.2 (146)
75%	4.1 (144)	3.4 (120)
50%	3.1 (108)	2.6 (90)
25%	2.1 (74)	1.8 (62)

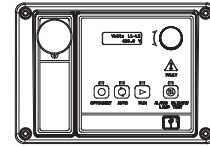
Natural Gas, m³/hr. (cfh) at % load	Prime Ratings	
110%	12.2 (430)	10.2 (360)
100%	11.1 (393)	9.3 (328)
75%	8.9 (312)	7.4 (260)
50%	6.8 (238)	5.6 (199)
25%	4.9 (173)	4.2 (146)

LP Gas, m³/hr. (cfh) at % load	Prime Ratings	
110%	5.0 (176)	4.2 (148)
100%	4.7 (164)	3.9 (137)
75%	3.8 (134)	3.2 (111)
50%	2.9 (102)	2.4 (86)
25%	2.0 (71)	1.7 (61)

‡ Nominal fuel rating: Natural gas, 37 MJ/m³ (1000 Btu/ft.³)
LP vapor, 93 MJ/m³ (2500 Btu/ft.³)

LP vapor conversion factors:
8.58 ft.³ = 1 lb.
0.535 m³ = 1 kg.
36.39 ft.³ = 1 gal.

Controllers

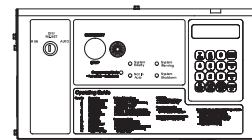


Decision-Maker® 3000 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-100 for additional controller features and accessories.



Decision-Maker® 550 Controller

Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities.

- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-46 for additional controller features and accessories.

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Electronic, Isochronous Governor
- Gas Fuel System (includes fuel mixer, electronic secondary gas regulator, gas solenoid valve, and flexible fuel line between the engine and the skid-mounted fuel system components)
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Approvals and Listings

- ☐ CSA Approval
- ☐ IBC Seismic Certification
- ☐ UL 2200 Listing

Enclosed Unit

- ☐ Sound Enclosure (with enclosed critical silencer)
- ☐ Weather Enclosure (with enclosed critical silencer)

Open Unit

- ☐ Exhaust Silencer, Critical (kit: PA-352663)
- ☐ Flexible Exhaust Connector, Stainless Steel

Fuel System

- ☐ Dual Fuel NG/LPG (automatic changeover)
- ☐ Flexible Fuel Line
(required when the generator set skid is spring mounted)
- ☐ Gas Filter
- ☐ LP Liquid Withdrawal (vaporizer)
- ☐ Secondary Gas Solenoid Valve

Controller

- ☐ Common Fault Relay
- ☐ Communication Products and PC Software
(Decision-Maker® 550 controller only)
- ☐ Customer Connection
(Decision-Maker® 550 controller only)
- ☐ Dry Contact (isolated alarm)
(Decision-Maker® 550 controller only)
- ☐ Input/Output Module
(Decision-Maker® 3000 controller only)
- ☐ Remote Annunciator Panel
- ☐ Remote Audiovisual Alarm Panel
(Decision-Maker® 550 controller only)
- ☐ Remote Emergency Stop
- ☐ Run Relay

Cooling System

- ☐ Block Heater, 1000 W, 110–120 V
Recommended for ambient temperatures below 10°C (50°F)
- ☐ Radiator Duct Flange

Electrical System

- ☐ Alternator Strip Heater
- ☐ Battery
- ☐ Battery Charger, Equalize/Float Type
- ☐ Battery Heater
- ☐ Line Circuit Breaker (NEMA1 enclosure)
- ☐ Line Circuit Breaker with Shunt Trip (NEMA1 enclosure)

Miscellaneous

- ☐ Air Cleaner Restrictor Indicator
- ☐ Certified Test Report
- ☐ Engine Fluids (oil and coolant) Added
- ☐ Rated Power Factor Testing
- ☐ Rodent Guards

Literature

- ☐ General Maintenance
- ☐ NFPA 110
- ☐ Overhaul
- ☐ Production

Warranty

- ☐ 2-Year Basic
- ☐ 5-Year Basic
- ☐ 5-Year Comprehensive

Other Options

- ☐
- ☐
- ☐
- ☐
- ☐
- ☐
- ☐
- ☐

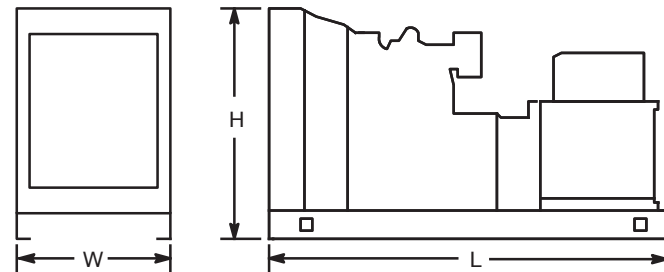
Dimensions and Weights

Overall Size, L x W x H, mm (in.):

Wide Skid 2200 x 1040 x 1172 (86.6 x 40.9 x 46.1)

Narrow Skid 2200 x 864 x 1172 (86.6 x 34.0 x 46.1)

Weight (radiator model), wet, kg (lb.): 639 (1409)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

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EXHIBIT 3 – CAPACITY TO SERVE LETTERS



Portland Water District

F R O M S E B A G O L A K E T O C A S C O B A Y

March 18, 2016

WRBC
141 Preble Street
Portland, ME 04101

Attn: Mr. John Kenney, PE
Re: 121 Center Street – Portland
Ability to Serve with PWD Water

Dear Mr. Kenney:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on March 7, 2016. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter.

Conditions of Service

The following conditions of service apply:

- A new 4-inch domestic service may be installed from the water main in Center Street. The service should enter through the properties frontage on Center Street at least 10-feet from any side property lines.
- The existing services at this site may be used by the proposed development as long as the project team determines that they will provide adequate flow and pressure for the proposed use. If any of the existing services will no longer be used as a result of the development then they must be retired per PWD standards. This includes shutting the corporation valve and cutting the pipe from the water main (for the 2-inch service) or removing the 6-inch gate valve and capping the tapping sleeve (for the 6-inch service).
- The District can confirm that the East End Wastewater Treatment plan can handle the additional capacity. Please contact the City of Portland regarding the capacity of the sewer collection system.
- Water District approval of water infrastructure plans will be required for the project prior to construction. As your project progresses, we advise that you submit any preliminary design plans to MEANS for review of the water main and water service line configuration. We will work with you to ensure that the design meets our current standards.

Existing Site Service

According to District records, the project site does currently have existing water service. A 6-inch diameter cast iron fire service line and a 2-inch copper domestic water service line, located as shown



on the attached water service cards, provide water service to this site. Please refer to the “Conditions of Service” section of this letter for requirements related to the use of these services.

Water System Characteristics

According to District records, there is a 12-inch diameter cast iron water main on the northeast side of Center Street and a public fire hydrant located at the site. Recent flow data is not available in this area. The most recent static pressure reading was 85 psi on October 20, 2015.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

A handwritten signature in black ink, appearing to read "Gordon S. Johnson", with a long horizontal flourish extending to the right.

Gordon Johnson, PE.
Engineering Services Manager



John S Kenney Ph.D., P.E., LEED AP
WBRC Architects Engineers
44 Central Street
Bangor, Me 04401

March 8, 2016

RE: Ability to Serve for 407110 Asylum Project at 121 Center Street in Portland

Dear John,

This letter is to confirm that Pine Tree Waste Inc. located in Scarborough, Maine, has the capabilities to pick up, and dispose of annual volumes of (CDD) construction demolition debris as well as CDD material generated by proposed construction at the Asylum at 121 Center Street in Portland, ME. The end site for this material will be:

Juniper Ridge Landfill
2828 Bennoch Road
Alton, Me 44088

MDEP Permit # S-020700-WD-N-A

Pine Tree Waste Inc can also transport volumes of non-hazardous MSW (Municipal Solid Waste). The end site for this material will be:

ECO Maine
Blueberry Lane
Portland, ME 04103

This letter is not a quote for service. It is a statement of capabilities. The sole purpose of this letter is to communicate the willingness and capabilities that Pine Tree Waste Inc. has towards providing this service as requested. If you have any questions or concerns, please do not hesitate to give me a call.

Sincerely,

Bill Bennett
Pine Tree Waste Inc.
87 Pleasant Hill Road
Scarborough, ME 04074
Office: 510-4828
Fax: 883-1954
William.bennett@casella.com



496 Congress Street, Portland Me. 04101

March 25, 2016

To Whom It May Concern:

Unified Parking Partners intends to enter into lease negotiations with The Asylum at 121 Center Street in Portland to provide exclusive surface parking for Asylum events at our managed parking lots at 51-59 Free Street and One Portland Square. Please contact me at (207) 751-1679 should you have any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "DMcNutt", is written over a light blue horizontal line. The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Dan McNutt, Managing Partner

Unified Parking Partners

EXHIBIT 4 – FINANCIAL CAPACITY INFORMATION

Asylum Event Space
New Addition, Renovate Existing
Exhibit B

121 Center Street
 Portland, ME 04101

Statement of Probable Costs

Statement of Probable Cost

Option with Balcony

1/25/16

	Ft ²	\$\$ per ft ²		Total Q2-Q3 2016 Constr.	
CONSTRUCTION COSTS					
1 New Construction - Expansion	10,960	\$ 335.00	CONESTCO	\$ 3,671,600	
2 Renovations to existing space	8,305	\$ 150.00	3rd	1,245,750	
3 Additional Cost Offset Lump Sum		\$ -	Party	1,949,875	
4 Increased project difficulty factor		\$ -	Estimate	125,000	
5 Kitchen/Bar/Walk-in Cooler Equipment			C. Caprara Food Service Lump Sum Estimate	179,071	
Subtotal				\$ 7,171,296	\$ 298.80
ADMINISTRATIVE COST & RESERVE					
6 Moveable Equipment & furnishings			3.0%	209,767	
7 Specialty Light/Sound/Rigging			Waterfront Concerts Lump Sum Estimate	250,000	
8 Advertising / Insurance / Legal			Lump Sum Estimate	5,000	
9 Bid Contingency			3.0%	215,139	
10 Design & Construction Contingency			5.0%	358,565	
Subtotal				\$ 1,038,470	
FEES AND SERVICES					
11.1 Architect/Engineer - SD-CD earned as of 1/25/16				132,248.00	
11.2 Architect/Engineer credit for work earned to date				(88,606.00)	
11.3 Architect/Engineer - Balcony Concept				2,700.00	
11.4 Architect/Engineer - SD-CD @ 12.1% x .70				607,408.77	
12 Architect/Engineer - Bid-CA @ 12.1% x .30				260,318.04	
13 A/E Reimbursable (printing)			Lump Sum Estimate	3,000.00	
14 A/E - Permitting (SFM)			Lump Sum Estimate	800.00	
15 A/E - Permitting (Local PB, Historic)			Lump Sum Estimate	14,500.00	
16 Historic Consultant			Lump Sum Estimate	-	
17 Specialty Consultant (acoustics, kitchen)			Lump Sum Estimate	7,000.00	
18 Survey / Soils			Lump Sum Estimate	12,600.00	
19 Hazardous Materials Testing and Abatement			Lump Sum Estimate	4,700.00	
20 Cost consultant			Lump Sum Estimate	7,440.00	
21 Construction Testing			Lump Sum Estimate	8,500.00	
22 Owners Representative/Clerk			Lump Sum Estimate	-	
Subtotal				\$ 926,267	
TOTAL				\$ 9,136,033	\$ 380.67
					per SF



The Northern Trust Company
600 Brickell Avenue, Suite 2400
Miami, Florida 33131
(305) 372-1000



Northern Trust

March 25, 2016

To Whom it May Concern:

Northern Trust is currently working with The Asylum and Valerie Levy to provide financing for the construction project on the property located at 121 Center Street Portland, Maine. Financing is subject to certain conditions yet to be finalized, but we are optimistic, as the group has the capacity to complete the project.

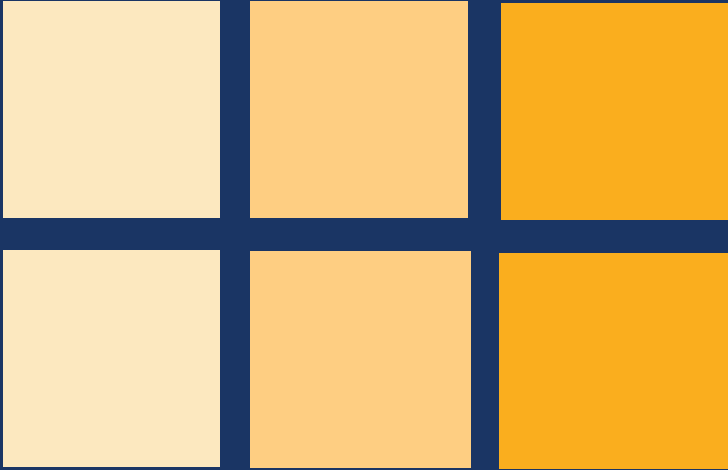
The current loan request is subject to full underwriting by Northern Trust and therefore is not a commitment to lend.

We value our relationship with The Asylum and Valerie Levy and to work with them on this project. Should you have any questions, please feel free to contact me at 305-789-1129.

Sincerely,
Northern Trust

Candace Falsetto
Vice President

EXHIBIT 5 – TECHNICAL CAPACITY INFORMATION



STATEMENT OF QUALIFICATIONS

ENGINEERING SERVICES

WBRC's Professional Disciplines

LAND USE PERMITTING

WBRC has been providing professional land use designing and permitting services for over a century. Many projects require planning, design, and construction, as well as public presentation, collaboration with city officials, and state and federal agency reviews. Often these projects also require calibration with outside interest groups to obtain feedback on the proposed concepts (roadway, sidewalk and trail locations, etc.) during public forums and other informational meetings administer by WBRC on behalf of clients. WBRC's land use team has extensive experience in the areas of site due diligence, urban streetscape design, urban planning, environmental planning and permitting, stormwater master planning, roadway design, wetland analysis and mitigation, surveying/GIS, public presentation, facilitation of project meetings, regulatory assistance and fundraising/referendum support.

ARCHITECTURAL DESIGN

While WBRC's architectural designs have been recognized by many third-party accolades, the best "award" is a great space that occupants love. Creating such spaces require a combination of listening skills, creative talent, and technical acumen. WBRC architects are trained and skilled in BIM, Sketch Up, the Adobe products suite, Autodesk 3ds, and Revit. When a project warrants it, WBRC also regularly partners with other A/E professionals to create branded and niche facility solutions.

INTERIOR DESIGN

A well-designed interior will enhance everything from safety to productivity to the perceived value of your brand. WBRC's interior design team is experienced with space planning across many sectors, allowing us to "cross-pollinate" new ideas and best practices. The firm's interior design team is also well-versed in construction documentation, finish material and color selection, and specification of furniture, fixtures, equipment and accessories.

LANDSCAPE ARCHITECTURE

Landscape architecture is critical to communicating a client's presence in the fabric of a community. WBRC's approach to landscape architecture combines the owner's vision, site history, and current context to create a unique presence—in a manner that also factors in practicalities from long-term horticultural growth patterns to ADA compliance to wayfinding.

SITE/CIVIL ENGINEERING

WBRC's site and civil engineering team brings ingenuity, practicality, and diverse expertise to its work, producing high quality, customized site and civil engineering design options. Through clarity and communication, WBRC's site/civil team has earned a reputation for making the permitting process quick and efficient.

STRUCTURAL ENGINEERING

WBRC's structural engineering team has diverse experience in the structural analysis, design, and detailing of projects that leave both small and large footprints—from multi-story structures to multi-facility campuses.

MECHANICAL ENGINEERING

Energy conservation, occupant comfort, indoor air quality, noise abatement, and acoustic control are among the many challenges tackled by WBRC's mechanical engineers. From plumbing, heating, ventilation, and air conditioning to fire protection and safety systems, our mechanical engineers have a track record for creating solutions that seamlessly integrate into new or existing facilities.

ELECTRICAL ENGINEERING

WBRC's electrical engineering team incorporates innovative and energy-efficient solutions for a wide range of systems including power, electrical distribution, fire alarm, security, lighting, and computer data systems.

Committed to Ongoing Professional Education

The WBRC project team members proposed to stay on top of best project management practices by their participation in these and other professional organizations.





WBRC Architects•Engineers

Administrative Expertise and Project Management Methods

Document Distribution and Communication Plan

It is critically important that the right people know when and how decisions are made. WBRC works with the project team to draft a document distribution and communication plan.

WBRC uses Citrix ShareFile, a web-based project information exchange to handle file transfers, however, some clients prefer email, while others favor phone conversations or face-to-face meetings with documentation that follows. Regardless of the method, your WBRC team understands the importance of keeping you informed in a way that makes sense to you and your organization.

Quality Assurance

WBRC has a robust quality control system in place to ensure the best product is provided to every client. In addition to the oversight of the principal-in-charge, project manager, and studio director, experienced professionals from each discipline, not directly involved with the project, review the documents for constructability, code compliance, and coordination.

Detailed Cost Estimating

A comprehensive and accurate cost estimate is often a critical component of any project. WBRC contracts with experienced third-party cost estimators, and the project is reviewed at multiple stages throughout the design. Additionally, we consult our data bank of cost analytics, architects' schedule of values, project cost balancing, and project economics. These help ensure that the design remains within budget as it progresses, all the way through to the bidding process.

Project Closeout and Post Occupancy

This step in the process of completing the project helps to ensure the finished product is delivered as expected by everyone involved. WBRC also works with the General Contractor to ensure that any incomplete or deficient work is corrected in a timely manner, and that operations and maintenance manuals and record drawings of the project are complete and provided to the owner.

A Track Record of Maintaining Budgets and Controlling Costs

Your WBRC team understands that the selected firm will be entrusted to determine the best way to invest limited dollars into meaningful renovations. We take this responsibility very seriously with full commitment for your success.

WBRC has versatile experience in delivering similarly sized projects within the local Maine economic environment as it relates to a project's proposed construction budget and size. WBRC's cost-control approach of detailed cost estimating at each phase of design has a proven track record of success.

The projects listed below are a representative sample of our renovation and new projects competitively bid by a general contractor or by sub-contractors.

WBRC successfully managed the budget to deliver these projects, which were all constructed within the strict limitations of the available funds or grants.

WBRC Project	Construction Cost	On Schedule	On Budget
AASF Building 260, Parking Lot Lighting Improvements	\$13,400	•	•
AASF Building 260, Wash Bay	\$42,000	•	•
AASF Building 260, Hangar A & C Lighting	\$46,000	•	•
AASF Building 260, Boiler Room	\$50,000	•	•
AASF Building 260, Energy Improvements	\$100,000	•	•
USM Hill Gym HVAC Upgrades, Gorham	\$132,500	•	•
USM Brooks Dining Hall Chiller Plant	\$170,000	•	•
Weatherbee School Renovations	\$568,000	•	•
Northern Penobscot Tech Region III	\$1.5 Million	•	•
Northern Penobscot Tech Region III - Lincoln	\$1.9 Million	•	•
Fairchild Semiconductor Building at 82 Running Hill Rd	\$2.8 Million	•	•
Old Town High School Science and Arts Expansion	\$3.9 Million	•	•
MDI Biological Laboratory: Davis Center for Regenerative Biology and Medicine	\$3.9 Million	•	•
UMaine Aubert Hall Renovations	\$4.5 Million	•	•
NMCC Wellness and Student Center	\$5.1 Million	•	•
MDI Biological Laboratory: Morris Center for Environmental Health Sciences	\$5.6 Million	•	•
UMaine Offshore Wind Laboratory	\$13.6 Million	•	•
Bigelow Lab for Ocean Sciences: Center for Ocean Health	\$26.2 Million	•	•
Cross Insurance Arena Renovation - Portland	\$33.0 Million	•	•



Projects that Demonstrate Capabilities:

The following projects, some of which are profiled later in this document, demonstrate WBRC's range of services.

All projects listed required the Site Location of Development Application and Permit.

GOVERNMENT/NON-PROFIT

Joint Force Headquarters, Augusta, ME
 Cross Insurance Center, Bangor, ME
 Dirigo Pines, Orono, ME
 Pine Tree Camp, Rome, ME



HEALTHCARE/LABORATORY

Bigelow Laboratory for Ocean Sciences, West Boothbay, ME
 Acadia Hospital Campus Plan Updates, Bangor, ME
 Parking Garage/Office Expansion, Eastern Maine Medical Center, Bangor, ME
 Sussman House Hospice, Rockport, ME
 Pen Bay Medical Center Master Plan, Rockport, ME



EDUCATION

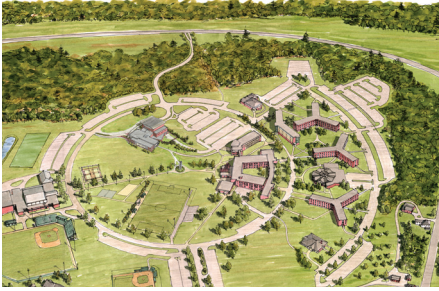
Emera Astronomy Center, University of Maine, Orono, ME
 Offshore Wind Laboratory, University of Maine, Orono, ME
 Northern Maine Community College Wellness Center, Presque Isle, ME
 Hampden Academy, Hampden, ME
 Brewer Community School, Brewer, ME
 Lewiston Hall, University of Maine at Augusta, Bangor Campus, Bangor, ME
 Public Safety Building, Eastern Maine Community College Bangor, ME
 Captain Stevens Elementary School, Belfast, ME
 Peninsula School, Gouldsboro, ME
 Husson University Campus Plan, Bangor, ME
 Eastern Maine Community College Campus Plan, Bangor
 Maine Maritime Academy Master Plan, Castine, ME



COMMERCIAL

Macy's, Bangor Mall, Bangor, ME
 Bangor Savings Bank Operations Center, Bangor, ME
 Hollywood Hotel & Casino, Bangor, ME
 Residence Inn, Bangor, ME
 The Grove, Orono, ME
 Orchard Trails, Orono, ME
 The Avenue, Orono, ME
 Bangor Parkade, Bangor, ME





CONTACT:

Warren Caruso

Executive Director of Development
Husson University
One College Circle
Bangor, Maine 04401
(207) 992-1963
carusow@husson.edu

Husson University Master Plan & Permitting

Husson University | Bangor, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA/Army Corps, MDOT, City of Bangor, SPCC Plan Update

This update of the 1991 master plan included site inventory and analysis, as well as, identifying campus growth areas. For this project, WBRC worked closely with the City of Bangor, MDEP, and ACOE to streamline permitting efforts.

In recent years, WBRC was responsible for programming, design, environmental permitting of several significant Husson facilities including Beardsley Meeting House/Gracie Theater, O'Donnell Commons, Furman Student Center renovations, three NCAA athletic fields, stormwater detention system and treatment areas and wetland mitigation, the university's southern Maine campus in Westbrook, and the forthcoming Husson School of Business.



CONTACT:

Dan Belyea

Director of Administrative, Student Services and Auxiliary Enterprises
Eastern Maine Community College
354 Hogan Road
Bangor, ME 04401
(207) 974-4664
dbelyea@emcc.edu

EMCC Campus Plan & Permitting

Eastern Maine Community College | Bangor, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA/Army Corps, MDOT, SPCC Plan Update

WBRC prepared a Site Location of Development Permit for all post-1975 development on the campus, and continues to provide permit modifications for additional campus improvements. The site is located in a DEP-designated Urban Impaired Stream watershed (Penjawoc). Other projects include the EMCC Campus-wide master planning, master permitting (SLODA, NRPA, and Local) for 10-year buildout of local community college campus. Project included development of a new main entrance boulevard, new student quad, 550 space satellite parking area, reconfigured access and pedestrian routes, and stormwater management planning for development of additional buildings and impervious area.



CONTACT:

Evan Richert

Town Planner
Town of Orono
59 Main Street
Orono, ME 04473
(207) 866-2556
evanr@oronome.org

Orchard Trails Site Design & Permitting

Orono, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA/Army Corps, MDOT, Town of Orono

The Orchard Trails project consisted of a master planned residential community consisting of 12 three-story buildings, containing 144 four-bedroom living units and a community center on a sixty-one acre parcel in Orono, Maine. The WBRC-led design team provided architecture, site master planning, engineering, permitting and construction document assistance to the owner in navigating tiers of local, state, and federal site plan review issues such as stormwater quality, wetland impact, vernal pool mitigation, visual impact, lighting impact, and traffic impacts. Full construction documents and oversight were provided for the 576 bed facility, including a centrally located community building for tenants of the client, GMH Communities Trust (now American Campus Communities).

**CONTACT:****John Rauén**

Vice President
Penn National Gaming
825 Berkshire Boulevard
Wyomissing, PA 19610
(610) 373-2400
john.rauen@pngaming.com

Hollywood Slots Site Plan & Permitting

Bangor, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA, MDOT, City of Bangor, SPCC Plan Update

After several years of legal preparation, in late 2005 Penn National Gaming was ready to begin the process of permitting and constructing the proposed Hollywood Hotel and Casino on Main Street in Bangor. Located across from Bass Park, the project consisted of a gaming area with 1,500 slot machines, a seven-story 150 room hotel, a 1,500 space parking garage, and a 249 space employee parking lot. WBRC provided site design, environmental permitting, and landscape architecture for the \$130 million facility. Stormwater treatment for the project was provided by a new on-site retention pond. Working with several different consultants from across the country, WBRC was able to obtain project approval from the Maine DEP in less than three months.

**CONTACT:****Jim Ring**

Owner Representative
City of Bangor
73 Harlow Street
Bangor, ME 04401
(207) 478-8247
j.ring@bangormaine.gov

Cross Insurance Center Site Plan & Permitting

Bangor, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA, MDOT, City of Bangor, SPCC Plan Update

For Cross Insurance Center, WBRC teamed with stadium expert Sink Combs Dethlefs, providing alternative site evaluation and design, permitting, and construction administration services, as well as landscape architecture, civil engineering, environmental permitting, fire protection engineering, and plumbing. Site improvements included on-site parking, drives/circulation areas, on site utilities, reconstruction of stormwater treatment measures, reconstruction of 2,500 LF of roads and grinding/overlay of 3,000 LF of roads on Main, Dutton, and Buck streets, which included drainage, lighting, and streetscape improvements that followed the design guidelines of Bangor Waterfront. The WBRC team subsequently provided site evaluation and design services for an adjacent property, Residence Inn, which opened this summer.

**CONTACT:****Paul Levine**

Executive Vice President
Park7 Group
461 Park Avenue South, Floor 4
New York, NY 10016
(203) 246-7474
plevine@park7group.com

The Avenue Site Plan & Permitting

Orono, ME

Permits Required: MDEP Site Location of Development, Stormwater, MDOT, Town of Orono

WBRC provided site development, planning, and permitting for The Avenue, a 870-bed student residential community in Orono, Maine, for New York-based developer Park7 now under construction. The project comprises mixed-housing units, recreational buildings and facilities, a Dunkin Donuts outlet, gas station, and pedestrian/cycling path.

WBRC worked closely with the Town of Orono, Park7, and Orono Land Trust to mitigate any impact of the development on the area's natural habitat. A volleyball court, maintenance and housing units were relocated to create a buffer zone around the major vernal pools.

D LIST OF RECENTLY COMPLETED SIMILAR PROJECTS



CONTACT:

Emil Genest

Assistant Superintendent
MSAD #22
24 Main Road North
Hampden, ME 04444
(207) 862-3255
egenest@sad22.us

Hampden Academy Site Design & Permitting

Hampden Academy | Hampden, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA/Army Corps, MDOT, SPCC Plan Update

As part of the new \$46.9-million, 175,000 SF Hampden Academy, WBRC designed the site for the building, associated parking lots, drives, walkways, athletic track, tennis courts, and multipurpose fields on a 36-acre parcel in Hampden, Maine. Site improvements include clearing/grubbing, site preparation, and utilities (water, sanitary sewer, stormwater, three-phase electric, telecommunications, extension and construction of 1,800 LF road).

The project, located in both the Reeds Brook and the Souadabscook Stream watersheds, achieved both stormwater quality and quantity requirements using only Low-Impact Development (LID) BMPs consisting of seven soil filters at various locations around the project site.



CONTACT:

William Webster

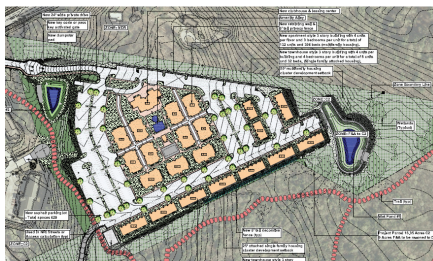
Superintendent
Lewiston Public Schools
36 Oak Street
Lewiston, ME 04240
(207) 795-4100
bwebster@lewistonpublicschools.org

Peninsula School Site Design & Permitting

Peninsula School | Gouldsboro, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA/Army Corps, MDOT, Town of Gouldsboro

WBRC led the site design and permitting as part of the \$12M, 41,000 square foot K-8 school project build on a 21-acre parcel. Site improvements included clear/grubbing, blasting, and construction of a 2,800 LF road within sensitive habitat areas (wetland/vernal pools), parking lot, utilities, three phase electric distribution line, and well and wastewater disposal area. Site design included several LID methods in order to effectively treat the quality and quantity of stormwater runoff. The site design was able to achieve a Tier II wetland alteration permit despite the existence of several acres of wetland on the site. WBRC worked closely with the MDEP, Army Corps of Engineers (ACOE) and US Department of Fish and Wildlife to permit the impact of vernal pools.



CONTACT:

Alex Eyssen

VP of Development
Campus Crest Development
2100 Rexford Road, Suite 414
Charlotte, NC 28211
(704) 496-2500
alex.eyssen@campuscrest.com

The Grove Site Design & Permitting

Orono, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA/Army Corps, MDOT, Town of Orono

The Grove at Orono project consists of a new residential development located on Park Street. WBRC was contracted to provide site design and permitting services for the proposed construction of site improvements associated with the development of a variety of student housing types along with a clubhouse/peasing office, pool, pool house and patio, barbeque patio area, and basketball and sand volleyball courts. The development has a total of 620 beds and associated parking areas. Stormwater quality and quantity treatment is provided by two wet retention ponds. WBRC and applicant Campus Crest worked with neighbors and interest groups to come to an agreement on land area and the location of the development, as well as land swap and trail easement agreements.

**CONTACT:****Normand G. Michaud**

Directorate of Facilities & Engineering
Department of Defense, Veterans and Emergency Management
DFE, Building #8, Camp Keyes
Augusta, ME 04333
(207) 626-7887

Joint Force HQ Site Design & Permitting

Camp Keyes | Augusta, ME

Permits Required: MDEP Site Location of Development, NRPA/Army Corps, MDOT, City of Augusta

Maine Army National Guard retained WBRC to assist with the design of a 107K SF Joint Force Headquarters building with 200+ associated parking areas, access drive and vehicle/pedestrian circulation areas, associated utilities, site lighting and landscaping, to be located on a 43+ acre parcel, off of Civic Center Drive. The WBRC-led design team provided architecture as well as MEP engineering. WBRC's site/civil/landscape group provided site planning options and implemented the preferred site design, executed the various required permitting and construction documents, and provided construction administration and oversight. Features of the site design include stormwater management of quality and quantity, wetland impact, vernal pool mitigation, stream protection and crossing, visual impact, lighting impact, and traffic impacts.

**CONTACT:****Louis Dinneen**

Director of Facilities
Pen Bay Medical Center
6 Glen Cove Drive
Rockport, ME 04856
(207) 596-8000
fdinneen@penbayhealthcare.org

Pen Bay Medical Center Master Plan & Permitting

Pen Bay Medical Center | Rockport, ME

Permits Required: MDEP Site Location of Development, NRPA/Army Corps, MDOT, SPCC Plan Update

Permitting for a proposed four-phase Pen Bay Medical Center campus improvement project included two new medical office buildings, a new hospice care facility, renovations to the boiler plant and wastewater treatment plant, several new parking areas, and a new access road. WBRC worked closely with the Maine DEP to ensure project objectives were met during the concept design phase. Additionally, WBRC's role as lead designer in several previous campus improvement projects facilitated preparation of the permit documents for boiler room expansion, additions to the hospital, main entrance improvements, and a pharmacy expansion.

**CONTACT:****Jerry Goss**

Board of Trustees
Brewer School Department
80 North Main Street
Brewer, ME 04412
(207) 989-7050
jgbrw@aol.com

Brewer Community School Site Design & Permitting

Brewer, ME

Permits Required: MDEP Site Location of Development, Stormwater, NRPA/Army Corps, MDOT, City of Brewer

Brewer Community School is a \$33.4M 156,000 SF LEED Silver certified Pre-K to Grade 8 school that replaced five aging schools. Nearly 20 potential sites were reviewed within for lot size/shape, topography, community identity, town/city growth area, water/sewer/power/data, essential services, proximity to library/schools/town center, soils, identification of wetlands/vernal pools onsite, traffic, bus routes, pedestrian routes and requirement of offsite roadway improvements. The project achieved stormwater quality and quantity requirements using only LID BMPs consisting of three soil filters and one landscaped biofilter. Site improvements included a 277-space parking lot, student drop-off areas, drives/circulation areas, onsite utilities, new eight-lane sports track, new multi-purpose fields, and playgrounds.



Jocelyn Boothe AIA, LEED Green Associate

Architect

Project Role: Project Architect

Architect

EDUCATION

Washington University in St.
Louis, M. Arch.

PROFESSIONAL

CERTIFICATIONS

Licensed Professional Architect
Maine No. ARC4238
DC No. ARC102289
LEED Accredited Professional

RELATED PROJECT EXPERIENCE:

- Asylum Dance Club Renovation, Portland, ME
- TAMC Country Dialysis Center, Presque Isle, ME
- Cary Medical Center ACU Renovation, Caribou, ME
- Avesta Housing Office Renovation, Portland, ME
- VA Medical Center Providence – Building 9, Providence, RI
- VA Medical Center Providence – Building 6, Providence, RI
- LeDroit Park Residence Historic Renovation, Washington, DC
- Saint Agnes Hospital – Medical Group Catonsville Renovation, Baltimore, MD

AFFILIATIONS

American Institute of
Architects
NCARB
Portland Society for
Architecture



John Kenney P.E., Ph.D., LEED AP

Firm Associate, Maine Licensed Professional Engineer

Project Role: Civil Engineer

Firm Associate and Civil Engineer specializing in: site planning and design; Federal, State, and local permit preparation; stormwater management, analysis and evaluation; utility infrastructure; LEED project accreditation; and project management.

EDUCATION

University of Maine, B.S.,
Civil Engineering, with
Distinction

University of Minnesota, PhD,
Conservation Biology

**PROFESSIONAL
CERTIFICATIONS**

Professional Engineer
Maine No. 11676

LEED Accredited Professional

AFFILIATIONS

Maine Society of Civil Engineers
American Society of Civil
Engineers

Chi Epsilon Civil Engineering
Honor Society

RELATED PROJECT EXPERIENCE:

- Lewiston Middle School Addition/Renovations, Lewiston, Maine
- Peninsula School, Gouldsboro, Maine
- Hampden Academy, Hampden, Maine
- Brewer Community School, Brewer, Maine
- Old Town High School Science and Arts Expansion, Old Town, Maine
- Herman Middle School, Herman, Maine
- Cross Insurance Center, Bangor, Maine
- Cross Insurance Arena, Portland, Maine
- Husson University Campus Plan, Bangor, Maine
- Eastern Maine Community College Site Improvements, Bangor, Maine
- The Avenue Apartments, Orono, Maine
- Joint Force Headquarters, Camp Keyes, Augusta, Maine



Owen Haskell, Inc.
Professional Land Surveyors

390 US Route One – Unit 10
Falmouth, ME

Owen Haskell, Inc.

OWEN HASKELL, INC., founded in 1964, is a privately owned Maine corporation specializing in all types of land surveying and is one of New England's largest full-service surveying companies. Over the years, we acquired the personnel and records of three land surveying firms. The largest firm acquired was H.I. & E.C. Jordan, Surveyors, a Portland, Maine based firm, which had been providing survey services to clients throughout Northern New England since 1873.

With more than 100 years of experience, we are able to provide quality surveying services for all types of engineering and design projects. This includes highways, bridges, airports, pipelines, transmission lines, paper mills, industrial and commercial developments, and a full spectrum of services to waterfront developments, pier facilities and related rehabilitation projects, as well as photo and geodetic control. We can provide a full range of surveying services, including boundary, land title, topographic, hydrographic, and geodetic control, as well as in-house GPS (Global Positioning System) services.

We provide a wide variety of surveying and support services to the engineering and environmental communities.

We currently have three survey crews on staff and each crew has been properly equipped, including being able to provide backup for equipment failures. Our in-house Leica GPS equipment includes both 1200 receivers for control surveys and Pathfinder PRO XR receivers for data collection and sub-meter location and mapping.

Our AutoCAD and Carlson Survey software enable us to provide detailed site condition plans to our clients on electronic medium. Computer systems are continually updated and refined in order to meet our clients' needs in the most efficient manner and to support all aspects of the engineering field.

With financial support and encouragement, our employees are urged to take every opportunity available to learn the latest technology by attending seminars and classes. Owen Haskell, Inc. firmly believes that in today's environment, employees need every advantage possible in order to make a company successful.

Our Mission:

Owen Haskell, Inc. has been in the surveying business for over 40 years and has built a reputation on providing a quality product at a fair price, and is dedicated to fulfilling the objectives of a wide range of projects. We take pride in our ability to respond quickly and effectively to our client's needs, and have a proven reputation for providing quality, client-oriented services.

Owen Haskell, Inc.

Professional Land Surveyors

John C. Schwanda, PLS

Principal

EDUCATION

Bachelor of Science/Forestry
University of Maine

ACTIVE REGISTRATIONS

Professional Land Surveyor	Maine #1252
Professional Land Surveyor	New Hampshire #826
Professional Land Surveyor	Massachusetts #31322
Professional Land Surveyor	Connecticut #70004
Professional Forester	Maine #881

PROFESSIONAL EXPERIENCE

Owen Haskell, Inc - 1985 to Present
Principal

Mr. Schwanda has over 35 years of experience in this field. He serves as project manager and performs and supervises all phases of boundary, topographic, engineering and construction surveys.

PROFESSIONAL MEMBERSHIP

Maine Society of Land Surveyors (MSLS)
National Society of Professional Surveyors (NSPS)

Project Experience

John C. Schwanda, PLS

CSO Project
Portland, ME

Engineering Survey- Dorothy, DiBiase and Hicks Street
Woodard & Curran, Inc. Barry Sheff 207-774-2112

Review right of way information, supervise field survey, performed computations to make determination of right of way lines, supervise plan preparation.

Hall School
Portland, ME

Boundary and Topographic Survey for School Redesign
Oak Point Associates, Jacques Gagnon 207-283-0193

Surveyor of record. Performed record research, field reconnaissance of boundary and control points, supervised field work, computations to make boundary line determinations, supervision of plan preparation.

Mercy Hospital
Portland, ME

ALTA/ACSM Land Title Survey
Preti Flaherty Beliveau & Pachios, LLP, 207-791-3000

Surveyor of record for boundary surveys at sites on Spring and Winter Streets in Portland and Park Road, Westbrook.

Portland Public Library
Portland, ME

Existing Conditions/Boundary Survey
Scott Simons Architects, Stephen Fraser 207-772-4656

Surveyor of record. Deed and plan research, computations to make boundary line determination, supervision of plan preparation.

Seaside Rehabilitation & Healthcare Center
Portland, ME

Boundary, Topographic and As-Built Surveys
First Atlantic Healthcare, Craig Coffin 207-874-2700

Surveyor of record. Deed and plan research, computations to make boundary line determination, supervision of plan preparation.

Long Creek Watershed Project
South Portland, ME

Engineering and Topographic Survey for storm drain and culvert improvements - Philbrick Road - South Portland, ME
Gorrill-Palmer, Al Palmer 207-657-6910

Owen Haskell, Inc.

Professional Land Surveyors

Ellen C. Brewer, PLS

Project Manager

EDUCATION

B.S. Natural Resources/Soil & Water Conservation
University of Maine, Orono

A.S. Civil Engineering Technology
Vermont Technical College

ACTIVE REGISTRATIONS

Professional Land Surveyor Maine #2367

PROFESSIONAL EXPERIENCE

Owen Haskell, Inc - 1995 to Present
Director of Field Operations

Mrs. Brewer has over 25 years of experience in the surveying field. Her duties and responsibilities include scheduling and assisting field crews with computations and problem solving; researching and obtaining information from utility companies and municipalities and interfacing with field crews, clients and management to assure surveys are completed in a timely manner.

PROFESSIONAL MEMBERSHIP

Maine Society of Land Surveyors (MSLS)
National Society of Professional Surveyors (NSPS)

Project Experience

Ellen C. Brewer, PLS

Hall School- Portland, ME

Boundary and Topographic Survey for School Redesign
Oak Point Associates, Jacques Gagnon 207-283-0193

Responsible for coordinating surveying needs between client, school and other environmental professionals. Coordinate access to the project site. Manage survey crews. Deed and plan research at the City and County. Assist in boundary computations.

Midtown- Portland, ME Subdivision

Boundary & Topographic Survey for 8 Lot Amended
Fay, Spoffard & Thorndike, William Hoffman 207-775-1121

Manage survey crews. Research with the City. Compilation of plans, lot and easement calculations as well as composing of legal descriptions.

Long Creek Watershed Project South Portland, ME

Topographic and Property Survey for storm drain
improvements - Maine Mall Plaza - Maine Mall Road
South Portland, ME
Fay, Spoffard & Thorndike, Joe Laverriere 207-775-1221

Mercy Hospital Fore River Campus Portland, ME

ALTA/ACSM Land Title Survey
Preti Flaherty Beliveau & Pachios, LLP, 207-791-3000

Manage survey crews. Interface with client, attorneys and Title Company. Deed and plan research at the City and County. Boundary and easement computations, plotting and interpretation of Title documents.

CSO Project Portland, ME

Engineering survey Commonwealth, West Commonwealth
and Belfort Streets
Woodard & Curran, Inc. Barry Sheff 207-774-2112

Manage survey crews and field data. Deed and plan research with the City and utility companies. Research horizontal and vertical control of record.

CSO Project Portland, ME

Engineering survey College Street
Woodard & Curran, Barry Sheff 1-800-426-4262

Manage survey crews and field data. Research horizontal and vertical control. Deed and plan research with the City and utility companies. Right of way computations.

Owen Haskell, Inc.

Professional Land Surveyors

Randy R. Loubier, PLS

Staff Surveyor

EDUCATION

B.S. Spatial Information Engineering
University of Maine - 2001

ACTIVE REGISTRATION

Professional Land Surveyor Maine #2407

PROFESSIONAL EXPERIENCE

Owen Haskell, Inc - 2003 to Present

Mr. Loubier has been in the surveying field since 2002. Randy works on all phases of engineering, route, construction, topographic, utility, property, and boundary surveys. His office duties include: client contact, deed and plan research, plan compilation, survey calculations, client contracts and job estimates. Mr. Loubier is in charge of both survey and mapping grade GPS operations for Owen Haskell, Inc.

PROFESSIONAL MEMBERSHIP

Maine Society of Land Surveyors (MSLS)
National Society of Professional Surveyors (NSPS)

Project Experience

Randy R. Loubier, PLS

Canal Landing Portland, ME

ALTA/ACSM Land Title Survey on Portland waterfront
Portland Yacht Club, Robert Flight 207-774-1067

Surveyor of record. Deed and plan research at the City and County. Plotting and interpretation of Title documents. Boundary, easement and right of way computations.

Bayside Village Portland, ME

Boundary, Topographic and Construction Survey for Student Housing and Parking Garage
Federated Companies, Brian Connell 203-434-0850

Field Surveyor. Establish horizontal and vertical control for construction layout. Interpret construction documents. Lot calculations as well as composing of legal descriptions.

Mercy Hospital State Street Portland, ME

ALTA/ACSM Land Title Survey
Preti Flaherty Beliveau & Pachios, LLP, 207-791-3000

Field surveyor. Establish horizontal and vertical control. Boundary and easement computations, plotting and interpretation of Title documents.

Town of Scarborough

Engineering Survey Pleasant Hill Rd
Fay, Spofford & Thorndike, Steve Bushey 207-775-1211

Surveyor of record. Manage field data. Deed and plan research with the City and ME DOT. Determination of right of way lines.

CSO Project Portland, ME

Engineering Survey Dorothy, DiBiase and Hicks Street
Woodard & Curran, Inc. Barry Sheff 207-774-2112

Field surveyor. Establish horizontal and vertical control. Deed and plan research with the City and utility companies. Right of way computations.

Sewer Extension Project Peaks Island, Portland, ME

Engineering Survey Island Ave and Winding Way
Fay, Spofford & Thorndike, Joe Laverriere 207-775-1211

Project surveyor. Establish horizontal and vertical control using GPS for aerial photography. Deed and plan research. Layout baselines for construction.

Why suited for this Project:

OWEN HASKELL, INC. is currently a twelve-person firm operating three (3) fully equipped survey crews throughout New England.

Many of our projects have required multiple survey crews completing several different aspects of data collection simultaneously under the direction of a project manager and a field supervisor.

Our staff includes five (5) licensed or registered professional land surveyors capable of completing all aspects of land surveying, both in the office and in the field, complimented by our support staff selected for outstanding personal achievements and accomplishments. We have collectively completed hundreds of control networks for a variety of large and small projects, including aerial mapping projects, throughout our service area. Many of these networks were completed by global positioning systems.

The fieldwork is processed systematically through strict office procedures meeting the expectations of internal quality assurance checks and established quality control programs.

Relationships with other Firms:

Although OWEN HASKELL, INC. has provided professional services as a prime contractor on many projects; the vast majority of our success and reputation has been gained through teamwork and long- term professional association with established professional firms complimenting areas of technical expertise.

These firms include National and New England based Engineering and Design firms, Waste Management firms, Hazardous Waste Remediation firms, Architects, Lending Institutions, and Commercial and Retail Developers.

Due to our in-house Global Positioning Systems capability, many of our projects are completed as a sub-consultant to other well-established Civil Engineering and Land Surveying firms.

Equally important have been the objective, grass roots approach undertaken to solve the primary objective. Many times this has been achieved as the result of previously established long-standing relationships between our firms' professionals and individuals in key positions within those firms requiring the services.

Owen Haskell, Inc.

Professional Land Surveyors

CLIENT REFERENCES

MAINE

Clean Harbors Inc.
Gordon Pott
207.799.8111

Greater Portland Development Group
Peter Kennedy
207.797.4234

Verrill Dana
William Knowles
207.774.4000

Deluca-Hoffman Associates
William G. Hoffman
207.775.1121

Archetype
Bill Hopkins
207.772.6022

JB Brown & Sons
Vincent Veroneau
207.774.5908

Wishcamper Properties
Joe Wishcamper
207.774.6989

Housing Initiatives of NE Corp
Cindy Taylor
207.774.8812

City of Portland
William Scott
207.874.8801

AND BEYOND

Vanasse, Hangen, Brustlin,
Glen Johnson
617.924.1770

Westwood Professional Services
Chris Moehrl, PE, PLS
952.906.7443

Republic National Land Surveyors
Bryan Mitchell
407.862.4200

Burns & McDonnell Engineering
John Kayser
860.209.2651

McDonald's Corporation
Christina Amate
781.461.4723



Geotechnical Engineering, Construction Materials Testing and GeoEnvironmental Services

Since 1979

COMPANY OVERVIEW

S. W. Cole Engineering, Inc. (S.W.COLE) was established in 1979 in Bangor, Maine to provide geotechnical engineering, geology, environmental consulting and construction quality assurance testing services. In addition to our corporate office, our firm includes three branch offices in Maine, two in New Hampshire and one in Vermont to more effectively provide services to our clients throughout northern New England.

ABOUT OUR FIRM

S.W.COLE provides services in the following major areas: geotechnical engineering, construction materials testing and special inspections, and geoenvironmental services. We are a team of more than 80 engineers, scientists and technicians which annually provides services on more than 1,800 projects. In our history of more than 35 years, we have worked with a wide variety of complex geologic and subsurface conditions throughout New England. We have had the opportunity to work with a varied clientele, including architectural and engineering firms, contractors, healthcare providers, public and private educational institutions, governmental agencies and municipalities, and commercial, industrial and individual clients. Our engineers, geologists and construction materials technicians take a hands-on approach and understand the impact of subsurface conditions on construction budgets and schedules. Seven regional offices give us the ability to utilize the knowledge and experience of all our professionals with ease as well as the flexibility to schedule services in a responsive manner.

As a geotechnical engineering, geosciences consulting and construction materials testing firm, S.W.COLE serves our clients' needs with a multi-disciplined staff of professional engineers and scientists as well as laboratory and field testing services. We are known for bringing creative, practical alternatives to difficult challenges for more than 35 years, and our clients have come to rely on our professional expertise and our ability to provide service both reliably and promptly.



Augusta, ME • Bangor, ME • Caribou, ME • Gray, ME
Manchester, NH • Somersworth, NH • White River Junction, VT

EXHIBIT 6 – GEOTECHNICAL INFORMATION

REPORT

December 17, 2015

15-1166

Explorations and Geotechnical Engineering Services

Proposed Renovation & Expansion
The Asylum Dance Club
121 Center Street & 41 Free Street
Portland, Maine

Prepared For:
The Asylum Dance Club
c/o WBRC Architects & Engineers
Attention: John Kenney, P.E.
44 Central Street
Bangor, Maine 04401

Prepared By:
S. W. Cole Engineering, Inc.
286 Portland Road
Gray, Maine 04039
T: (207) 657-2866



- *Geotechnical Engineering*
- *Construction Materials Testing and Special Inspections*
- *GeoEnvironmental Services*
- *Test Boring Explorations*

www.swcole.com

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Attachment A	Limitations
Sheet 1	Exploration Location Plan
Sheets 2 - 13	Exploration Logs
Sheet 14	Key to the Notes and Symbols
Sheet 15	Foundation Underdrain Detail
Appendix A	Historical Subsurface Data

15-1166

December 17, 2015

The Asylum Dance Club
c/o WBRC Architects & Engineers
Attention: John Kenney, P.E.
44 Central Street
Bangor, Maine 04401

Subject: Explorations and Geotechnical Engineering Services
Proposed Renovations & Expansion
The Asylum Dance Club
121 Center Street & 41 Free Street
Portland, Maine

Dear John:

In accordance with our Agreement, dated October 30, 2015, we have performed subsurface explorations for the subject project. This report summarizes our findings and geotechnical recommendations and its contents are subject to the limitations set forth in Attachment A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to obtain subsurface information at the site in order to develop geotechnical recommendations relative to foundations and earthwork associated with the proposed construction. Our scope of services included two test pit and ten test boring explorations, a geotechnical analysis of the subsurface findings and preparation of this report.

1.2 Site and Proposed Construction

The site is located at The Asylum Dance Club at 121 Center Street & 41 Free Street in Portland, Maine. We understand development plans call for a new 3-story building addition on the southeast corner of the existing building and a new single-story addition

on the northeast corner. We understand the 3-story addition will have a basement level which will extend approximately 5 feet below existing site grade to match the basement floor elevation of the existing building. Existing and proposed site features are shown on the "Exploration Location Plan" attached as Sheet 1.

2.0 EXPLORATION AND TESTING

2.1 Explorations

Ten test borings (B-101 through B-110) were made at the site on October 23, 2015 by a drilling company working under subcontract to S. W. Cole Engineering, Inc. (S.W.COLE). Two test pits (TP-101 and TP-102) were made at the site on October 23, 2015 by an excavating company working under subcontractor to S.W.COLE. The exploration locations were selected and established in the field by S.W.COLE based on measurements from existing site features. The approximate exploration locations are shown on the "Exploration Location Plan" attached as Sheet 1. Logs of the explorations are attached as Sheets 2 through 13. A key to the notes and symbols used on the logs is attached as Sheet 14.

Additionally, we obtained historical subsurface exploration data for the adjacent parking garage structure from our archives. A historical Exploration Location Plan and pertinent boring logs are attached as Appendix A

2.2 Testing

The test borings were made using solid and hollow stem auger drilling techniques. Soil samples were obtained at the borings at 2 to 5 foot intervals using a split-spoon sampler and Standard Penetration Testing (SPT) methods. SPT blow counts are shown on the logs.

Soil samples obtained from the explorations were returned to our laboratory for further visual classification. Preliminary photoionization detector (PID) screening was performed on a sample of soil from B-103 noted to have a petroleum-like odor. PID results are noted on the log for B-103.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Surficial

The site is relatively flat and generally slopes down from north to south, towards Free Street. The proposed 3-story building addition is currently occupied by paved parking and alley areas on the east side of the existing Asylum Dance Club building. The proposed 1-story addition is currently occupied by a raised concrete patio.

3.2 Subsurface

3.2.1 Soil and Bedrock

The explorations generally encountered a soils profile consisting of uncontrolled fill overlying a relic organic layer overlying native granular soils and glacial till. Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

Uncontrolled Fill and Relic Organics: Underlying a surficial layer of asphalt, the explorations encountered up to 11 feet of uncontrolled fill consisting of very loose to medium dense sand with varying portions of silt, gravel, and debris (wood, brick and concrete rubble).

Relic foundations, walls, and slabs were penetrated at several borings. Boring B-109 encountered refusal on probable concrete at a depth of 9.8 feet.

An approximate 1.5 foot thick layer of black and dark brown silty sand with fibrous organics (relic organics) was encountered below the fill layer at boring B-101.

A petroleum-like odor was noted in the fill soil cuttings obtained from the augers at B-103. Ash was sporadically encountered within the uncontrolled fill.

Native Granular Soils: Underlying the uncontrolled fill, the explorations generally encountered a layer of loose to medium dense brown to gray sandy silt or sand with varying portions of silt and gravel. The native silts and sands were up to approximately 7 feet thick where encountered and penetrated at the explorations.

Glacial Till: Underlying the uncontrolled fill and native granular soils, the explorations encountered loose to medium dense glacial till consisting of brown, orange-brown, and gray sand with varying portions of silt and gravel.

Bedrock: The historical borings made for the adjacent parking garage structure encountered bedrock at depths 21.6 to 27.2 feet below pre-development ground surface. Bedrock was not encountered within the depths explored at the explorations made for the proposed building additions associated with The Asylum Dance Club.

3.2.2 Existing Foundations

The existing foundations were exposed at two locations along walls adjoining the proposed 3-story addition. The attached test pit logs contain dimensional information of foundations, where exposed, as well as soil conditions observed. There was a layer of concrete backfill against the footings that terminated excavation to observe the footing bearing conditions.

3.3 Groundwater

Wet to saturated soils were encountered at depths varying from about 9 to 12 feet. Groundwater likely becomes perched in the uncontrolled fills and on the relatively impervious silts and glacial till encountered at the explorations. Long term groundwater information is not available. It should be anticipated that seasonal groundwater levels will fluctuate, particularly in response to snowmelt, precipitation, and changes in site use.

3.4 Frost and Seismic

The 100-year Air Freezing Index for the Portland, Maine area is about 1,407-Fahrenheit degree-days, which corresponds to a frost penetration depth on the order of 4.5 feet. Based on the subsurface findings, we interpret the site soils to correspond to Seismic Soil Site Class D according to 2012 IBC/ASCE 7.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General Findings

Based on the subsurface findings, the proposed construction appears feasible from a geotechnical standpoint but does present some challenges. The principle geotechnical considerations are as follows:

- The building addition footprint is underlain by a layer of uncontrolled fill and relic organics which extends as deep as 11 feet at the exploration locations. New footings for the 3-story building addition must penetrate the uncontrolled fill and relic organics. The uncontrolled fill may remain below the basement floor slab, as well as the proposed 1-story addition footings and slab, but must be densified with a vibratory compactor prior to casting foundations and floor slabs.
- Removal of the uncontrolled fills below the 3-story addition footings will require overexcavation below footing grade that will undermine existing foundations, sidewalks and utilities. Where overexcavation depths extend below the existing Asylum building foundations, we recommend underpinning pits backfilled with structural concrete to support existing and new foundations. We anticipate that shoring, such as sheetpiles or steel casing, may be necessary along Free Street to support the sidewalk and utilities.
- The existing uncontrolled fill and native soils are unsuitable for reuse as fill and backfill.
- Excavated soils and material must be properly handled and disposed of. A petroleum-like odor was noted in the auger cuttings at B-103. Ash was encountered within the uncontrolled fill. Environmental screening and characterization will be necessary for proper off-site disposal of environmentally impacted soils and excavated materials.

4.2 Site and Subgrade Preparation

We recommend site preparation begin with the construction of an erosion control system to protect adjacent drainage ways and areas outside the construction limits. As much pavement should remain outside the construction areas as possible to lessen the potential for erosion and site disturbance.

Existing pavement must be removed from beneath the proposed building additions. Uncontrolled fill, relic organics, relic foundations, and utilities must be completely removed from beneath the proposed 3-story building footing until undisturbed native non-organic soils are encountered. Overexcavations backfilled with compacted Structural Fill should extend 1 foot laterally outward from edge of footing for every 1-foot of excavation depth (1H:1V bearing splay). Overexcavations backfilled with structural concrete should be oversized considering a 0.5H:1V bearing splay. Where overexcavation will undermine existing footings, we recommend underpinning pits backfilled with structural concrete to support the existing and new footings.

It is anticipated that the proposed basement slab and 1-story building addition subgrades will consist of uncontrolled fill. The uncontrolled fill subgrade should be densified with 3 to 5 passes of a vibratory plate compactor weighing at least 600 pounds. Any voids in the uncontrolled fill subgrade must be choked with crushed stone prior to densification. Areas which become soft or yielding during densification should be overexcavated and replaced with compacted Structural Fill. Any relic foundations should be removed to at least 2 feet below subgrade and backfilled with compacted Structural Fill.

4.3 Excavation and Dewatering

Excavation work will generally encounter existing pavement, uncontrolled fill, and native granular soils. Care must be exercised during construction to limit disturbance of the bearing soils. Earthwork and grading activities should ideally occur during drier, non-freezing months of Spring, Summer and Fall. Final cuts to subgrade in the native soils should be performed with a smooth-edged bucket to reduce strength loss associated with soil disturbance.

Sumping and pumping dewatering techniques should be adequate to control groundwater in excavations. Controlling the water levels to at least one foot below planned excavation depths will help stabilize subgrades during construction.

Excavations must be properly shored or sloped in accordance with OSHA regulations to prevent sloughing and caving of the sidewalls during construction. Underpinning of the adjoining building will be required and shoring along Free Street is recommended. Shoring and underpinning contractors should anticipate the need to penetrate rubble fills, as well as relic foundations and slabs. The design and planning of excavations, excavation support systems, and dewatering is the responsibility of the contractor.

It should be noted that a petroleum-like odor was observed on auger cuttings at B-103 and ash was encountered within the uncontrolled fills. Environmentally impacted soils and ash will likely be encountered during construction. Environmental screening and characterization will be necessary for proper handling and disposal of impacted soils.

4.4 Foundations

Based on the subsurface findings, the proposed building may be supported on conventional spread footings. For foundations bearing on properly prepared subgrades, we recommend the following geotechnical parameters for design consideration:

Geotechnical Parameters for Spread Footings and Foundation Walls	
Design Frost Depth	4.5 feet
Net Allowable Bearing Pressure (3-story addition)	2.0 ksf
Net Allowable Bearing Pressure (1-story addition)	1.0 ksf or less
Base Friction Factor	0.35
Total Unit Weight of Backfill	130 pcf
Internal Friction Angle of Backfill	30°
At-Rest Lateral Earth Pressure Coefficient	0.5
Active Lateral Earth Pressure Coefficient	0.3
Seismic Soil Site Class (2012 IBC/ASCE 7)	D

4.5 Foundation Drainage

We recommend an underdrain system be installed on the outside edge of perimeter footings. The underdrain pipe should consist of 4-inch diameter, slotted HDPE pipe bedded in Underdrain Sand. The underdrain pipe must have a positive gravity outlet protected from freezing, clogging and backflow. Surface grades should be sloped away from the building for positive surface water drainage. General underdrain details are illustrated on Sheet 15.

4.6 Slab-On-Grade

On-grade floor slabs in heated areas may be designed using a subgrade reaction modulus of 100 pci (pounds per cubic inch) provided the slab is underlain by at least 8-inches of compacted Structural Fill placed over properly prepared subgrades. The structural engineer or concrete consultant must design steel reinforcing and joint spacing appropriate to slab thickness and function.

We recommend a sub-slab vapor retarder particularly in areas of the building where the concrete slab will be covered with an impermeable surface treatment or floor covering that may be sensitive to moisture vapors. The vapor retarder must have a permeance that is less than the floor cover or surface treatment that is applied to the slab. The vapor retarder must have sufficient durability to withstand direct contact with the sub-slab base material and construction activity. The vapor retarder material should be placed according to the manufacturer's recommended method, including the taping and lapping of all joints and wall connections. The architect and/or flooring consultant should select the vapor retarder products compatible with flooring and adhesive materials.

The floor slab should be appropriately cured using moisture retention methods after casting. Typical floor slab curing methods should be used for at least 7 days. The architect or flooring consultant should assign curing methods consistent with current applicable American Concrete Institute (ACI) procedures with consideration of curing method compatibility to proposed surface treatments, flooring and adhesive materials.

4.7 Entrance Slabs and Sidewalks

Entrance slabs and sidewalks adjacent to the building must be designed to reduce the effects of differential frost action between adjacent pavement, doorways, and entrances. We recommend non-frost susceptible Structural Fill be provided to a depth of at least 4.5 feet below the top of entrance slabs. This thickness of Structural Fill should extend the full width of the entrance slab and outward at least 4.5 feet, thereafter transitioning up to the bottom of the adjacent sidewalk or pavement gravels at a 3H:1V or flatter slope. General details of this frost transition zone are attached as Sheet 15.

4.8 Backfill and Compaction

The granular portion of uncontrolled fill encountered in the test pits appears suitable for reuse as Granular Borrow. Uncontrolled fills with debris are unsuitable for reuse in

building and paved areas, but may be reused in landscape areas. For building and paved areas, we recommend the following fill and backfill materials:

Structural Fill: Backfill for overexcavations, backfill for foundations, slab base material and material below exterior entrances and sidewalks should be clean, non-frost susceptible sand and gravel meeting the gradation requirements for Structural Fill as given below:

Structural Fill	
Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	90 to 100
¾ inch	25 to 90
#40	0 to 30
#200	0 to 5

Crushed Stone: Crushed Stone used as choke stone over uncontrolled fill should meet the requirements of 2014 MaineDOT Standard Specification 703.22 Underdrain Aggregate Type C. A nominally sized ¾-inch washed crushed stone usually meets this requirement.

Underdrain Sand: Sand around slotted foundation underdrain pipes should meet the requirements of 2014 MaineDOT Standard Specification 703.22 Underdrain Aggregate Type B.

Concrete Backfill: Concrete backfill for overexcavations below footings should have a 28 day compressive strength of 2,500 psi.

Placement and Compaction: Fill should be placed in horizontal lifts and compacted such that the desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment. Loose lift thicknesses for grading, fill and backfill activities should not exceed 12 inches. We recommend that fill and backfill in building and paved areas be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Crushed Stone should be compacted with 3 to 5 passes of a vibratory plate compactor having a static weight of at least 600 pounds.

4.9 Weather Considerations

Construction activity should be limited during wet and freezing weather and the site soils may require drying before construction activities may continue. The contractor should anticipate the need for water to temper fills in order to facilitate compaction during dry weather. If construction takes place during cold weather, subgrades, foundations and floor slabs must be protected during freezing conditions. Concrete and fill must not be placed on frozen soil; and once placed, the concrete and soil beneath the structure must be protected from freezing.

4.10 Design Review and Construction Testing

S.W.COLE should be retained to review the construction documents to determine that our foundation and earthwork recommendations have been properly interpreted and implemented.

A soils and concrete testing program should be implemented during construction to observe compliance with the design concepts, plans, and specifications. S.W.COLE is available to observe footing and slab bearing surfaces, underpinning and earthwork activities, as well as testing services for soils, concrete, masonry, asphalt, steel and spray-applied fireproofing construction materials.

5.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you during the construction phase of the project.

Sincerely,

S. W. Cole Engineering, Inc.

Evan M. Walker, P.E.
Geotechnical Engineer

Timothy J. Boyce, P.E.
Senior Geotechnical Engineer

EMW:tjb

Attachment A Limitations

This report has been prepared for the exclusive use of The Asylum Dance Club c/o WBRC Architects & Engineers for specific application to the proposed Renovation & Expansion at The Asylum Dance Club located at 121 Center Street & 41 Free Street in Portland, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S.W.COLE should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S.W.COLE.

APPROXIMATE TEST PIT LOCATION

1. EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1"=20' SCALE PLAN OF THE SITE PROVIDED BY WBRC, RECEIVED 10/21/2015.
2. THE EXPLORATIONS WERE LOCATED IN THE FIELD BY MEASUREMENTS FROM EXISTING SITE FEATURES.
3. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
4. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.



THE ASYLUM DANCE CLUB

EXPLORATION LOCATION PLAN

PROPOSED ADDITION
41 FREE STREET
PORTLAND, MAINE

Job No.: 15-1166
Date : 11/20/20

Scale: 1" = 30'±
Sheet: 1



BORING NO.:	B-101
SHEET:	1 OF 1
PROJECT NO.:	15-1166
DATE START:	11/13/2015
DATE FINISH:	11/13/2015
ELEVATION:	
SWC REP.:	E. WALKER

WATER LEVEL INFORMATION
SOILS SATURATED BELOW 9' +/-

[illegible]

REMARKS:	
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.	2
BORING NO.:	B-101



BORING LOG

PROJECT: PROPOSED RENOVATION AND EXPANSION
CLIENT: THE ASYLUM DANCE CLUB
LOCATION: 121 CENTER STREET & 41 FREE STREET, PORTLAND, MAINE
DRILLING FIRM: S.W. COLE EXPLORATIONS, LLC DRILLER: BOB MARCOUX
TYPE SIZE I.D. HAMMER WT. HAMMER FALL
CASING: HSA 2 1/4"
SAMPLER: SS 1 3/8" 140 LBS. 30"
CORE BARREL:

BORING NO.: B-102
SHEET: 1 OF 1
PROJECT NO.: 15-1166
DATE START: 11/13/2015
DATE FINISH: 11/13/2015
ELEVATION:
SWC REP.: E. WALKER

WATER LEVEL INFORMATION
SOILS SATURATED BELOW 9' +/-

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
									1.5"	ASPHALT
										BROWN MEDIUM SAND, TRACE SILT, TRACE GRAVEL (FILL) ~ LOOSE ~
	1D	24"	8"	4.0'	2	3	2	1		
	2D	24"	12"	6.0'	2	5	7	6	5.5'	BRICK AND CONCRETE RUBBLE (FILL) ~ MEDIUM DENSE ~
									8.0'	
										DARK GRAY-BROWN GRAVELLY SILT SAND WITH WOOD AND BRICK (FILL) ~ LOOSE ~
									10.0'	
	3D	24"	14"	11.0'	4	3	4	7		BROWN TO GRAY-BROWN SILT SAND, SOME GRAVEL ~ LOOSE TO MEDIUM DENSE ~
									14.0'	
	4D	24"	14"	16.0'	10	8	6	4		GRAY SILTY GRAVELLY SAND (GLACIAL TILL) ~ MEDIUM DENSE ~
										BOTTOM OF EXPLORATION @ 16.0'

SAMPLES: SOIL CLASSIFIED BY:
D = SPLIT SPOON
C = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE
X
DRILLER - VISUALLY
SOIL TECH. - VISUALLY
LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
BORING NO.: B-102



BORING NO.:	B-103
SHEET:	1 OF 1
PROJECT NO.:	15-1166
DATE START:	11/13/2015
DATE FINISH:	11/13/2015
ELEVATION:	
SWC REP.:	E. WALKER

WATER LEVEL INFORMATION

[illegible]

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-103**



BORING LOG

PROJECT: PROPOSED RENOVATION AND EXPANSION
CLIENT: THE ASYLUM DANCE CLUB
LOCATION: 121 CENTER STREET & 41 FREE STREET, PORTLAND, MAINE
DRILLING FIRM: S.W. COLE EXPLORATIONS, LLC DRILLER: BOB MARCOUX
TYPE SIZE I.D. HAMMER WT. HAMMER FALL
CASING: HSA 2 1/4"
SAMPLER: SS 1 3/8" 140 LBS. 30"
CORE BARREL:

BORING NO.: B-104
SHEET: 1 OF 1
PROJECT NO.: 15-1166
DATE START: 11/13/2015
DATE FINISH: 11/13/2015
ELEVATION:
SWC REP.: E. WALKER

WATER LEVEL INFORMATION
SOILS SATURATED BELOW 9' +/-

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
									1.5"	ASPHALT
									2.0'	BROWN SAND, TRACE SILT (FILL)
	1D	24"	6"	4.0'	1	1	1-12"			BRICK AND CONCRETE RUBBLE WITH SOME BROWN SILTY SAND (FILL) ~ VERY LOOSE ~
	2D	24"	6"	6.0'	1	1	10	11		
									8.0'	
										BROWN GRAVELLY SILT AND SAND ~ MEDIUM DENSE ~
	3D	24"	18"	11.0'	4	6	6	7	9.5'	GRAY GRAVELLY SILT AND SAND (GLACIAL TILL) ~ MEDIUM DENSE ~
	4D	24"	14"	16.0'	9	9	8	10		
									20.0'	
	5D	24"	14"	21.0'	16	27	32	30		ORANGE-BROWN GRAVELLY SILT AND SAND (GLACIAL TILL) ~ VERY DENSE ~
										BOTTOM OF EXPLORATION @ 21.0'

SAMPLES: SOIL CLASSIFIED BY:
D = SPLIT SPOON
C = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE
X
DRILLER - VISUALLY
SOIL TECH. - VISUALLY
LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE
APPROXIMATE BOUNDARY BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL.

5

BORING NO.: B-104



BORING LOG

PROJECT: PROPOSED RENOVATION AND EXPANSION
CLIENT: THE ASYLUM DANCE CLUB
LOCATION: 121 CENTER STREET & 41 FREE STREET, PORTLAND, MAINE
DRILLING FIRM: S.W. COLE EXPLORATIONS, LLC DRILLER: BOB MARCOUX
TYPE SIZE I.D. HAMMER WT. HAMMER FALL
CASING: HSA 2 1/4"
SAMPLER: SS 1 3/8" 140 LBS. 30"
CORE BARREL:

BORING NO.: B-105
SHEET: 1 OF 1
PROJECT NO.: 15-1166
DATE START: 11/13/2015
DATE FINISH: 11/13/2015
ELEVATION:
SWC REP.: E. WALKER

WATER LEVEL INFORMATION
SOILS SATURATED BELOW 10'

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
									1.5"	ASPHALT
									1.0'	BROWN SAND, SOME GRAVEL, SOME SILT (FILL)
										GRAY-BROWN AND BLACK SILTY SAND, SOME GRAVEL WITH BRICK AND CONCRETE RUBBLE (FILL) ~ LOOSE ~
	1D	24"	4"	6.0'	1	3	5	4		
									9.5'	GRAY SILT AND SAND, SOME GRAVEL ~ MEDIUM DENSE ~
	2D	24"	16"	11.0'	7	7	7	8		
										GRAY SILTY SAND, SOME GRAVEL ~ MEDIUM DENSE ~
									14.0'	
	3D	24"	16"	16.0'	4	5	7	6		BOTTOM OF EXPLORATION @ 16.0'

SAMPLES: SOIL CLASSIFIED BY:
D = SPLIT SPOON
C = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE
DRILLER - VISUALLY
SOIL TECH. - VISUALLY
LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE
APPROXIMATE BOUNDARY BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: B-105



BORING NO.:	B-106
SHEET:	1 OF 1
PROJECT NO.:	15-1166
DATE START:	11/13/2015
DATE FINISH:	11/13/2015
ELEVATION:	
SWC REP.:	E. WALKER

WATER LEVEL INFORMATION

Page 130



BORING LOG

PROJECT: PROPOSED RENOVATION AND EXPANSION
CLIENT: THE ASYLUM DANCE CLUB
LOCATION: 121 CENTER STREET & 41 FREE STREET, PORTLAND, MAINE
DRILLING FIRM: S.W. COLE EXPLORATIONS, LLC DRILLER: BOB MARCOUX
TYPE SIZE I.D. HAMMER WT. HAMMER FALL
CASING: HSA 2 1/4"
SAMPLER: SS 1 3/8" 140 LBS. 30"
CORE BARREL:

BORING NO.: B-107
SHEET: 1 OF 1
PROJECT NO.: 15-1166
DATE START: 11/13/2015
DATE FINISH: 11/13/2015
ELEVATION:
SWC REP.: E. WALKER

WATER LEVEL INFORMATION
SOILS SATURATED BELOW 9' +/-

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
									1.5"	ASPHALT
									3.0'	BROWN SAND, SOME GRAVEL, TRACE SILT (FILL) ~ MEDIUM DENSE ~
	1D	24"	16"	4.0'	5	4	8	35		CONCRETE AND BRICK RUBBLE WITH OCCASIONAL LAYERS OF BROWN SILTY SAND (FILL)
	2D	24"	16"	5.4'	28	32	50-5"			
									8.5'	
									10.8'	BROWN SILT AND SAND, TRACE GRAVEL ~ MEDIUM DENSE ~
	3D	24"	18"	11.0'	6	6	11	11		GRAY SILTY SAND, SOME GRAVEL (GLACIAL TILL) ~ MEDIUM DENSE ~
	4D	24"	18"	16.0'	6	8	11	17		BOTTOM OF EXPLORATION @ 16.0'

SAMPLES: SOIL CLASSIFIED BY:
D = SPLIT SPOON
C = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE
DRILLER - VISUALLY
SOIL TECH. - VISUALLY
LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE
APPROXIMATE BOUNDARY BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: B-107



BORING LOG

BORING NO.: **B-108**
SHEET: **1 OF 1**
PROJECT NO.: **15-1166**
DATE START: **11/13/2015**
DATE FINISH: **11/13/2015**
ELEVATION:
SWC REP.: **E. WALKER**

PROJECT: **PROPOSED RENOVATION AND EXPANSION**
CLIENT: **THE ASYLUM DANCE CLUB**
LOCATION: **121 CENTER STREET & 41 FREE STREET, PORTLAND, MAINE**
DRILLING FIRM: **S.W. COLE EXPLORATIONS, LLC** DRILLER: **BOB MARCOUX**
TYPE SIZE I.D. HAMMER WT. HAMMER FALL
CASING: **HSA 2 1/4"**
SAMPLER: **SS 1 3/8" 140 LBS. 30"**
CORE BARREL:

WATER LEVEL INFORMATION

SOILS WET BELOW 12' +/-
SOILS SATURATED BELOW 14' +/-

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
									2"	ASPHALT
									3.0'	BROWN GRAVELLY SAND, SOME SILT, WITH COBBLES
									11.0'	BLACK SILTY SAND, SOME GRAVEL, WITH ASH AND BRICK/CONCRETE RUBBLE (FILL)
	1D	9"	6"	4.8'	17	50-3"				
	2D	4"	4"	9.3'	50-4"					
									11.0'	GRAY SILT AND SAND, SOME GRAVEL ~ LOOSE ~
									14.0'	
	3D	24"	18"	14.0'	4	3	3	5		
	4D	24"	20"	16.0'	6	10	17	17		GRAY SILTY SAND, SOME GRAVEL, WITH OCCASIONAL COBBLES (GLACIAL TILL) ~ MEDIUM DENSE ~
	5D	24"	18"	21.0'	8	8	14	14		BOTTOM OF EXPLORATION @ 21.0'

SAMPLES: SOIL CLASSIFIED BY:
D = SPLIT SPOON
C = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE
DRILLER - VISUALLY
SOIL TECH. - VISUALLY
LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE
APPROXIMATE BOUNDARY BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL.



BORING LOG

BORING NO.: **B-109**
SHEET: **1 OF 1**
PROJECT NO.: **15-1166**
DATE START: **11/13/2015**
DATE FINISH: **11/13/2015**
ELEVATION: _____
SWC REP.: **E. WALKER**

PROJECT: **PROPOSED RENOVATION AND EXPANSION**
CLIENT: **THE ASYLUM DANCE CLUB**
LOCATION: **121 CENTER STREET & 41 FREE STREET, PORTLAND, MAINE**
DRILLING FIRM: **S.W. COLE EXPLORATIONS, LLC** DRILLER: **BOB MARCOUX**
CASING: TYPE **HSA** SIZE I.D. **2 1/4"** HAMMER WT. **140 LBS.** HAMMER FALL **30"**
SAMPLER: **SS**
CORE BARREL: _____

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
									2"	ASPHALT
									2.0'	BROWN SAND SOME GRAVEL, SOME SILT (FILL)
										BRICK AND CONCRETE RUBBLE (FILL) ~ MEDIUM DENSE ~
	1D	24"	0"	6.0'	4	5	7	5		
	2D	24"	10"	8.0'	2	4	6	31		
	3D	5"	5"	9.4'	50-5"					
										REFUSAL @ 9.8' PROBABLE CONCRETE

SAMPLES:	SOIL CLASSIFIED BY:	REMARKS:
D = SPLIT SPOON C = 3" SHELBY TUBE U = 3.5" SHELBY TUBE	X DRILLER - VISUALLY SOIL TECH. - VISUALLY LABORATORY TEST	STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

2

BORING NO.: **B-109**



BORING NO.:	B-110
SHEET:	1 OF 1
PROJECT NO.:	15-1166
DATE START:	11/13/2015
DATE FINISH:	11/13/2015
ELEVATION:	
SWC REP.:	T. BOYCE

WATER LEVEL INFORMATION

[illegible]

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-110**



12



PROJECT NO. 15-1166

TEST PIT TP-102

DATE: 11/13/15 SURFACE ELEVATION: LOCATION: SEE SHEET 1

[illegible]

COMPLETION DEPTH: 4'-8" DEPTH TO WATER: NO FREE GROUNDWATER

KEY TO NOTES & SYMBOLS

Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

W	-	water content, percent (dry weight basis)
q_u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S_v	-	field vane shear strength, kips/sq. ft.
L_v	-	lab vane shear strength, kips/sq. ft.
q_p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W_L	-	liquid limit - Atterberg test
W_P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ_T	-	total soil weight
γ_B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

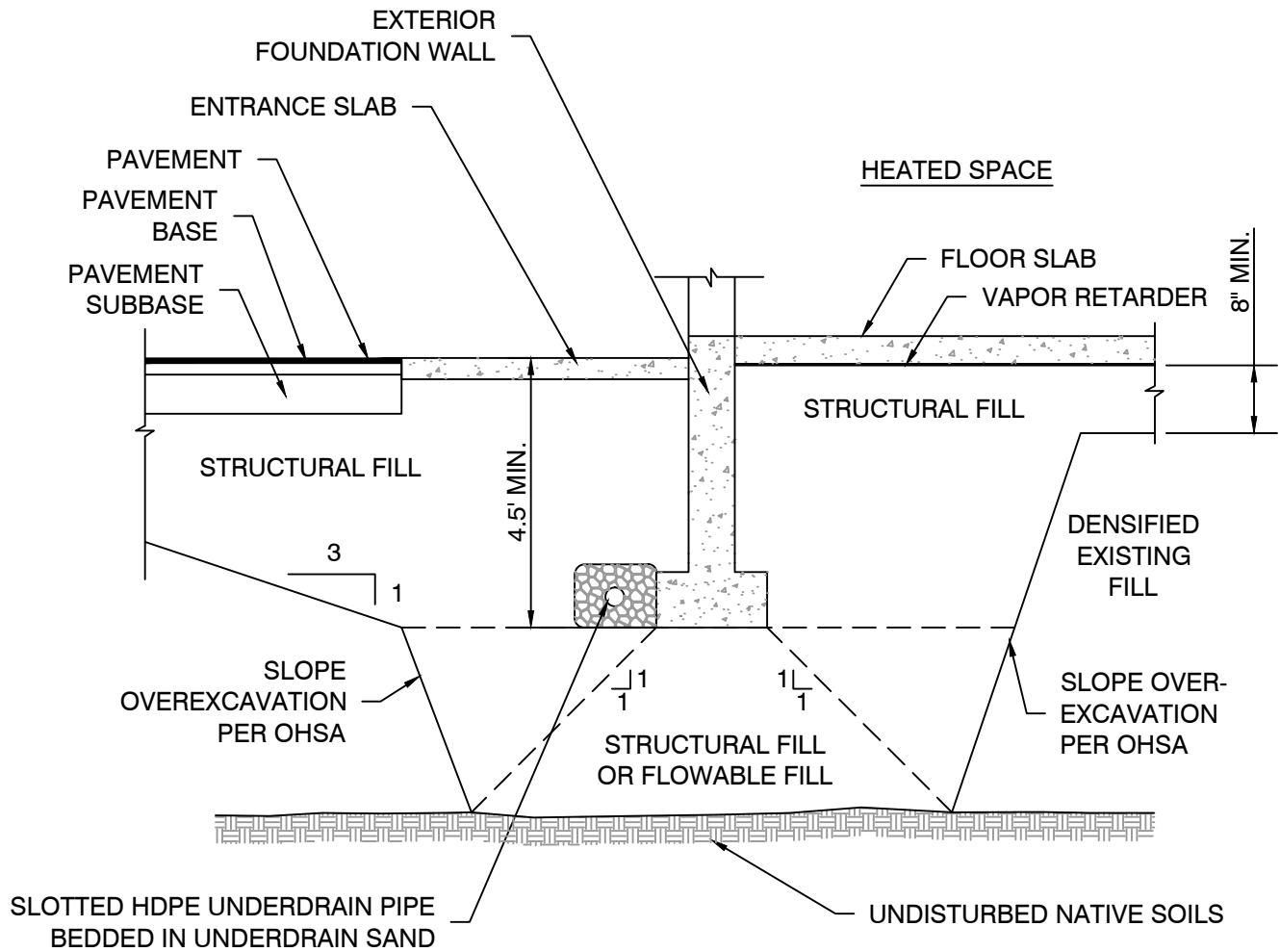
Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	1/2" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.



NOTE:

1. UNDERDRAIN INSTALLATION AND MATERIAL GRADATION RECOMMENDATIONS ARE CONTAINED WITHIN THIS REPORT.
2. DETAIL IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, NOT FOR CONSTRUCTION.



S.W. COLE
ENGINEERING, INC.

THE ASYLUM DANCE CLUB

FOUNDATION & UNDERDRAIN DETAIL

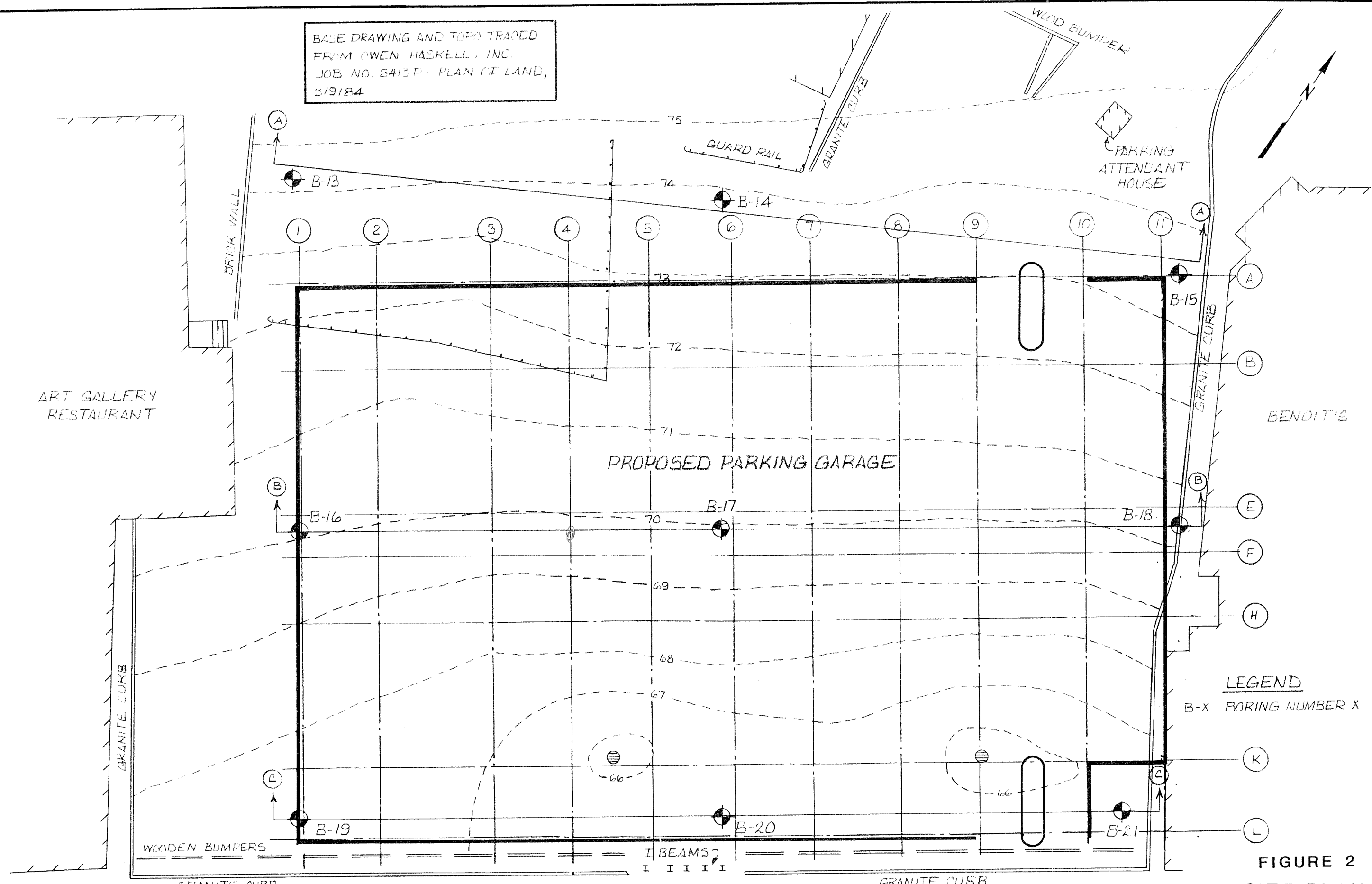
PROPOSED ADDITION
41 FREE STREET
PORTLAND, MAINE

Job No.: 15-1166
Date : 12/17/2015

Scale: Not to Scale
Sheet: 15

APPENDIX A

BASE DRAWING AND TOPO TRACED
FROM OWEN HASKELL, INC.
JOB NO. 8413 P - PLAN OF LAND,
3/9/84

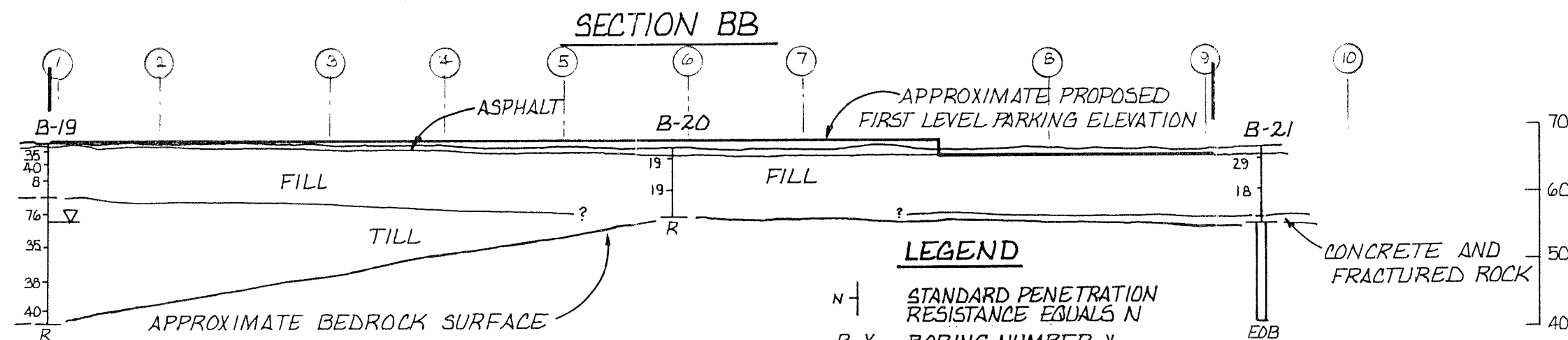
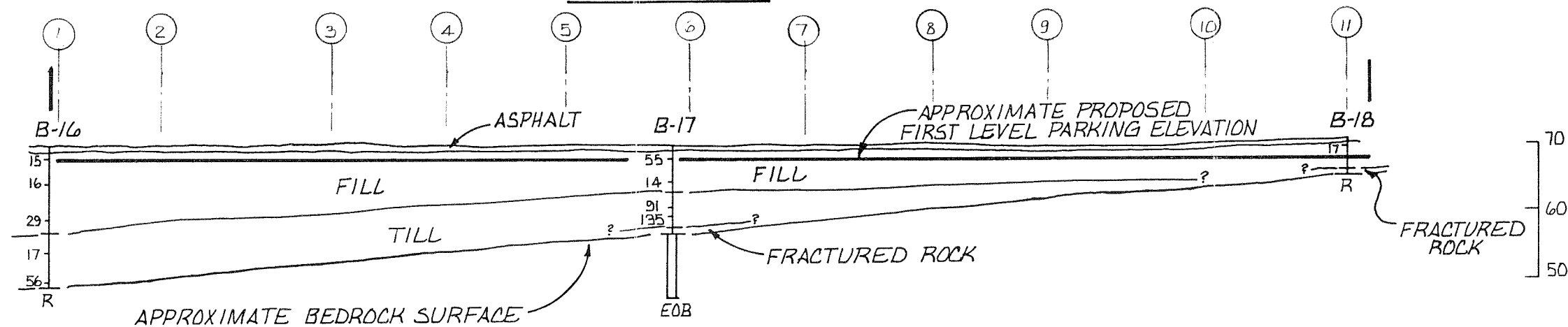
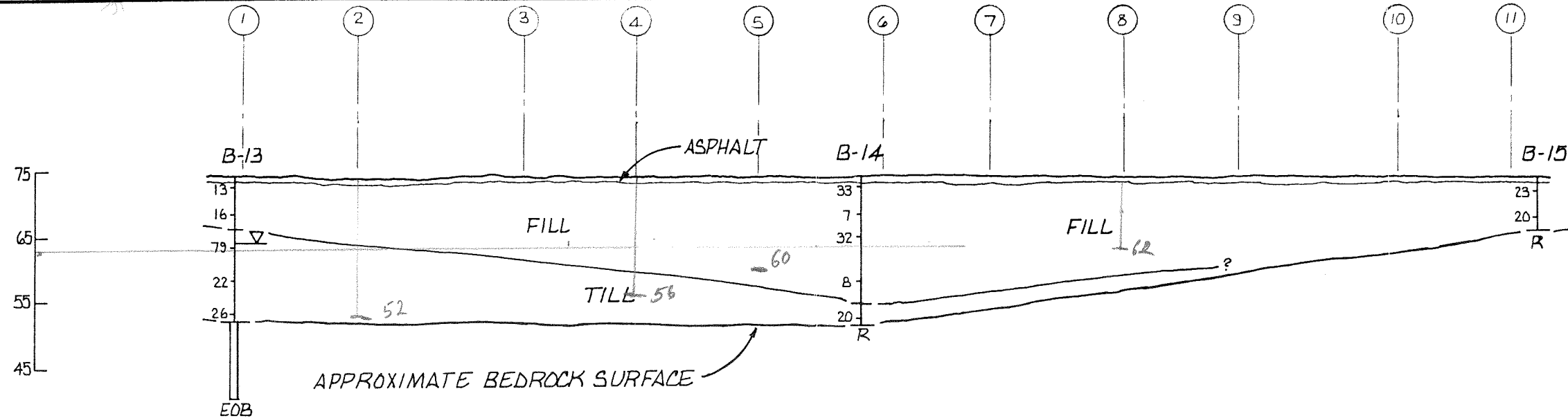


LEGEND
B-X BORING NUMBER X

SCALE: 1"=20'

FIGURE 2
SITE PLAN
Page 140

ELEVATION - FEET



STRATUM LINES ARE BASED ON INTERPOLATION BETWEEN BORINGS AND TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

SCALE: 1" = 20'

- LEGEND**
- N | STANDARD PENETRATION RESISTANCE EQUALS N
 - B-X | BORING NUMBER X
 - |▽| GROUNDWATER ELEVATION
 - |+| CHANGE IN SOIL TYPE
 - |□| ROCK CORE
 - EOB | END OF BORING
 - R | REFUSAL

FIGURE 3
SOIL SECTIONS

11
52

0.8
8.0
55.7

73
11
62

BASE DRAWING AND TOPO TRACED
FROM OWEN HASKELL, INC.
JOB NO. 8413P - PLAN OF LAND,
3/9/84

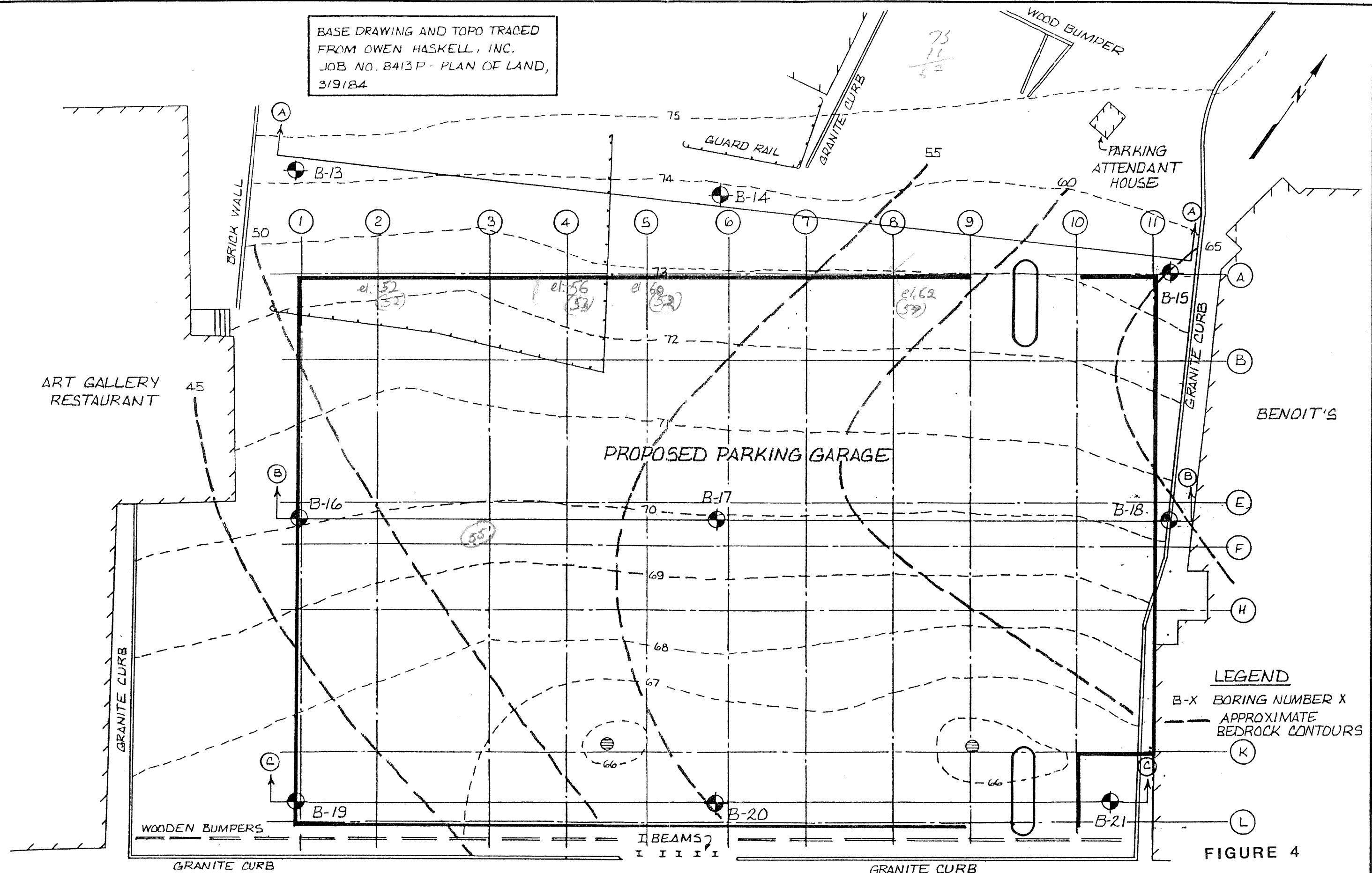
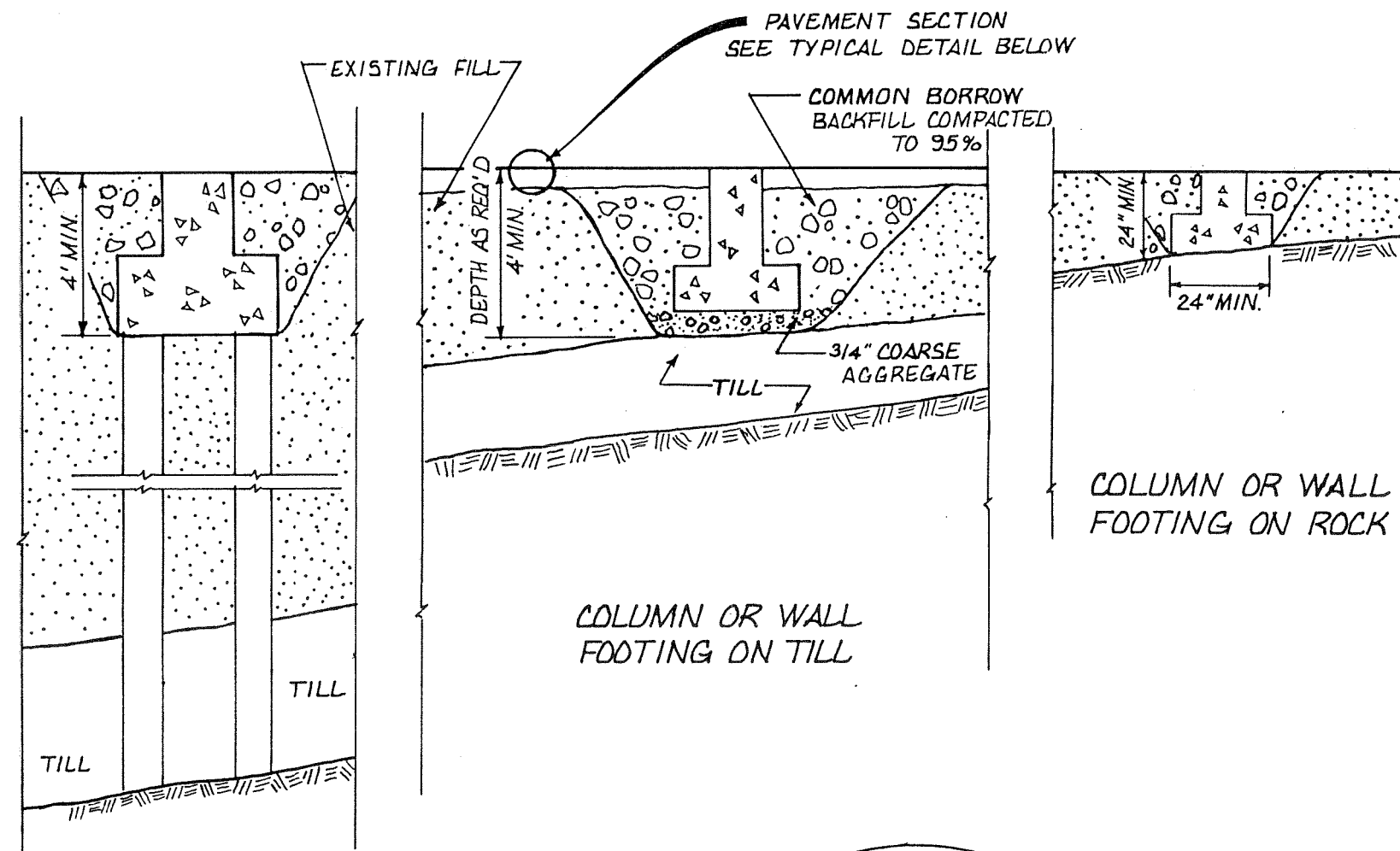


FIGURE 4
BEDROCK CONTOURS

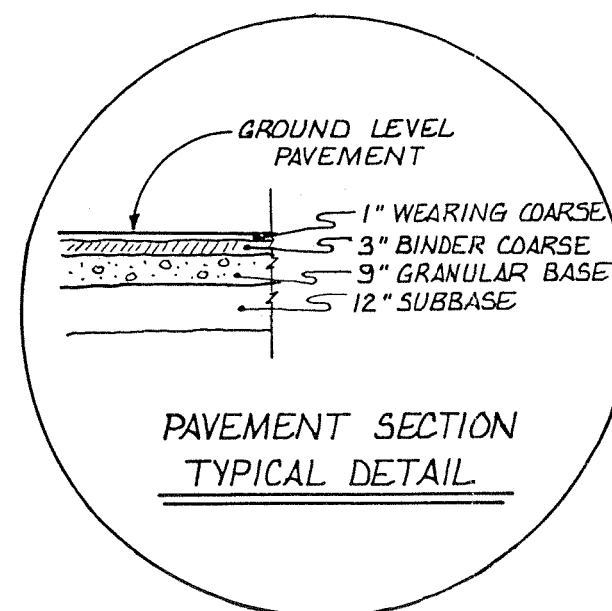
Page 142



COLUMN OR WALL
FOOTING ON PILES

COLUMN OR WALL
FOOTING ON TILL

COLUMN OR WALL
FOOTING ON ROCK



NOTES:

- ① DRAWING NOT TO SCALE.
- ② PERCENT COMPACTION IS THE RATIO OF THE FIELD DRY DENSITY TO THE MAXIMUM MODIFIED PROCTOR DENSITY.
- ③ FOUNDATION DRAIN SHALL BE 4" DIAMETER PERFORATED PIPE WITH 4" MINIMUM COARSE AGGREGATE COVER WITH FREE DRAINING OUTLET.

GRADATION RECOMMENDATIONS
FOR 3/4" COARSE AGGREGATE

SIEVE SIZE	PERCENTAGE BY WEIGHT PASSING
1"	100
3/4"	90 - 100
3/8"	20 - 50
#4	0 - 10

FIGURE 7
TYPICAL FOUNDATION DETAILS

**HISTORIC PRESERVATION BOARD
CITY OF PORTLAND, MAINE**

**WORKSHOP
121 CENTER STREET**

TO: Chair Benson and Members of the Historic Preservation Board

FROM: Deborah Andrews, Historic Preservation Program Manager

DATE: April 13, 2016

RE: April 20, 2016 **Workshop (4th)** – Preliminary Review of Proposal for Comprehensive Exterior Renovation and Building Addition

Address: 121 Center Street

Applicant: Valerie Levy

Architect: Jocelyn Boothe, WBRC Architects

Introduction

On February 24th, the Board held a third workshop on a proposal for the comprehensive renovation and expansion of the Asylum building at 121 Center Street. Board members will recall that the proposal presented in February represented a fairly significant departure from the applicant's original design proposal reviewed in December and January. The new proposal was developed in response to the applicant's decision to increase the seating capacity of the performing arts venue and make other programmatic changes within the interior. Although the re-design retained elements of the previous proposal, the massing and overall design concept was fundamentally different. As such, the Board was encouraged to review the revised design concept essentially as a new application.

Based on feedback received at the February 24th meeting, project architect Jocelyn Boothe has made a number of design and material modifications and is requesting a follow-up workshop with the Board. With input from Wednesday's workshop, Ms. Boothe hopes to proceed to a public hearing and final approval.

As with previous submissions, Ms. Boothe has provided a written narrative that describes the basis for the overall design expression, contributing architectural details and material choices. For reference purposes, the latest submission includes an image of the development as presented on February 24th together with the most current proposal—see **page 3** of the submission.

Summary of Board Comments at 2/24 Workshop

At the February workshop, Ms. Boothe acknowledged that the new design was still fairly conceptual at that point and that the design team and applicant were looking for early feedback before proceeding with design development. As with the previous proposal, the Board was instructed to evaluate the new proposal's general compatibility with its surrounding context according to the compatibility factors identified in the *Historic Resource's Design Manual's* chapter on new construction—i.e. scale and form, composition of principal facades, rhythm of solids to voids, etc. As well, the Board was asked to determine whether the new proposal's overall design concept was visually coherent and cohesive.

From Board comments, it appeared that Board members were supportive of the new proposal's general massing and overall design direction. Given the eclectic nature of the Congress Street Historic District and the mixed character of the proposed project's immediate context, a strikingly unique design expression was acceptable in this instance. That said, Board members identified a number of concerns about the proposal as presented. The most fundamental concern was that the new design lacked visual cohesiveness and featured too many disparate architectural details and exterior materials which resulted in overly complicated and visually busy elevations. They encouraged that the design solution, including proposed material palette, be simplified and unified in order to achieve a stronger, more distilled architectural expression.

The other major concern had to do with the large glass "box" that dominated the Free Street façade. Board members noted that in order for the architectural expression of this single "box" or "lens" to read as intended, interior conditions behind the glass needed to be consistent. In reality, the space behind the glass accommodated a variety of functions which—especially at night—would read as disparate areas. They encouraged the project architect to reconsider this significant element of the design to ensure that it would read as intended.

Revised Design Proposal

Please see Ms. Boothe's description of the new design included with this submission. On page 3, the new design is also shown compared to the design reviewed in January. Note that the massing is essentially unchanged from the February 24th proposal, but the treatment of the large glass box on the Free Street façade has been modified in response to Board comments. The number and patterning of exterior materials has been reduced, entry surrounds have been modified, windows have been introduced on the Center Street upper façade and the sign concept has been revised. The enclosed submission also illustrates the proposed program of exterior lighting for the building. As was the case with the February 24th proposal, large-scale signage figures prominently on both the Free Street and Center Street elevations.

Please review Ms. Boothe's written narrative for an explanation of the rationale behind the latest proposal.

Staff Comments

As noted in previous staff memos, the Free/Center Street context of this noncontributing structure is decidedly mixed, making the issue of compatibility with the surrounding context

perhaps a less critical consideration than might be the case in a more homogeneous setting. In fact, the Congress Street Historic District is distinct from other Portland historic districts in its architectural eclecticism. That said, the historic preservation ordinance instructs the applicant to consider the surrounding context of any given development and identify any salient shared characteristics of that context that might be exhibited in the proposed development. In this case, certainly the proposed height of the renovated building will be more compatible with its context than the current noncontributing structure. The building's relationship to the street is also consistent with its context. A question for the Board is whether there are any other unifying characteristics of the context—particularly the Free Street context—that might be incorporated or referenced in the new building elevations.

Following are several questions for the Board's consideration:

- In the previous proposal, the large glazed volume was bracketed by red brick fields on both Center and Free—see page 3. In the new proposal, the ground floor red brick façade on Center Street is retained, but the masonry on the Free Street façade has been changed to a light colored masonry. This light colored masonry-- made up of large-scale units installed in a vertical orientation—is used at the base of the Free Street elevation and extends up the tower element on the east end of this elevation. While the use of two visually distinct masonry planes is certainly consistent with the abstract nature of the overall design direction (see page 4 of submission), the Board might wish to consider the extent to which the shift to white or light masonry on the Free Street façade serves to further distinguish the building from its Free Street context. The perspective view from lower Free Street looking west clearly illustrates the effect of this color/material palette departure. A question for consideration might be whether a masonry type that more closely resembles at least the color or tonal range of traditional red brick might serve to better integrate the building with its lower Free Street context. The size of the masonry units and the vertical orientation of the installation need not necessarily change with this modification.
- Given the narrow, vertical orientation of most of the windows, the square windows on the Center Street upper façade stand out in contrast. Should the proportions of these windows be revised?
- The Board should ask for additional information regarding the proposed exterior lighting program. For example, the lighting specification sheet included in the packet calls for “exterior *color changing* LED strips”. The Board should confirm whether the color of the light will be consistent or changing. Also, the project architect should be asked to elaborate on the intended character and brightness of the lighting.
- Regarding the art wall being proposed for the Lancaster Street alley, some of the illustrations show the art being confined to former masonry openings. The illustration on the lighting specification sheet suggests that the entire wall might be reserved for graffiti. The intent should be clarified.

- As proposed, signage is large-scale and is treated as a key feature on the upper facades of both the Center Street and Free Street elevations. In terms of illumination, it is difficult to tell from the plans whether the individual letters of the two signs are proposed to be internally lit or halo-lit. While it could be argued that the scale of the letters is generally proportional to the building itself, the Board is encouraged to consider the precedent such a signage solution sets within the Congress Street Historic District. The ordinance's sign standards and guidelines (see applicable guidelines below) do not encourage upper floor signage, based on the intent that signs not dominate the visual character of the district or compete with the buildings themselves. Another consideration in assessing the proposed signage is the fairly narrow width of Free Street. As the recently-installed Civic Center sign on Free Street illustrates, the impact of large scale signage on a street of this nature within the downtown is greater than would be the case on a wider street like Congress. The Board might wish to consider whether an alternative signage solution should be explored.

Applicable Review Standards

Sec. 14-651.5 Standards for review of alterations to or redesign of noncontributing structures.

- (a) In considering an application for a certificate of appropriateness involving alteration(s) to a noncontributing structure the standards for review of alteration shall apply as applicable. The intent of the review shall be to ensure no further erosion of any existing architectural character of the subject structure determined to be significant by the historic preservation board and, where practicable, to guide projects toward a more compatible relationship with the surrounding context.
- (b) In considering an application for a certificate of appropriateness involving comprehensive redesign of a noncontributing structure, the standards for review of construction shall apply.

Sec. 14-652.5 Standards for review of construction

The following is excerpted from the Historic Resources Design Manual's chapter on new construction:

The challenge is to design a building which is both distinct from and compatible with the buildings that surround it. The purpose of the following standards is to provide guidance in identifying the visual qualities of a given site's context, and to assess whether or not a proposed design is likely to compliment that context.

The central idea behind good design in an historic context is a simple one. The scale, mass, orientation and articulation of an infill building should be compatible with that of the buildings that surround it. Compatibility refers to the recognition of patterns and characteristics which exist in a given setting, and responsiveness in a new design which respects these established patterns and characteristics. Although similarity of design is one way of achieving compatibility in an historic context, a creative and distinctly contemporary design response is both permitted and encouraged with the parameters of the new building's context.

There are a number of building characteristics which can be used to gauge visual compatibility of new construction in an existing context. A new building need not follow the pattern set by its neighbors in each and every category. But it should relate to a number of the easily discernable traits. These characteristics are:

Scale and Form

Height
Width
Proportion of principal facades
Roof shapes
Scale of the structure

Composition of Principal Facades

Proportion of openings
Rhythm of solids to voids in facades
Rhythm of entrance porch and other projections
Relationship of materials, texture and color
Signs, canopies and awnings

Relationship to the street

Walls of continuity
Rhythm of spacing and structures on streets
Directional expression of principal elevations

Sec. 14-652.5 Standards for Review of Signage.

In considering an application for a certificate of appropriateness involving the installation or modification of sign(s), including awning(s) which incorporate signage, the historic preservation board and planning board shall apply the following standard:

Signs shall be compatible with the subject building and its surrounding context as detailed in the signage design guidelines included in the Historic Resources Design Manual. If there is a conflict between this standard and the requirements of Division 22 (signs) of the Land Use Code, the stricter shall apply.

Excerpts from Signage Guidelines in Historic Resources Design Manual:

A. General Design Concerns

- i. Signage on all buildings, historic and contemporary, should be carefully considered, taking into account the scale, character and design of the subject building and its surrounding context.

- iv. In a downtown setting, the design of signage should be oriented and sized to reflect the nature of movement around the building, with an emphasis primarily on the pedestrian and slow-moving traffic.

B. Size

- i. The size of signs and individual letters should be at an appropriate scale for pedestrians and slow-moving traffic. Except in unique circumstances, projecting signs should not exceed 16 square feet, on the first floor level.

C. Placement and Location

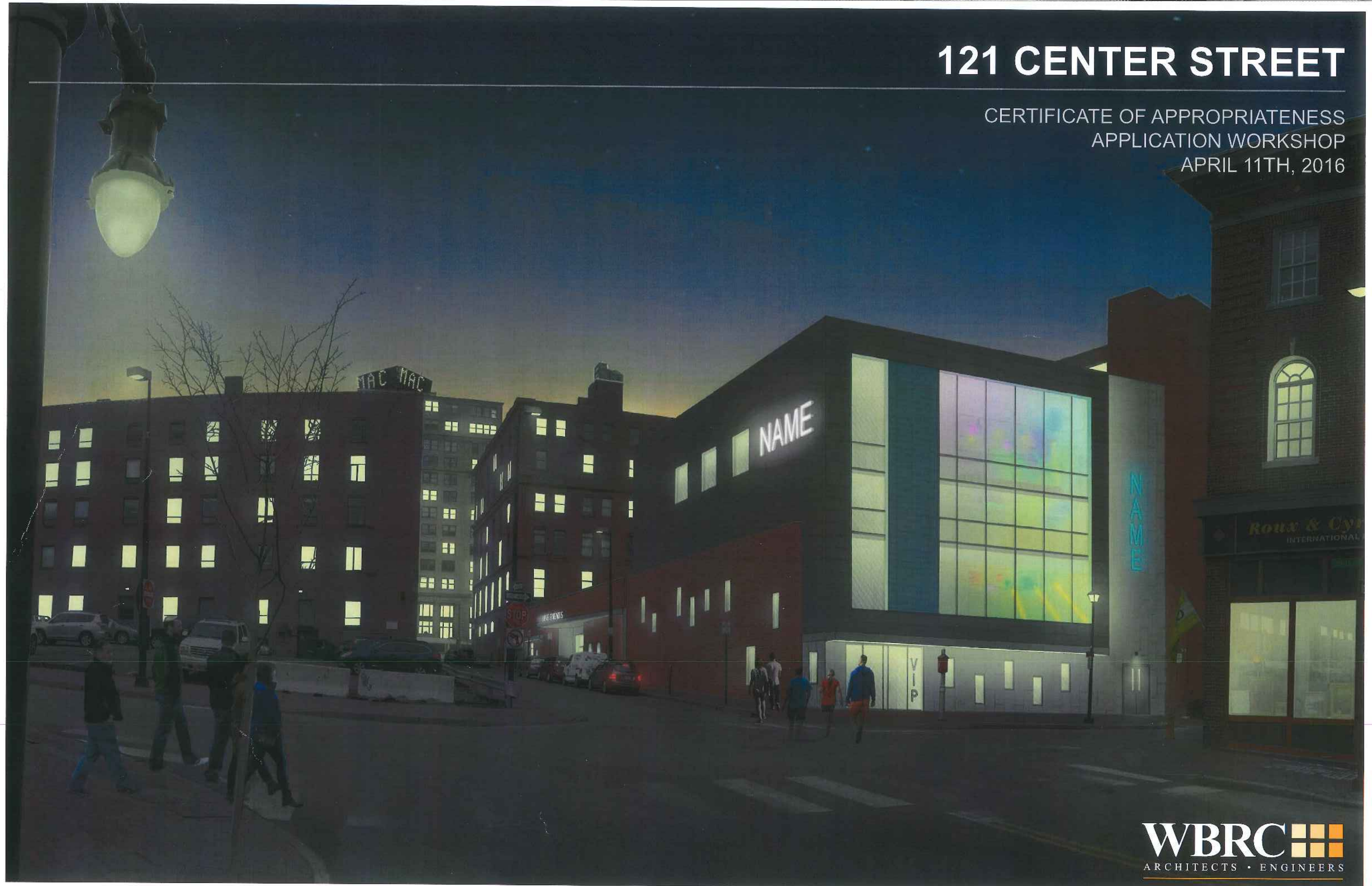
- v. Generally, the placement of signage should occur below the sill of the second story windows. Placement elsewhere on a building may be considered under the following circumstances: a) where the design of the base portion of the building establishes some higher point as an appropriate location; b) where unusual site characteristics exist; or c) where the proposed signage exhibits exceptional design merit and is integrated into the design vocabulary of the subject building.

Attachments:

- 1. April 11, 2016 submission

121 CENTER STREET

CERTIFICATE OF APPROPRIATENESS
APPLICATION WORKSHOP
APRIL 11TH, 2016



WBRC 
ARCHITECTS • ENGINEERS

At the previous Historic Board workshop session (February 24th) we reviewed with the board a series of program changes which necessitated the expansion of the building along with a major exterior design change in direction. This program change is a result of a balcony space being added, resulting in the taller building volume extending to Center Street. After a productive workshop session, the board deemed the massing of the building and overall design strategy was appropriate for the district, but that the design needed to be simplified. There were also some concerns raised regarding the window strategy on Free Street and the different types of light which would emanate from the stair tower vs. the performance space.

The Architect and Owners have worked with the feedback given and submit to the board this revised design for consideration. The new design builds off the previous form, but simplifies the quantity of materials, material palette and lighting strategy to provide a clean and cohesive approach. A branding consultant has been brought on board who will be helping with the project name and logo/signage. What is shown in the design packet is a place holder based on our initial conversations to convey approximate size and location only.

The new design approach is based on grounding the building in strong, existing masonry elements, especially the existing brick wall along Center Street, and contrasting the historic masonry nature with a more modern form highlighting the event space. While a portion of this brick wall will need to be removed during construction, the intent is to replace this wall in as close to its existing location as possible. In order to comply with the existing property lines, the wall will be moved back 4". An additional light colored masonry base will wrap around the corner to Free Street and culminate in a vertical tower element acting as an end cap to the design and a tie to the surrounding buildings. This new masonry portion consists of 24" wide x 48" tall limestone panels in a vertical running bond pattern. The variable height punched openings along the Center Street wall and the Free Street wall as discussed in previous Historic Board meetings will all remain as designed. The punched windows on Free Street will also be a 24" x 48" tall and will fit within the module of the masonry panels. The same light colored masonry will be used at the main entry, tying together the two facades.

Sitting on top of this masonry base, we have proposed a simple, more modern form, which will act as a 'lens' to the event venue and a connection between the pedestrian district and the performance space. This frame will be clad in a dark metal panel with a simple pattern to act as a contrast to the movement in the masonry below. A new building sign/logo will be located on the metal panel along Center Street, as well as the stone 'tower' along Free Street. The Free Street end of the form will be comprised of a curtain wall system featuring acoustical glazing. The curtainwall is divided into two portions, one for the event space and one for the stair tower, with a solid colored metal accent panel between. Colorful mullion extensions will be provided on the curtainwall to act as an accent piece. The main entry door on Center Street will again have the colorful mullion extensions, tying together the two facades.

Three new canopies are also proposed, one over each door. The canopies will be a simple metal panel design, and all three will have a wedge shape which protrudes over the door and tapers back to the building. Additionally, each canopy will have a recessed LED strip light shining down along the edge. At the VIP and Main entry, this LED strip will also wrap vertically up the edge of the metal box and down the 4" brick recess respectively, again connecting the two facades.

As a whole, we believe that this simplified and unified design will positively add to the neighborhood. We appreciate your time and look forward to your feedback.

PROJECT UPDATE

121 Center Street - Event Space Renovation

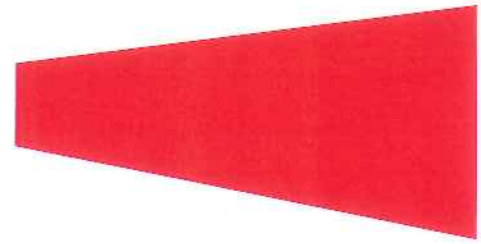
April 11th, 2016



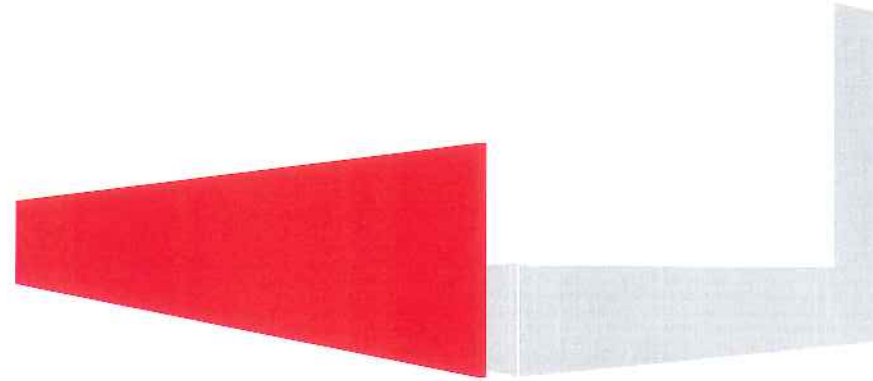
CURRENT EXTERIOR DESIGN



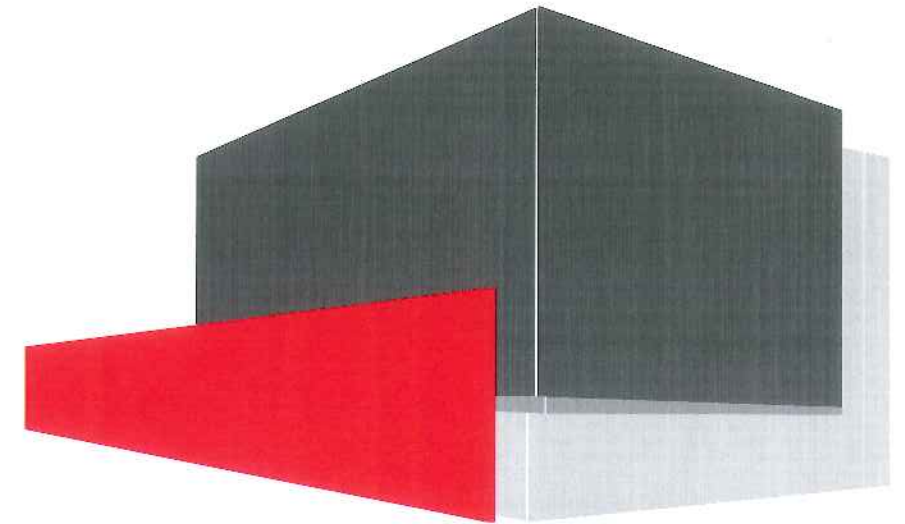
PREVIOUS EXTERIOR DESIGN



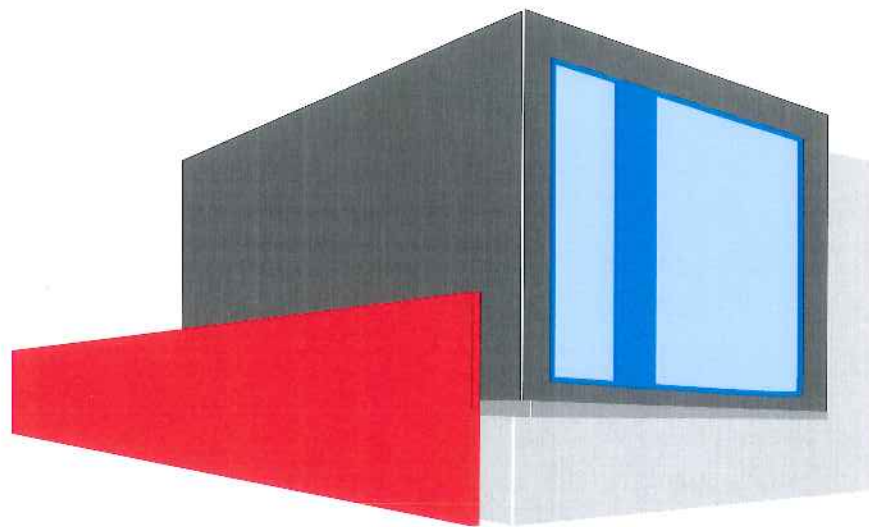
1 Strong Existing Masonry Base



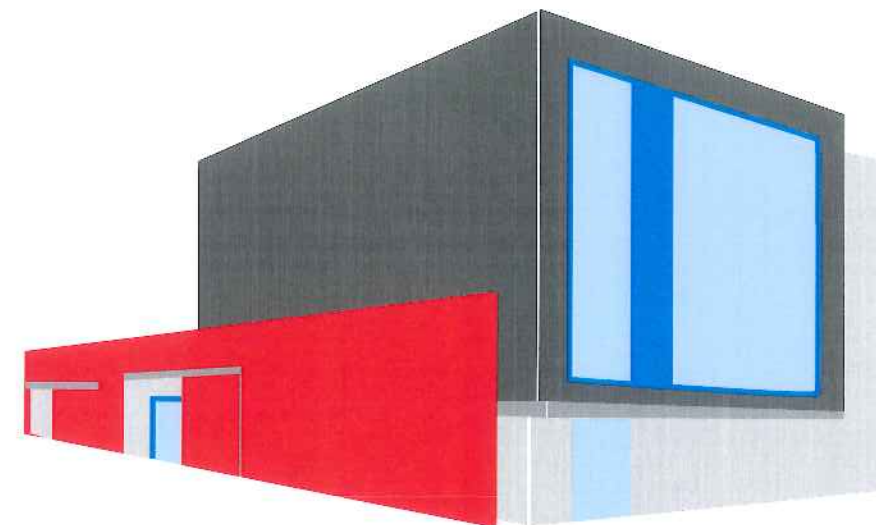
2 New Masonry Connection to Site and Adjacent Structure



3 Exterior Expression of Event Space Program



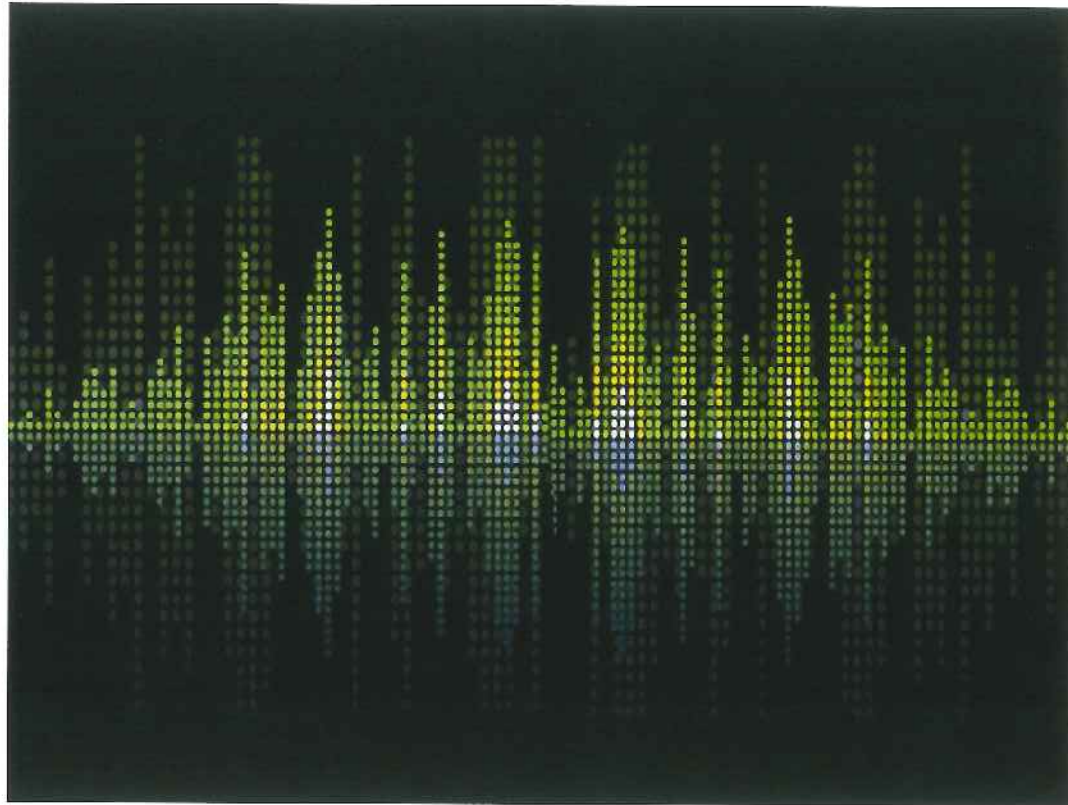
4 Lens to Event Space Program



5 Uniform Expression of Public Entries

DESIGN CONCEPT

121 Center Street - Event Space Renovation
April 11th, 2016



MUSICAL FREQUENCY AND MOTION

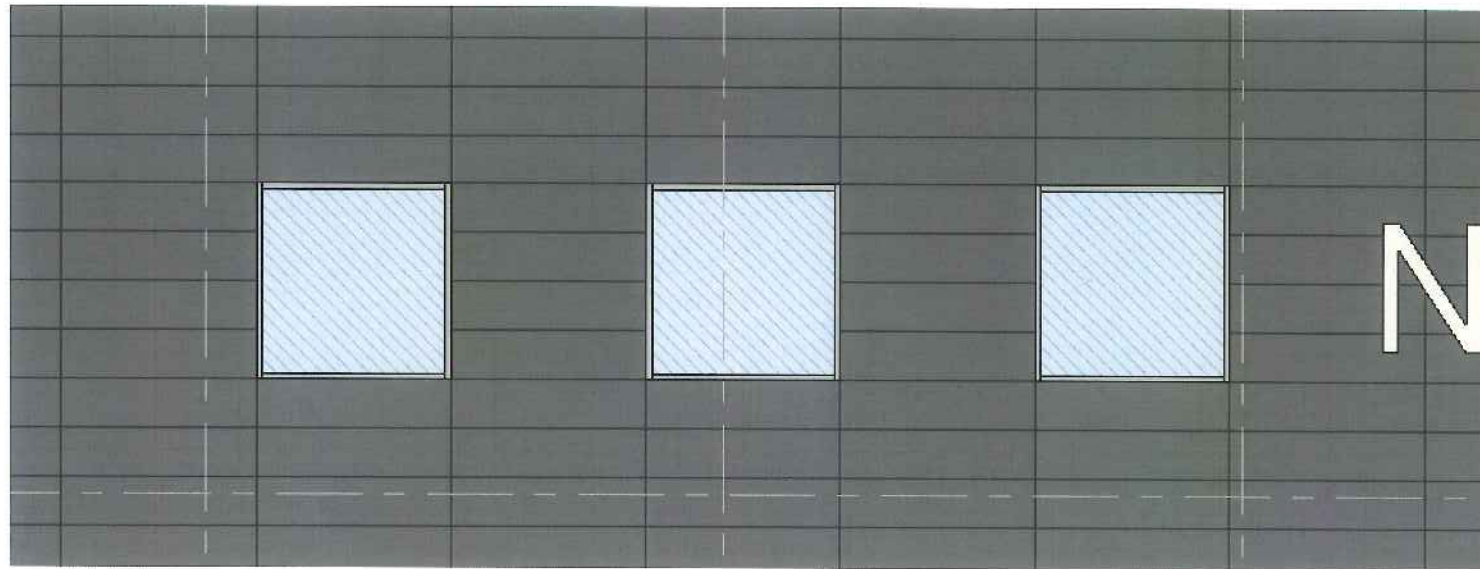


ARCHITECTURAL RHYTHM

DESIGN CONCEPTS

Frequency graphic by Kennet Holivia

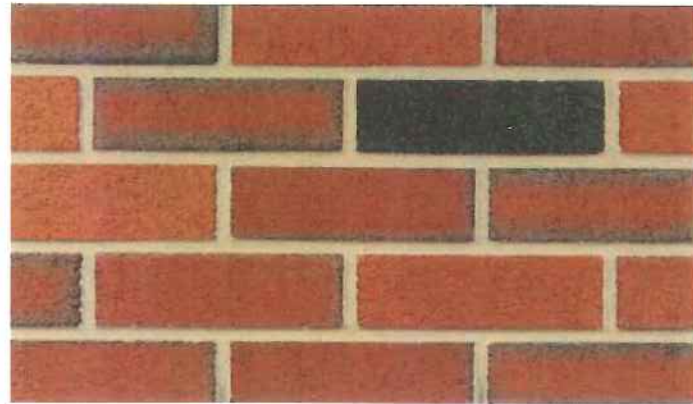
Column Image from <http://marlenmartinez.pbworks.com/w/page/87665365/Rhythm>



DESIGN CONCEPT ELEMENTS - MOVEMENT AND PATTERNS

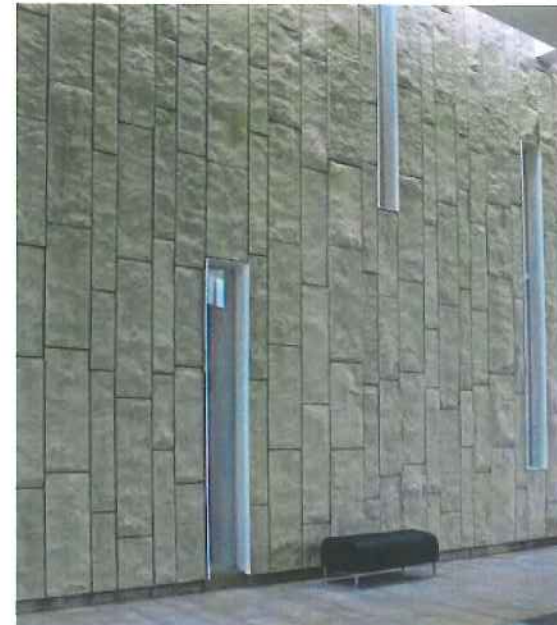
121 Center Street - Event Space Renovation
April 11th, 2016

TYPICAL BRICK



Bedford Matt 12" Norman Brick
To Match Existing

MASONRY



24" x 48" Arriscraft Adair Limestone
Anchored Dimensional Stone
Vertical Running Bond Installation

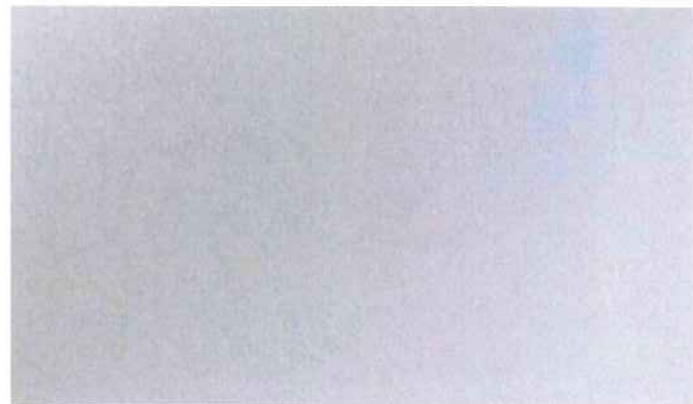


FENCES



Classic Bronze Color
Emergency Egress, Locked Entry

CANOPIES



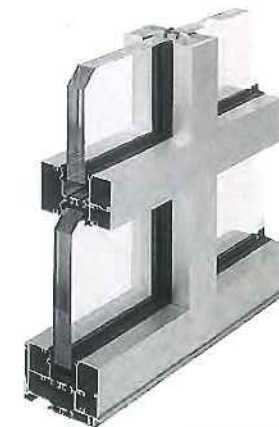
Color ATAS 28 Silversmith

METAL PANEL



Basis of Design:
Dri-Design Wall Panel System
18" x 72" stacked

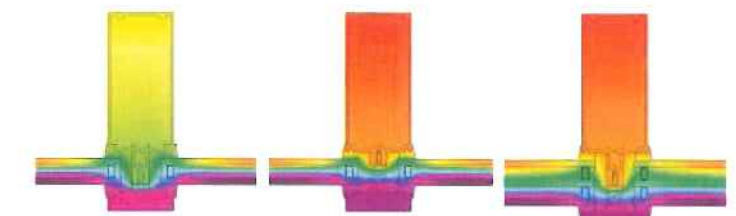
STOREFRONT



Basis of Design:
Kawneer Trifab VersaGlaze
451/451T Framing System
2" sightline, 4 1/2" depth
Color ATAS 01 Classic Bronze



CURTAINWALL



1600 Wall System[®]1
1" Insulating Glass

1600UT System[™]1
1" Insulating Glass

1600UT System[™]1
1-3/4" Insulating Glass



Basis of Design:
Kawneer 1600 UT Framing System
2 1/2" sightline, 6" depth
1 3/4" Acoustic Glass
Color ATAS 01 Classic Bronze

EXTERIOR MATERIALS

LIT DISPLAY BOXES



1 @ Sports Bar Entry
2 @ Main Entry

INTERNALLY LIT SIGNAGE



2 Building Signs
1 Canopy Sign

EXTERIOR COLOR CHANGING LED STRIP



EMERGENCY WALL PACKS



WALL WASHER DOWN LIGHT



@ Lancaster Lane Art Wall

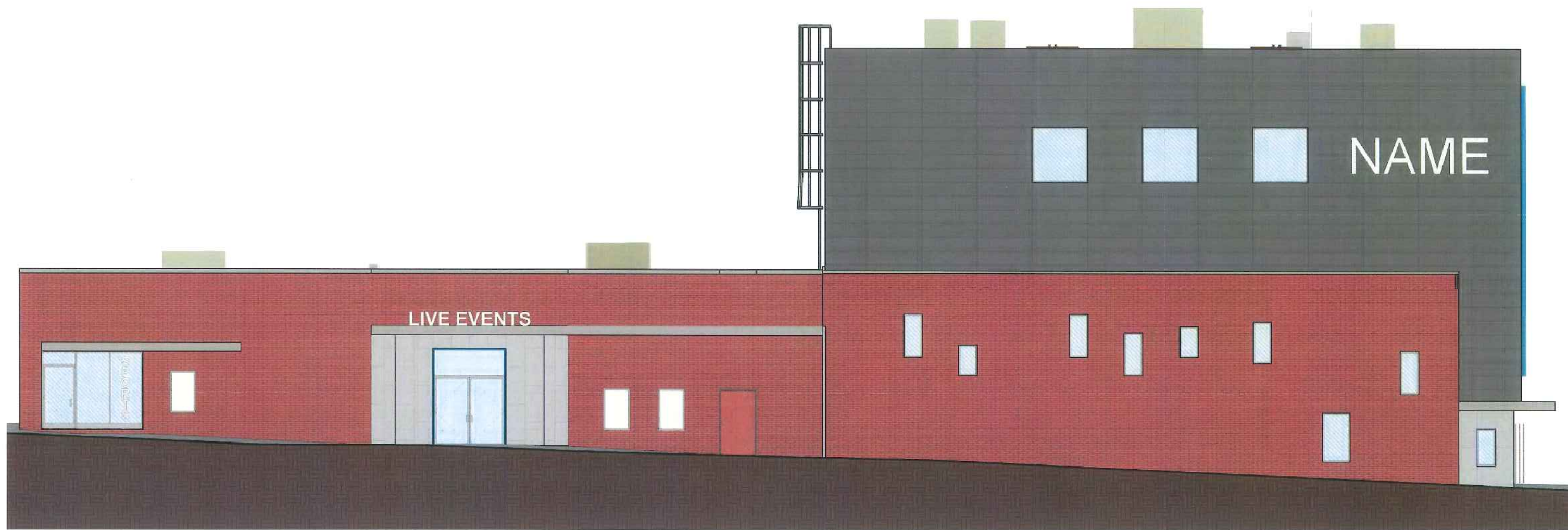


LIGHTING ELEMENTS

121 Center Street - Event Space Renovation
April 11th, 2016



LIGHTING LOCATION



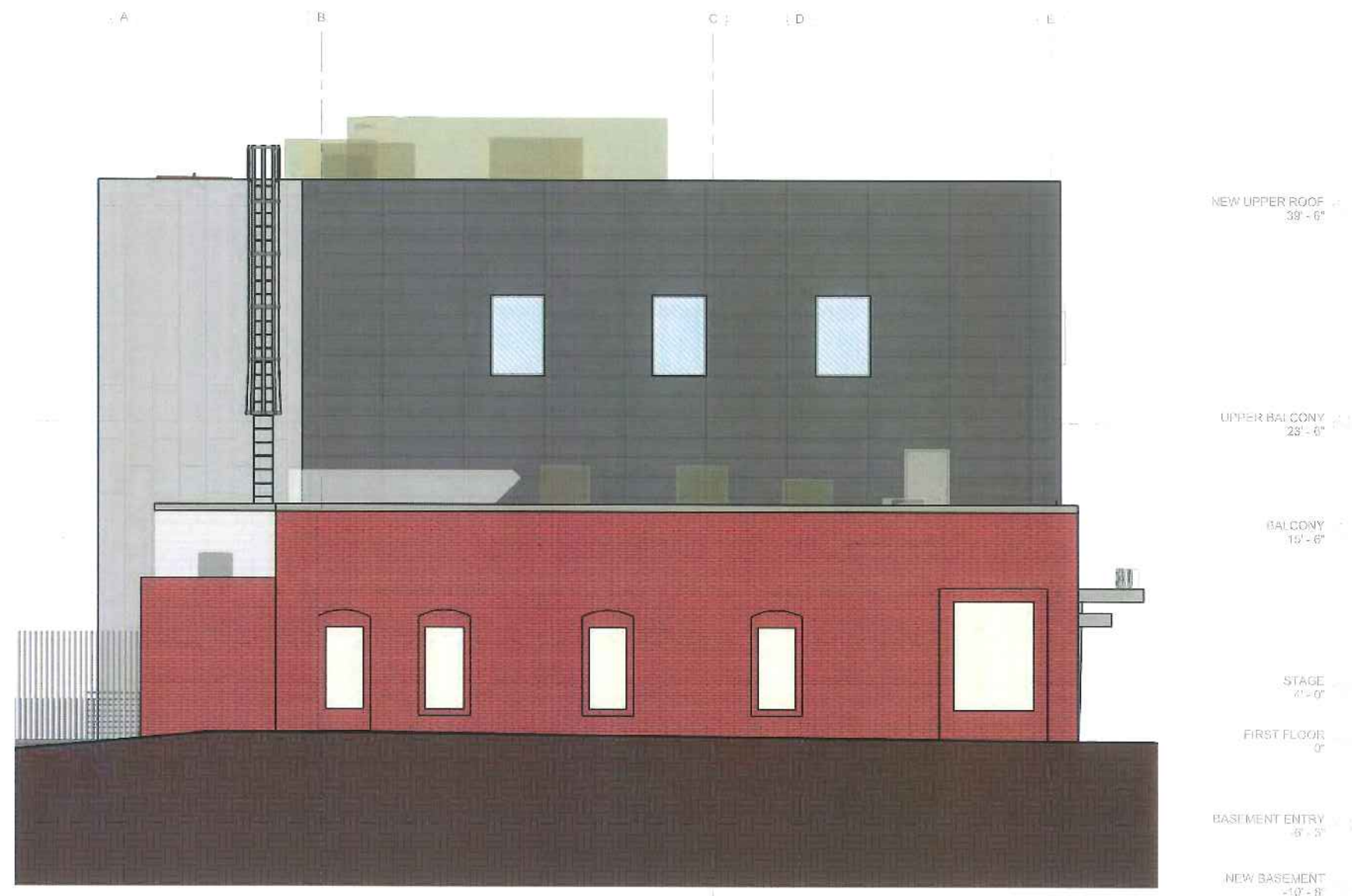
CENTER STREET ELEVATION

121 Center Street - Event Space Renovation

April 11th, 2016



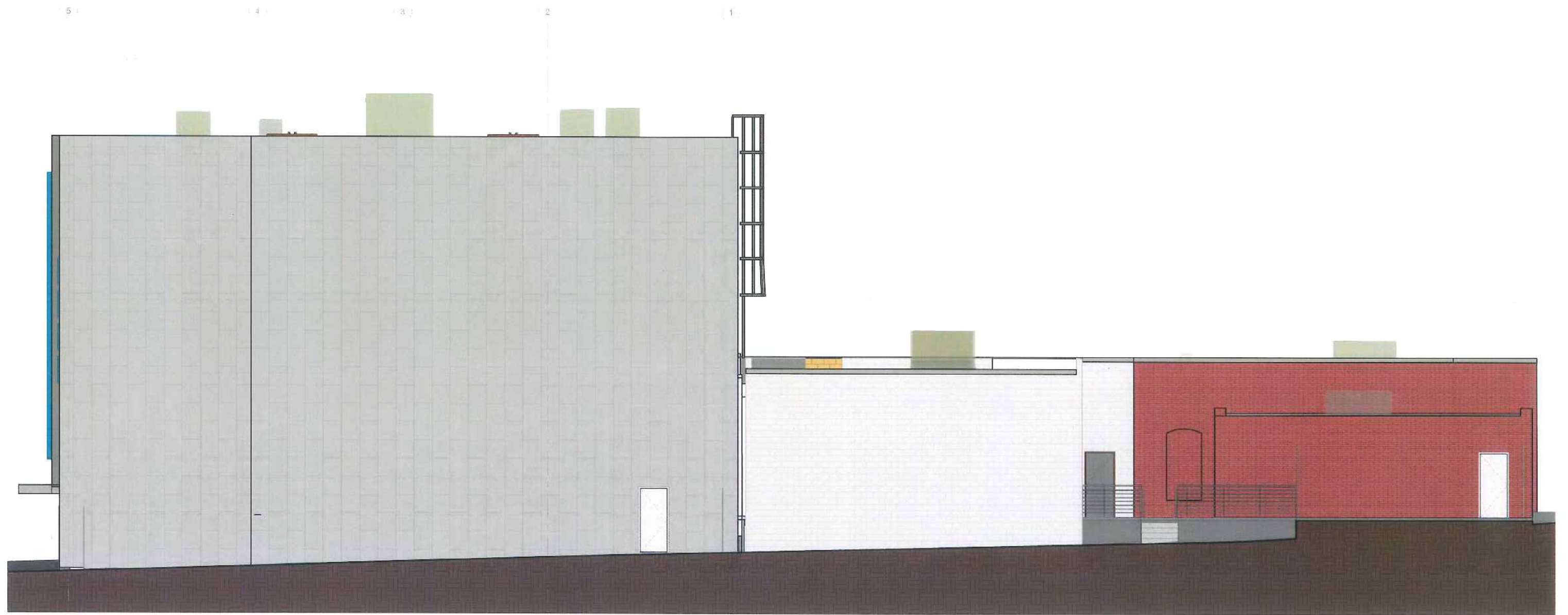
FREE STREET ELEVATION



LANCASTER LANE ELEVATION

121 Center Street - Event Space Renovation

April 11th, 2016



PARKING ALLEY ELEVATION



EXISTING VIEW FROM CENTER STREET

121 Center Street - Event Space Renovation

April 11th, 2016



PROPOSED DAY VIEW FROM CENTER STREET



PROPOSED NIGHT VIEW FROM CENTER STREET

121 Center Street - Event Space Renovation

April 11th, 2016



EXISTING VIEW FROM CIVIC CENTER



PROPOSED DAY VIEW FROM CIVIC CENTER

121 Center Street - Event Space Renovation

April 11th, 2016



PROPOSED NIGHT VIEW FROM CIVIC CENTER



EXISTING VIEW FROM FREE STREET

121 Center Street - Event Space Renovation
April 11th, 2016

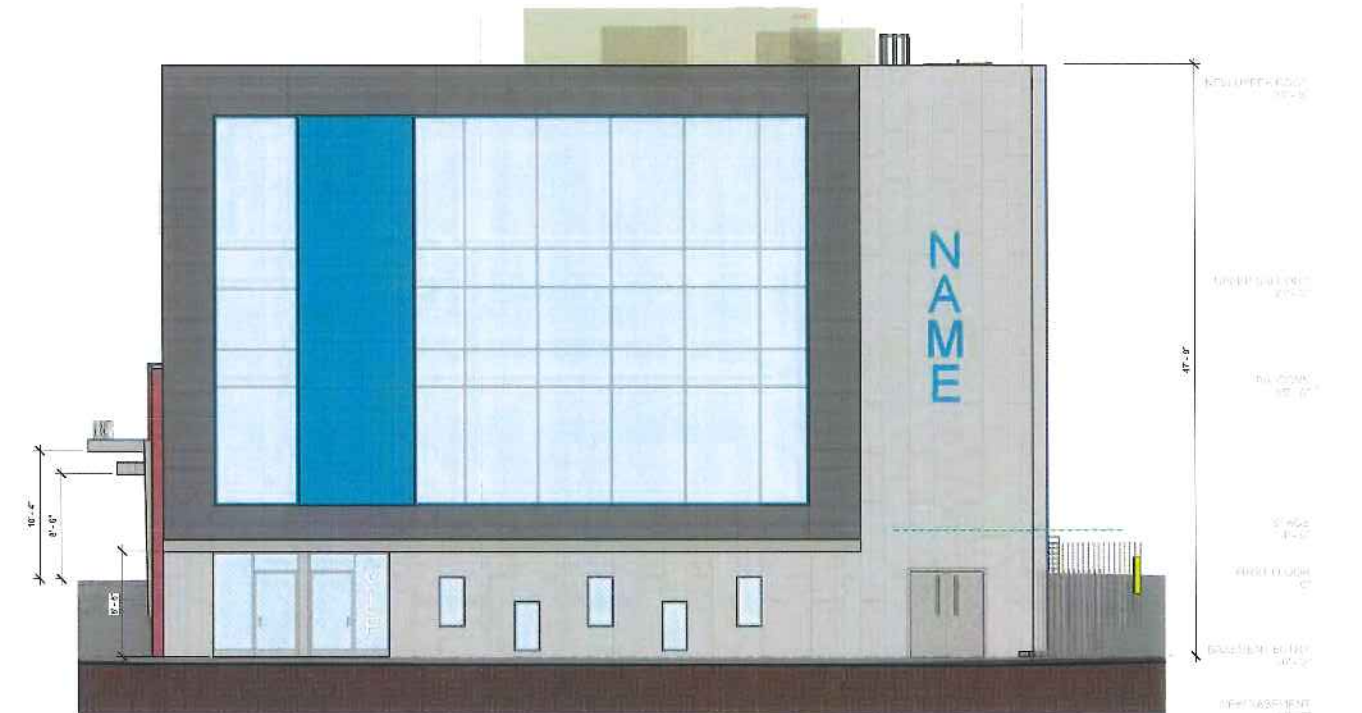
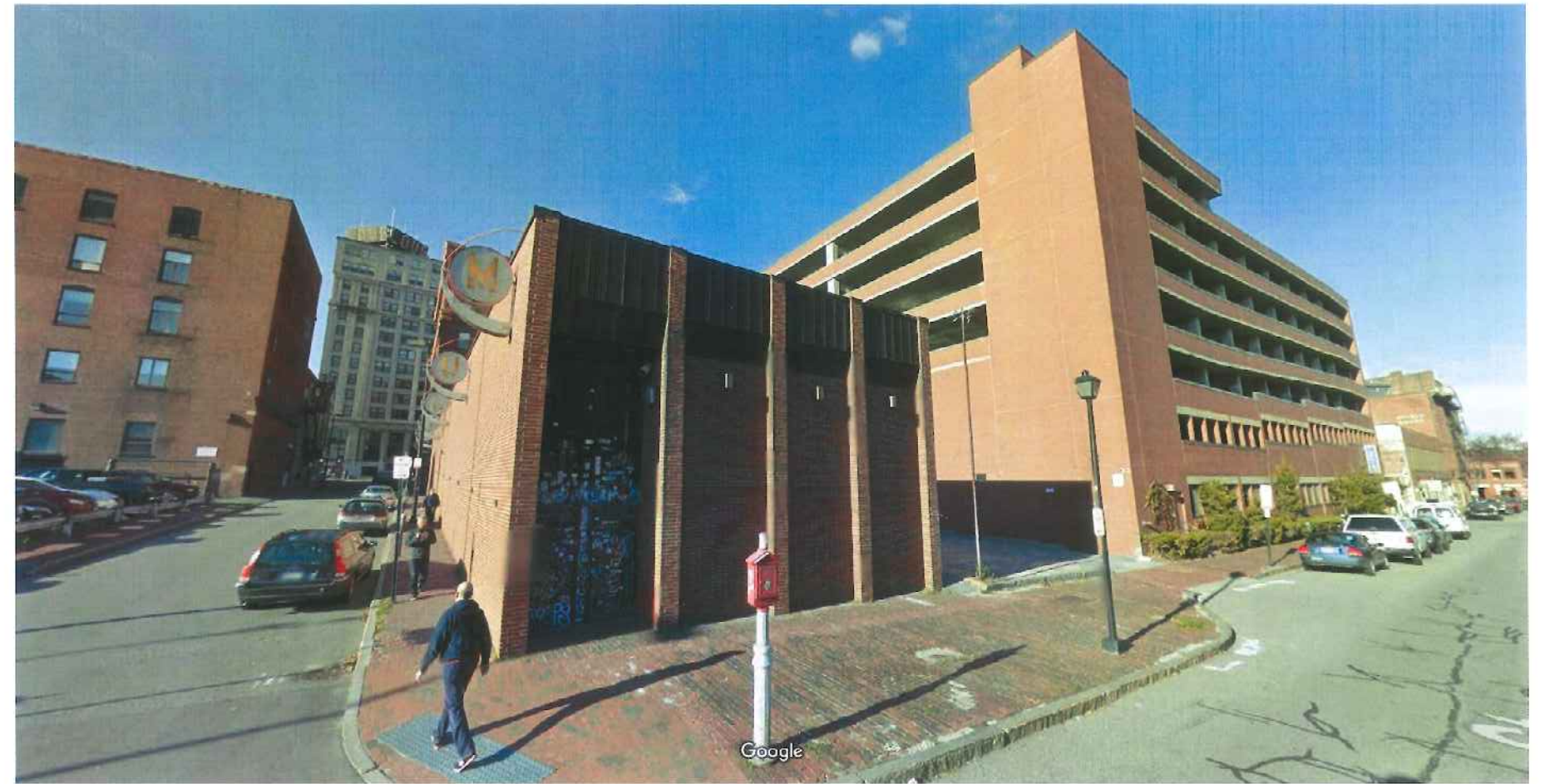


PROPOSED DAY VIEW FROM FREE STREET

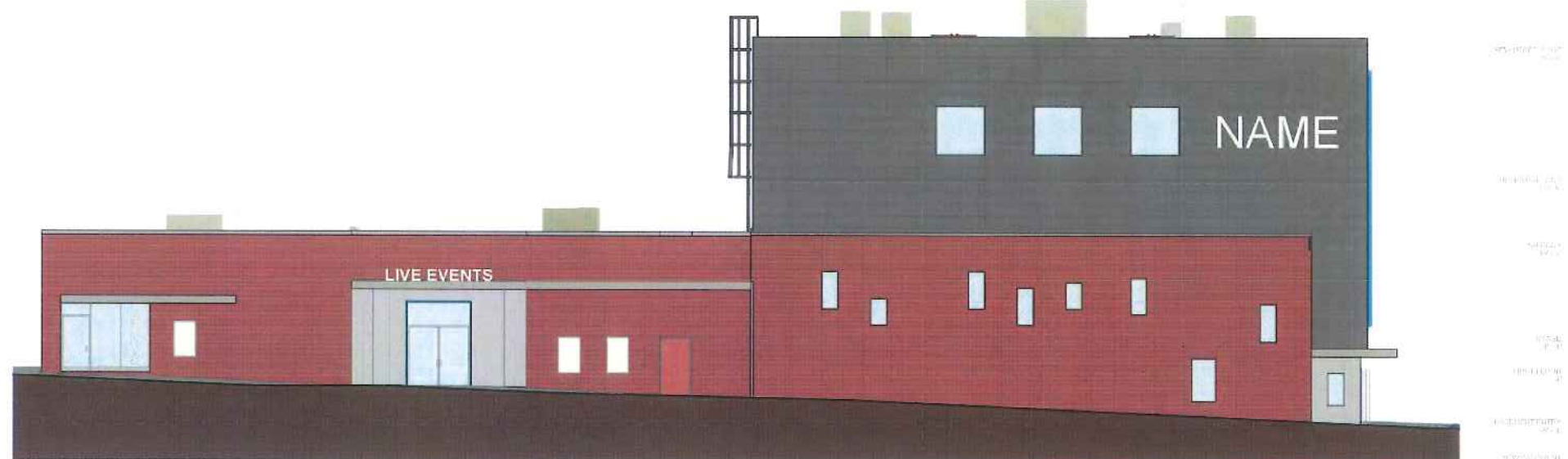


PROPOSED NIGHT VIEW FROM FREE STREET

121 Center Street - Event Space Renovation
April 11th, 2016



NEIGHBORHOOD CONTEXT



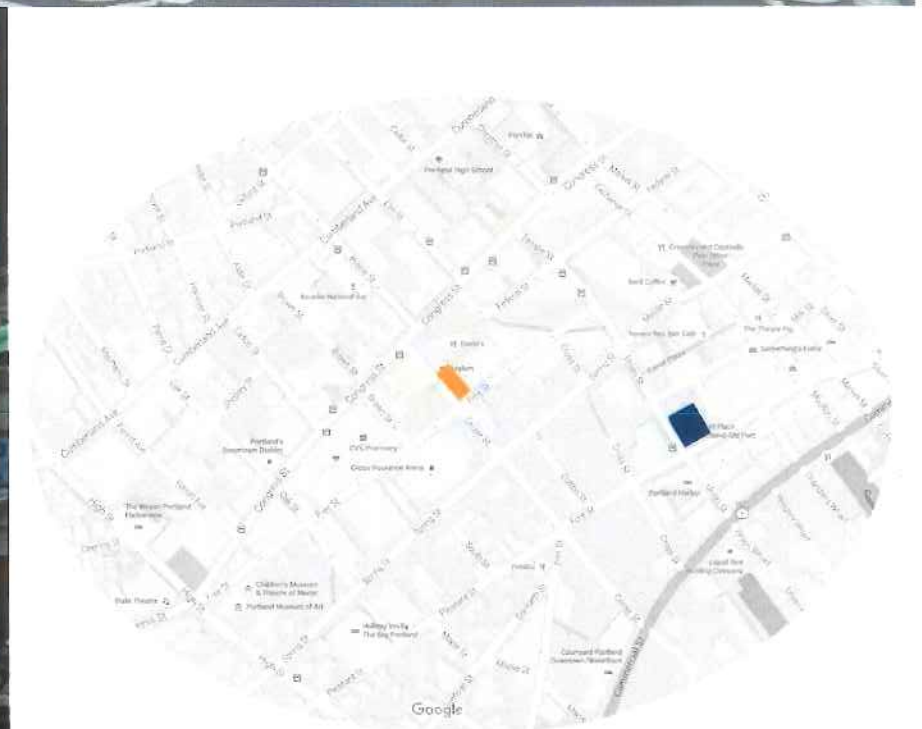
121 Center Street - Event Space Renovation
April 11th, 2016





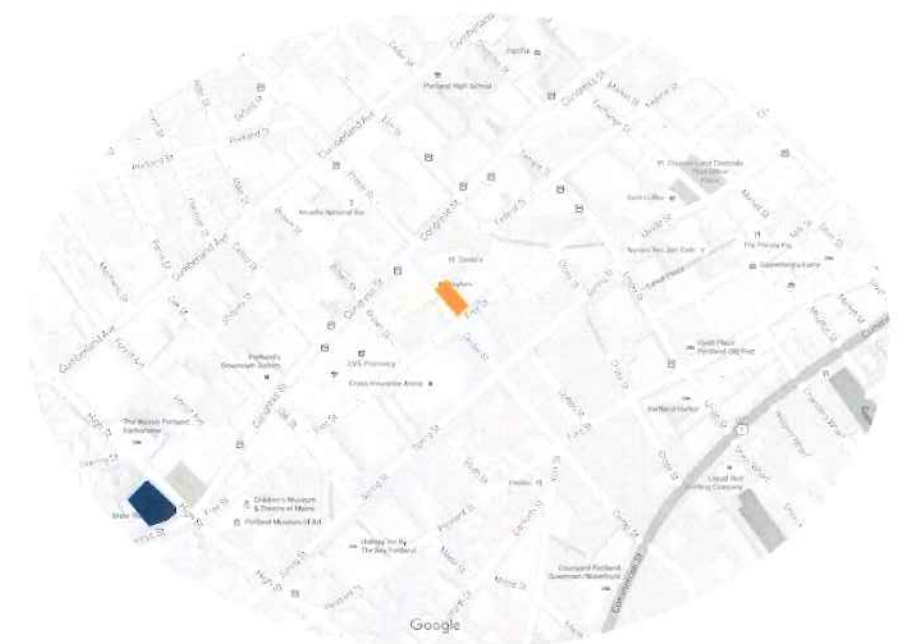
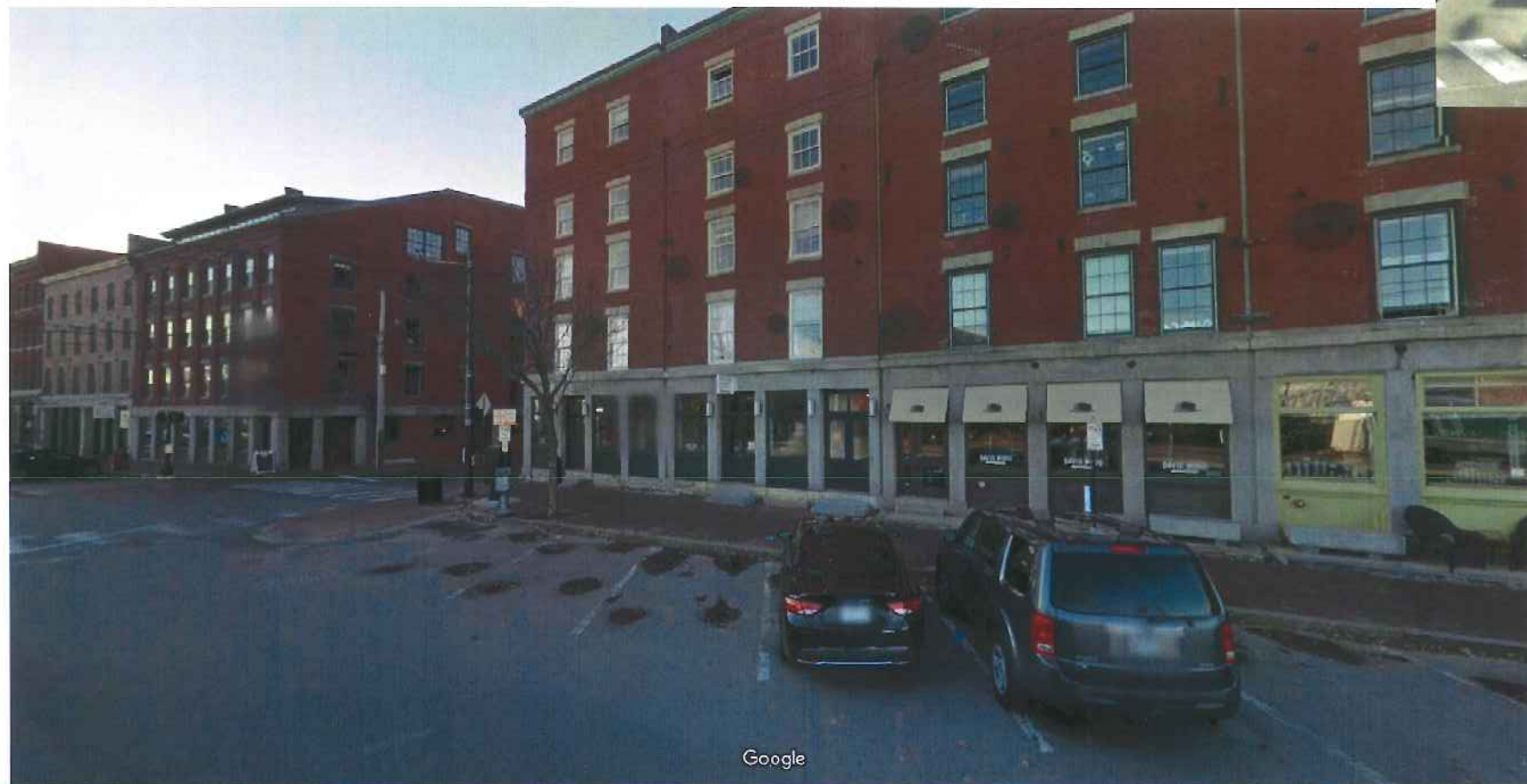
121 Center Street - Event Space Renovation
April 11th, 2016





121 Center Street - Event Space Renovation
April 11th, 2016





121 Center Street - Event Space Renovation
April 11th, 2016



Rick Knowland <rwk@portlandmaine.gov>

**Wastewater Capacity Application Approval - The Asylum, 121 Center St.
Portland**

2 messages

David Margolis-Pineo <dmp@portlandmaine.gov>

Thu, Apr 21, 2016 at 12:43 PM

To: Levy9683@roadrunner.com

Cc: John Kenney <john.kenney@wbrcae.com>, Jeff Levine <jlevine@portlandmaine.gov>, Barbara Barhydt <bab@portlandmaine.gov>, Helen Donaldson <hcd@portlandmaine.gov>, Shukria Wiar <shukriaw@portlandmaine.gov>, Jean Fraser <jf@portlandmaine.gov>, Rick Knowland <rwk@portlandmaine.gov>, Nancy Gallinaro <neg@portlandmaine.gov>, Benjamin Pearson <bnp@portlandmaine.gov>, Rachel Smith <rms@portlandmaine.gov>, John Emerson <jwe@portlandmaine.gov>, Scott Firmin <sfirmin@pwd.org>

April 21, 2016

Tedlum Associates LLC &

The Asylum Inc.

121 Center Street

Portland, ME 04101

**RE: Capacity to Handle Wastewater Flows From 121 Center St – The
Asylum****Sports Bar, Dance Club, Music Venue**Dear Ms. Levy: levy9683@roadrunner.com

The Department of Public Services, which includes the Water Resource Division, has reviewed and determined that the downstream sewers from 121 Center Street have the capacity to convey the estimated 8,840 gallons per day of wastewater which will be generated from the proposed Asylum addition.

It is understood that no sources of stormwater runoff, roof drainage from the addition, shall be introduced to the wastewater collection system from this development.

It is my understanding that as a result of the proposed expansion, there will be a reconfiguration of the grease traps. I am requesting that prior to the issuance of the building permit that this department be allowed to review and approve the proposed grease trap changes. Please contact Jessica Smith for guidance and approval. She may be reached at 874-8833.

If the City can be of further assistance, please call me at 874-8850 or 400-6695.

Sincerely,

PORTLAND

CITY OF

David Margolis-Pineo

David Margolis-Pineo

Deputy City Engineer

Anticipated Wastewater Flows from the Proposed Asylum Expansion

Hotel: Sports Bar: 60 seats at 20 gpd/seat = 1,200 gpd

Dance Hall: 1,336 people at 5 gpd/person = 6,680 gpd

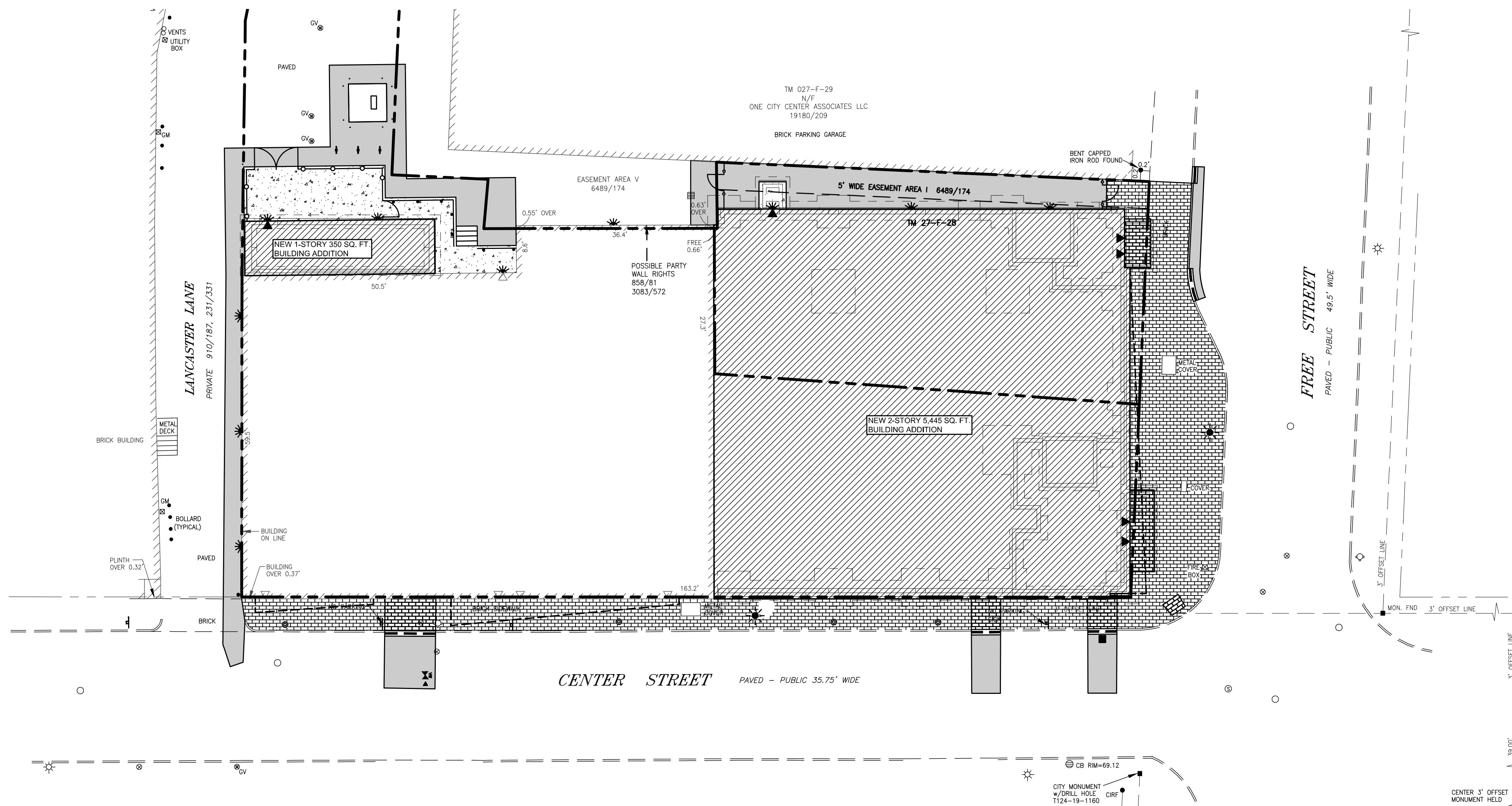
80 employees @ 12 gpd/ employee = 960 gpd

Total = 8,840 gpd

THE ASYLUM

121 CENTER STREET

PORTLAND, MAINE 04101



WBRC

ARCHITECTS • ENGINEERS

BANGOR, MAINE 207-947-4511
PORTLAND, MAINE 207-828-4511
SARASOTA, FLORIDA 941-556-0757

www.wbrcae.com

APPLICANT:
TEDLUM ASSOCIATES LLC &
THE ASYLUM INC.
121 CENTER STREET
PORTLAND, ME 04101

THIS IS TO CERTIFY THAT AFTER REVIEWING THE SITE PLAN SUBMISSION INFORMATION FOR THE PROJECT SHOWN ON THE PLAN AND CONSIDERING EACH OF THE CRITERIA SET FORTH IN THE CITY ORDINANCE, THE UNDERSIGNED HAVE MADE FINDING OF FACT ESTABLISHING THAT THIS PLAN ALONG WITH ITS ADDITIONAL SUBMISSION MATERIAL HAS MET ALL THE CRITERIA SET FORTH AND THEREFORE THE SITE PLAN IS APPROVED.

PLANNING BOARD APPROVED ON: _____

CONDITIONS: _____

PLANNING BOARD SIGNED ON: _____

INDEX

DRAWING INDEX

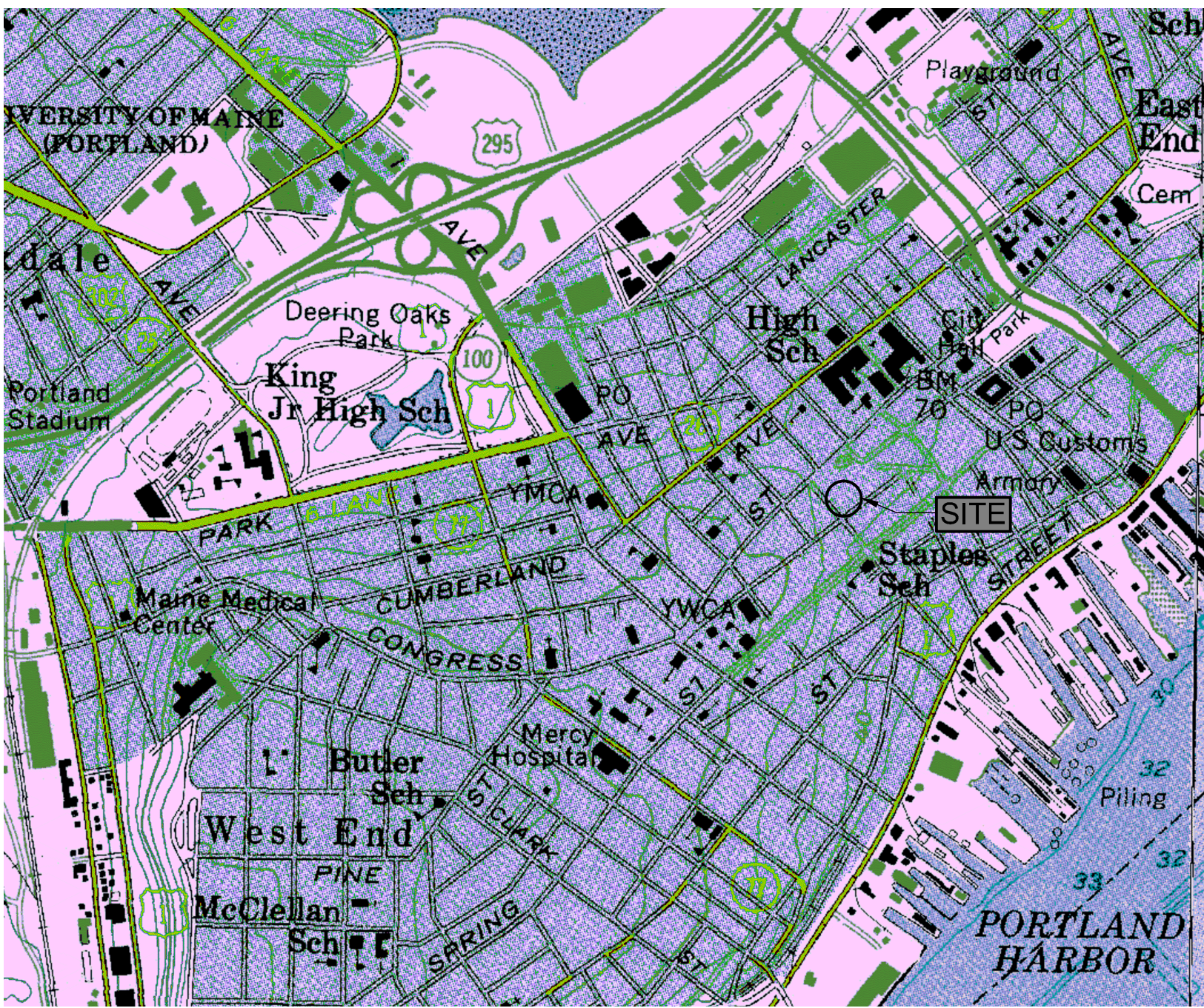
GI001 COVER SHEET
GI006 SITE GENERAL NOTES AND ABBREVIATIONS
GI006 BOUNDARY AND TOPOGRAPHIC SURVEY

CIVIL DRAWINGS

CD101 SITE REMOVALS PLAN
CP101 SITE LAYOUT PLAN
CG101 SITE GRADING EROSION CONTROL & UTILITY PLAN
PH101 CONSTRUCTION MANAGEMENT PLAN
C501 SITE DETAILS
C502 SITE DETAILS
C503 SITE DETAILS

ARCHITECTURAL DRAWINGS

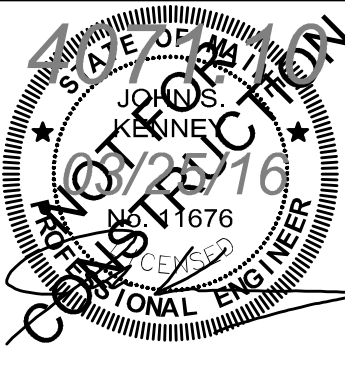
GI003 CODE REVIEW NOTES
GI004 CODE REVIEW BASEMENT & FIRST FLOOR PLANS
GI005 CODE REVIEW BALCONY PLAN AND CALCULATIONS
AD101 BASEMENT & FIRST FLOOR REMOVALS PLAN
AE101 BASEMENT FLOOR PLAN
AE102 FIRST FLOOR PLAN
AE104 BALCONY & ROOF PLAN
AE201 BUILDING PERSPECTIVES
AE202 BUILDING ELEVATIONS
AE203 BUILDING ELEVATIONS



LOCATION MAP 1"=1000'

APPROVAL DRAWINGS

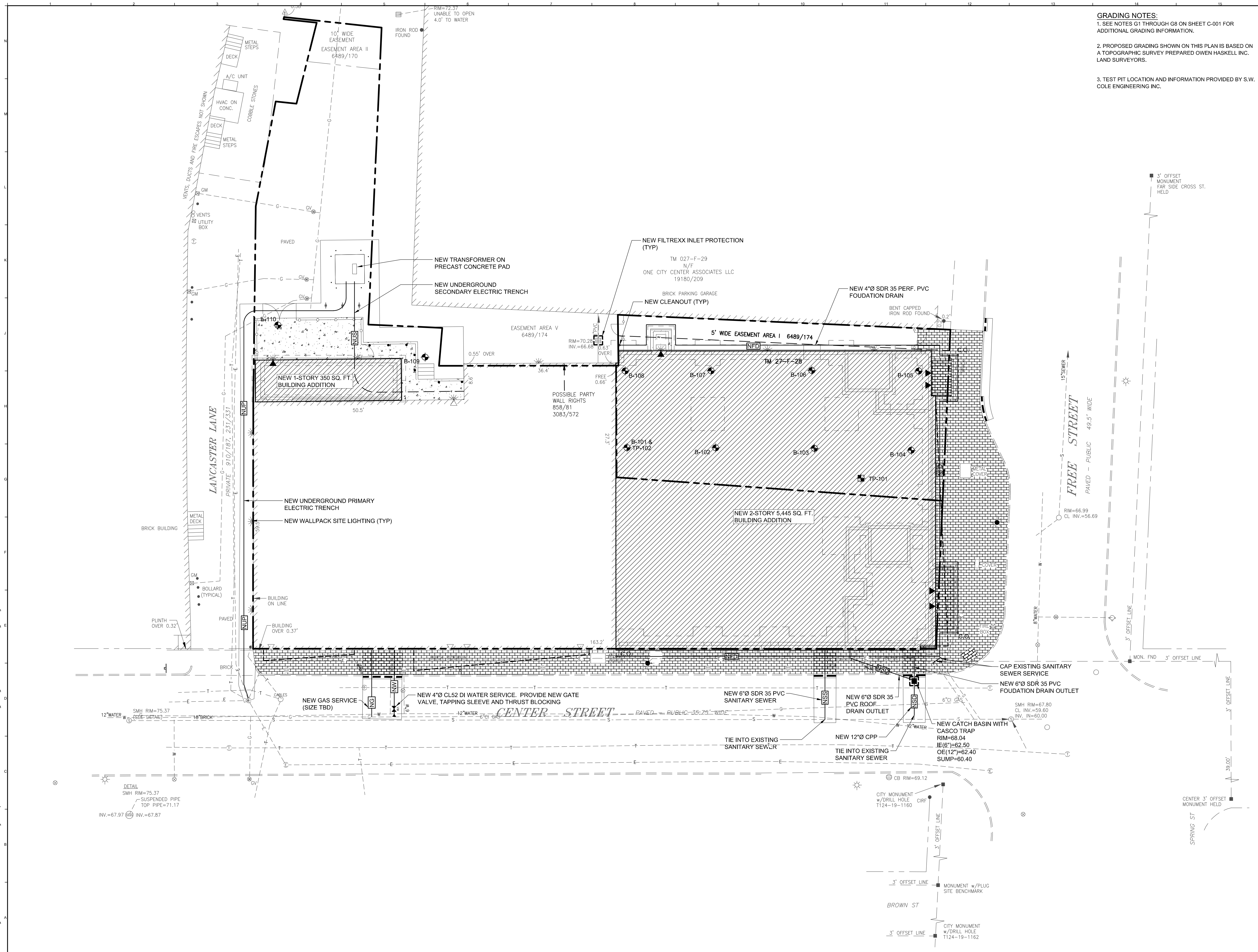
03.25.16



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Mar 25, 2016 - 11:45am
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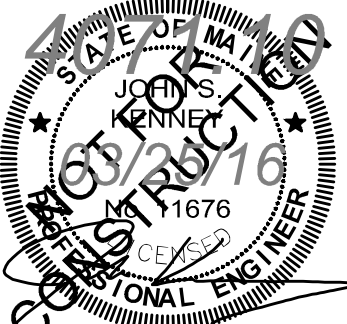
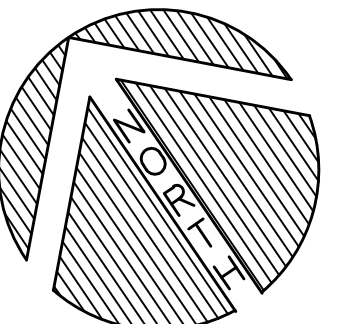


- GRADING NOTES:**
- SEE NOTES G1 THROUGH G8 ON SHEET C-001 FOR ADDITIONAL GRADING INFORMATION.
 - PROPOSED GRADING SHOWN ON THIS PLAN IS BASED ON A TOPOGRAPHIC SURVEY PREPARED OWEN HASKELL INC. LAND SURVEYORS.
 - TEST PIT LOCATION AND INFORMATION PROVIDED BY S.W. COLE ENGINEERING INC.

- UTILITY NOTES:**
- SEE NOTES E1 THROUGH U8 ON SHEET C-001 FOR ADDITIONAL UTILITY INFORMATION.
 - SITE CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY PROPOSED WORK.
 - PROVIDE 4" MIN. RIGID INSULATION BETWEEN WATER LINE AND SANITARY SEWER LINE. EXTEND 8' IN ALL DIRECTIONS WHERE THEY CROSS.
 - DOMESTIC WATER DISTRIBUTION AND FIRE SUPPRESSION PIPING AND APPURTENANCES SHALL BE SUPPLIED AND INSTALLED BY SITE CONTRACTOR. ALL EXCAVATION AND BACKFILL REQUIRED FOR ANY PART OF THE WATER SUPPLY SYSTEM AND FIRE SUPPRESSION PIPING SHALL BE BY THE SITE CONTRACTOR. COORDINATE INSTALLATION OF PIPING WITH THE PLUMBING AND MECHANICAL CONTRACTORS. PIPING FOR NEW BUILDING SHALL BE SUPPLIED AND INSTALLED BY THE PLUMBING CONTRACTOR FROM THE BUILDING TO A COORDINATED POINT LOCATED 10' FROM THE BUILDING PENETRATION.

EXISTING	LEGEND	PROPOSED
	BUILDING LIGHTING	
	STREET LIGHTING	
	BOLLARD	
	WATER SHUT-OFF / GATE VALVE	
	PARKING METER	
	GAS VALVE	
	TRANSFORMER PAD	
	MANHOLE	
	SEWER MANHOLE	
	CATCH BASIN	
	FIRE HYDRANT	
	SIGN	
	FENCING	
	GUARD RAIL	
	PAVEMENT	
	SIDEWALK	
	GRANITE CURB	
	GAS SERVICE / MAIN	
	WATER SERVICE / MAIN	
	STORM DRAIN	
	FOOTING DRAIN	
	CLEANOUT	
	SANITARY SEWER	
	UNDERGROUND ELECTRIC	
	UNDERGROUND SECONDARY	
	UNDERGROUND PRIMARY	
	PROPERTY SETBACK	
	PROPERTY LINE	
	ABUTTING PROPERTY LINE	

0 DD SUBMISSION		25 MAR 2016
REV.	DESCRIPTION	DATE



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SARASOTA, FLORIDA 941-773-1393

ASYLUM

PROJECT: PORTLAND, MAINE

SITE GRADING EROSION CONTROL & UTILITY PLAN

SHEET TITLE: 407110-SP101.DWG

WBRC CAD FILE: 407110-SP101.DWG

PROJECT No: 4071.10 GRAPHIC SCALE: 0" 1"

SCALE: 1"=10'

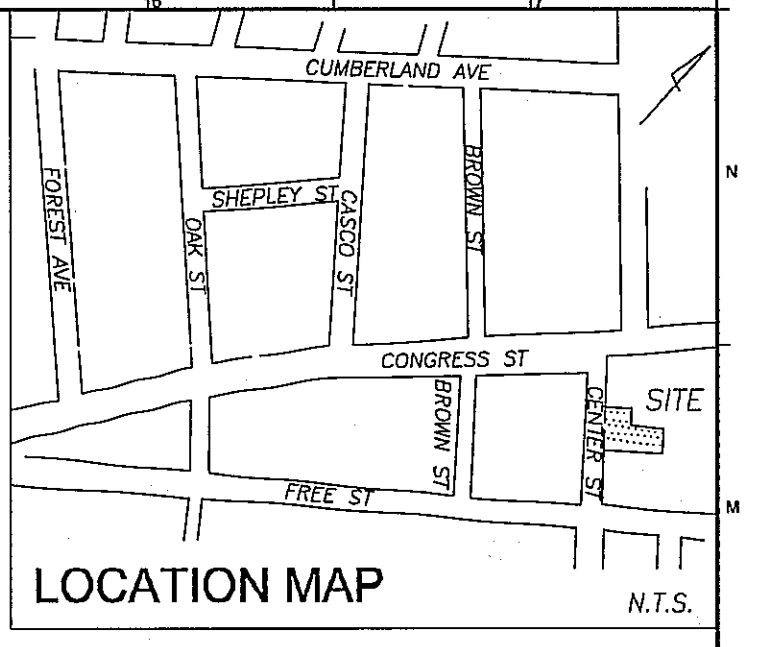
PM: JRB SHEET No:

DRAWN BY: JWB

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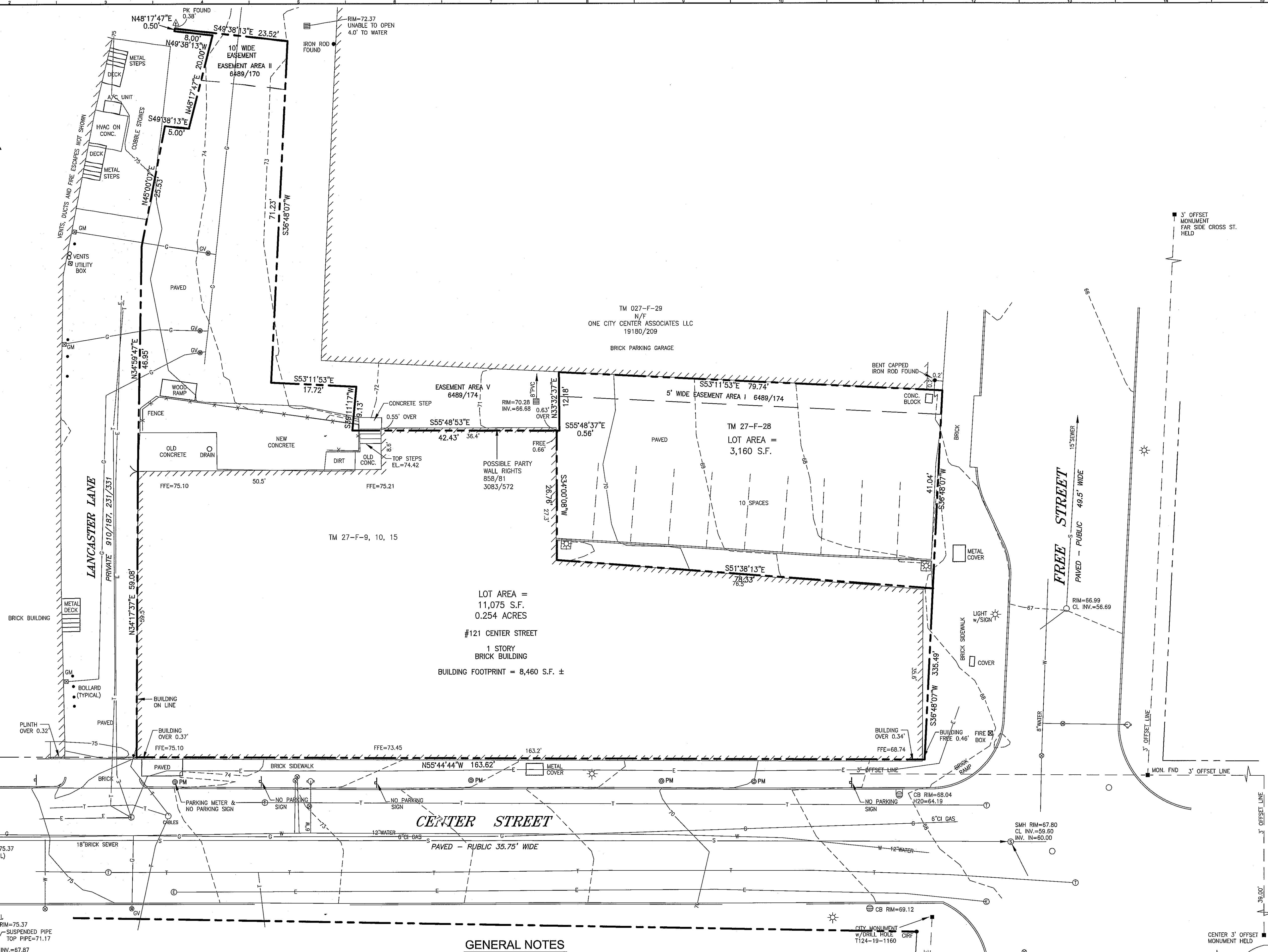
CG101

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LEGEND

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- MANHOLE
- SIGN
- WATER VALVE
- HYDRANT
- UTILITY POLE
- MANHOLE
- CATCH BASIN
- LIGHT POLE
- SIGN
- GAS METER
- GAS VALVE
- CURB
- OHW
- OVERHEAD WIRES
- E
- UNDERGROUND POWER
- W
- WATER LINE
- G
- GAS LINE
- T
- TELEPHONE
- SS
- SANITARY SEWER
- FFE
- FINISHED FLOOR ELEVATION
- N/F
- NOW OR FORMERLY
- DEED BOOK AND PAGE



GENERAL NOTES

- OWNERS OF RECORD:
TAX MAP 27 BLOCK F LOTS 9, 10, AND 15 - VALERIE J. LEVY, CUMBERLAND COUNTY
REGISTRY OF DEEDS BOOK 13143, PAGE 256
TAX MAP 27 BLOCK F LOT 28 - TEDJUM ASSOCIATES, LLC, CUMBERLAND COUNTY
REGISTRY OF DEEDS BOOK 32452, PAGE 114
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST
ZONE NAD 1983. CITY CONTROL POINT T124-19-1162 AND T124-19-1160
USED FOR HORIZONTAL CONTROL.
- ELEVATIONS ARE BASED ON NGVD 1928. CITY BENCHMARK: M. MONUMENT
AT THE WESTERLY CORNER OF FOREST AND CUMBERLAND AVENUES
ELEVATION=80.57'.
- SEE DEED TO PREMISES FOR RIGHTS AND RESTRICTIONS.
- EASEMENT IN 3124/16 APPEARS TO BE VOID DUE TO MERGING OF TWO
PROPERTIES.

PLAN REFERENCE

- "PLAN OF LAND IN PORTLAND, MAINE FREE STREET FOR ONE CITY
CENTER ASSOC. APRIL 1984 OWEN HASKELL, INC. JOB NO. 8413P"
REVISED 6-18-84 RECORDED IN PLAN BOOK 143 PAGE 27.
- "PLAN OF LAND IN PORTLAND, MAINE FOR JOHN MARTIN ENTERPRISES
MAY 31, 1984 OWEN HASKELL, INC. JOB NO. 7556P".
- "PLAN OF LAND FOR ART GALLERY RESTAURANT CENTER AND FREE
STREET PORTLAND, MAINE DEVELOPED BY: JOHN MARTIN ENTERPRISES
05-23-85 SEBAGO TECHNICS" REVISED 10-10-85 RECORDED WITH DEED
BOOK 7347 PAGE 8.
- "PORTLAND WATER DISTRICT PORTLAND SEWER SYSTEM
INFILTRATION-INFLOW ANALYSIS 1981 HUNTER-BALLEW ASSOCIATES."

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD
SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO
GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH
UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR
FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE
IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY
ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.
THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING
ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL
INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.
OLD NORTHERN UTILITIES PLAN SHOWS 6" C.I. GAS LINE IN CENTER STREET.
SEWER SIZES TAKEN FROM PLAN REFERENCE 4. WATER LINE TAKEN FROM
PORTLAND WATER DISTRICT PLAN.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED
ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND
THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF,
IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL
LAND SURVEYORS CURRENT STANDARDS OF PRACTICE, WITH THE
EXCEPTION OF MARKERS NOT SET AT ALL CORNERS.

DATE 3-21-2016
JOHN C. SCHWANDA, PLS #1252

2	REVISE UTILITY LINES	3-18-16
1	REVISE INTERIOR BOUNDARY LINE	12-23-15
REV.	DESCRIPTION	DATE

ISSUED FOR
00.00.00

CURRENT ISSUE STATUS:

Survey by:

OWEN HASKELL, INC.
Professional Land Surveyors
390 U.S. Route 1, Unit 10
Falmouth, Maine 04105
Tel. (207) 774-0424
www.owenhaskell.com

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THE ASYLUM
121 CENTER STREET
PORTLAND, MAINE
MADE FOR
VALERIE J. LEVY

PROJECT:

BOUNDARY & TOPOGRAPHIC
SURVEY

SHEET TITLE:

WBRC CAD FILE: 2015-251 CENTER ST PLTD REV 1.DWG

PROJECT No. 2015-251P

SCALE: 1" = 10'

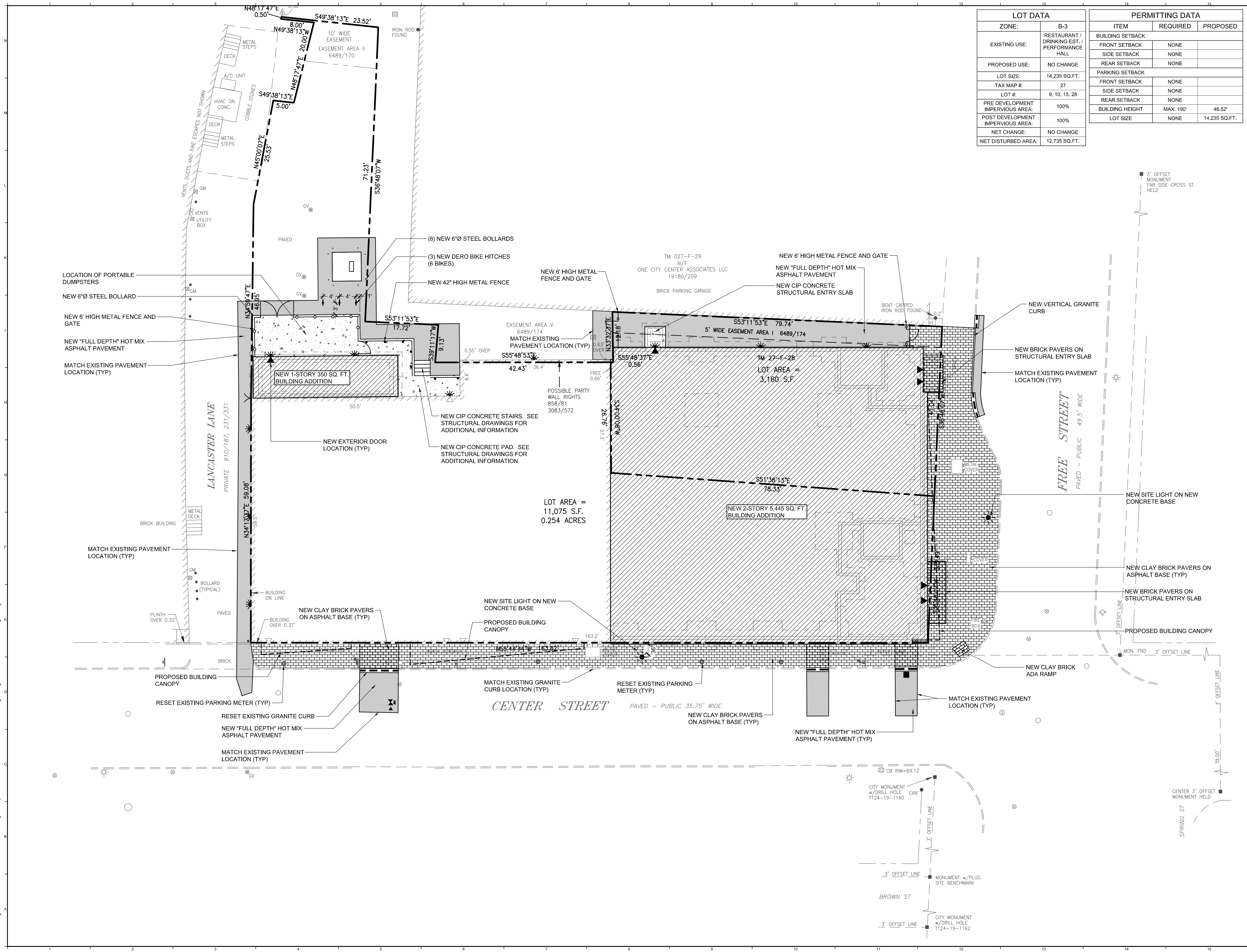
DATE: 3-21-2016

DRAWN BY: J.L. WRIGHT

A/E OF RECORD: J.C. SCHWANDA

SHEET No. CS101

Mar 25, 2016 - 11:43am
T:\02 Projects - Name\4001-4004\07110 Asylum Expansion & Renovation 5D-CA2 Design\Drawings\407110-SP101.dwg tbd\richards



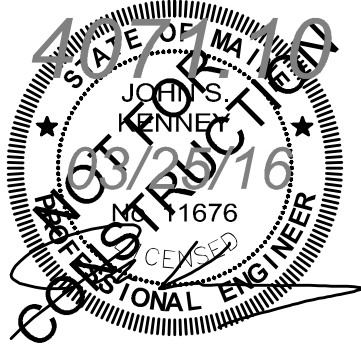
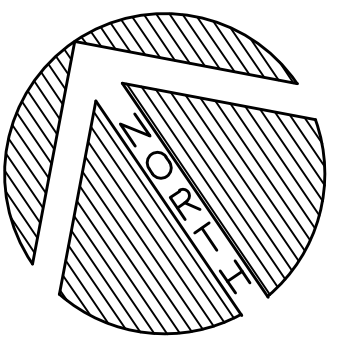
LOT DATA	
ZONE:	B-3
EXISTING USE:	RESTAURANT / DRINKING EST. / PERFORMANCE HALL
PROPOSED USE:	NO CHANGE
LOT SIZE:	14,235 SQ.FT.
TAX MAP #:	27
LOT #:	9, 10, 15, 28
PRE DEVELOPMENT IMPERVIOUS AREA:	100%
POST DEVELOPMENT IMPERVIOUS AREA:	100%
NET CHANGE:	NO CHANGE
NET DISTURBED AREA:	12,735 SQ.FT.

PERMITTING DATA		
ITEM	REQUIRED	PROPOSED
BUILDING SETBACK		
FRONT SETBACK	NONE	
SIDE SETBACK	NONE	
REAR SETBACK	NONE	
PARKING SETBACK		
FRONT SETBACK	NONE	
SIDE SETBACK	NONE	
REAR SETBACK	NONE	
BUILDING HEIGHT	MAX. 190'	46.52'
LOT SIZE	NONE	14,235 SQ.FT.

- LAYOUT NOTES:**
- SEE NOTE L1 - L3 ON SHEET C - 001 FOR ADDITIONAL LAYOUT INFORMATION.
 - SITE INFORMATION BASED ON A SURVEY BY OWEN HASKELL INC.
 - COORDINATE ALL SIDEWALK LOCATIONS WITH ARCH. AND STRUCTURAL DRAWINGS TO VERIFY NEW EXTERIOR DOOR LOCATIONS. FIELD ADJUST AS REQUIRED.
 - REFER TO STRUCTURAL SHEETS FOR NEW FOUNDATION LAYOUT. COORDINATE LAYOUT WITH FOUNDATION CONTRACTOR.

EXISTING	LEGEND	PROPOSED
	STREET LIGHTING	
	BOLLARD	
	WATER SHUTOFF / GATE VALVE	
	PARKING METER	
	GAS VALVE	
	TRANSFORMER PAD	
	MANHOLE	
	SEWER MANHOLE	
	CATCH BASIN	
	FIRE HYDRANT	
	SIGN	
	FENCING	
	GUARD RAIL	
	PAVEMENT	
	SIDEWALK	
	GRANITE CURB	
	PROPERTY SETBACK	
	PROPERTY LINE	
	ABUTTING PROPERTY LINE	

0	DD SUBMISSION	25 MAR 2016
REV.	DESCRIPTION	DATE



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ASYLUM

PROJECT: PORTLAND, MAINE

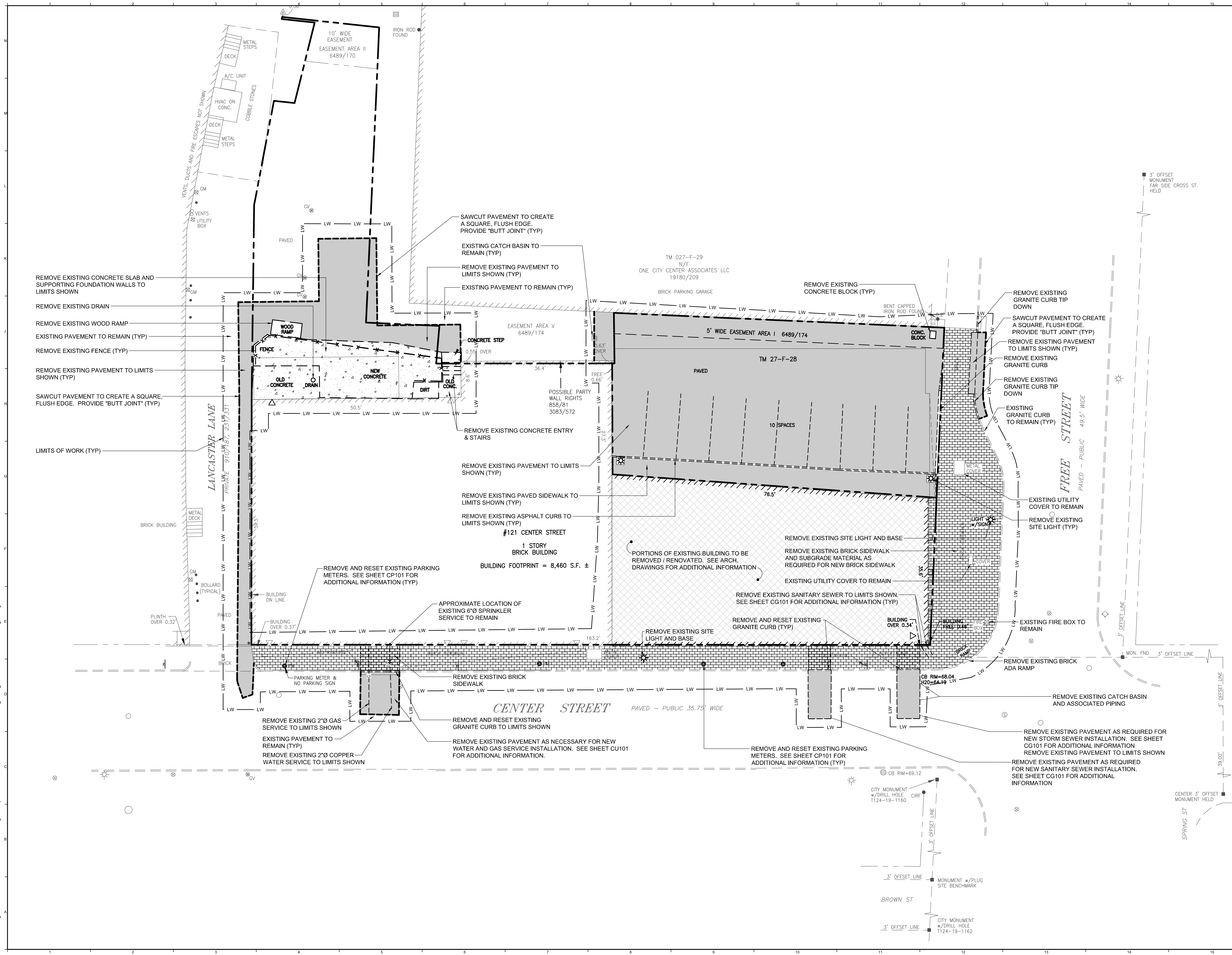
SITE LAYOUT AND MATERIALS PLAN

SHEET TITLE:	407110-SP101.DWG
WBRC CAD FILE:	407110-SP101.DWG
PROJECT No:	4071.10
SCALE:	1"=10'
PM:	JRB
DRAWN BY:	JWB
DATE OF RECORD:	JSK

GRAPHIC SCALE: 0' 1'

SHEET No. **CP101**

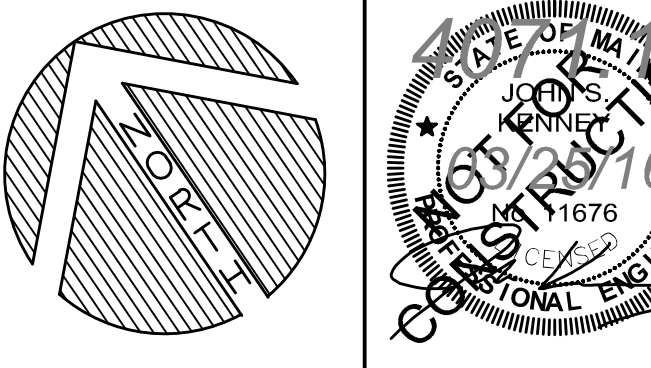
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- REMOVALS NOTES:**
1. SEE NOTES R1 THROUGH R4 ON SHEET C-001 FOR ADDITIONAL REMOVALS INFORMATION.
 2. THE UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE AND IS BASED ON A SURVEY COMPLETED BY OWEN HASKELL, INC. LAND SURVEYORS. THE SITE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY SITE CLEARING, GRUBBING AND EARTHWORK ACTIVITIES.
 3. ALL SOIL AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY WORK. SEE CG101 FOR MORE INFORMATION. THE SITE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL SOIL AND EROSION CONTROL MEASURES.

EXISTING	LEGEND	PROPOSED
	STREET LIGHTING	
	BOLLARD	
	WATER SHUTOFF / GATE VALVE	
	PARKING METER	
	GAS VALVE	
	MANHOLE	
	SEWER MANHOLE	
	CATCH BASIN	
	FIRE HYDRANT	
	SIGN	
	FENCING	
	EXISTING CURB	
	CURB REMOVALS	
	CONCRETE REMOVALS	
	PAVEMENT REMOVALS	
	SIDEWALK REMOVALS	
	LIMITS OF CONSTRUCTION	-- LW --
	PROPERTY SETBACK	
	PROPERTY LINE	
	ABUTTING PROPERTY LINE	

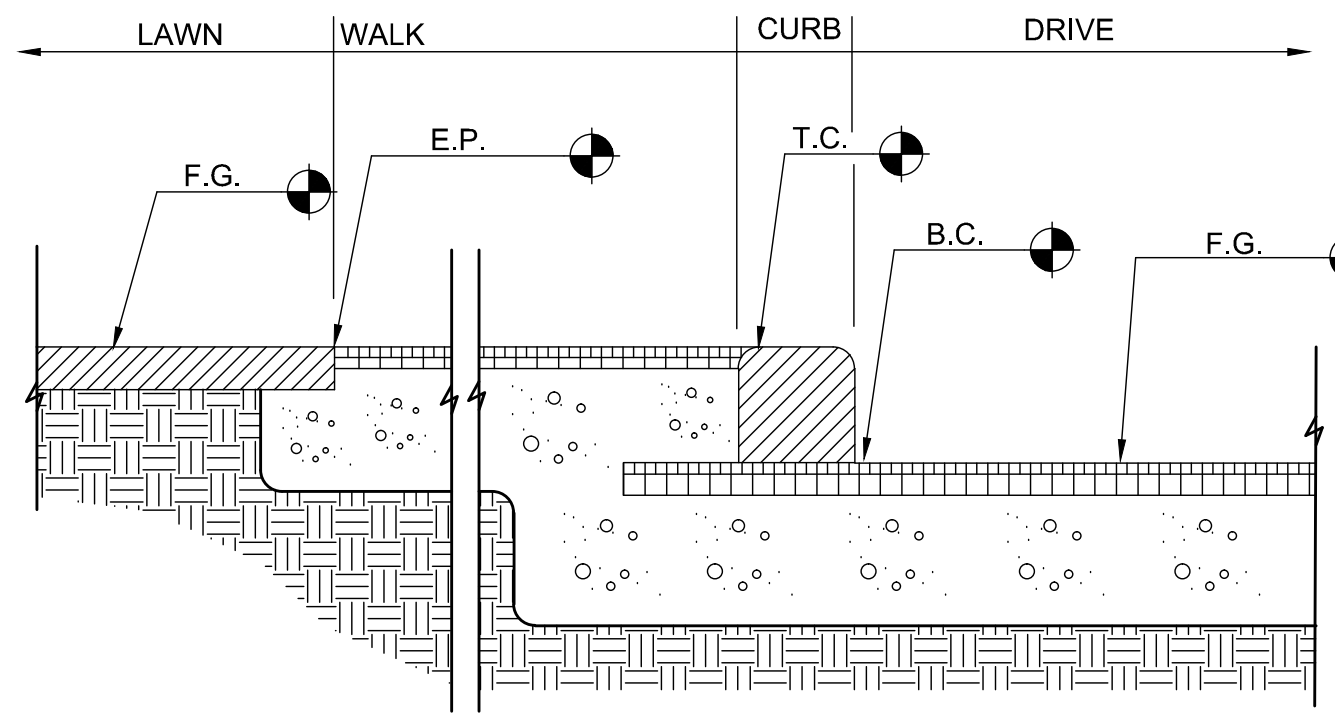
REV.	DESCRIPTION	DATE
0	DD SUBMISSION	25 MAR 2016



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SARASOTA, FLORIDA 941-773-1383

PROJECT	PORTLAND, MAINE
SHEET TITLE:	407110-SP101.DWG
WBRC CAD FILE:	4071.10
PROJECT No.	4071.10
SCALE:	1"=10'
PM:	JRB
DRAWN BY:	JWB
DATE OF RECORD:	JSK
GRAPHIC SCALE:	0' 1'
SHEET No.	CD101

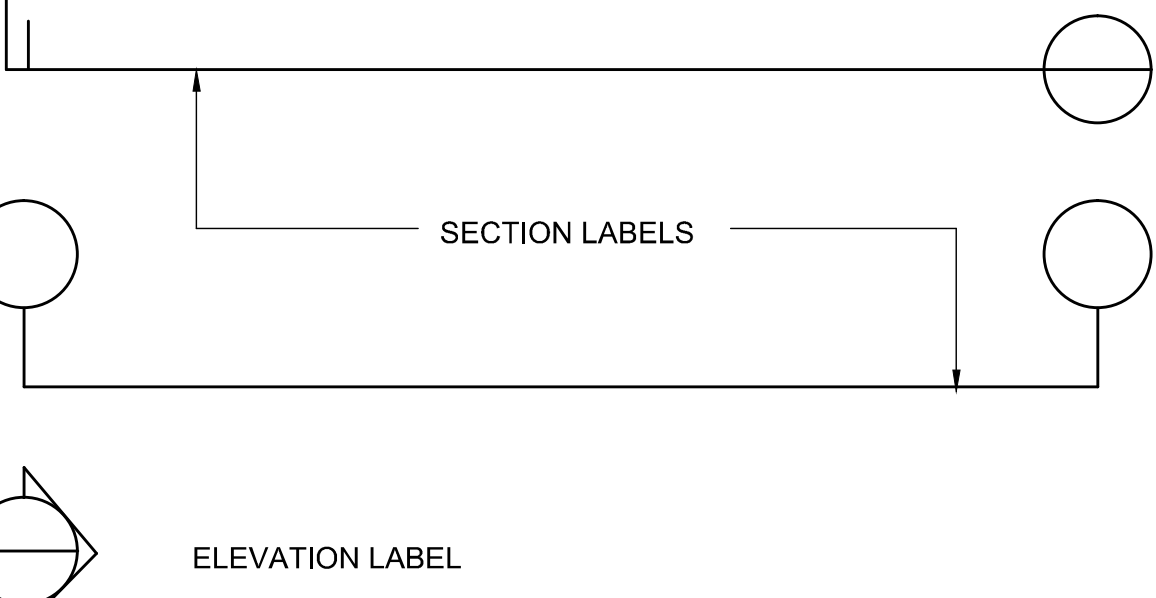
Mar 25, 2016 - 9:12am
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SPOT ELEVATION REFERENCE INDEX

SYMBOLS

	BITUMINOUS PAVEMENT SECTION
	TOPSOIL, LOAM AND SEED, SOD
	GRANULAR FILL MATERIAL
	COARSE AGGREGATE
	UNDISTURBED NATIVE SOIL
	CONCRETE SECTION
	GENERAL FILL MATERIAL
	SAND OR STONE DUST, CONCRETE (PLAN)
	RIGID INSULATION
	STEEL, CAST IRON



REMOVALS NOTES

1. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES AND SHALL NOTIFY THE ARCHITECT OF UTILITIES DEVIATING FROM THOSE SHOWN ON THIS PLAN.
2. THE CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE UTILITY COMPANIES WHEN INSTALLING WORK ON OR NEAR THEIR POLES.
3. REMOVE ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED MARKINGS.
4. ALL DEMOLITION DEBRIS AND REMOVALS SHALL BE DISPOSED OF OFFSITE AND IN CONFORMANCE WITH LOCAL AND STATE ORDINANCES.

LAYOUT NOTES

1. THE CONTRACTOR SHALL NOTIFY THE OWNER/ARCHITECT OF CONDITIONS VARYING FROM THOSE SHOWN ON THE DRAWING SHEET PRIOR TO CONTINUING WORK.
2. THE CONTRACTOR SHALL EMPLOY A REGISTERED LAND SURVEYOR IN THE LAYOUT OF BUILDING, DRIVES AND SITE ELEMENTS.
3. THE CONTRACTOR SHALL VERIFY AND CLEARLY MARK LOCATION OF ALL PROPERTY LINES PRIOR TO COMMENCING WORK.

GRADING NOTES

1. TOPOGRAPHIC INFORMATION BASED ON A SURVEY BY OWEN HASKELL INC. LAND SURVEYORS
2. BOUNDARY INFORMATION BASED ON A SURVEY BY OWEN HASKELL INC. LAND SURVEYORS
3. ALL ELEVATIONS SHOWN HEREIN ARE BASED ON A SURVEY BY OWEN HASKELL INC. LAND SURVEYORS
4. ALL TOPSOIL AND ORGANICS SHALL BE REMOVED FROM PAVEMENT AND BUILDING AREAS PRIOR TO CONSTRUCTION. THIS MATERIAL SHALL NOT BE USED AS GENERAL SITE FILL.
5. FINISH GRADES ONE FOOT FROM BUILDING SHALL BE 6" BELOW FINISH FLOOR UNLESS OTHERWISE NOTED.
6. FINISH GRADES OF SIDEWALKS AT BUILDING ENTRANCES SHALL BE FLUSH WITH FINISH FLOOR UNLESS OTHERWISE NOTED.
7. TEST PIT LOCATIONS ARE APPROXIMATE-REFER TO S.W. COLE ENGINEERING INC. GEOTECHNICAL REPORT BOUND INTO SPECIFICATIONS. BORING LOGS ARE INCLUDED IN DRAWING SET.
8. ALL DISTURBED AREAS NOT RECEIVING PAVEMENT, BUILDING, STONE DUST, COURSE AGGREGATE, ETC. SHALL RECEIVE 6" OF LOAM AND SEED UNLESS OTHERWISE NOTED.

UTILITY NOTES

1. ALL UNDERGROUND SECONDARY SHALL BE RUN IN SCH. 40 CONDUIT UNLESS SPECIFIED OTHERWISE.
2. ALL UNDERGROUND ELECTRICAL FOR SITE LIGHTING SHALL BE RUN IN SCH. 40 P.V.C. CONDUIT.
3. ALL CABLE TELEVISION / TELEPHONE LINES SHALL BE RUN IN SCH. 40 P.V.C. CONDUIT.
4. PROVIDE PULL WIRE IN ALL UNDERGROUND CONDUITS.
5. MAINTAIN 2" - 6" COVER OVER CABLE TELEVISION/TELEPHONE.
6. WHERE NEW WATER AND SEWER RUN SIDE BY SIDE, MAINTAIN A TEN FOOT (10') HORIZONTAL SEPARATION. WHERE THEY CROSS, MAINTAIN AN EIGHTEEN INCH (18") VERTICAL SEPARATION. WITH WATER ABOVE SEWER. IF WITHIN 12" MIN. VERTICAL SEPARATION, ENCASE WATERLINE 10" EITHER SIDE OF SEWER IN CONC. 3,000 PSI MIN.
7. SEWER SERVICE, WHEN ENTERING THE BUILDING, SHALL BE 6" - 0" BELOW FINISH FLOOR, UNLESS NOTED OTHERWISE.
8. MAINTAIN A 5' - 6" MINIMUM COVER OVER WATER LINE.
9. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

1. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCHING AND BACKFILLING OF ALL CONDUIT. CONDUIT AND WIRING SHALL BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
2. PRIOR TO ANY EARTHWORK ACTIVITIES, THE CONTRACTOR SHALL CONTACT CONTROLLING UTILITY CO. OR CALL "DIGSAFE" AT 1-800-225-4977. ANY UTILITIES ENCOUNTERED THAT ARE TO REMAIN IN PLACE OR BE ABANDONED SHALL BE DISCONNECTED AND TERMINATED IN ACCORDANCE WITH THE CONTROLLING UTILITY CO. AND NATIONALLY OR LOCALLY APPLICABLE CODES AND ORDINANCES.
3. NO UTILITY TRENCH SHALL BE BACKFILLED UNTIL WORK HAS BEEN INSPECTED AND APPROVED BY PROJECT ENGINEER AND CONTROLLING UTILITY CO. OR DISTRICT.
4. ALL SANITARY SEWER LINE TO BE SDR 35 PVC MEETING ALL PERFORMANCE CHARACTERISTICS OF ASTM D3034. ALL PIPES AND FITTINGS SHALL HAVE PUSH-ON JOINTS WITH RUBBER GASKETS CONFORMING TO ASTM D1869 AND F477.
5. ALL NEW WATER SERVICE LINE SHALL BE TYPE K COPPER MEETING ALL PERFORMANCE CHARACTERISTICS OF ASTM B-88-62 FOR TYPE K COPPER. ALL FITTINGS SHALL BE COMPRESSION TYPE.
6. ALL NEW WATER SPRINKLER SERVICE SHALL BE CLASS 52 DUCTILE IRON MEETING ALL PERFORMANCE CHARACTERISTICS OF THE LATEST VERSION OF ASTM AND AWWA.
7. THE FOLLOWING UTILITY COMPANIES ARE LOCATED WITHIN THE PROJECT SITE:
 - PORTLAND WATER DISTRICT
 - CENTRAL MAINE POWER COMPANY
 - UTIL GAS COMPANY
 - FAIRPOINT COMMUNICATIONS
 - TIME WARNER

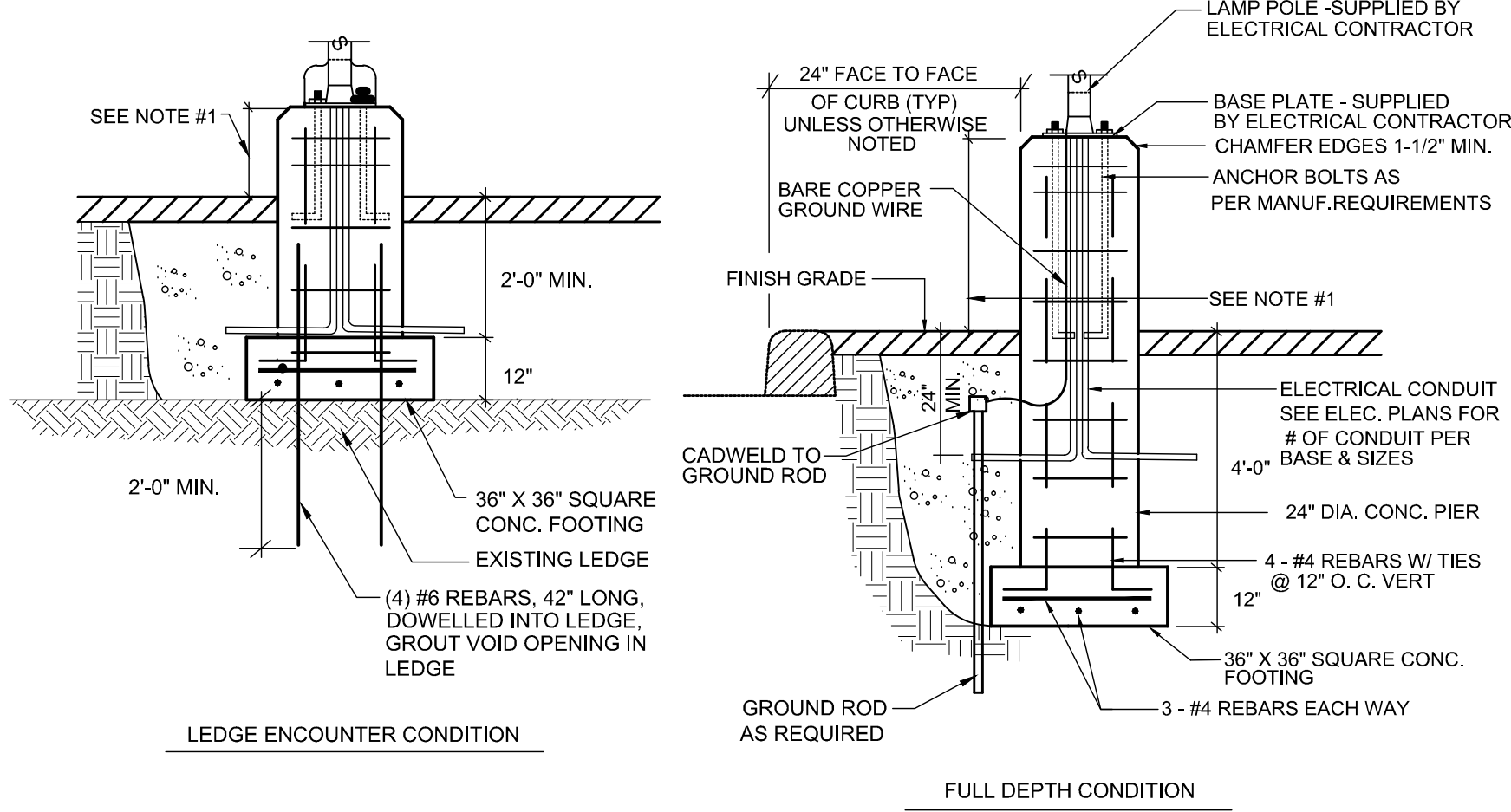
EROSION & SEDIMENTATION CONTROL PLAN

- (PURSUANT TO 38 MRSA § 420-C)
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES ARE DESIGNED ACCORDING TO THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MANUAL, 2003. SEDIMENT CONTROL MEASURES MUST BE IN PLACE BEFORE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED.
1. POLLUTION PREVENTION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWN-GRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, UPLAND, OR COASTAL OR FRESHWATER WETLANDS. MINIMIZE DISTURBED AREAS THROUGH PHASING. IF WORK WITHIN AN AREA IS NOT ANTICIPATED TO BEGIN WITHIN TWO WEEKS TIME, LEAVE THE AREA IN ITS NATURALLY EXISTING COVER IF PRACTICABLE.
 2. SEDIMENT BARRIERS. PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWN-GRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
 3. TEMPORARY STABILIZATION. STABILIZE WITH MULCH OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS. 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.
 4. REMOVAL OF TEMPORARY SEDIMENT CONTROLS. REMOVE ANY TEMPORARY SEDIMENT CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE. REMOVE SILT FENCE BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL TO AVOID ADDITIONAL SOIL DISTURBANCE.
 5. PERMANENT STABILIZATION. PERMANENTLY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR THAT HAVE BEEN BROUGHT TO FINAL GRADE 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, SOIL AND MOISTURE CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDING AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDING OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL-ESTABLISHED. IF NECESSARY, AREAS MUST BE SEEDING AND MULCHED AGAIN IF GERMINATION IS SPARSE, PLANT COVER IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE:
 - (A) SEEDING AREAS. FOR SEEDING AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.
 - (B) SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BANDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.
 - (C) 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.
 - (D) 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.
 - (E) AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION IS ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.
 - (F) PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.
 - (G) 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, 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.
 6. WINTER CONSTRUCTION. "WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES BY NOVEMBER 1 OR NEW SOIL DISTURBANCE OCCURS AFTER NOVEMBER 1, BUT BEFORE APRIL 15, THEN THESE AREAS MUST BE PROTECTED AND RUNOFF FROM THEM MUST BE CONTROLLED BY ADDITIONAL MEASURES AND RESTRICTIONS.
 - SEASONAL STABILIZATION. SEASONAL STABILIZATION MEANS THE PLACEMENT 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.
 - SEASONAL MULCHING. SEASONAL MULCHING MEANS THE PLACEMENT 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.
 - SEASONAL RIPRAP. SEASONAL RIPRAP MEANS THE PLACEMENT 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.
 - SEASONAL SODDING. SEASONAL SODDING MEANS THE PLACEMENT OF SODS ON THE DISTURBED AREA TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.
 - SEASONAL SEEDING. SEASONAL SEEDING MEANS THE PLACEMENT OF SEED ON THE DISTURBED AREA TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.
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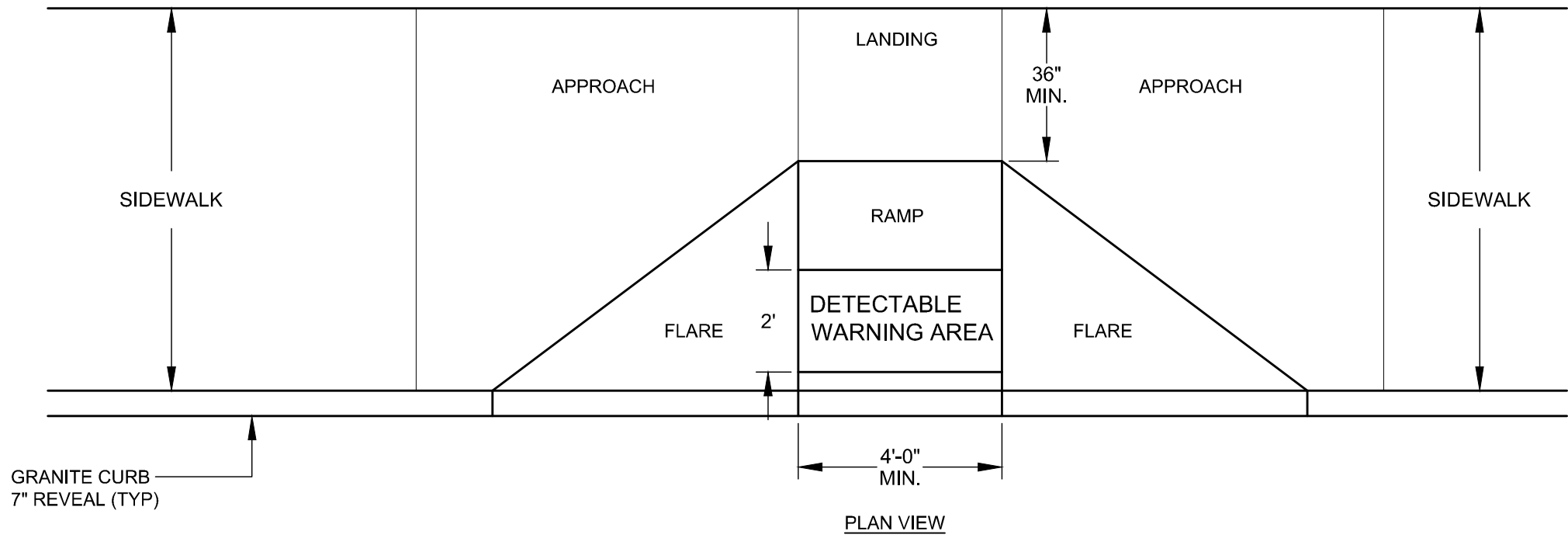
- SEEDING BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOSED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDING 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 5.0LBS/1000 S.F. ALL AREAS SEEDING DURING THE WINTER WILL 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.
- OVERWINTER STABILIZATION OF DITCHES AND CHANNELS. ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER. INSTALL A SOD LINING IN THE DITCH: A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. INSTALL A STONE LINING IN THE DITCH: A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
- OVERWINTER STABILIZATION OF DISTURBED SLOPES. ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15, AND ALL SLOPES TO BE VEGETATED MUST BE SEEDING AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDING WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET 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 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS. STABILIZE THE SOIL WITH SOD - THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. 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 WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% OR WITHIN 75 FEET OF A WATER BODY. LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. STABILIZE THE SOIL WITH EROSION CONTROL MIX - EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% OR WITHIN 75 FEET OF A WATER BODY. LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. 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Mar 25, 2016 - 4:26am
T:\02 Projects - Maine\4001-4004\047110 Asylum Expansion & Renovation 5D-CAD2 Design\Drawings\407110-C501.dwg tabbyrichards

NOTE:
1. POLE BASE HEIGHT ABOVE FINISHED GRADE SHALL BE AS FOLLOWS: 30" IN UNPROTECTED PARKING LOT, 2' IN PROTECTED SIDEWALK LOCATION. REFER TO LAYOUT SHEET CP101 FOR INDIVIDUAL POLE BASE LOCATIONS.



DESIGN ELEMENT:	SLOPE IN DIRECTION OF TRAVEL:	CROSS SLOPE:
APPROACH	8.33% MAXIMUM	2%
LANDING	2%	2%
RAMP	8.33% MAXIMUM	MATCH STREET GRADE
FLARE	10% MAX. AT CURB FACE	-
SIDEWALK	MATCH STREET GRADE	2%



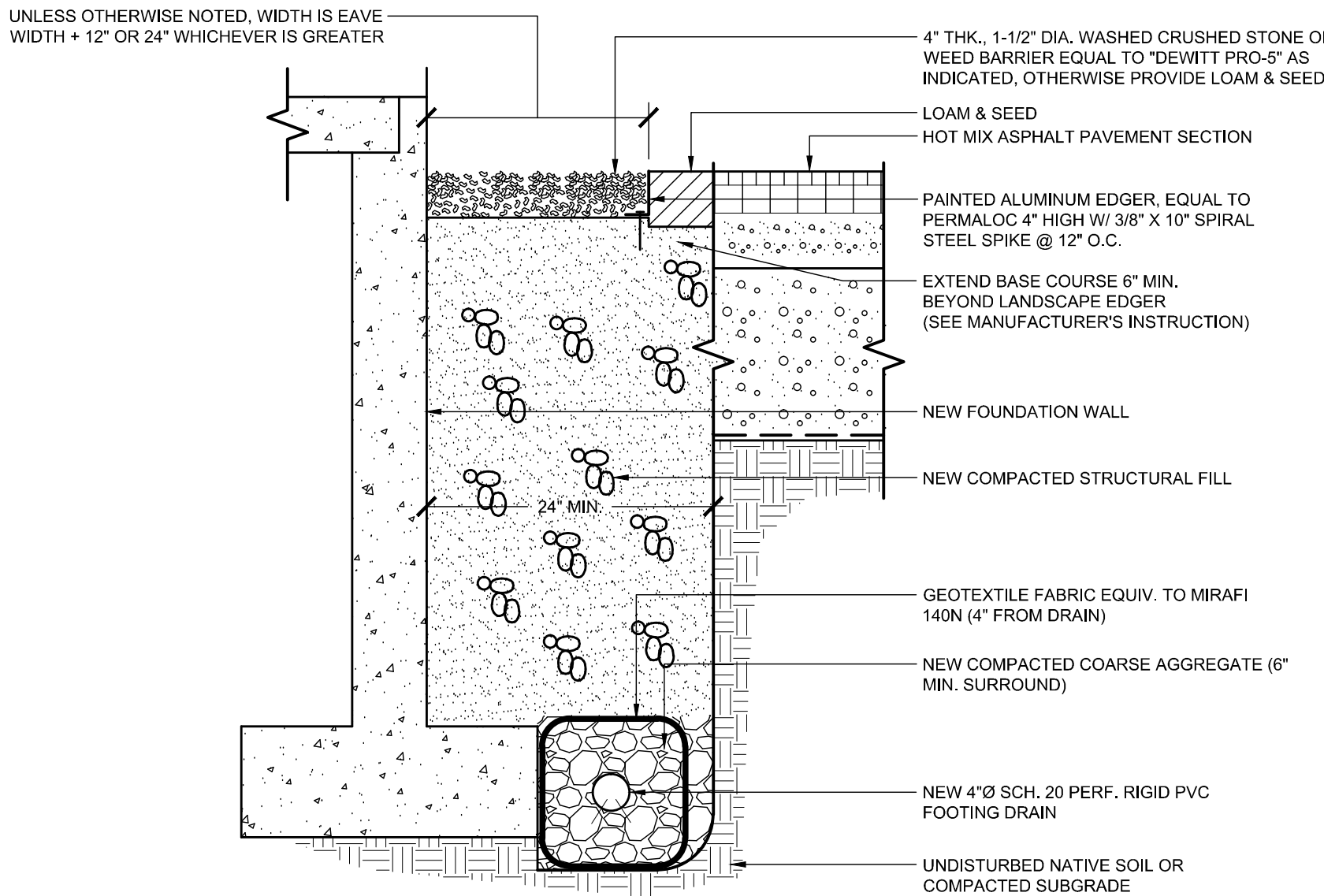
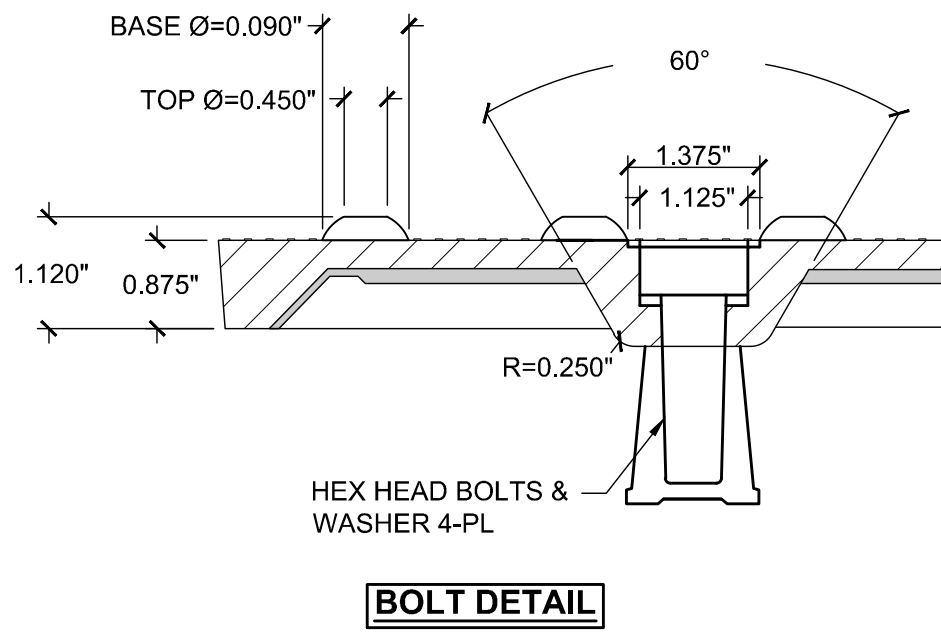
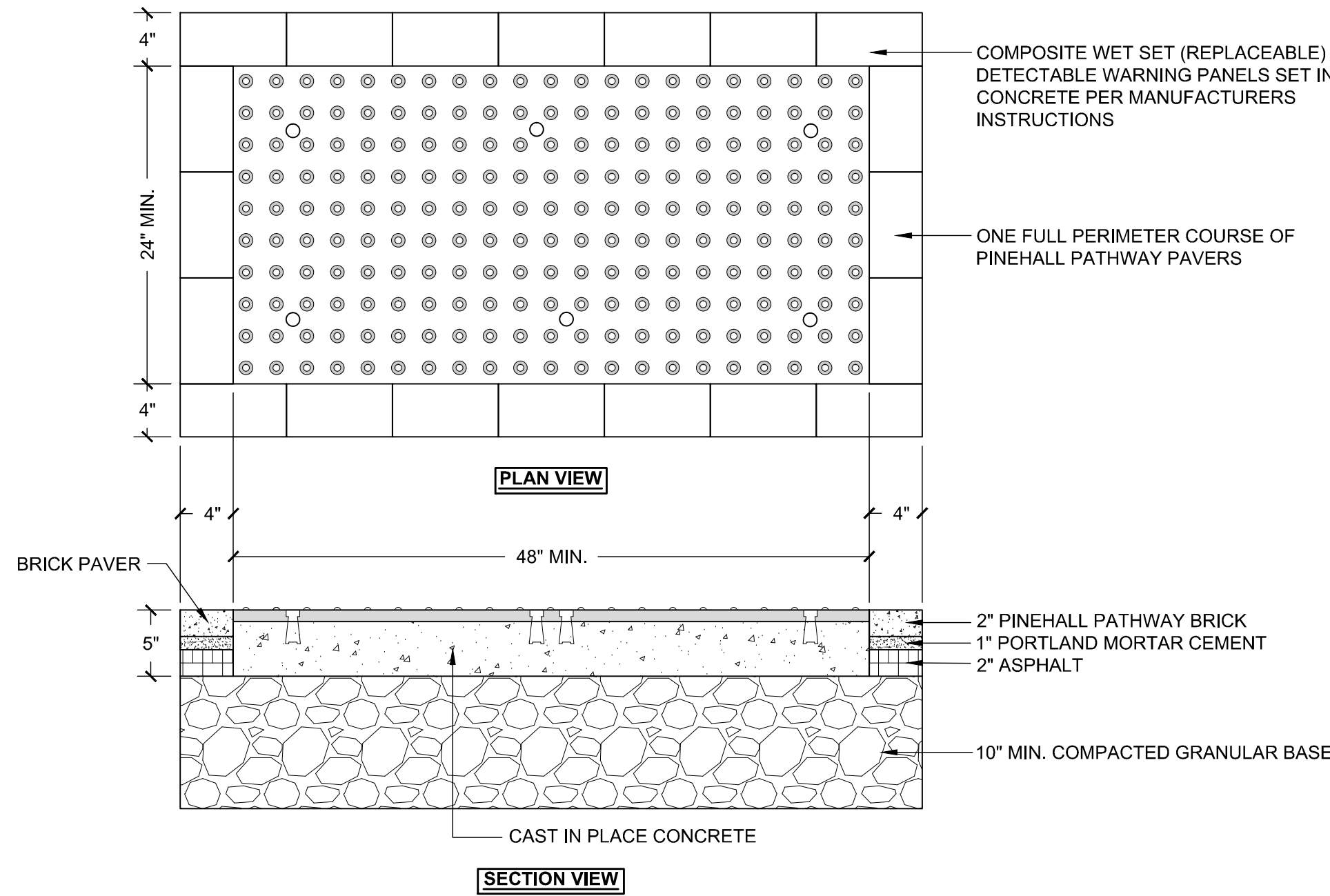
NOTES:
ALL RAMPS SHALL COMPLY WITH ADA STANDARDS.
GRANITE CURB ADJACENT TO LANDING SHALL BE FLUSH WITH STREET.
SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.
DETECTABLE WARNING AREA INSTALLATION PER CITY SIDEWALK MATERIAL POLICY SEE DETAILS A1 SHEET C503 FOR ADDITIONAL INSTALLATION INFORMATION.
ADA RAMP SURFACE MATERIAL TO CONFORM TO SIDEWALK MATERIAL

J1 NEW CONCRETE SITE LIGHT BASE

NO SCALE

J5 NEW ADA RAMP

NO SCALE



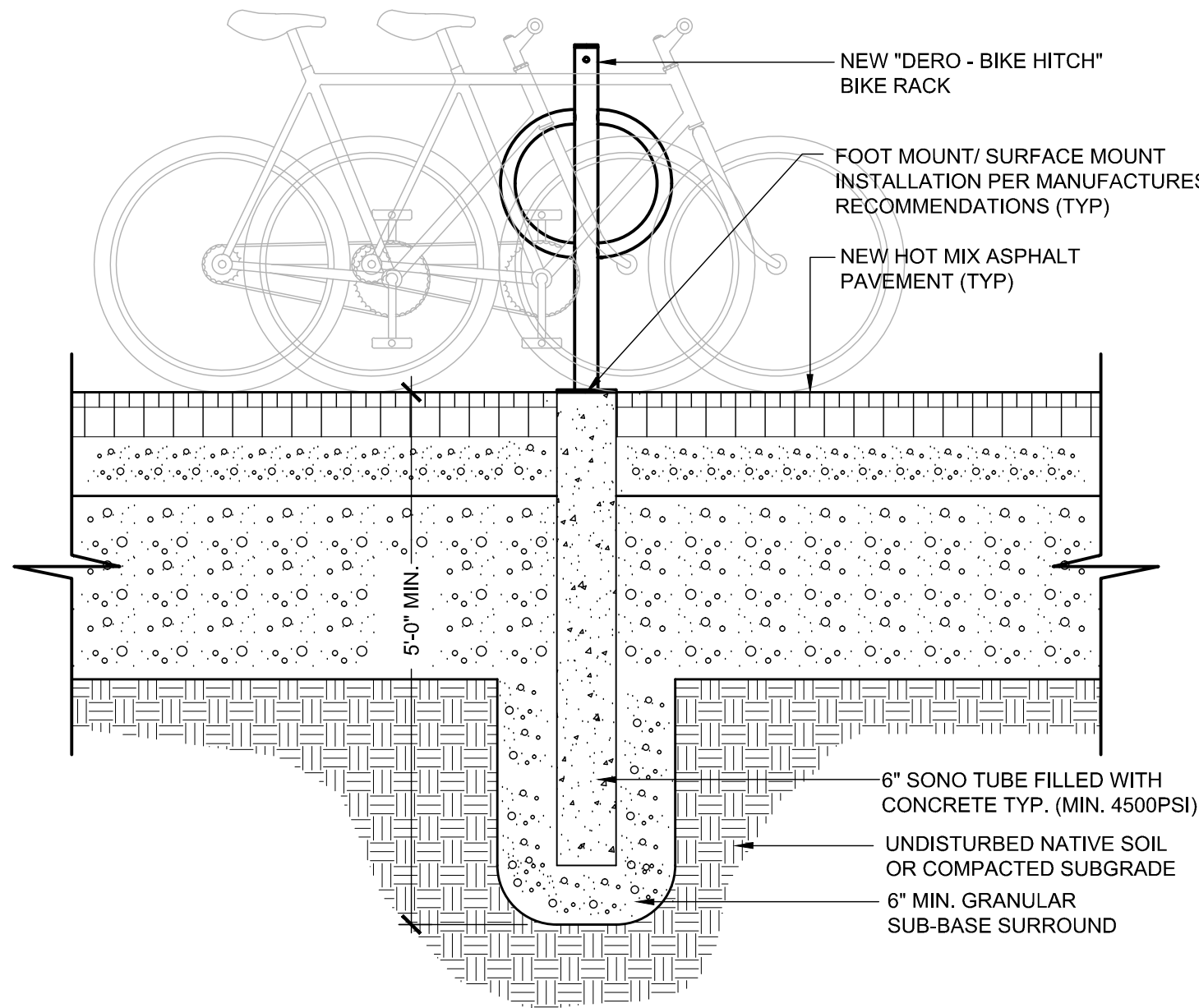
E11 NEW FOOTING DRAIN

NO SCALE

1. COMPOSITE WET SET (REPLACEABLE) DETECTABLE WARNING PANELS SHALL BE AS MANUFACTURED BY ADA SOLUTIONS, INC. (WWW.ADATILES.COM), OR APPROVED EQUAL.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MAINE D.O.T. CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE CONCRETE SHALL BE SEALED PRIOR TO SETTING PANELS.
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. NO OTHER DETECTABLE WARNING DESIGN OR CONFIGURATION IS ALLOWED.
4. FOR ALL DETECTABLE WARNING PANELS, WITHIN OR ABUTTING HISTORIC DISTRICTS AND HISTORIC LANDSCAPES, "DARK GRAY" COLORED (#36118) PANELS SHALL BE USED. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
5. THE DETECTABLE WARNING PANEL SHALL HAVE ONE FULL COURSE OF PINEHALL PATHWAY PAVERS (THE CURRENT BRICK STANDARD) AROUND THE FULL PERIMETER OF THE PANEL. THIS PERIMETER COURSE SHALL BE SET USING PORTLAND MORTAR CEMENT TO CREATE A FLUSH SURFACE BETWEEN THE BRICK AND THE PANEL.
6. SIZE: THE DETECTABLE WARNING PANEL(S) SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
7. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.

A1 NEW DETECTABLE WARNING PANEL

NO SCALE



A5 NEW BIKE RACK BASE

NO SCALE

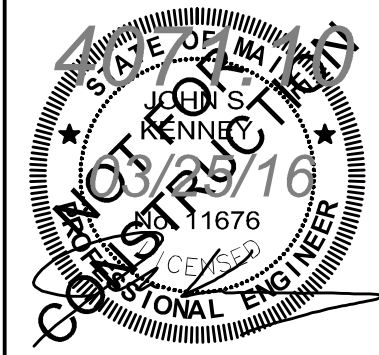
~NOT USED~

A11

NO SCALE

0	DD SUBMISSION	25 MAR 2016
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REV.	DESCRIPTION	DATE
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PORTLAND, MAINE 207-628-4311
SARASOTA, FLORIDA 941-577-2383

ASYLUM

PROJECT: PORTLAND, MAINE

**SITE
DETAILS**

SHEET TITLE: 407110-C501.DWG

WBRC CAD FILE: 407110

PROJECT No. 4071.10 GRAPHIC SCALE: 0" 1"

SCALE: NO SCALE

PM: JRB

DRAWN BY: TAR

A/E OF RECORD: JSK

C503

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Asylum - Code Review

121 Center Street
Portland, Maine 04101

Applicable Codes:

City of Portland, Maine Code of Ordinances

- 1999 NFPA 70 - National Electrical Code w/Portland Amendments (Sec. 6-32)
- 1999 BOCA National Mechanical Code w/Portland Amendments (Sec. 6-36)
- 2009 NFPA 101 - Life Safety Code w/Portland Amendments (Sec. 10-1)
- 2009 NFPA 1 - Fire Code w/Portland Amendments (Sec. 10-16)

<http://www.portlandmaine.gov/131/City-Code>

Maine Uniform Building and Energy Code (MUBEC)

- 2009 International Building Code (IBC)
- 2009 International Existing Building Code (IEBC)
- 2009 International Energy Conservation Code (IECC)
- 2009 Uniform Plumbing Code
- 2007 ASHRAE 62.1 - Ventilation for Acceptable Indoor Air Quality
- 2007 ASHRAE 90.1 - Energy Standard for Buildings except Low Rise Residential Buildings w/out addenda

CODE REVIEW SUMMARY:

PORTLAND ZONING ORDINANCE REVIEW:

ITEM #	ITEM	QTY OF PORTLAND, MAINE CODE OF ORDINANCES	PROPOSED COMPLIANCE
		SECTION	REQUIREMENT
	Zoning		Zone B3 - Downtown Business
			Historic District
			PAD overlay zone
			Part of the zone listed at: Free Street, north side, from Congress Square to Temple Street
	Minimum Lot Size	14-220.a	None
	Minimum Street Frontage	14-220.b	15 Feet
	Street wall build-to line	14-220.c	structures must be located within 5 feet of the property line along street frontages
	Minimum Yard Dimension	14-220.d	None
	Minimum lot Width	14-220.e	none
	Maximum length of undifferentiated black wall along a public street	14-220.f	15 feet - PAD overlay Zone 30' - All other zones
	Maximum Lot Coverage	14-220.g	100%
	Minimum Building Height	14-220.h	35 feet minimum within 50 feet of street frontage
			Exception 4 allows for lower buildings as part of an addition

	Maximum Building Height:	14-220.i (and Downtown Height Overlay Map)	150 feet maximum plus 40 feet additional height for building cap 90 feet maximum street wall height		
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CODE REVIEW BY SECTION: IBC vs. NFPA 101

ITEM #	ITEM	MUBEC / 2009 IBC	2009 NFPA 101 - Life Safety Code
		SECTION	REQUIREMENT
		SECTION	REQUIREMENT
			PROPOSED COMPLIANCE

1.0 USE AND OCCUPANCY

Primary Use	303	Assembly Group A-2	Chapter 12 + 13	Assembly Occupancy	
Hazard Classification			39.1.5		

2.0 CONSTRUCTION TYPE & GENERAL BUILDING HEIGHT AND AREA LIMITATIONS

Construction Type	Table 503 and 506.3	Type IIB	Table A.8.2.1.2	Type III (200)	Construction Type to be Type IIB / Type III (200)
Area Limitation	Table 503 and 506.3	9,500 SF per Story w/ Sprinkler increase up to 19,000 SF per Story (with more than 1 story above grade)			Basement Area = 9,984 SF (IBC) / 9,886 SF (NFPA) First Floor Area = 10,743 SF (IBC) / 10,642 (NFPA) Balcony = 3,732 (IBC) / 3,732 (NFPA)
Story Limitation	Table 503 and 504.1	2 Stories w/ Sprinkler increase up to 3 stories			Building to be 2 stories above grade and 1 story below grade
Height Limitation	Table 503 and 504.1	55 Feet w/ Sprinkler increase up to 75 Feet			Building to be 47' - 6' Above Grade at Highest Portion (plus mechanical equipment)

3.0 BUILDING SEPARATION & EXPOSURE PROTECTION

Exterior Walls - Load Bearing & Non-load Bearing	Tables 601, 602	Distance 5 ± X ± 10-feet ± 1 Hour	NFPA 220, Table 4.1.1	1hr Wall required adjacent to parking structure
Exterior Openings	Table 705.8	Unprotected, Sprinklers ± 30-feet ± Not Required Unprotected, Sprinklers, 8' - 10' ± 25%		Exterior Openings - No Limit on Center and Free Street, 25% adjacent to parking garage

4.0 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

Primary Structural Frames	Table 601	0 hr	Table A.8.2.1.2	0 hr	
Exterior Bearing Wall	Table 601	2 hr	Table A.8.2.1.2	2 hr	All Braced Steel Frame Structure /No Bearing Walls
Interior Bearing Wall	Table 601	0 hr	Table A.8.2.1.2	0 hr	
Non-bearing Exterior Walls	Table 601	0 hr	Table A.8.2.1.2	0 hr	
Non-bearing Interior Walls	Table 601	0 hr	Table A.8.2.1.2	0 hr	
Floor Construction and Secondary Members	Table 601	0 hr	Table A.8.2.1.2	0 hr	
Roof Construction and Secondary Members	Table 601	0 hr	Table A.8.2.1.2	0 hr	

ITEM # ITEM

		MUBEC / 2009 IBC	2009 NFPA 101 - Life Safety Code
		SECTION	REQUIREMENT
		SECTION	REQUIREMENT
			PROPOSED COMPLIANCE

4.0 FIRE AND SMOKE PROTECTION FEATURES

Automatic Sprinkler Systems	903.2.1.5	Sprinkler system required for group A-2 Occupancy			Automatic Sprinkler provided
Corridor Construction	1018.1	No fire/smoke rating required with Sprinkler System			
Exit Enclosure	1022.1	1 Hour connecting 3 stories or less 2 Hours connecting 4 stories or more	7.1.3.2	1 Hour connecting 3 stories or less 2 Hours connecting 4 stories or more	1hr rating at stairs
Convenience Openings in Vertical Openings			8.6.8.2	Where permitted by Chapters 11 through 43, unenclosed vertical openings not concealed within the building construction shall be permitted as follows: 1. Such openings shall connect not more than two adjacent stories (one floor pierced only) 2. Such openings shall be separated from unprotected vertical openings serving other floors by a barrier complying with 8.6.5 3. Such openings shall be separated from corridors 4. In new construction, the convenience opening shall be separated from the corridor referenced in 8.6.8.2.3 by a smoke partition, unless Ch. 11 + 43 require the corridor to have a fire resistance rating 5. Such openings shall not serve as a required means of egress	

ITEM #	ITEM	MUBEC / 2009 IBC	2009 NFPA 101 - Life Safety Code
		SECTION	REQUIREMENT
		SECTION	REQUIREMENT
			PROPOSED COMPLIANCE

	Protection of Vertical Openings			39.3.1.1.3	Unprotected vertical openings shall be permitted in buildings complying with all of the following: a. Where protected throughout by an approved automatic sprinkler system b. Where no unprotected vertical opening serves as any part of any required means of egress c. Where required exists consist of exit doors that discharge directly to the finished ground level in accordance with 7.2.1	
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5.0 MEANS OF EGRESS

Occupant Load	Table 1004.1.1		7.3.1.2 / 39.1.7		See Attached Chart - Total Occupant Load = 1,418
Egress Width per Occupant	1005.1	3" per person Stairways 2" per Person Horizontal	7.3.3.1	3" per person Stairways 2" per Person Horizontal	426" Stair Width Required 284" Horizontal width required
Minimum Door Widths	1008.1.1	32" Minimum Clear Width	7.2.1.2.3 / 38.2.2.3	32" Minimum Clear Width	
Common Path of Travel	1014.3 / 1028.8	75 feet with Sprinkler System / 30 Feet in Assembly	39.2.5.3.1		
Travel Distance	Table 1016.1 / 1028.7	250 Feet with Sprinkler System	12.2.6.2	250 feet with sprinkler system	
Corridor Width	1018.2	44" min when occupancy > 50 36" min when occupancy < 50	39.2.3.2	44" min when occupancy > 50	
Dead End Corridors	1018.4	20 Feet with Sprinkler System	39.2.5.2	50 Feet max	
Minimum Number of Exits per Story	Table 1021.1	Min 2 exits from Basement (1-500) Min 3 exits from 1st floor (501-1,000) Min 2 exits from Balcony (1-500)	7.4.1.2 / 39.2.4.1.2	Min. 2 exits	
Exit Separation			7.5.1.3.3	separation distance between two exits > 1/3 the length of maximum overall diagonal dimension w/ sprinkler system	
Exit Discharge	1027.1	Exits shall discharge directly to the exterior. Combination of exceptions 1 and 2 shall not exceed 50%			
	1027.1.1	max 50% exits may egress through areas on the level of discharge if: - exit is readily visible - level of discharge separated from below with rated construction - automatic sprinkler system			
	1027.1.2	max 50% can egress through vestibule if: - separated from below with rated construction - 10' deep max, 30" wide max - rated enclosure - only used for means of egress			

ITEM #	ITEM	MUBEC / 2009 IBC	2009 NFPA 101 - Life Safety Code
		SECTION	REQUIREMENT
		SECTION	REQUIREMENT
			PROPOSED COMPLIANCE

6.0 SPECIAL OCCUPANCY REQUIREMENTS

Electrical Closets w/ transformers > 112.5 kVA	N/A	NFPA 70, 450.21	1 Hour	No new transformers
Electrical Closets w/ transformers < 112.5 kVA	N/A	NFPA 70, 450.21	0 Hour	No new transformers
Electrical Switchgear Rooms	N/A	NFPA 70, 450	2 Hour, or 1 Hour with Automatic Extinguishing System	No no switchgear to be installed
Mechanical Rooms	N/A		N/A	0 Hour
Storage Rms	N/A	13.3.2.1.2.1 / 8.7.1.2	1 Hour or Automatic Extinguishing System and smoke partition	Smoke Partition and AES
Elevator Shafts		8.4 / ASME A17.1		
Elevator Machine Rooms		8.4.5		

ITEM #	ITEM	MUBEC / 2009 IBC	2009 NFPA 101 - Life Safety Code
		SECTION	REQUIREMENT
		SECTION	REQUIREMENT
			PROPOSED COMPLIANCE

7.0 STAIRWAYS

Stairway Width	1009.1	44" Min (36" min. for <50 Occupants)	7.2.2.2.1.2	44" Min (36" min. for <50 Occupants)	
Headroom	1009.2	80" min headroom clearance	7.2.2.2.1.1(a)	80" min headroom clearance	
Stair Treads and Risers	1009.4	4" min ± Rise < 7" max 11" min tread	7.2.2.2.1.1(a)	4" min ± Rise < 7" max 11" min tread	
Profile	1009.4.5	Risers shall be solid			
Stairway Landing	1009.5	Required at top and bottom. Width and distance in direction of travel equal to or greater than stair width	7.2.2.3.2	Landing size can not decrease in the path of travel. Distance in direction of travel equal to or greater than stair width	
Vertical Rise	1009.7	12" max vertical rise between floors or landings	7.2.2.2.1.1(a)	12" max vertical rise between floors or landings	
Handrails	1009.12	Handrails required on both sides	7.2.2.4.1.1	Handrails required on both sides	
Handrail Height	1012.2	34" min and 36" max above stair tread nosing	7.2.2.4.4.1	34" min and 36" max above stair tread nosing	
Handrail Graspability	1012.1.1	Must comply with Type I			
Handrail Extensions	1012.6	must extend 12" beyond top riser and depth of 1 tread beyond bottom riser	7.2.2.4.4.10	must extend 12" beyond top riser and depth of 1 tread beyond bottom riser	
Guard Rails	10013.1	Required on landings > 30" high			
Guard Rail Height	1013.2	42" min	7.2.2.4.5.2	42" min	
Opening Limitations	1013.3	4" max opening	7.2.2.4.5.3	4" max opening	
Enclosure of Stair			7.2.2.5.1.2	Inside stairs, other than those serving as an exit or exit component, shall be protected in accordance with Section 8.6	Section 8.6 allows an exception for unenclosed stairs.

0	DD SUBMISSION	25 MAR 2016
REV.	DESCRIPTION	DATE

NOT FOR CONSTRUCTION



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PORTLAND, MAINE 207-828-4311
SARASOTA, FLORIDA 941-556-0757

ASYLUM

PROJECT:

CODE REVIEW NOTES

SHEET TITLE:

WBRC CAD FILE: C:\Users\joe\OneDrive\Documents\407110 - ASYLUM DANCE CLUB - ARCH_joe\joe\booth\rt

PROJECT No. 4071.10

GRAPHIC SCALE: 0" 1"

SCALE:

PROJECT MANAGER JRB

SHEET No.

DRAWN BY JRB

G1003

CHECKED BY JRB

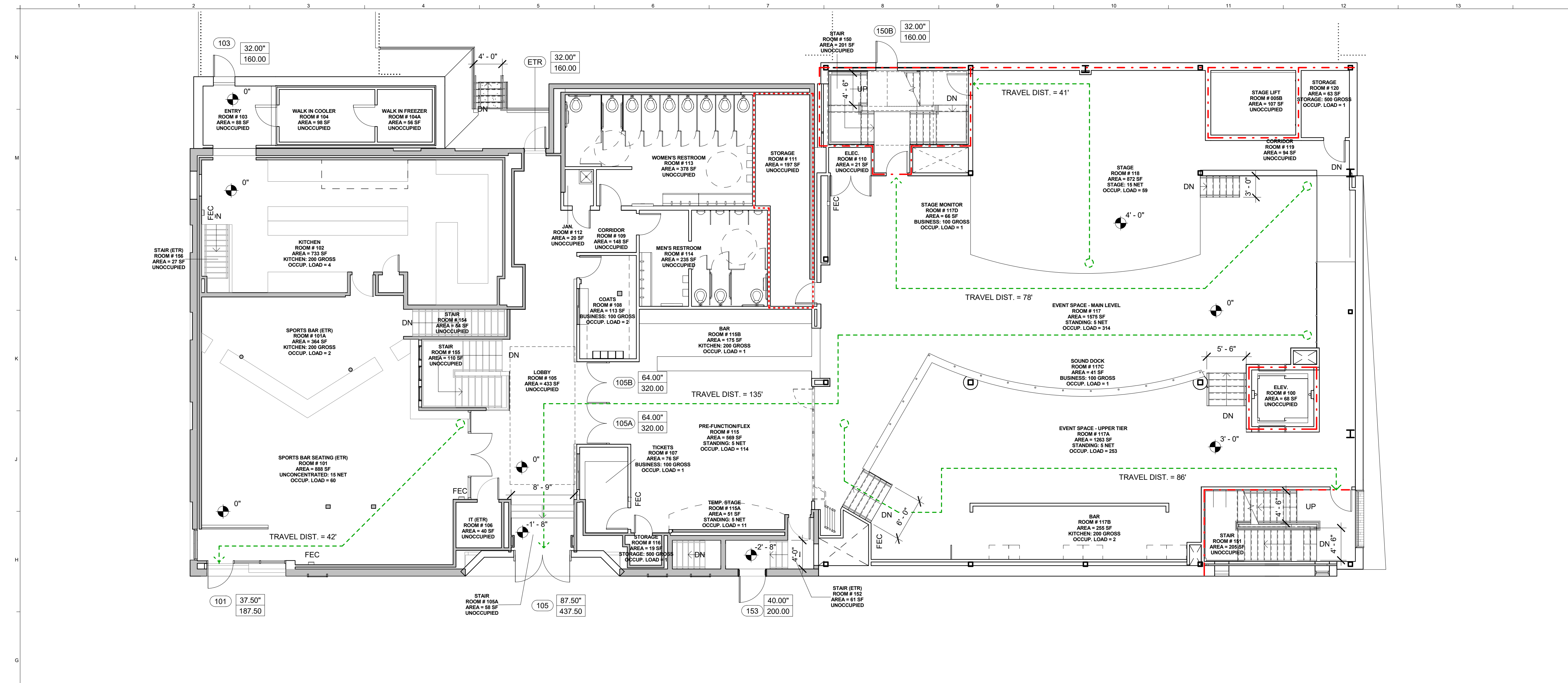
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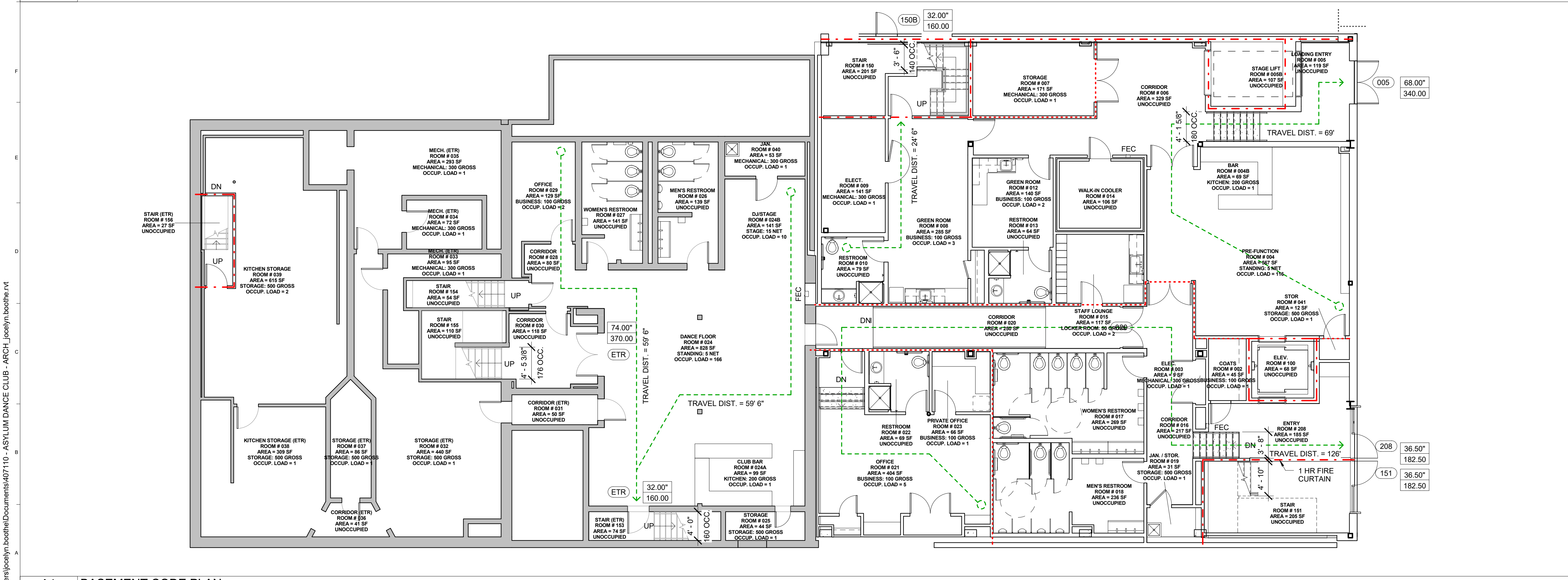
Asylum
Design Development Code Review
18 December 2015



Asylum
Design Development Code Review
18 December 2015



G1	FIRST FLOOR CODE PLAN
1/8" = 1'-0"	A5



A1	BASEMENT CODE PLAN
1/8" = 1'-0"	A9

CODE REVIEW LEGEND:

NEW WALL	
EXISTING WALL TO REMAIN	
SMOKE PARTITION	
1-HR RATED WALL	
2-HR RATED WALL	
2-HR RATED WALL - EXISTING	
WALL MOUNTED EXIT SIGN	
CEILING MOUNTED EXIT SIGN	
EGRESS PATHS / TRAVEL DISTANCE	
DOOR CLEAR WIDTH	
DOOR NUMBER	
DOOR EXIT CAPACITY	
FIRE EXTINGUISHER CABINET	

KEYNOTES:

FIRE SUPPRESSION SYSTEM LEGEND:

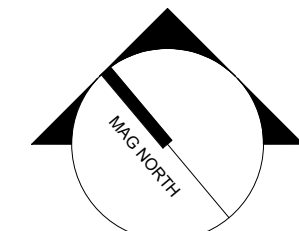
EXISTING WET PIPE SPRINKLER RISER

GENERAL FIRE SUPPRESSION SYSTEM NOTES:

1. MODIFY EXISTING WET SYSTEM SPRINKLER SYSTEM AS REQUIRED FOR NEW RENOVATIONS. EXTEND EXISTING MAINS, BRANCHES, AS REQUIRED FOR NEW WORK. PROVIDE NEW PIPING MAINS, AND BRANCHES AS REQUIRED FOR NEW WORK. REMOVE ANY EXISTING ABANDONED PIPING NO LONGER IN SERVICE. COORDINATE LOCATION OF ALL NEW PIPING AND EXISTING PIPING WITH ALL NEW WORK AND WITH ALL OTHER TRADES FOR FUNCTIONAL AND AESTHETIC APPEARANCE (EXPOSED LOCATIONS), PRIOR TO INSTALLATION FOR NEW MAINS, BRANCHES, AND HEADS.
2. IN ADJACENT AREA TO REMAIN "UNFINISHED", MODIFY EXISTING HEADS AND BRANCHES AS REQUIRED TO MAINTAIN COVERAGE OF "UNFINISHED" AREAS IN ACCORDANCE WITH NFPA 13.
3. ALL SPRINKLER WORK SHALL BE IN ACCORDANCE WITH NFPA 13, STATE OF MAINE FIRE MARSHAL'S OFFICE, AND LOCAL AUTHORITY HAVING JURISDICTION.
4. SPRINKLER CONTRACTOR TO COORDINATE WITH LOCAL WATER COMPANY AND PROVIDE HYDRANT FLOW TEST PRIOR TO COMMENCEMENT OF ANY WORK, TO CONFIRM EXISTING WATER SUPPLY HYDRAULIC DATA, AND INCORPORATE DATA WITHIN THE SPRINKLER CALCULATIONS AND DESIGN, IN ACCORDANCE WITH NFPA 13.
5. DO NOT INSTALL SPRINKLER PIPING OVER ELECTRICAL SWITCH GEAR AND IN FRONT OF ACCESSIBLE JUNCTION BOXES. COORDINATE REQUIRED CLEARANCES FOR ACCESS AND SERVICE OF ALL ELECTRICAL SWITCH GEAR WITH ELECTRICAL CONTRACTOR.
6. COORDINATE REQUIRED CLEARANCES FOR ACCESS AND SERVICE OF ALL HVAC AND PLUMBING EQUIPMENT WITH MECHANICAL CONTRACTOR.
7. PROVIDE SPRINKLER COVERAGE OVER ALL CABLE TRAYS. COORDINATE LOCATIONS OF CABLE TRAYS WITH ELECTRICAL CONTRACTOR.
8. ALL SPRINKLER HEADS TO BE INSTALLED IN THE CENTER OF ACOUSTICAL CEILING TILES.

0	DD SUBMISSION	25 MAR 2016
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REV.	DESCRIPTION	DATE
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PROJECT NORTH

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ASYLUM

PROJECT:

**CODE REVIEW BASEMENT
AND FIRST FLOOR PLANS**

SHEET TITLE:

WBRC CAD FILE: C:\Users\joelyn.boothie\Documents\407110 - ASYLUM DANCE CLUB - ARCH_joelyn.boothie.rvt

PROJECT No: 4071.10

SCALE: As indicated

PROJECT MANAGER: JRB

DRAWN BY: JRB

CHECKED BY: JRB

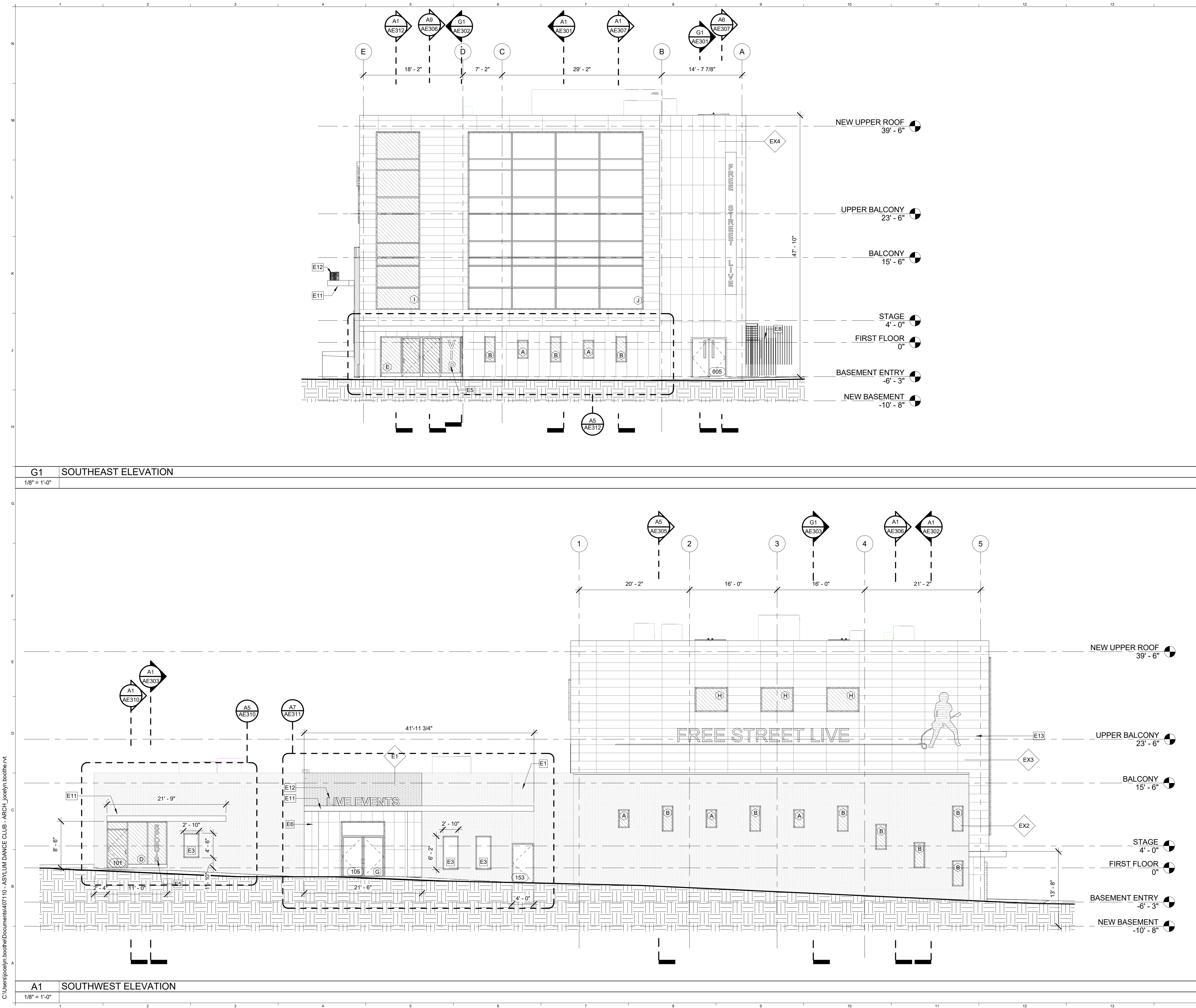
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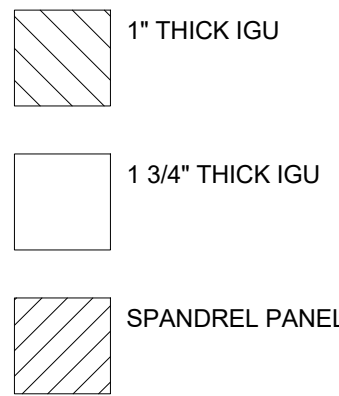
G1004

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C:\Users\joelyn.booth\Documents\407110 - ASYLUM DANCE CLUB - ARCH - joelyn.booth.rvt



GLAZING LEGEND:



KEYNOTES:

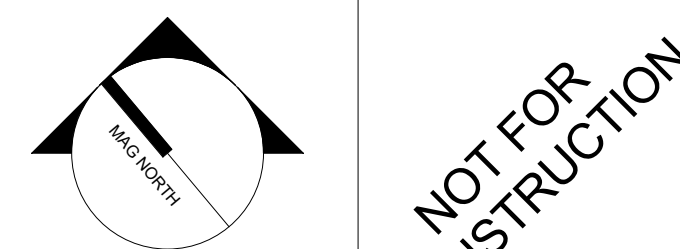
E1	INFILL EXISTING CURTAINWALL LOCATION WITH NORMAN BRICK ON CMU TO MATCH EXISTING
E3	SURFACE MOUNTED, EDGE LIT DISPLAY CASE
E5	WINDOW FILM SIGN
E6	MASONRY ACCENT WALL AT ENTRY: 1'-0" X 4'-0" PANEL SIZE
E8	PROVIDE EMERGENCY EGRESS AT NEW ALLY FENCE. SEE CIVIL
E11	NEW METAL CANOPY
E12	INTERNALLY LIT BUILDING SIGNAGE. DESIGN TO BE COORDINATED WITH BRANDING CONSULTANT
E13	BUILDING SIGNAGE LOCATION. DESIGN TO BE COORDINATED WITH BRANDING CONSULTANT

GENERAL NOTES:

1. ALL WALL PARTITION TYPES ARE M4 UNLESS NOTED OTHERWISE. SEE SHEET AE603 FOR PARTITION TYPES.
2. REFER TO G1002 SHEET FOR ALL ABBREVIATIONS AND SYMBOLS.
3. REFER TO ALL DRAWINGS INCLUDING ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS.
4. VERIFY ALL EQUIPMENT OPENINGS & RECOMMENDATIONS. LOCATION AND SIZES SHOWN ARE FOR INTENT PURPOSES ONLY. ADJUST ROUGH OPENINGS AND LOCATIONS AS REQUIRED PER ACTUAL EQUIPMENT.
5. G.C. TO PROVIDE & INSTALL ALL IN-WALL OR IN-CEILING BLOCKING / BRACING AS REQUIRED FOR ALL MILLWORK ITEMS, EQUIPMENT, SHELVING, AND ACCESSORIES WHETHER ITEMS ARE BY G.C. OR OTHERS COORDINATE WITH OWNER.
6. G.C. SHALL BE RESPONSIBLE FOR LAYING OUT THE SPACE PRIOR TO COMMENCING WORK AND SHALL NOTIFY THE ARCHITECT AND OWNER OF ANY DISCREPANCIES.
7. ALL CONCRETE MASONRY UNITS AND MORTAR TO INCLUDE AN INTEGRAL WATER REPELLENT.
8. ALL EXTERIOR DIMENSIONS ARE TO FACE STUD AND / OR FACE OF FOUNDATION AND MASONRY UNLESS SPECIFICALLY NOTED OTHERWISE.
9. ALL INTERIOR DIMENSIONS SHOWN ARE TO FACE OF FRAMING UNLESS SPECIFICALLY NOTED OTHERWISE.
10. REFER TO SHEET G1003-005 FOR CODE COMPLIANCE PLAN, CODE REFERENCE INFORMATION AND FIRE RATED PARTITIONS AND SPACES. ALL MECHANICAL, ELECTRICAL, AND PLUMBING PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE SLEEVED, FIRE SAFED AND / OR HAVE FIRE DAMPERS EQUIVALENT TO THE HOURLY FIRE RATING OF THE CONSTRUCTION.
11. ALL DRAWINGS ARE OF EQUAL IMPORTANCE IN DEFINING THE WORK OF THE CONTRACT DOCUMENTS. CONTRACTORS SHALL REVIEW ALL DRAWINGS BEFORE THE INSTALLATION OF THEIR WORK. SHOULD THERE BE A DISCREPANCY WITHIN AND BETWEEN THE DRAWINGS THAT WOULD CAUSE AN AWKWARD OR IMPROPER INSTALLATION NOTIFY ARCHITECT FOR CLARIFICATION PRIOR TO INSTALLATION OF SAID WORK. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL DRAWINGS, SHALL BE CORRECTED BY CONTRACTOR AT THEIR EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER OR ARCHITECT.
12. DO NOT SCALE DRAWINGS, THE DRAWINGS ARE NOT NECESSARILY TO SCALE - USE GIVEN DIMENSIONS. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO THE START OF CONSTRUCTION. IF DISCREPANCIES ARE FOUND, NOTIFY ARCHITECT FOR CLARIFICATION BEFORE COMMENCING THE WORK.
13. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE SHOWN. WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN INTENT CANNOT BE DETERMINED CONSULT ARCHITECT BEFORE PROCEEDING WITH THE WORK.
14. ALL PITCHED FLOOR AREAS SHOWN WITH PITCH LINES SHALL SLOPE AT 1/4" PER FOOT UNLESS OTHERWISE NOTED. PROVIDE A SLAB DEPRESSION AT ALL FLOOR DRAINS WHERE PITCH LINES ARE NOT SHOWN ON PLAN.
15. FINISH FLOOR ELEVATIONS ARE TO TOP OF CONCRETE, UNLESS OTHERWISE NOTED.
16. INSTALL ALL RECESSED CABINETS, PANELS, BOXES LOCATED IN FIRE-RATED PARTITIONS TO MAINTAIN THE FIRE-RATED CONSTRUCTION.
17. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND MANUFACTURES TEMPLATE DRAWINGS FOR ALL MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, BOLT SETTING TEMPLATES, ISOLATIONS, SPRING ISOLATION, ETC. NOT SHOWN ON THE DRAWINGS.
18. OWNER FURNISHED ITEMS THE G.C. SHALL COORDINATE AND PROVIDE ELECTRICAL, PLUMBING, AND MECHANICAL CONNECTIONS FOR ALL EQUIPMENT.

0 DD SUBMISSION 25 MAR 2016

REV. DESCRIPTION DATE



PROJECT NORTH

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ASYLUM

PROJECT:
BUILDING ELEVATIONS

SHEET TITLE:

WBRC CAD FILE: C:\Users\joelyn.booth\Documents\407110 - ASYLUM DANCE CLUB - ARCH - joelyn.booth.rvt

PROJECT No: 4071.10 GRAPHIC SCALE: 0' 1'

SCALE: As indicated

PROJECT MANAGER: JRB

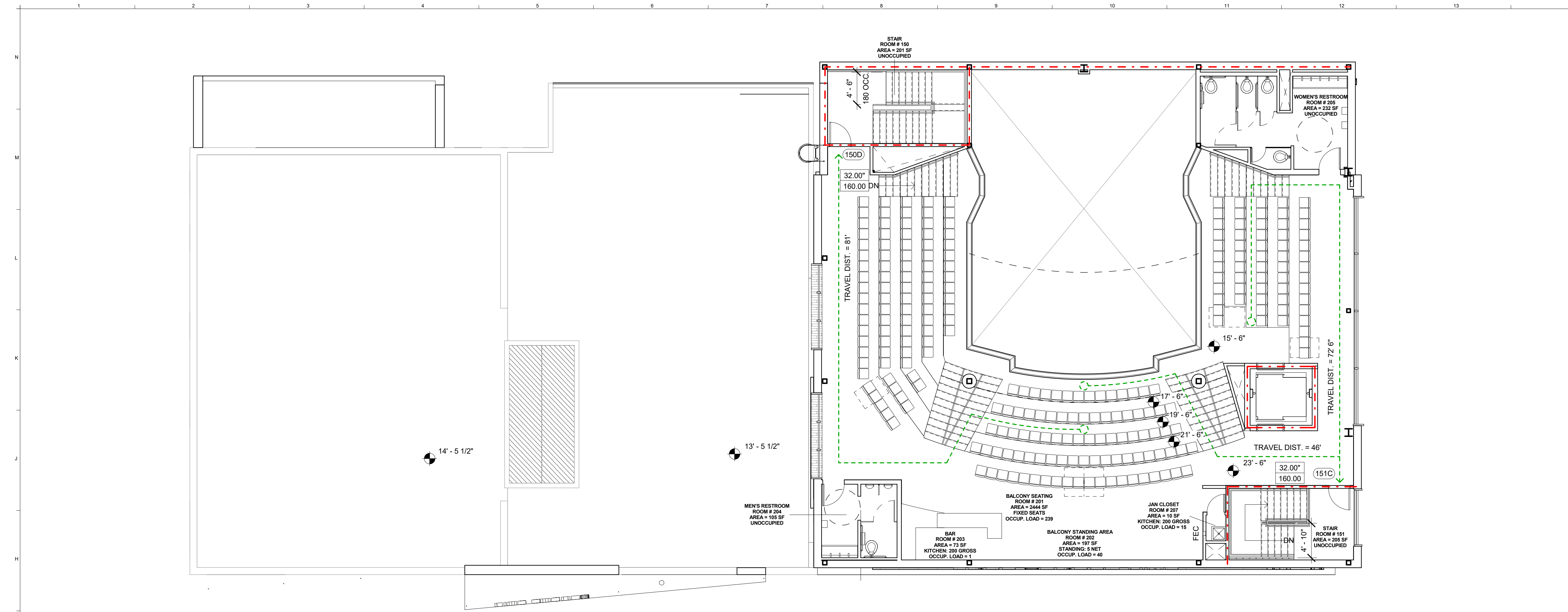
DRAWN BY: JRB

CHECKED BY: JRB

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G1 BALCONY CODE PLAN
1/8" = 1'-0" A5

VENUE PLUMBING FIXTURE COUNTS (PER UPC TABLE4-1)							
OCCUPANT LOAD	MALE OCCUP.	FEMALE OCCUP.	MALE WCS	MALE URINALS	FEMALE WCS	MALE LAVS	FEMALE LAVS
1476 Total Occupants	738	738					
Staff Plumbing Fixtures Required:	16	16					
WC = 2: 16-35 Male / 3: 16-35 Female			2	1	3		
Urinal = 1: 10-50							
Lav = 1 per 40						1	1
Public Plumbing Fixtures Required:	722	722					
WC = 3: 201-400 + 1/addit. 500 male			4		14		
WC = 11: 201-400 + 1/addit. 125 Female				5			
Urinal = 4: 401-600 + 1/addit. 300						3	3
Lav = 3: 401-750							
Total Plumbing Fixtures Required			6	6	17	4	4
Plumbing Fixtures Provided:			7	11	19	9	12

EGRESS DOOR CAPACITY				
DOOR NAME	WIDTH	CLEAR WIDTH	WIDTH/OCCUPANT	CAPACITY
005	72"	68"	.2"	340
101	42"	37 1/2"	.2"	185
103	36"	32"	.2"	160
105	91"	87"	.2"	437
150	36"	32"	.2"	160
150B	36"	32"	.2"	160
151	40 1/2"	36 1/2"		
153	44"	40"	.2"	200
208	40 1/2"	36 1/2"		
ETR	36"	32"	.2"	160
TOTAL	473 1/2"	433.5	.2"	1,985 OCCUPANTS

CODE REVIEW LEGEND:

NEW WALL	
EXISTING WALL TO REMAIN	
SMOKE PARTITION	
1-HR RATED WALL	
2-HR RATED WALL	
2-HR RATED WALL - EXISTING	
WALL MOUNTED EXIT SIGN	
CEILING MOUNTED EXIT SIGN	
EGRESS PATHS / TRAVEL DISTANCE	
DOOR CLEAR WIDTH	
DOOR NUMBER	
DOOR EXIT CAPACITY	
FIRE EXTINGUISHER CABINET	

KEYNOTES:

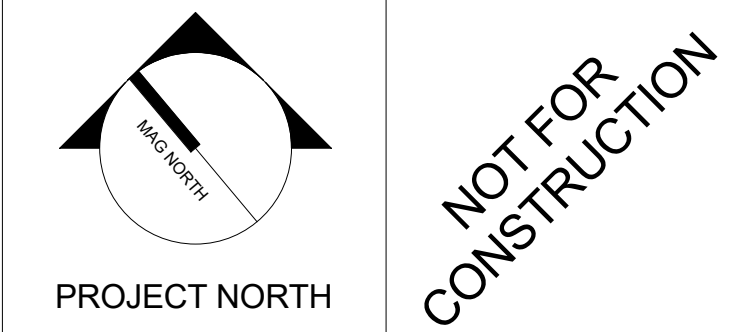
FIRE SUPPRESSION SYSTEM LEGEND:

EXISTING WET PIPE SPRINKLER RISER

GENERAL FIRE SUPPRESSION SYSTEM NOTES:

1. MODIFY EXISTING WET SYSTEM SPRINKLER SYSTEM AS REQUIRED FOR NEW RENOVATIONS. EXTEND EXISTING MAINS, BRANCHES, AS REQUIRED FOR NEW WORK. PROVIDE NEW PIPING MAINS, AND BRANCHES AS REQUIRED FOR NEW WORK. REMOVE ANY EXISTING ABANDONED PIPING NO LONGER IN SERVICE. COORDINATE LOCATION OF ALL NEW PIPING AND EXISTING PIPING WITH ALL NEW WORK AND WITH ALL OTHER TRADES FOR FUNCTIONAL AND AESTHETIC APPEARANCE (EXPOSED LOCATIONS), PRIOR TO INSTALLATION FOR NEW MAINS, BRANCHES, AND HEADS.
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8. ALL SPRINKLER HEADS TO BE INSTALLED IN THE CENTER OF ACOUSTICAL CEILING TILES.

0	DD SUBMISSION	25 MAR 2016
REV.	DESCRIPTION	DATE



ASYLUM

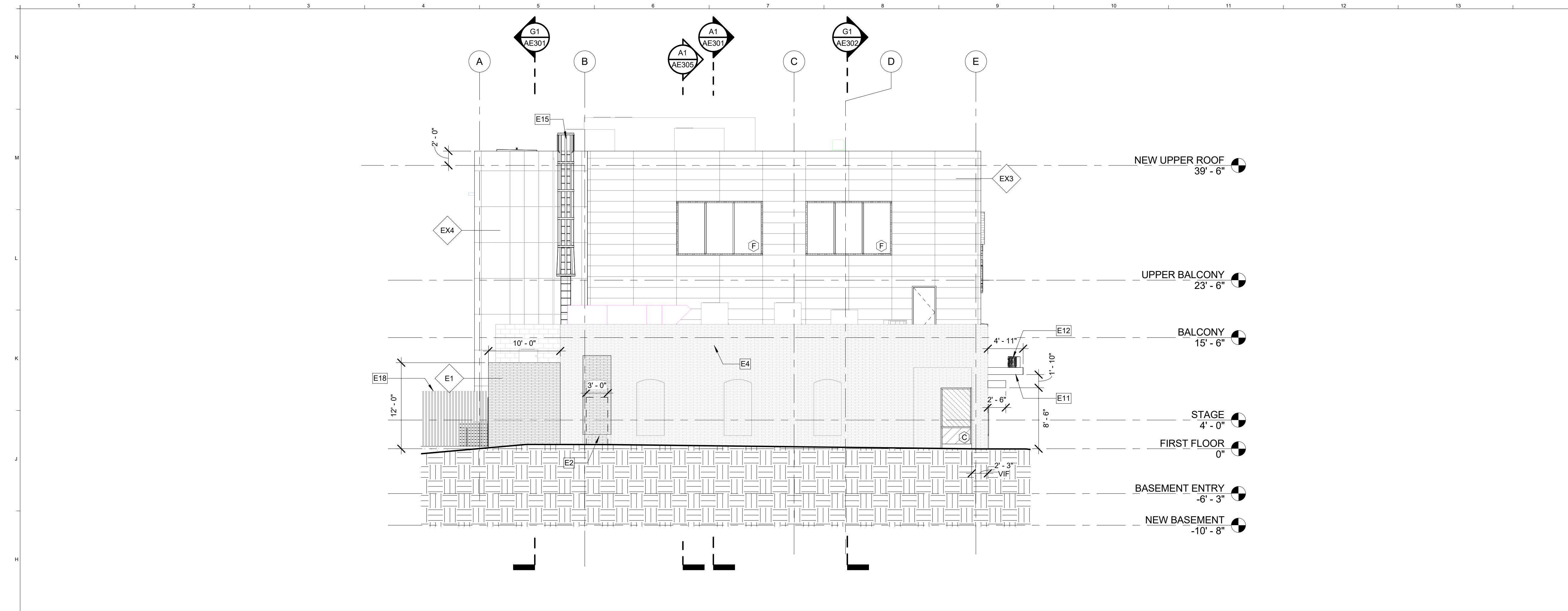
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CODE REVIEW BALCONY PLAN AND CALCULATIONS

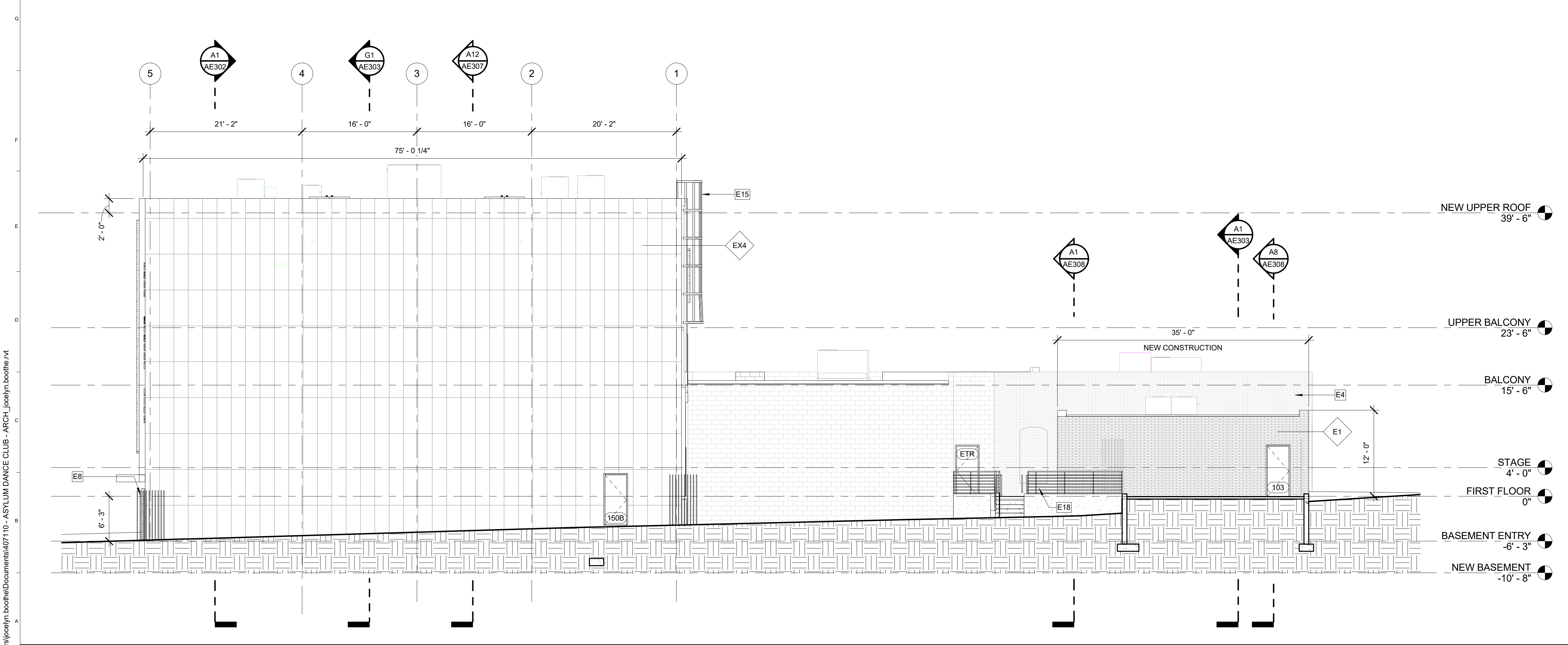
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PROJECT No: 4071.10	GRAPHIC SCALE: 0" 1"
SCALE: As indicated	
PROJECT MANAGER: JRB	SHEET No:
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CHECKED BY: JRB	

G1005

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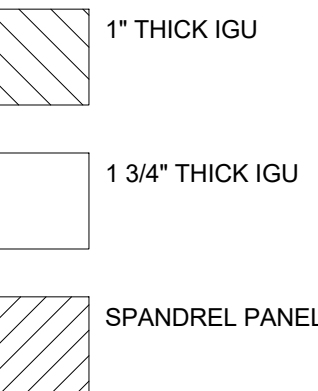


G1 NORTHWEST ELEVATION
1/8" = 1'-0"



A1 NORTHEAST ELEVATION
1/8" = 1'-0"

GLAZING LEGEND:



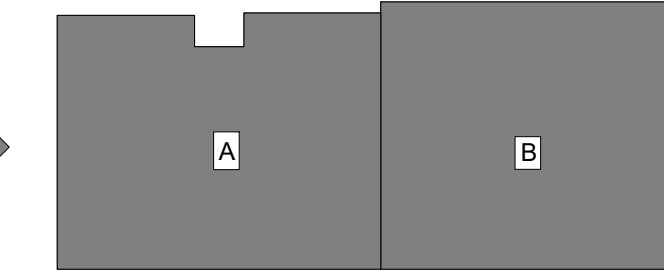
KEYNOTES:

E2	INFILL EXISTING DOOR LOCATION WITH NORMAN BRICK ON CMU TO MATCH EXISTING
E4	CLEAN, RE-POINT AND PAINT EXISTING BRICK WALL. ENTIRE WALL TO BE USED AS MURAL WALL. MURAL BY OWNER
E8	PROVIDE EMERGENCY EGRESS AT NEW ALLY FENCE. SEE CIVIL
E11	NEW METAL CANOPY
E12	INTERNALLY LIT BUILDING SIGNAGE. DESIGN TO BE COORDINATED WITH BRANDING CONSULTANT
E15	ROOF ACCESS LADDER AND CAGE
E18	EXTERIOR GUARD RAIL, SITE PAD, EGRESS STAIR AND FENCE. SEE CIVIL

GENERAL NOTES:

- ALL WALL PARTITION TYPES ARE M4 UNLESS NOTED OTHERWISE. SEE SHEET AE603 FOR PARTITION TYPES.
- REFER TO G1002 SHEET FOR ALL ABBREVIATIONS AND SYMBOLS.
- REFER TO ALL DRAWINGS INCLUDING ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS
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- ALL PITCHED FLOOR AREAS SHOWN WITH PITCH LINES SHALL SLOPE AT 1/4" PER FOOT UNLESS OTHERWISE NOTED, PROVIDE A SLAB DEPRESSION AT ALL FLOOR DRAINS WHERE PITCH LINES ARE NOT SHOWN ON PLAN.
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- INSTALL ALL RECESSED CABINETS, PANELS, BOXES LOCATED IN FIRE-RATED PARTITIONS TO MAINTAIN THE FIRE-RATED CONSTRUCTION
- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND MANUFACTURES TEMPLATE DRAWINGS FOR ALL MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, BOLT SETTING TEMPLATES, ISOLATIONS, SPRING ISOLATION, ETC. NOT SHOWN ON THE DRAWINGS
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KEYPLAN



REV.	DESCRIPTION	DATE
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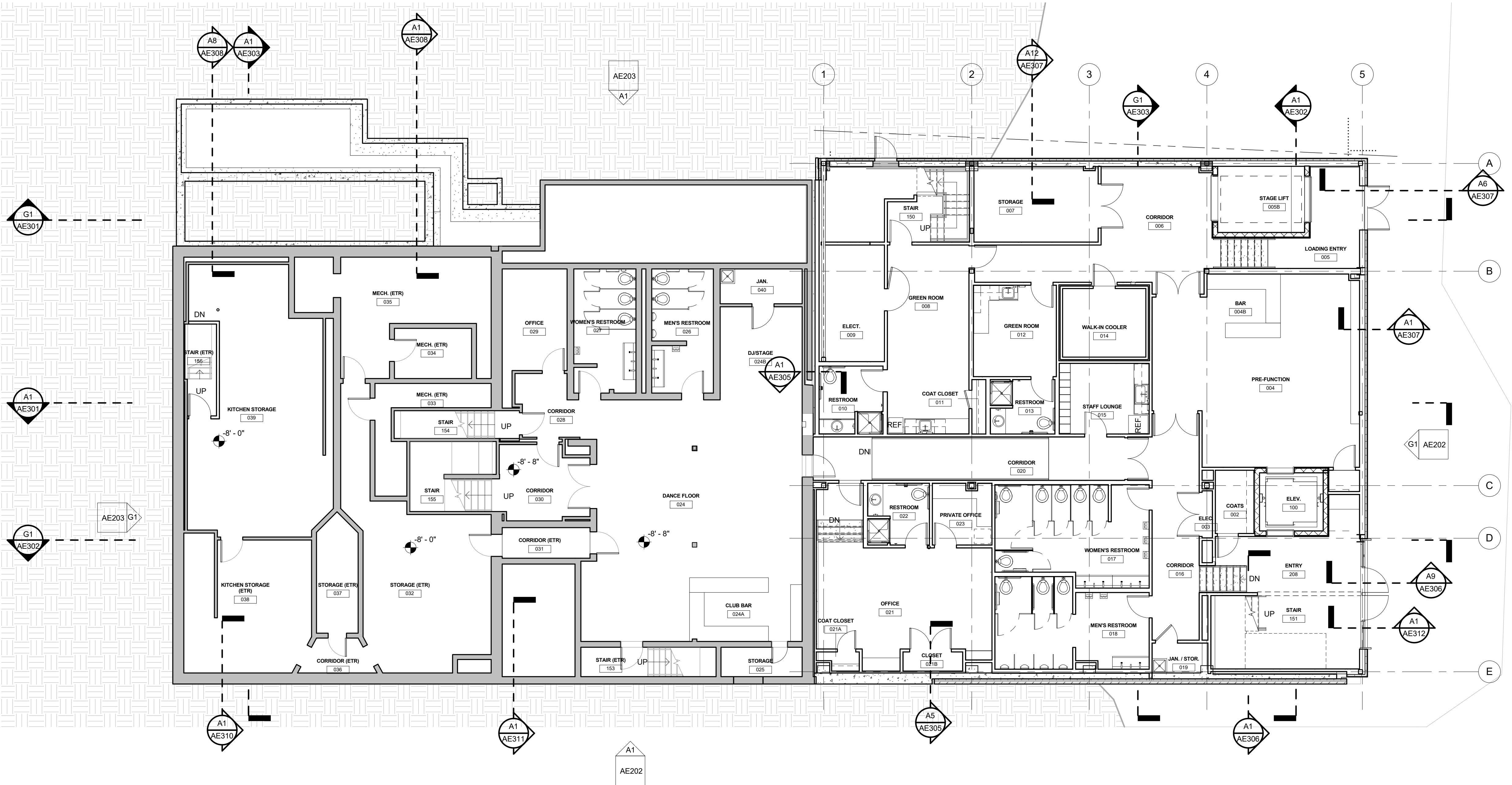
ASYLUM

PROJECT:
BUILDING ELEVATIONS

SHEET TITLE:	
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PROJECT No: 4071.10	SCALE: As indicated
PROJECT MANAGER: JRB	SHEET No: AE203
DRAWN BY: JRB	
CHECKED BY: JRB	

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A1 BASEMENT PLAN
1/8" = 1'-0"



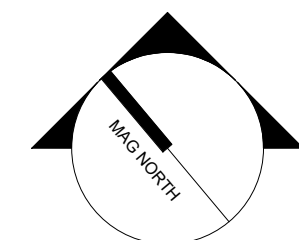
WALL LEGEND:

NEW WALL
EXISTING WALL TO REMAIN

GENERAL NOTES:

1. ALL WALL PARTITION TYPES ARE M4 UNLESS NOTED OTHERWISE. SEE SHEET AE603 FOR PARTITION TYPES.
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REV.	DESCRIPTION	DATE
0	DD SUBMISSION	25 MAR 2016



PROJECT NORTH

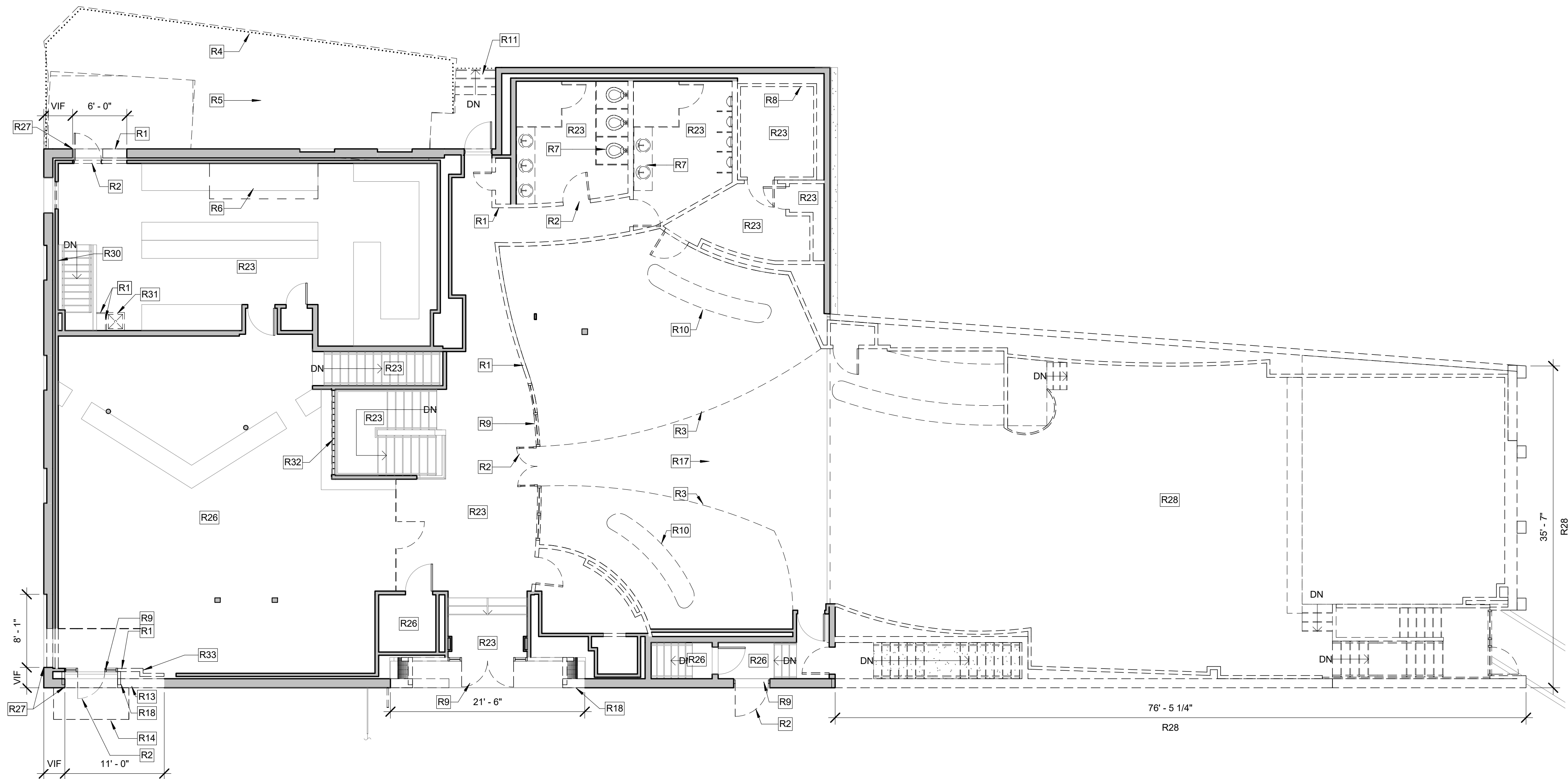
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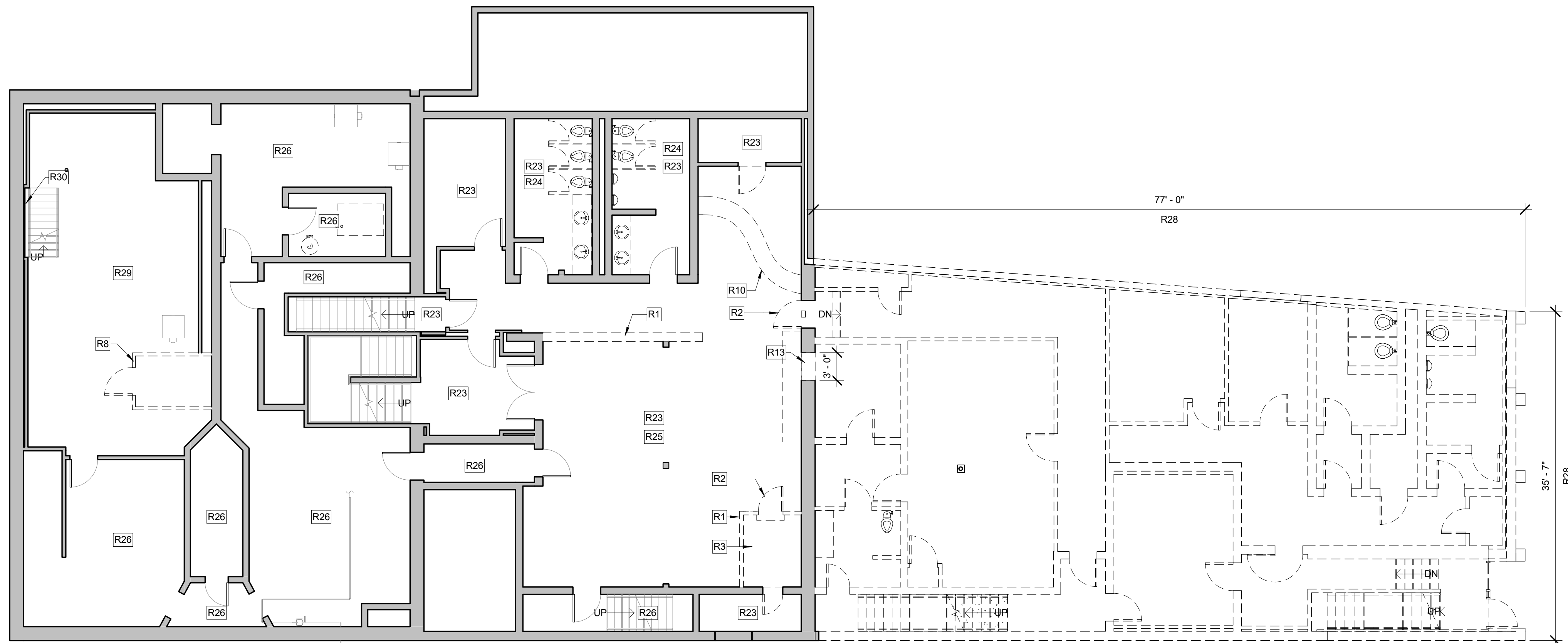
ASYLUM

PROJECT:
BASEMENT FLOOR PLAN

SHEET TITLE:	
WBRC CAD FILE: C:\Users\joelyn.booth\Documents\407110 - ASYLUM DANCE CLUB - ARCH_joelyn.booth.rvt	GRAPHIC SCALE: 0' 1'
PROJECT No: 4071.10	SCALE: As indicated
PROJECT MANAGER: JRB	SHEET No: AE101
DRAWN BY: JRB	CHECKED BY: JRB



G1	FIRST FLOOR DEMOLITION PLAN
----	-----------------------------

$$1/8'' = 1'-0''$$


A1	BASEMENT DEMOLITION PLAN
----	--------------------------

$$1/8'' = 1'-0''$$

LEGEND:

NEW WALL	
EXISTING TO REMAIN	
EXISTING TO REMOVE	

KEYNOTES:	
R1	REMOVE WALL, TYP
R2	REMOVE DOOR, TYP
R3	REMOVE RAISED PLATFORM
R4	REMOVE FENCE
R5	REMOVE SITE PAD, SEE CIVIL
R6	REMOVE EXISTING HOOD, SEE MECHANICAL
R7	REMOVE ALL PLUMBING FIXTURES AND PARTITIONS
R8	REMOVE WALL IN COOLER
R9	REMOVE STOREFRONT
R10	REMOVE BAR
R11	REMOVE STAIR
R13	REMOVE EXTERIOR BRICK WALL, SEE STRUCTURAL
R14	REMOVE CANOPY
R17	EXISTING FIBEROPTIC 'STAR' CEILING TO REMAIN. REMOVE ALL OTHER FLOOR, WALL AND CEILING FINISHES. SEE RCP FOR EXTENTS OF EXISTING CEILING TO REMAIN.
R18	REMOVE BRICK ENTRY ARCH
R23	REMOVE EXISTING FLOOR, WALL & CEILING FINISHES
R24	REMOVE EXISTING TOILET PARTITIONS, FIXTURES TO REMAIN
R25	CEILING GRID TO REMAIN
R26	ALL EXISTING WALLS, DOORS & FINISHES TO REMAIN UNO
R27	EDGE OF OPENING TO ALIGN W/ EXISTING OPENING
R28	ENTIRE PORTION OF BUILDING TO BE DEMOLISHED. SEE DRAWINGS FROM ALL DISCIPLINES
R29	REMOVE FLOOR FINISH
R30	REMOVE EXISTING WALL TILE TO FIRST FLOOR PLANE
R31	REMOVE MOP SINK
R32	REMOVE EXISTING GLASS BLOCK
R33	REPLACE EXISTING FIRE EXTINGUISHER CABINET AND RELOCATE AS SHOWN IN LIFE SAFETY PLAN

GENERAL REMOVAL NOTES:

1. GENERAL CONTRACTOR (GC) SHALL FIELD VERIFY & REPORT EXISTING CONDITIONS AND DIMENSIONS PRIOR TO REMOVALS. IF DISCREPANCIES ARE FOUND, GC TO NOTIFY ARCHITECT FOR CLARIFICATION BEFORE COMMENCING WITH THE WORK.

2. GC AND SUBCONTRACTORS (SC) FOR EACH TRADE ARE ADVISED THAT INFORMATION PERTINENT TO THEIR WORK MAY BE INDICATED OR DESCRIBED IN OTHER PORTIONS OF THE CONTRACT DOCUMENTS.

3. REFER TO SPECIFIC DRAWINGS FOR PLUMBING, HVAC AND ELECTRICAL REMOVALS WORK.

4. GC AND SC ARE RESPONSIBLE FOR PROVIDING ALL REMOVALS AND PATCHING REQUIRED TO COMPLETE THEIR WORK IN ACCORDANCE WITH THE DESIGN INTENT.

5. THESE REMOVALS DRAWINGS HAVE BEEN PREPARED BASED UPON EXISTING CONSTRUCTION DOCUMENT DRAWINGS AND FIELD OBSERVATIONS. THE EXACT LOCATION OF THE BUILDING STRUCTURAL ELEMENTS (COLUMNS, WALLS, LOAN BEARING WALLS, ETC.) MAY BE DIFFERENT THAN THE FIELD INDICATED AND ASSUMED ON THESE DRAWINGS. GC SHALL FIELD VERIFY THE LOCATION OF ALL BUILDING STRUCTURAL ELEMENTS. ALL BUILDING STRUCTURAL ELEMENTS SHALL REMAIN UNLESS INDICATED TO BE REMOVED ON THESE STRUCTURAL DRAWINGS. ANY STRUCTURAL ELEMENT INDICATED AS BEING REMOVED ON THIS DRAWING SHALL BE CONFIRMED WITH THE ARCHITECT PRIOR TO COMMENCING REMOVALS.

6. PROVIDE NEW LINTELS AT NEW OPENINGS IN EXISTING WALLS. SEE STRUCTURAL DRAWINGS FOR INFORMATION ON LINTELS. IF NEW LINTEL IS NOT INDICATED, NOTIFY ARCHITECT FOR DIRECTION PRIOR TO PROCEEDING.

7. GC SHALL PROTECT, REPLACE OR REPAIR ANY EXISTING CONSTRUCTION SCHEDULED TO REMAIN WHICH IS DAMAGED DURING REMOVALS

8. GC SHALL PROVIDE REQUIRED SHORING OR
TEMPORARY BRACING DURING REMOVALS

9. REMOVE EXISTING CEILINGS AND SUPPORTS WHERE NEW CEILINGS ARE SCHEDULED IN THE ROOM FINISH SCHEDULE, UNO.

10. REMOVE PARTITIONS, SHELVING, CABINETRY AND ALL MISCELLANEOUS ITEMS SHOWN WITH DASHED LINES.

11. PATCH ALL FLOORS, WALLS, BASE AND CEILINGS WHERE PARTITIONS OR MISCELLANEOUS ITEMS ARE REMOVED.

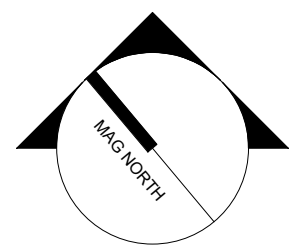
12. REMOVE DOORS, FRAMES AND SIDELIGHTS SHOWN WITH DASHED LINES, UNLESS OTHERWISE NOTED.

13. REMOVE TOILET PARTITIONS AND GRAB BARS SHOWN WITH DASHED LINES. REPAIR EXISTING CONSTRUCTION SCHEDULED TO REMAIN.

14. REMOVE EXISTING FLOORING WHERE NEW FLOORING IS SCHEDULED IN THE ROOM FINISH SCHEDULE. PREPARE EXISTING FLOOR SURFACES TO RECEIVE NEW FLOORING.

15. CONTRACTOR SHALL VERIFY WITH THE OWNER THOSE REMOVED ITEMS TO BE TURNED OVER TO THE OWNER.

0	DD SUBMISSION	25 MAR 2016
REV.	DESCRIPTION	DATE



NOT FOR
CONSTRUCTION



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PORTLAND, MAINE 207-828-4511
SARASOTA, FLORIDA 941-556-0757

ASYLUM

PROJECT:

BASEMENT & FIRST FLOOR REMOVALS PLAN

SHEET TITLE:

WBRC CAD FILE: C:\Users\jcoolyn.booth\Documents\407110 - ASYLUM DANCE CLUB - ARCH_jcoolyn.booth.rv

PROJECT No. 4071.10

SCALE: As indicated

PROJECT MANAGER: JR

DRAWN BY: JRB

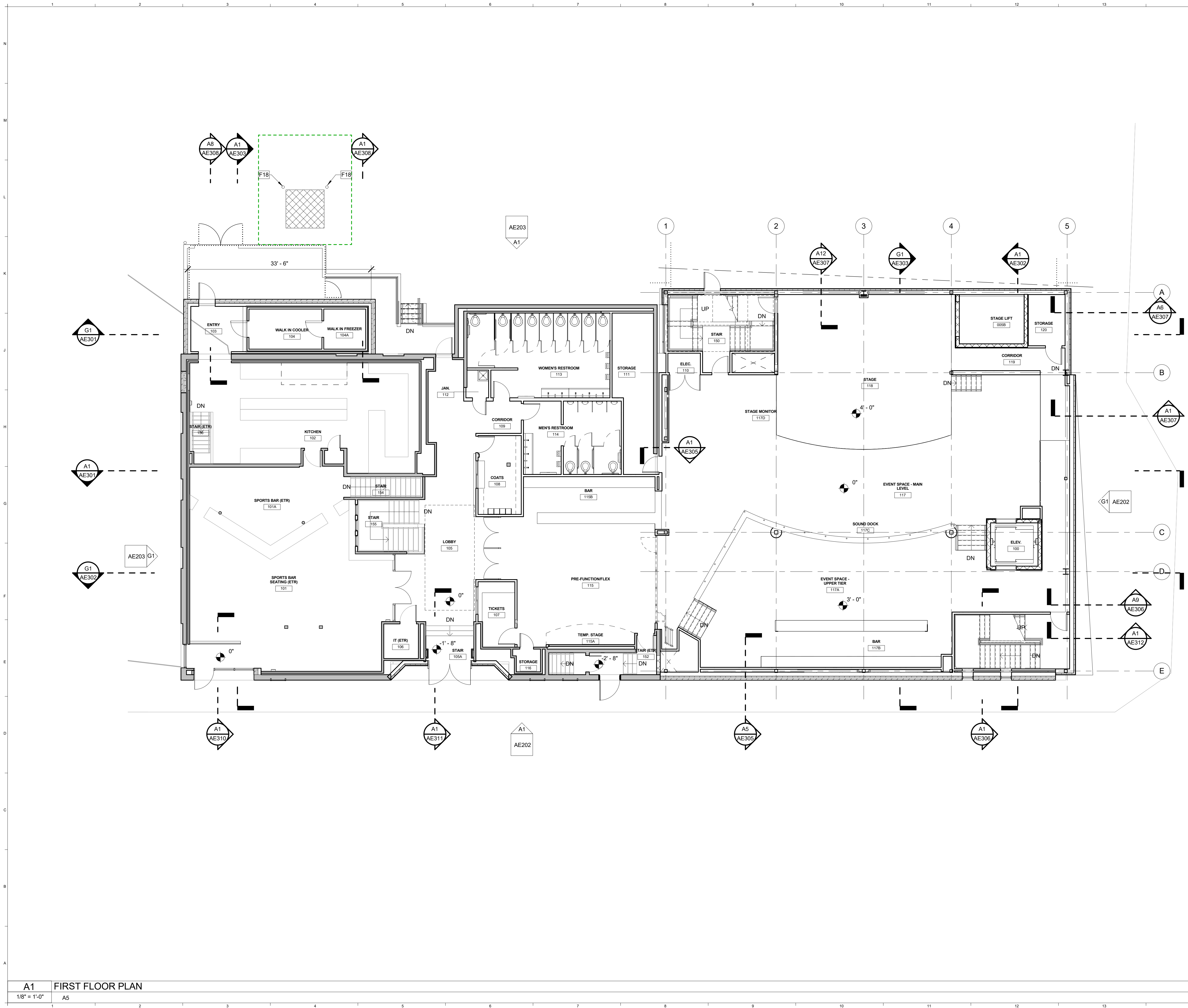
CHECKED BY: **IRB**

GRAPHIC SCALE:

AD101

 CC BY-NC-SA 2007

3/25/2016 1:37:46 PM
C:\Users\joelyn.booth\Documents\407110 - ASYLUM DANCE CLUB - ARCH_joelyn.booth.rvt



WALL LEGEND:

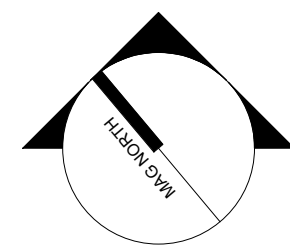
NEW WALL	
EXISTING WALL TO REMAIN	

GENERAL NOTES:

1. ALL WALL PARTITION TYPES ARE M4 UNLESS NOTED OTHERWISE. SEE SHEET AE603 FOR PARTITION TYPES.
2. REFER TO G1002 SHEET FOR ALL ABBREVIATIONS AND SYMBOLS.
3. REFER TO ALL DRAWINGS INCLUDING ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS
4. VERIFY ALL EQUIPMENT OPENINGS & RECOMMENDATIONS. LOCATION AND SIZES SHOWN ARE FOR INTENT PURPOSES ONLY. ADJUST ROUGH OPENINGS AND LOCATIONS AS REQUIRED PER ACTUAL EQUIPMENT.
5. G.C. TO PROVIDE & INSTALL ALL IN-WALL OR IN-CEILING BLOCKING / BRACING AS REQUIRED FOR ALL MILLWORK ITEMS, EQUIPMENT, SHELVING, AND ACCESSORIES WHETHER ITEMS ARE BY G.C. OR OTHERS COORDINATE WITH OWNER
6. G.C. SHALL BE RESPONSIBLE FOR LAYING OUT THE SPACE PRIOR TO COMMENCING WORK AND SHALL NOTIFY THE ARCHITECT AND OWNER OF ANY DISCREPANCIES.
7. ALL CONCRETE MASONRY UNITS AND MORTAR TO INCLUDE AN INTEGRAL WATER REPELLENT
8. ALL EXTERIOR DIMENSIONS ARE TO FACE STUD AND / OR FACE OF FOUNDATION AND MASONARY UNLESS SPECIFICALLY NOTED OTHERWISE.
9. ALL INTERIOR DIMENSIONS SHOWN ARE TO FACE OF FRAMING UNLESS SPECIFICALLY NOTED OTHERWISE
10. REFER TO SHEET G1003-005 FOR CODE COMPLIANCE PLAN, CODE REFERENCE INFORMATION AND FIRE RATED PARTITIONS AND SPACES. ALL MECHANICAL, ELECTRICAL, AND PLUMBING PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE SLEEVED, FIRE SAFED AND / OR HAVE FIRE DAMPERS EQUIVALENT TO THE HOURLY FIRE RATINGS OF THE CONSTRUCTION.
11. ALL DRAWINGS ARE OF EQUAL IMPORTANCE IN DEFINING THE WORK OF THE CONTRACT DOCUMENTS. CONTRACTORS SHALL REVIEW ALL DRAWINGS BEFORE THE INSTALLATION OF THEIR WORK. SHOULD THERE BE A DISCREPANCY WITHIN AND BETWEEN THE DRAWINGS THAT WOULD CAUSE AN AWKWARD OR IMPROPER INSTALLATION NOTIFY ARCHITECT FOR CLARIFICATION PRIOR TO INSTALLATION OF SAID WORK. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL DRAWINGS, SHALL BE CORRECTED BY CONTRACTOR AT THEIR EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER OR ARCHITECT.
12. DO NOT SCALE DRAWINGS. THE DRAWINGS ARE NOT NECESSARILY TO SCALE - USE GIVEN DIMENSIONS. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO THE START OF CONSTRUCTION. IF DISCREPANCIES ARE FOUND, NOTIFY ARCHITECT FOR CLARIFICATION BEFORE COMMENCING THE WORK.
13. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE SHOWN. WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN IN TENT CANNOT BE DETERMINED CONSULT ARCHITECT BEFORE PROCEEDING WITH THE WORK.
14. ALL PITCHED FLOOR AREAS SHOWN WITH PITCH LINES SHALL SLOPE AT 1/4" PER FOOT UNLESS OTHERWISE NOTED. PROVIDE A SLAB DEPRESSION AT ALL FLOOR DRAINS WHERE PITCH LINES ARE NOT SHOWN ON PLAN.
15. FINISH FLOOR ELEVATIONS ARE TO TOP OF CONCRETE, UNLESS OTHERWISE NOTED.
16. INSTALL ALL RECESSED CABINETS, PANELS, BOXES LOCATED IN FIRE-RATED PARTITIONS TO MAINTAIN THE FIRE-RATED CONSTRUCTION
17. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL MANUFACTURES TEMPLATE DRAWINGS FOR ALL MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, BOLT SETTING TEMPLATES, ISOLATIONS, SPRING ISOLATION, ETC. NOT SHOWN ON THE DRAWINGS
18. OWNER FURNISHED ITEMS THE G.C. SHALL COORDINATE AND PROVIDE ELECTRICAL, PLUMBING, AND MECHANICAL CONNECTIONS FOR ALL EQUIPMENT.

0	DD SUBMISSION	25 MAR 2016
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REV.	DESCRIPTION	DATE
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PROJECT NORTH

NOT FOR
CONSTRUCTION

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SARASOTA, FLORIDA 941-556-0757

ASYLUM

PROJECT:

FIRST FLOOR PLAN

SHEET TITLE:

WBRC CAD FILE: C:\Users\joelyn.booth\Documents\407110 - ASYLUM DANCE CLUB - ARCH_joelyn.booth.rvt

PROJECT No: 4071.10

SCALE: As indicated

PROJECT MANAGER: JRB

DRAWN BY: ARW

CHECKED BY: JRB

GRAPHIC SCALE:

0' 1'

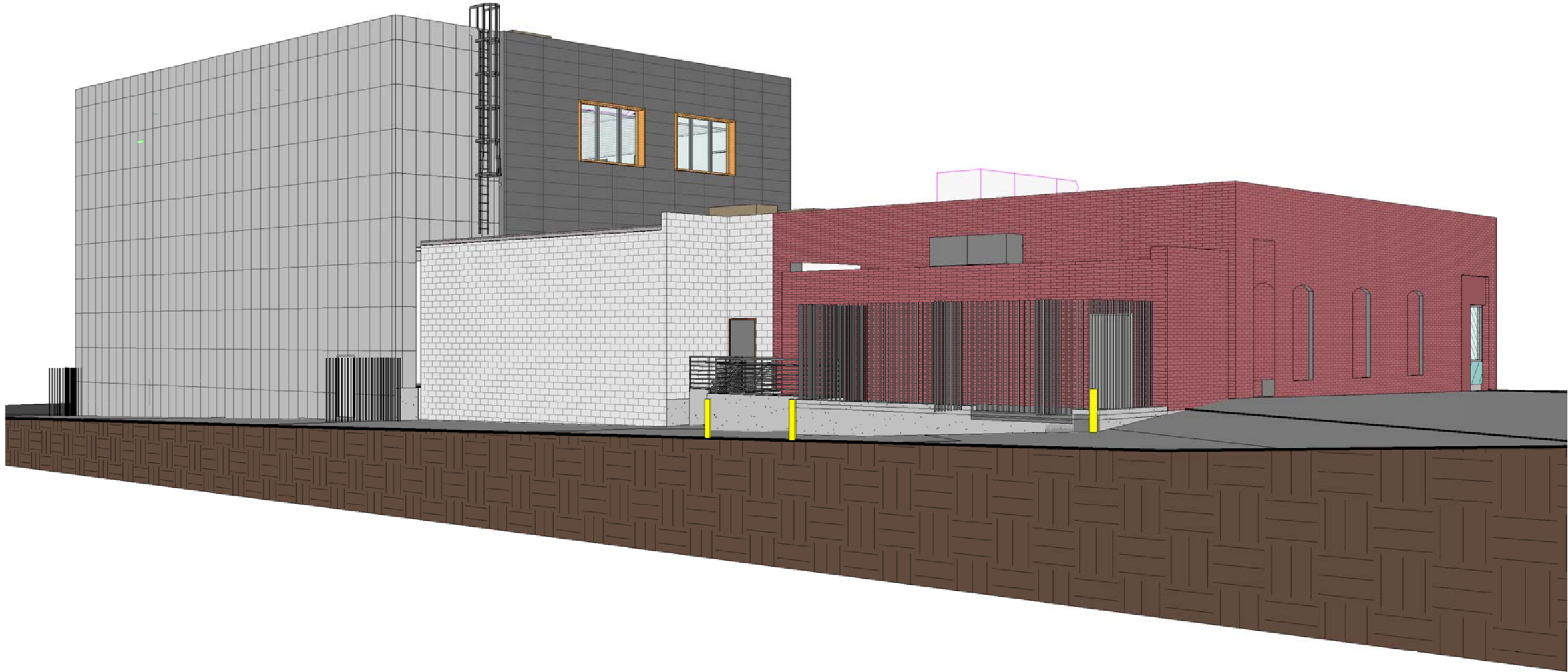
SHEET No:

AE102

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G1 EAST PERSPECTIVE



G9 NORTH PERSPECTIVE



A1 SOUTH PERSPECTIVE



A9 WEST PERSPECTIVE

BUILDING
PERSPECTIVES FOR
REFERENCE ONLY

REV.	DESCRIPTION	DATE
0	DD SUBMISSION	25 MAR 2016

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PORTLAND, MAINE 207-528-4511
SARASOTA, FLORIDA 941-556-0757

ASYLUM

PROJECT:

BUILDING PERSPECTIVES

SHEET TITLE:

WBRC CAD FILE: C:\Users\joelyn.booth\Documents\407110 - ASYLUM DANCE CLUB - ARCH_ Joelyn.booth.rvt

PROJECT No: 4071.10

SCALE:

PROJECT MANAGER: JRB

DRAWN BY: JRB

CHECKED BY: JRB

GRAPHIC SCALE:

0' 1'

SHEET No:

AE201

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121 CENTER STREET

CERTIFICATE OF APPROPRIATENESS
APPLICATION WORKSHOP
APRIL 11TH, 2016



At the previous Historic Board workshop session (February 24th) we reviewed with the board a series of program changes which necessitated the expansion of the building along with a major exterior design change in direction. This program change is a result of a balcony space being added, resulting in the taller building volume extending to Center Street. After a productive workshop session, the board deemed the massing of the building and overall design strategy was appropriate for the district, but that the design needed to be simplified. There were also some concerns raised regarding the window strategy on Free Street and the different types of light which would emanate from the stair tower vs. the performance space.

The Architect and Owners have worked with the feedback given and submit to the board this revised design for consideration. The new design builds off the previous form, but simplifies the quantity of materials, material palette and lighting strategy to provide a clean and cohesive approach. A branding consultant has been brought on board who will be helping with the project name and logo/signage. What is shown in the design packet is a place holder based on our initial conversations to convey approximate size and location only.

The new design approach is based on grounding the building in strong, existing masonry elements, especially the existing brick wall along Center Street, and contrasting the historic masonry nature with a more modern form highlighting the event space. While a portion of this brick wall will need to be removed during construction, the intent is to replace this wall in as close to its existing location as possible. In order to comply with the existing property lines, the wall will be moved back 4". An additional light colored masonry base will wrap around the corner to Free Street and culminate in a vertical tower element acting as an end cap to the design and a tie to the surrounding buildings. This new masonry portion consists of 24" wide x 48" tall limestone panels in a vertical running bond pattern. The variable height punched openings along the Center Street wall and the Free Street wall as discussed in previous Historic Board meetings will all remain as designed. The punched windows on Free Street will also be a 24" x 48" tall and will fit within the module of the masonry panels. The same light colored masonry will be used at the main entry, tying together the two facades.

Sitting on top of this masonry base, we have proposed a simple, more modern form, which will act as a 'lens' to the event venue and a connection between the pedestrian district and the performance space. This frame will be clad in a dark metal panel with a simple pattern to act as a contrast to the movement in the masonry below. A new building sign/logo will be located on the metal panel along Center Street, as well as the stone 'tower' along Free Street. The Free Street end of the form will be comprised of a curtain wall system featuring acoustical glazing. The curtainwall is divided into two portions, one for the event space and one for the stair tower, with a solid colored metal accent panel between. Colorful mullion extensions will be provided on the curtainwall to act as an accent piece. The main entry door on Center Street will again have the colorful mullion extensions, tying together the two facades.

Three new canopies are also proposed, one over each door. The canopies will be a simple metal panel design, and all three will have a wedge shape which protrudes over the door and tapers back to the building. Additionally, each canopy will have a recessed LED strip light shining down along the edge. At the VIP and Main entry, this LED strip will also wrap vertically up the edge of the metal box and down the 4" brick recess respectively, again connecting the two facades.

As a whole, we believe that this simplified and unified design will positively add to the neighborhood. We appreciate your time and look forward to your feedback.

PROJECT UPDATE

121 Center Street - Event Space Renovation

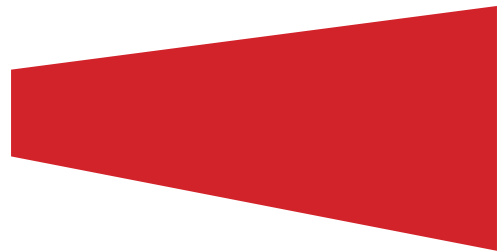
April 11th, 2016



CURRENT EXTERIOR DESIGN



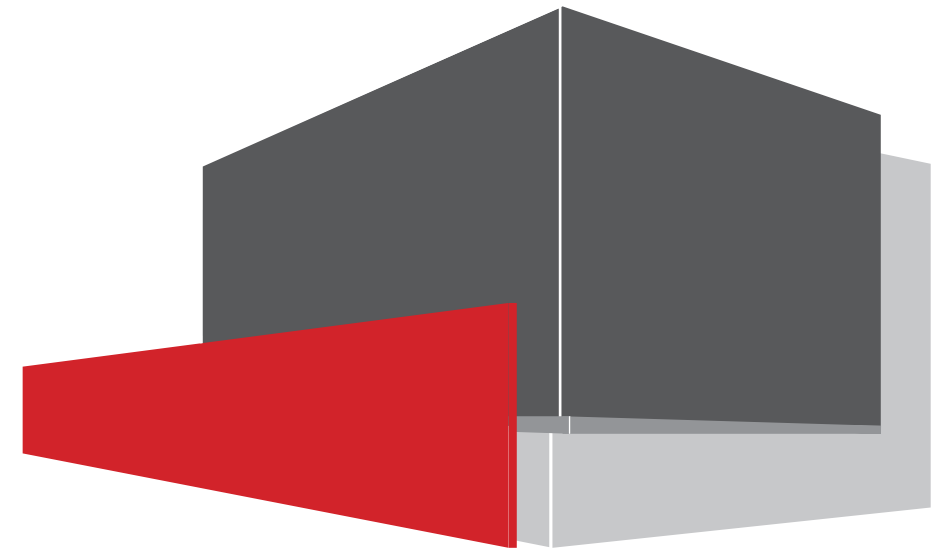
PREVIOUS EXTERIOR DESIGN



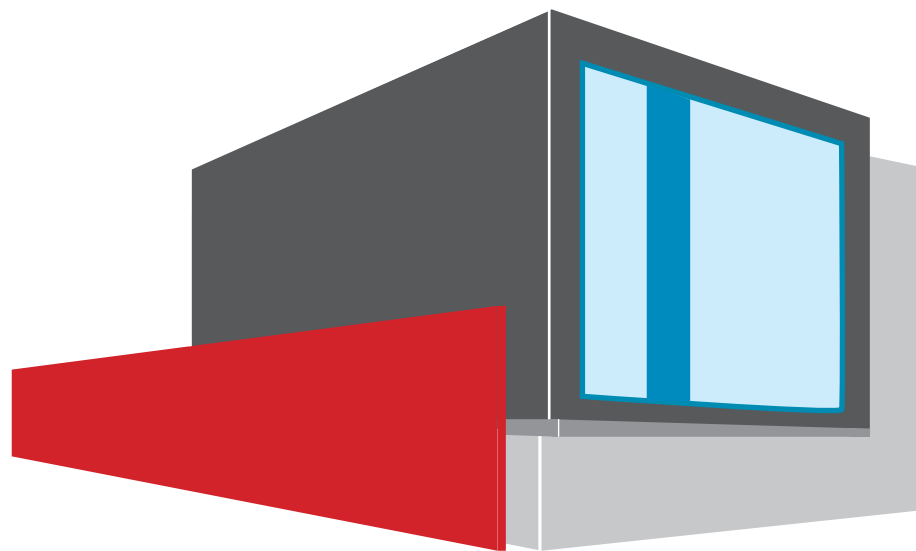
1 Strong Existing Masonry Base



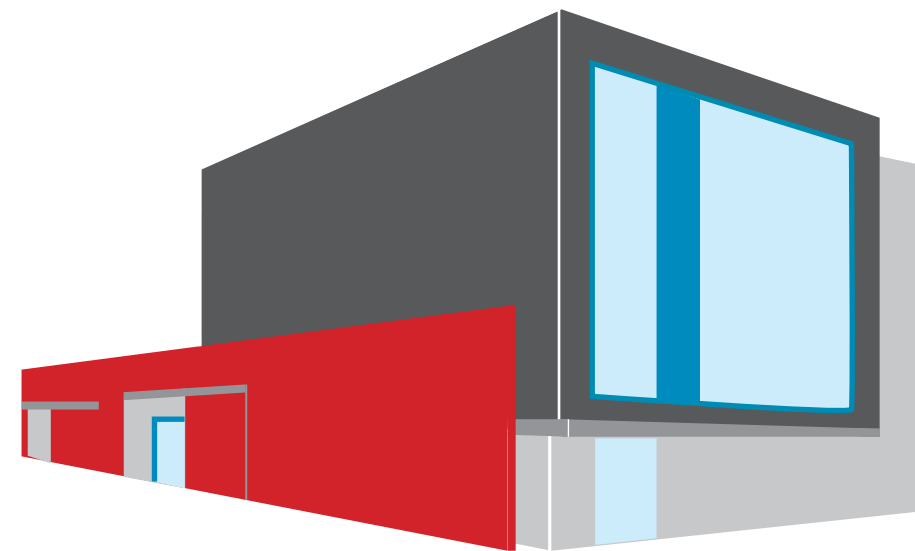
2 New Masonry Connection to Site and Adjacent Structure



3 Exterior Expression of Event Space Program



4 Lens to Event Space Program

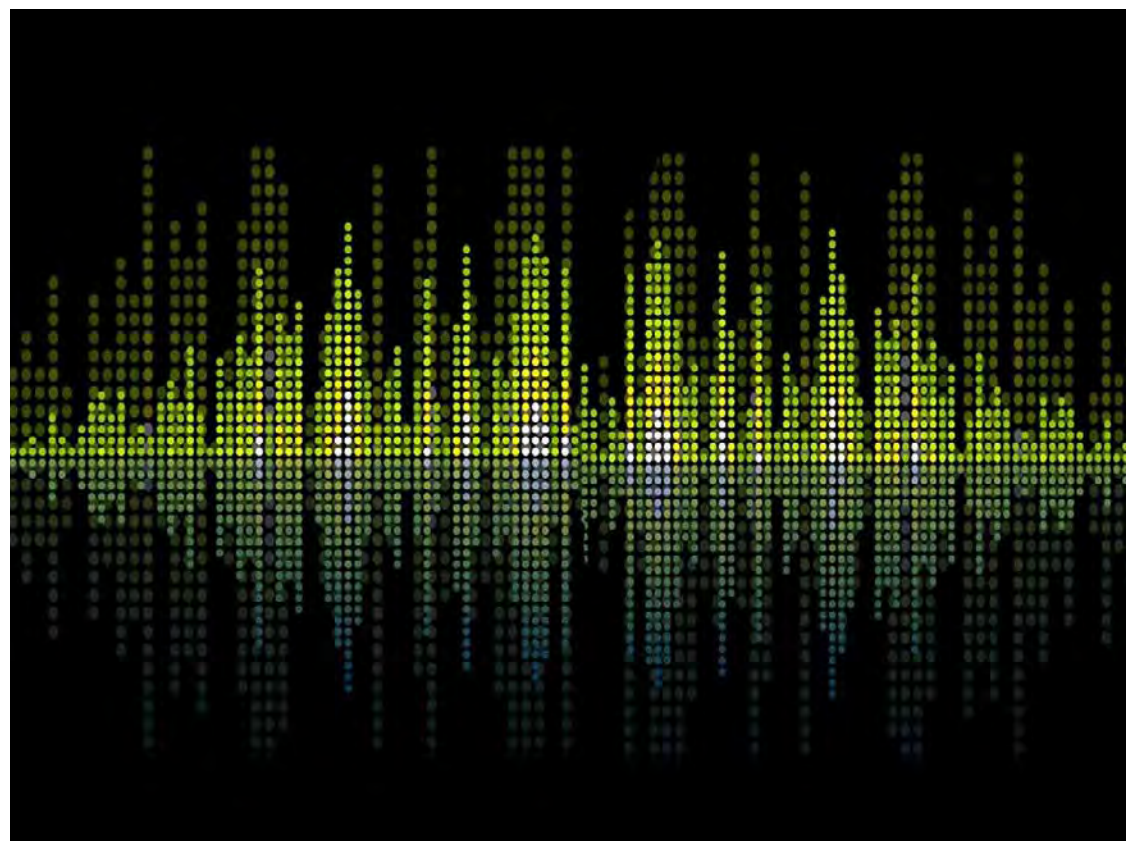


5 Uniform Expression of Public Entries

DESIGN CONCEPT

121 Center Street - Event Space Renovation

April 11th, 2016

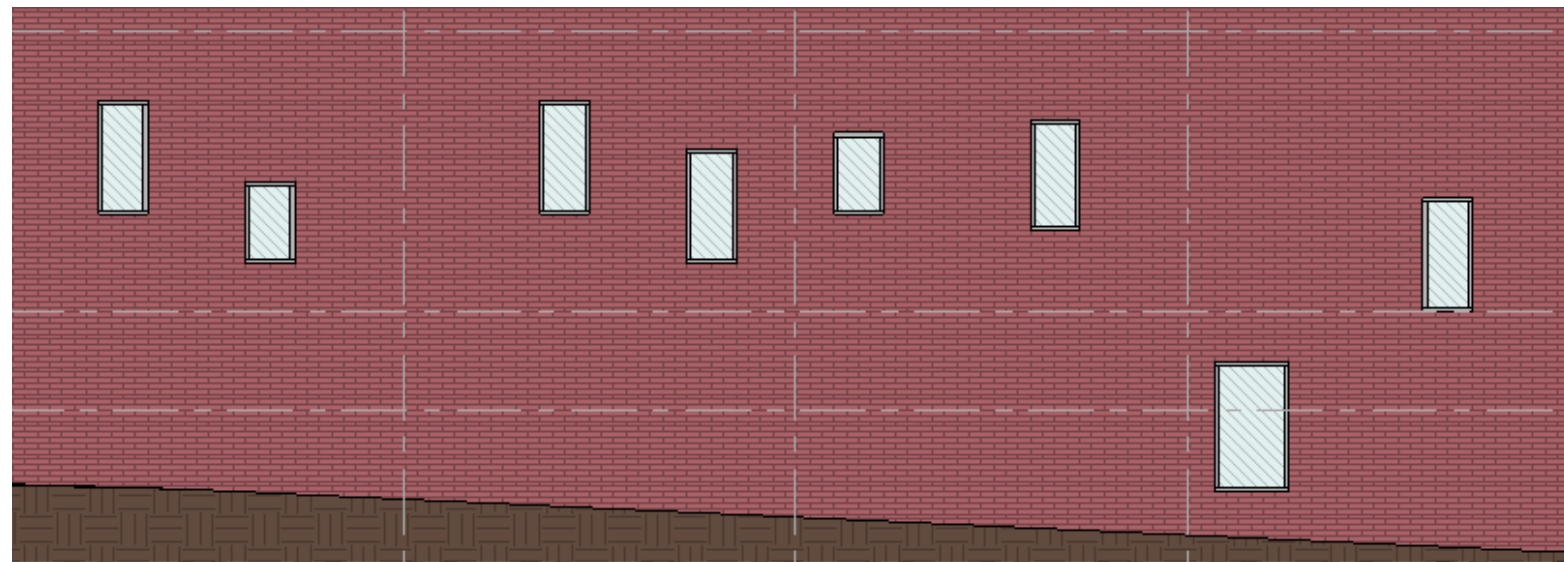
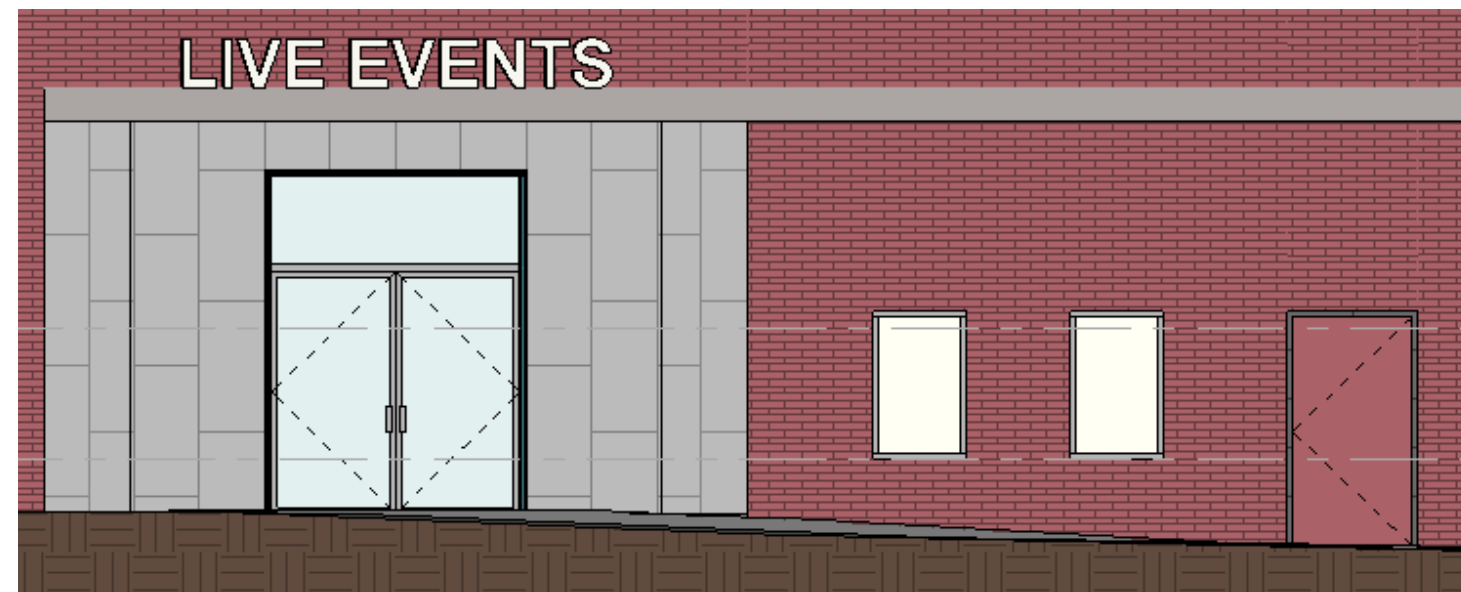
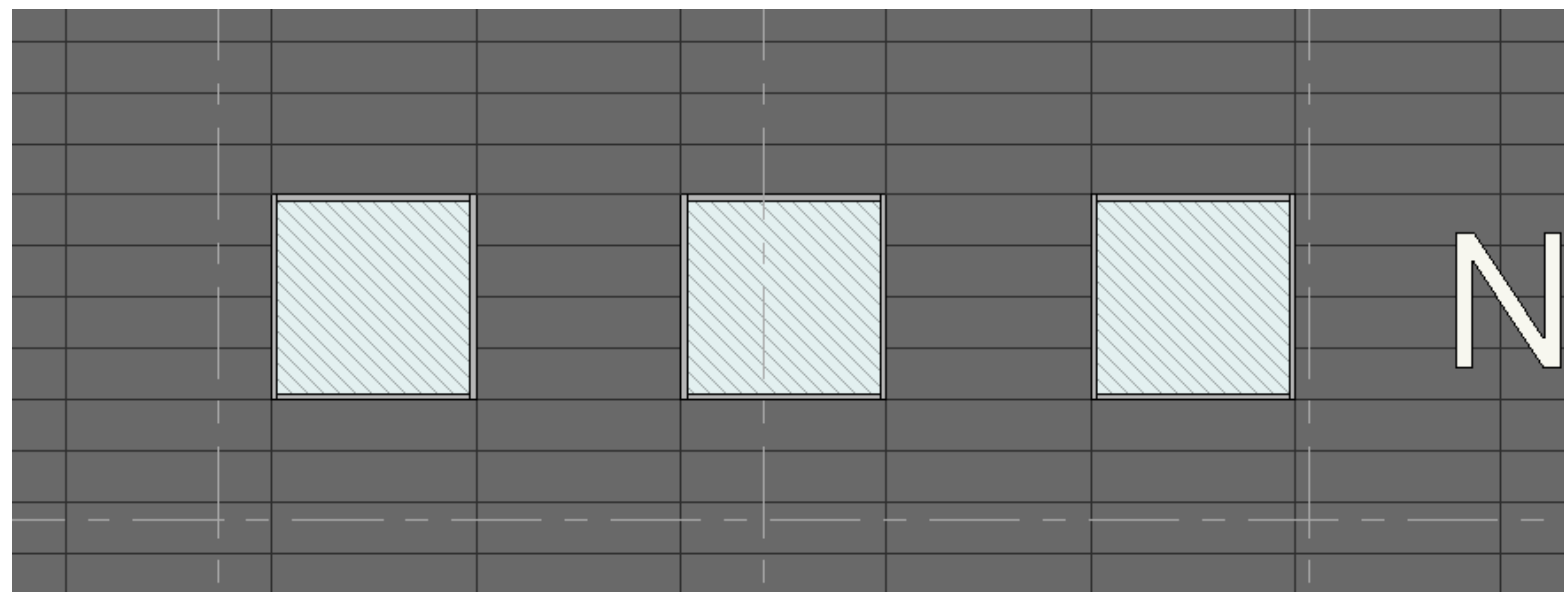


MUSICAL FREQUENCY AND MOTION



ARCHITECTURAL RHYTHM

DESIGN CONCEPTS



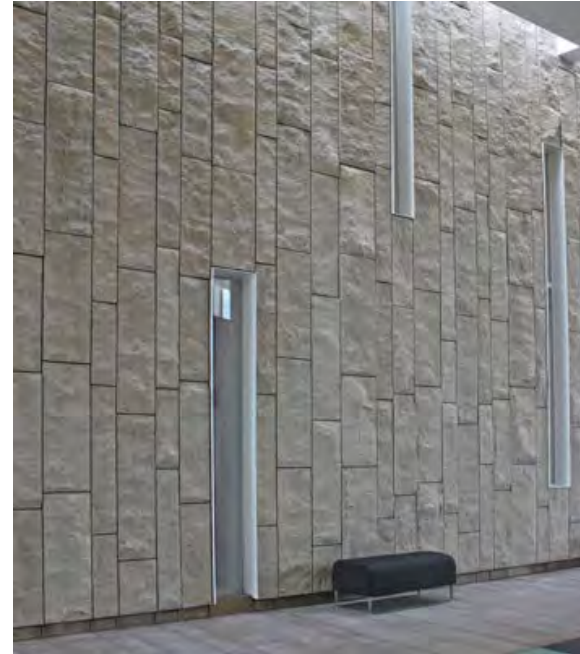
DESIGN CONCEPT ELEMENTS - MOVEMENT AND PATTERNS

TYPICAL BRICK

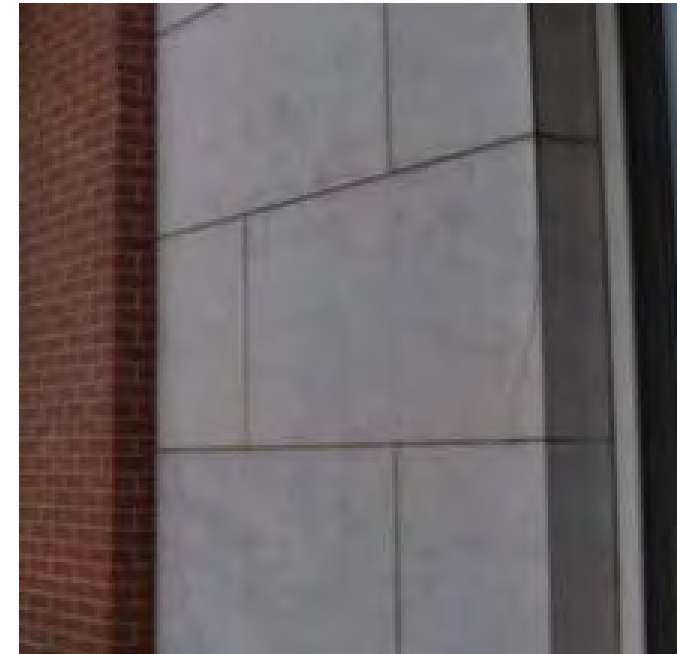


Bedford Matt 12" Norman Brick
To Match Existing

MASONRY



24" x 48" Arriscraft Adair Limestone
Anchored Dimensional Stone
Vertical Running Bond Installation

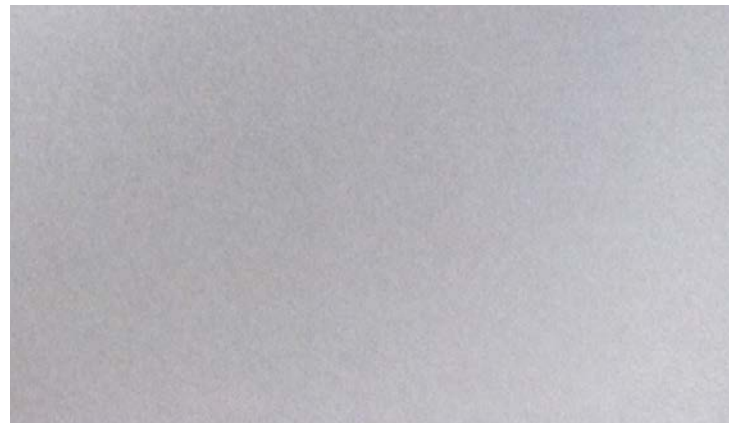


FENCES



Classic Bronze Color
Emergency Egress, Locked Entry

CANOPIES



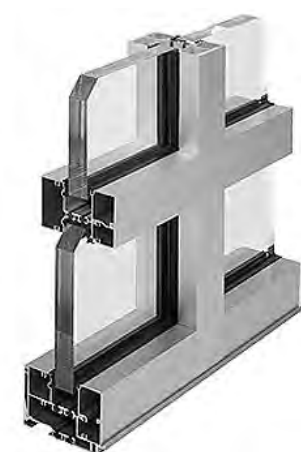
Color ATAS 28 Silversmtih

METAL PANEL

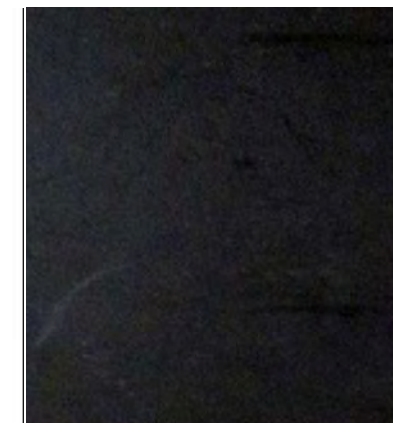


Basis of Design:
Dri-Design Wall Panel System
18" x 72" stacked

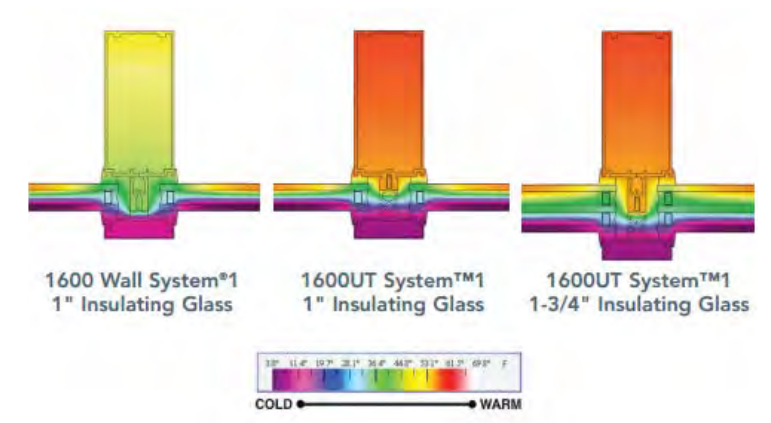
STOREFRONT



Basis of Design:
Kawneer Trifab VersaGlaze
451/451T Framing System
2" sightline, 4 1/2" depth
Color ATAS 01 Classic Bronze



CURTAINWALL



Basis of Design:
Kawneer 1600 UT Framing System
2 1/2" sightline, 6" depth
1 3/4" Acoustic Glass
Color ATAS 01 Classic Bronze

EXTERIOR MATERIALS

LIT DISPLAY BOXES



1 @ Sports Bar Entry
2 @ Main Entry

INTERNALLY LIT SIGNAGE



2 Building Signs
1 Canopy Sign

EXTERIOR COLOR CHANGING LED STRIP



EMERGENCY WALL PACKS



WALL WASHER DOWN LIGHT



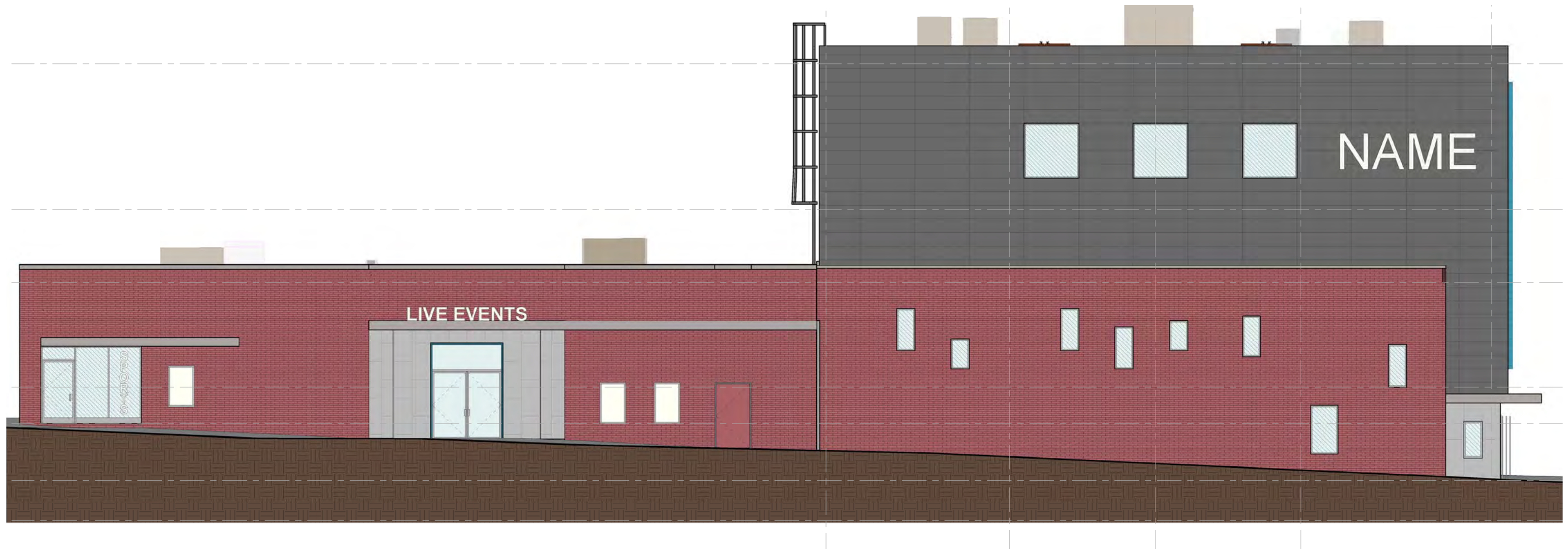
@ Lancaster Lane Art Wall

LIGHTING ELEMENTS

121 Center Street - Event Space Renovation
April 11th, 2016



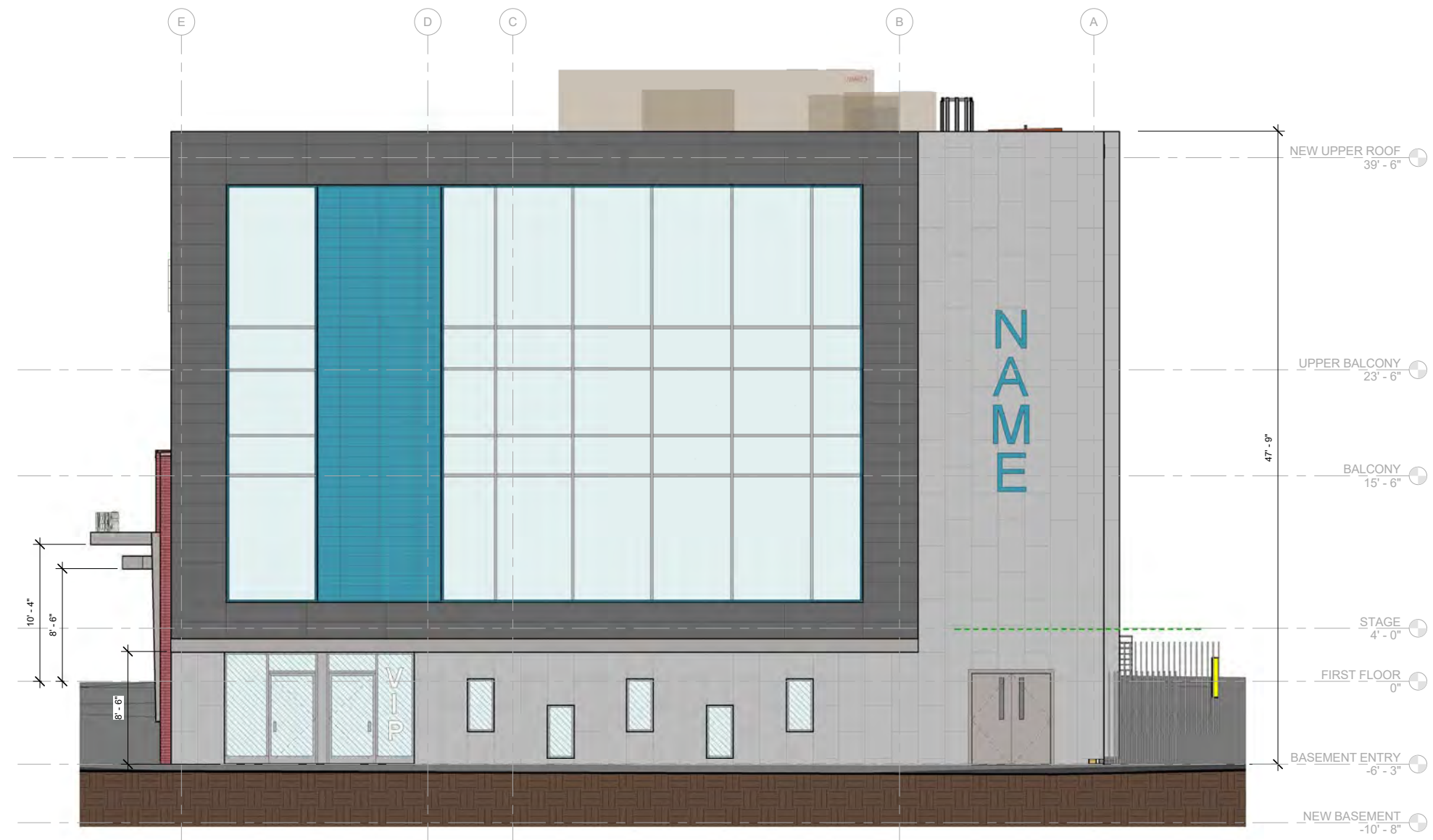
LIGHTING LOCATION



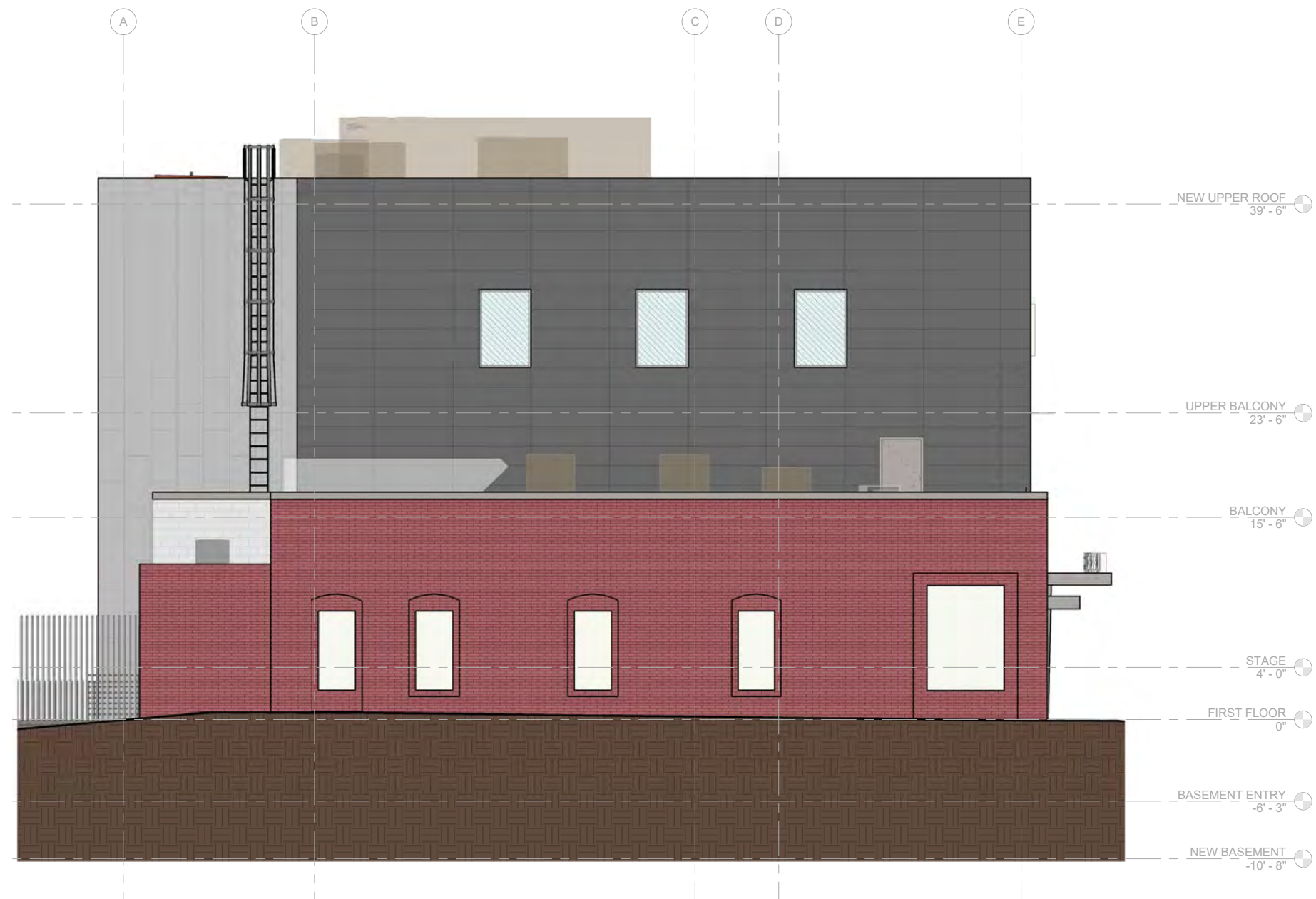
CENTER STREET ELEVATION

121 Center Street - Event Space Renovation

April 11th, 2016

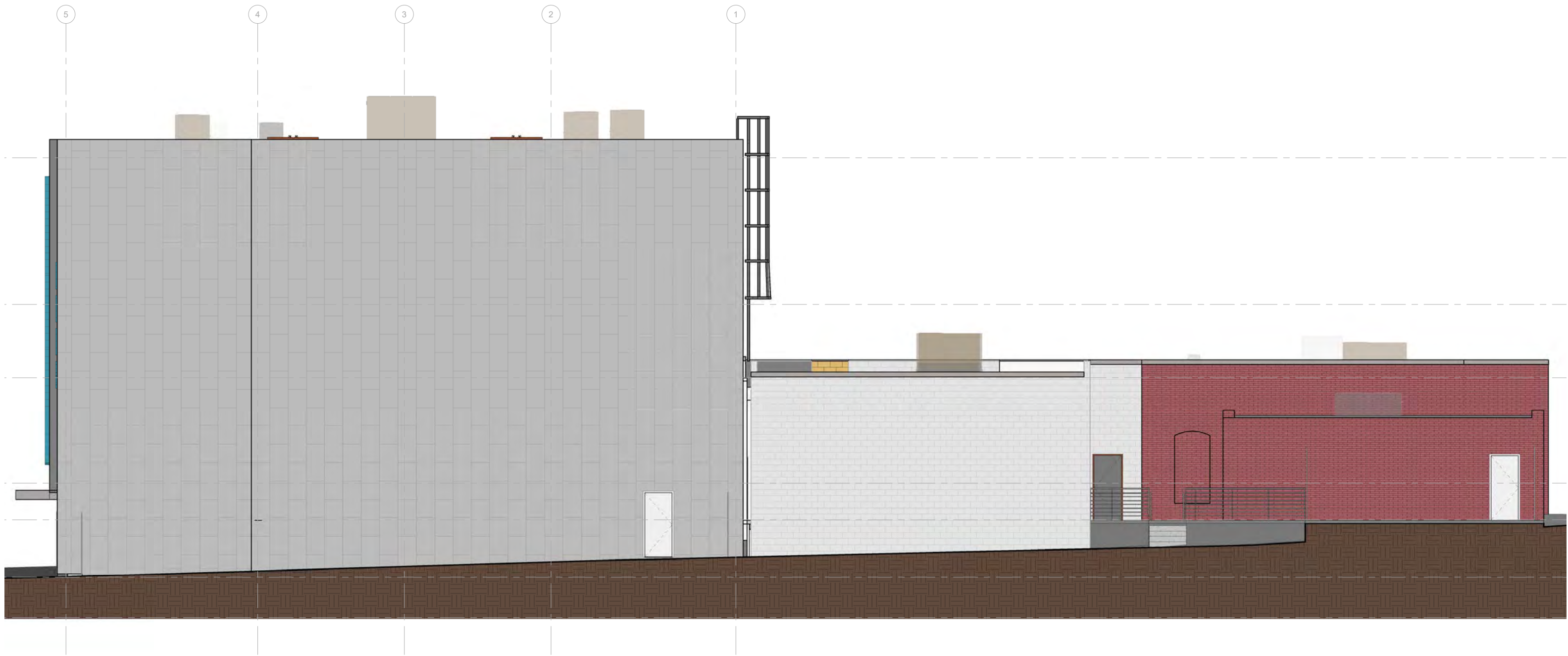


FREE STREET ELEVATION



LANCASTER LANE ELEVATION

121 Center Street - Event Space Renovation
 April 11th, 2016



PARKING ALLEY ELEVATION



EXISTING VIEW FROM CENTER STREET

121 Center Street - Event Space Renovation

April 11th, 2016



PROPOSED DAY VIEW FROM CENTER STREET



PROPOSED NIGHT VIEW FROM CENTER STREET

121 Center Street - Event Space Renovation

April 11th, 2016



EXISTING VIEW FROM CIVIC CENTER



PROPOSED DAY VIEW FROM CIVIC CENTER

121 Center Street - Event Space Renovation

April 11th, 2016



PROPOSED NIGHT VIEW FROM CIVIC CENTER



EXISTING VIEW FROM FREE STREET

121 Center Street - Event Space Renovation
April 11th, 2016



PROPOSED DAY VIEW FROM FREE STREET



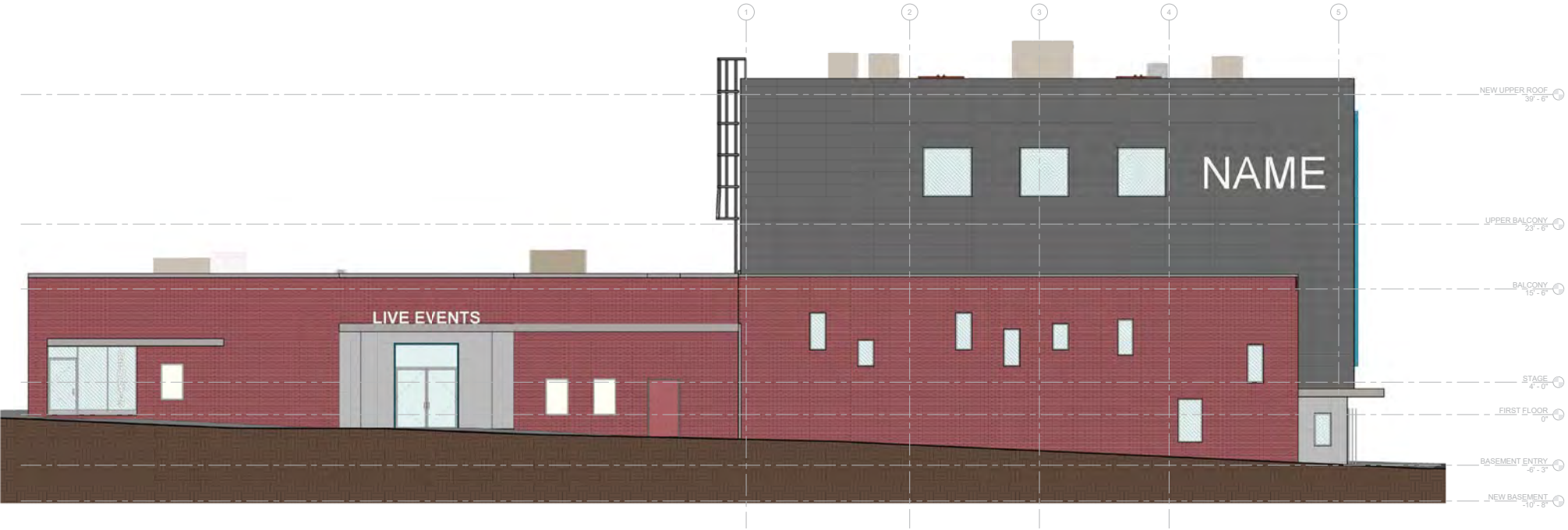
PROPOSED NIGHT VIEW FROM FREE STREET

121 Center Street - Event Space Renovation

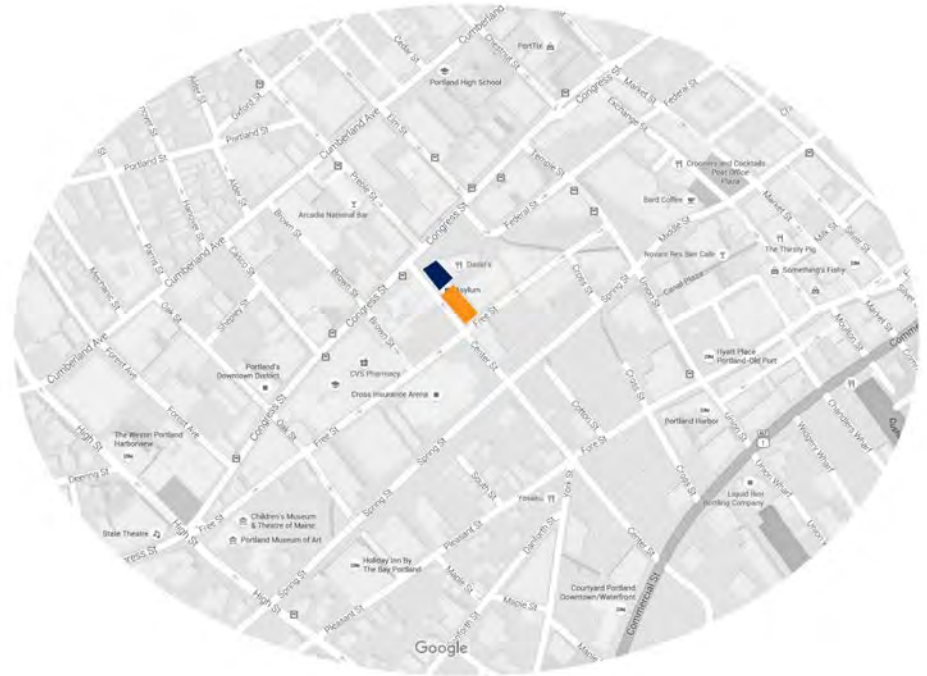
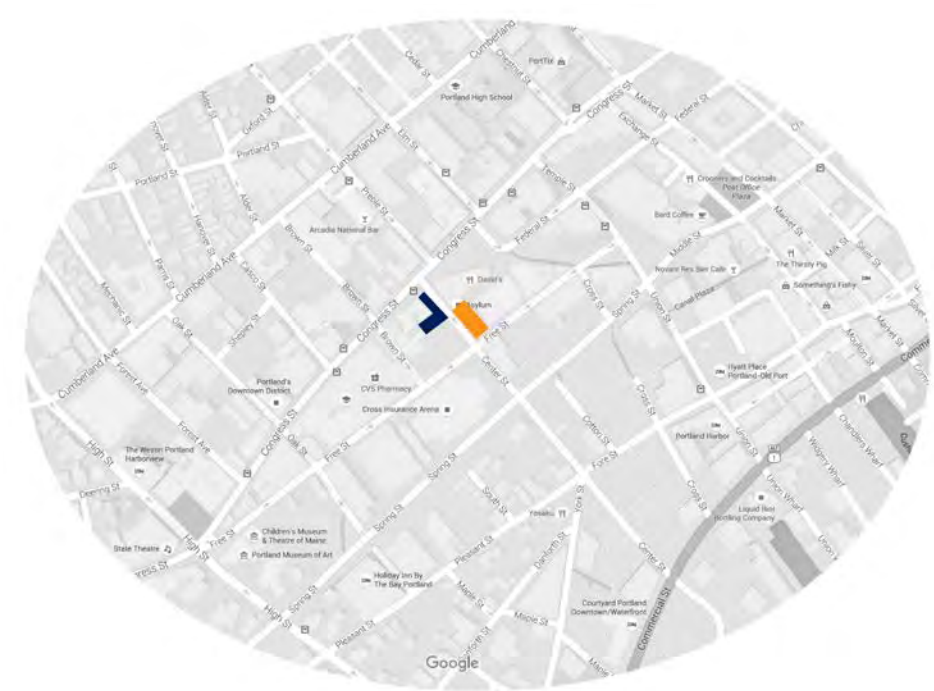
April 11th, 2016



NEIGHBORHOOD CONTEXT



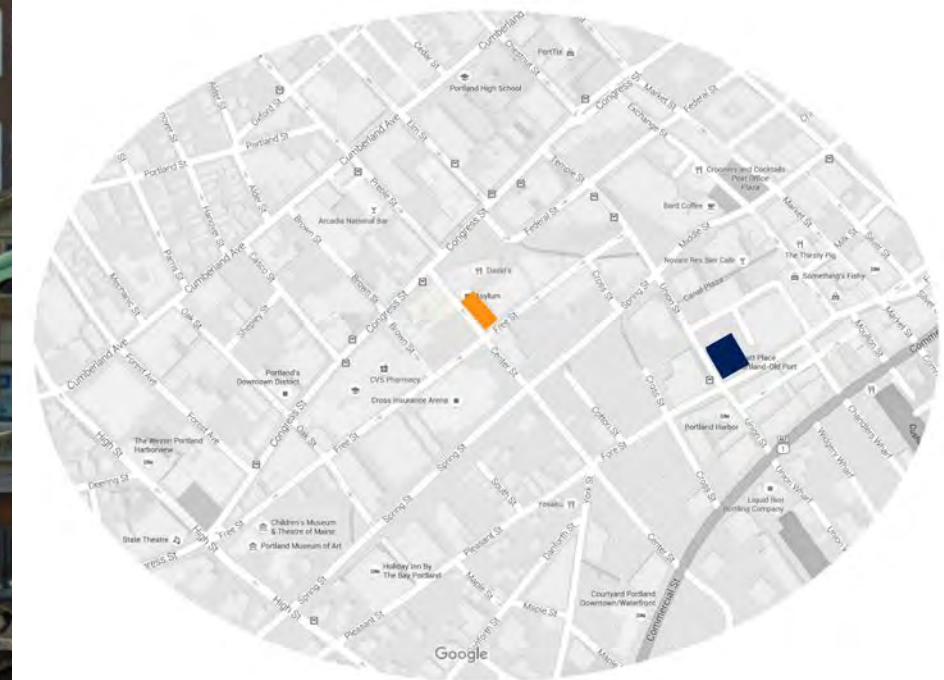
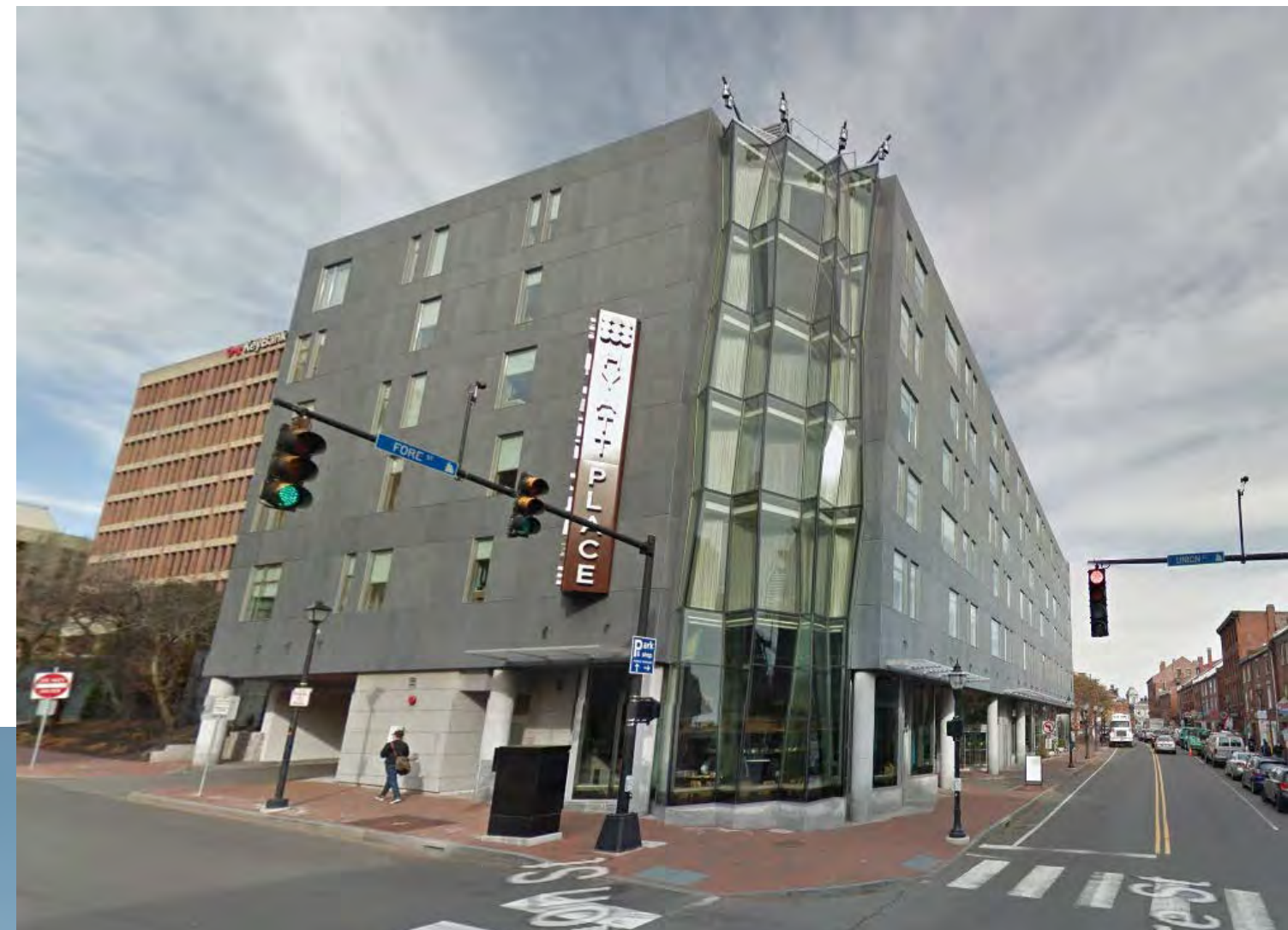
121 Center Street - Event Space Renovation
 April 11th, 2016



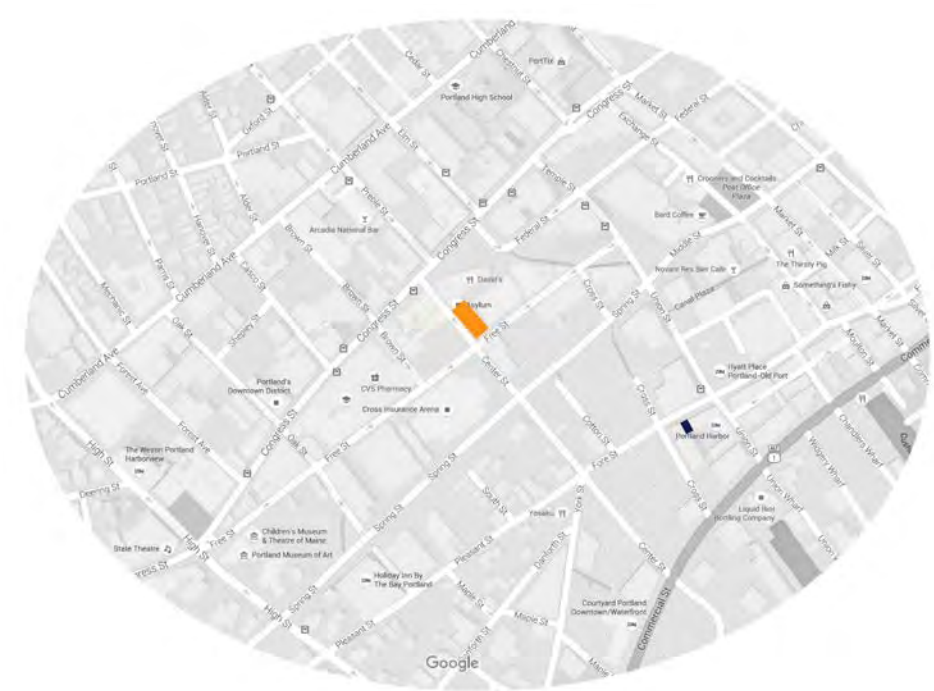


121 Center Street - Event Space Renovation
April 11th, 2016





121 Center Street - Event Space Renovation
April 11th, 2016





121 Center Street - Event Space Renovation
April 11th, 2016